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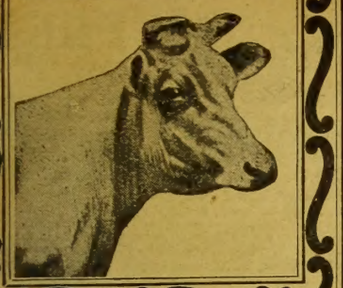

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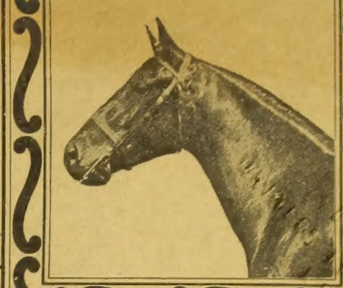

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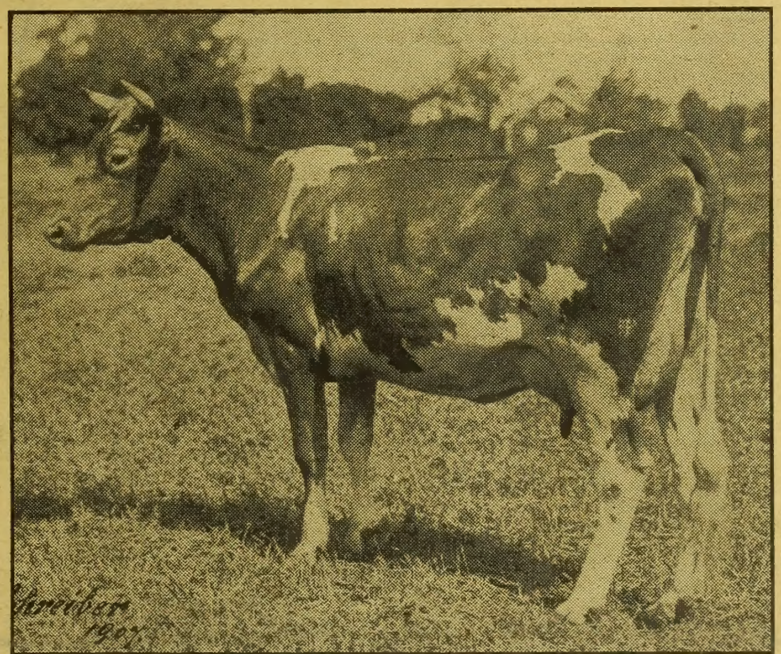
PIETERTJE MAID ORMSBY, 78,051, A. R. O., at three years three months, butter, seven days, 26.17 pounds; average fat, 4.18 per cent.; in thirty days, 107.78 pounds; average fat, 4.17 per cent., world's record for class. A. R. O. at six years, butter, seven days, 35.56 pounds; average fat, 5.31 per cent.; in thirty days, 145.66 pounds; average fat, 4.54 per cent.; world's record for thirty days. Owned at Woodlake Stock Farm, Minneapolis.



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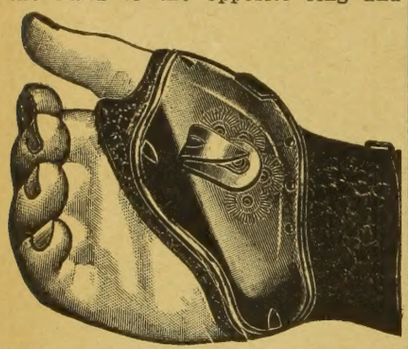

back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle, the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO, 3550 Vista Ave., St. Louis, Mo.**

Concise Statement on Alfalfa.

This reading matter comes from Prof. O. O. Churchhill, scientific farmer at the Agricultural College of Oklahoma. It refers particularly to that state, but applies just as well to similar conditions in other states.

Starting the Crop.

There are but few farms on which alfalfa may not be grown profitably, at least on a few acres.

Alfalfa succeeds fairly well on both upland and bottom land, but is much more productive on the bottom land. The rich alluvial bottom lands of the state give the best results. Loamy soil or sandy loam is better than a very heavy clay soil.

Alfalfa will not grow on land having a very compact hardpan, on wet, undrained soil or on sour or acid land.

The soil should be well prepared. Alfalfa should not be seeded on fresh plowing, but the seed bed should be firm with the surface in good tilth.

Seeding may be done in the spring (April) or fall (the last of August or during September), but on unfavorable soil and on weedy land fall seeding will probably give the best results.

Twelve to twenty pounds of seed should be sown per acre, either broadcast or drilled. Care should be used not to plant too deeply, as the seeds are very small.

Alfalfa should always be planted by itself, never with a nurse crop, except when sown in the fall on land which drifts badly. When sown on such a field it may be well to seed a peck of oats or barley at the same time, if the alfalfa is seeded in the fall.

On land devoid of humus and in poor physical condition a good application of barn-yard manure will be exceedingly valuable.

Inoculation is seldom, if ever, necessary in Oklahoma, but it may be elsewhere.

Always start alfalfa in a small way and increase the acreage gradually as desired.

Seed some home-grown variety, if possible, to secure such a strain. There is very little difference in the varieties as commonly sold on the market.

Use nothing but the best seed. Examine for noxious weeds and especially dodder.

Send a sample of the seed to the Experiment Station for germination and purity tests before seeding, but do not wait until a week or so before seeding time. This test will be made free of charge, and a report can be expected inside of two weeks after the sample is received.

Liming the soil has not been found beneficial on the Station farm on either upland or bottom land.

After Treatment.

When weather conditions are very unfavorable, the young plants may die. When this occurs, reseed on the same land the following spring or fall, as the case may be. Do not let one unsuccessful trial discourage you.

If the leaves turn yellow or rust badly, or if severely attacked by insects, or if weeds grow rank and shade the young plants, it should be clipped.

Clip whenever the plants begin to blossom, even during the first year.

Use a spring-tooth harrow, a renovator or a disc harrow in the spring just before a growth starts or just after a crop is removed when the soil becomes hard and compact or very weedy. When a disc is used, set nearly straight and weight down so that it will run the desired depth.

Manure will always give good returns and especially on poor land and when the plants are doing poorly.

Do not pasture late in the fall or during the winter. Most alfalfa growers claim better results when the crop is grown for hay than when the field is pastured.

Do not pasture at all during the first three years, or until the alfalfa becomes thoroughly established.

The alfalfa crop should be cut whenever 5 or 10 per cent. of the plants are in blossom. Even a better method of telling when to mow is to watch the base of the plant and cut whenever the little buds show that a new growth is started.

Allow the plants to wilt but not to become too dry in the swath, then rake and cure in the windrow or in bunches.

Stack or put in the barn when cured, which will be about one week after mowing, depending upon the weather conditions.

When a seed crop is desired, the first crop should be removed and then the plants allowed to go to seed. The production of seed depends very largely upon the weather conditions and upon the thickness of the plants. The seed crop may be mowed and raked the same as the hay crop, and most of the seed can be saved by an ordinary threshing machine.

Feed this valuable hay to good stock; you cannot afford to sell it.

Briefly, this summarizes the more important considerations in starting and caring for the alfalfa crop, and is intended to answer the many questions which are constantly being asked.

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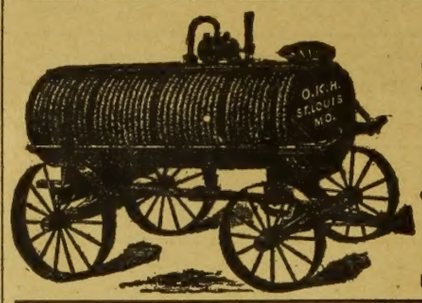

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Extravagant Retail Margins.

First of all, a retail margin is not always a retail profit. The London Board of Trade, in its recently published comparison of wages and cost of living in England and in the United States, finds that the average retail price of bread in American cities is double the average in English cities. This not only applies to bread, but it applies in a measure to sugar and coffee, meats, rice and all other staple articles.

The reason why this condition exists is because the population is denser over there than it is here and the English people are not so well supplied with money. The so-called consumer over there may telephone an order to the grocer and another to the butcher and another to the vegetable store (called a green grocer) and have three men with three wagons or carts deliver the goods, and the bill sent monthly; but that is only 5 per cent. of the total population. Over there, 95 per cent. remaining either go or send to the stores and carry the cash and pay the money over the counter and carry home the goods in the market basket. In this country, 80 per cent. of the people run bills and have the supplies delivered and charged up and payable later on. A majority of English families pay cash and a majority of American families run bills. A majority of the English families buy flour and bake bread and a majority of the American families buy bread on the credit system.

Of course, there are exceptions. In New York there are two extremes —the most wasteful credit buying on the part of the wealthy and the closest economical buying on the part of the people who are either poor or in moderate circumstances. This accounts largely for the report by the Department of Agriculture that in the case of meats, the retail margins are the least in New York City.

The farmer, however, pays for much of the American extravagance. His products are sold at high prices at retail to pay for losses incurred and the extra force employed in the credit system. The cash buyer at a credit store pays the credit price and does not obtain the benefit of economical buying; then, again, the credit buyers resist cash buying because they can see no benefit from the change. Time, however, will bring about the change, and some day the American buyer in the American market will buy American products at close margins for cash, unless the food monopolies set all economic laws aside.

The First Kansas Wheat.

According to reports from Abilene, Kansas, on June 16th, the first car of wheat of the new crop sold at 78 cents a bushel; it tested 63 pounds to the bushel measure, and the crop average where it was grown was about 28 bushels per acre. This indicates that the wheat acreage was bringing the best farmers around Abilene, Kansas, an average of 21.84 bushels per acre. This Kansas wheat sold at nearly 1⅛ cents a pound, and if traced through the market and the miller, the baker and the retailer to the consumer it will be found selling at 5 to 6 cents a pound. In other words, the farmer receives 78 cents a bushel, and the consumer pays $3.90 to $4.68 per bushel.

The first car of wheat of this year's crop sold in Kansas City was auctioned off on the floor of the Board of Trade on June 12th. The wheat was shipped from Wagoner, Okla., and sold for 86¼ cents a bushel.

Shrinkage of Corn.

The following summary is taken from Circular No. 81, Bureau of Plant Industry, by Prof. B. T. Galloway, issued by the United States Department of Agriculture:

1. The shrinkage test described in this circular was made with 500 bushels of shelled corn stored in the hopper of a scale in a grain elevator, and extended over a period of 147 days, January 5th to June 1st, 1910, during which time the corn was not "handled" except on May 14th.

2. At the beginning of the test the average moisture content of the corn was 18.8 per cent. The average temperature of the corn and the temperature of the air was 20 degrees Fahrenheit.

3. The shrinkage in weight from January 5th to April 21st, while the corn remained in good condition, was approximately four-tenths of 1 per cent.

4. The shrinkage in weight from April 21st to May 14th was approximately 2.6 per cent., during which time the corn went "out of condition," becoming sour and hot, with a maximum temperature of 138 degrees, Fahrenheit, on May 2d.

5. The shrinkkage during the three elevations on May 14th was 448 pounds, or 1.65 per cent. on the basis of the actual weight of corn in the hopper of the scale just previous to "handling."

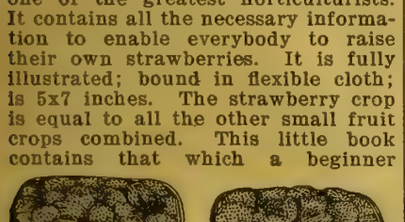
6. The shrinkage during storage from May 14th to June 1st, after the corn was cooled to 55 degrees, Fahrenheit, by handling, was 2.6 per cent.

7. The total shrinkage during the test was 1,970 pounds, or slightly more than 7 per cent., while the natural shrinkage, exclusive of the loss during the three elevations, was 1,522 pounds, or approximately 5.6 per cent., calculated on the actual weight after making deductions for samples drawn for analyses.

8. The rate of shrinkage while the corn remained in good condition was largely influenced by the weather conditions and by the relative humidity and temperature of the atmosphere.

The Strawberry Culturist.

This is a handy little jewel of a book. It is by Andrew S. Fuller, one of the greatest horticulturists. It contains all the necessary information to enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book contains that which a beginner



should have to start on and an expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The National Farmer and Stock Grower for one year for Sixty Cents. This is a splendid opportunity to get a good book for the cost of postage. An average crop of strawberries is 1,701 quarts to the acre. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

All About Barley.

The United States Department of Agriculture occasionally distributes valuable information and has to collect it before it is distributed. Quite recently Prof. H. B. Derr, the Agronomist in charge of barley investigations, was engaged in collecting an amount of information concerning the origin, history, growing and harvesting barley, and the results have been published in pamphlet form as Farmers' Bulletin No. 443, United States Department of Agriculture, Washington, D. C., and any farmer can get a copy by writing for it.

We hope our readers will not have anything against Prof. Derr because he is called an agronomist. As an an agronomist Prof. Derr is a scientific farmer; one who takes up a grain-growing subject and sifts it to the bottom, giving us the results of his investigations.

Such articles are not written in a day, and the investigations occupy many months. No farm paper can afford to employ a staff of experts to prepare and write such articles. The best we can do is to invite attention to the bulletin as issued by the Department of Agriculture. There are forty-eight pages of matter, including forty-three illustrations. The pamphlet contains chapters and sections devoted to the origin and early history of barley, botanical characters, introduction of barley into the United States, recent importations, types of barley adapted to certain areas, soils adapted to the crop, fertilizers and manures, barley in the rotation, effect of barley on the land, drouth resistance and water requirements, preparation of the land, effect of soil treatment on the yield, sowing the seed, treatment after seeding, cultivation, harvesting, storing, thrashing, variety trials, etc. All grain farmers ought to have this pamphlet.

The Wheat Harvest.

The United States Department of Agriculture's June report indicated that the wheat crop of 1911 will surpass the crop of 1910 by 68,848,857 bushels, bringing the total up to 764,291,857 bushels. The spring wheat is estimated in round figures at 284,000,000 bushels, and the winter wheat is estimated at 480,000,000 bushels.

The indicated yield is 14.7 bushels to the acre; this will give the average farmer $11.47 per acre for his wheat crop. We figure the price at 78 cents a bushel, the price the farmers near Abilene, Kansas, received for the first wheat of the crop of 1911.

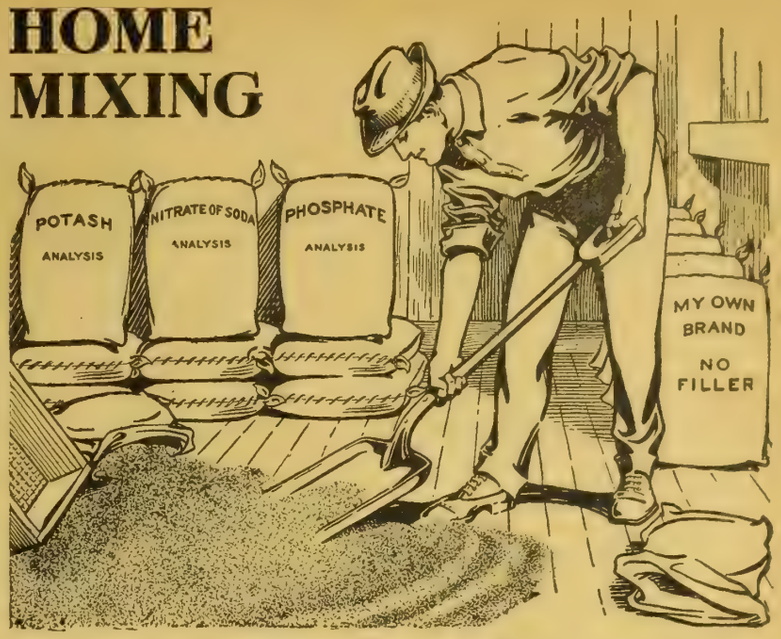
Although the increase over the year 1910 is not so very much, it indicates that the crop is most likely to turn out to be the largest crop on record. The drouth that retarded the corn assisted in clearing the wheat harvest, which may advance the yield above 800,000,000 bushels. The largest yield on record so far is 748,460,000 bushels in 1901.

Save Your Radishes and Onions.

Corvallis, Ore., May 1.:—"Carbolic acid emulsion is used to destroy the eggs and young maggots which infest radishes, onions and similar garden crops, and occasionally for other insects," is a statement of H.F.Wilson, Entomologist at the Oregon Agricultural College, who is about to publish a useful bulletin on the protection of the garden from pests.

To make such an emulsion, dissolve a pound of hard soap in a gallon of boiling water, add a pint of crude carbolic acid and churn (preferably with a hand pump) until the mixture is a creamy white. This forms a stock which may be diluted by adding thirty times as much water as stock. It should be applied to the surface of the ground about the plants.

HOME MIXING



WILL IT PAY?

The best authorities say it will in more ways than one; that you can make a ton of any brand for less than you can buy it; but better still, you can make the brand or formula that is best suited to your own farm, and you know what is in it. You can change it to suit the crop or soil.

But why change it? The old style wheat fertilizers, composed mainly of phosphate, were very profitable on the worn wheat soils, which were always short of phosphoric acid. They supplied this single deficiency, produced larger crops, which at the same time drew heavily on the other plant foods, especially

POTASH

much of which went into the wheat and many times more into the clover.

It is now time to balance the phosphate with Potash. Most of the soil Potash will not be available for a thousand years. Until then it will pay you to buy enough to maintain the supply of available Potash and give the plants a chance. **Potash Pays.**

If you prefer to cling to your old brand, low in Potash, just make a trial of mixing a 200-pound bag of Muriate of Potash with a ton of the old brand and see the difference in the weight of the heads, the strength of the straw and the stand of the clover.

Try 200 to 400 pounds per acre of a mixture of equal parts of Bone and Kainit, or still better 800 pounds Bone, 800 pounds Acid Phosphate and 400 pounds Muriate of Potash.

Get at your dealer right away, before he makes his contracts, and ask him to carry brands of wheat fertilizer that contain 6 to 8 per cent. of Potash or to carry raw materials so that you can mix to suit yourself. We will sell him, or you, Potash Salts in any amount from 1 bag (200 lbs.) up.

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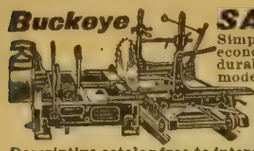

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Selecting Seed Stocks.

Selection of the best heads of wheat and oats as a base of improvement is the quickest method of getting a pure seed supply for general crop. Every field of grain will contain some superior heads and a multitude of inferior heads. Right now, just before harvest, is the proper time to go into grain fields and select sufficient heads to plant a half acre or more next season. The plant breeder looks for desirable characteristics in different plants, and out of a thousand or more heads selected he may find one or two which are worth perpetuating, or, as likely as not, there will be none worthy to be preserved as parent stock. This breeding work, in its strictest sense, belongs to plant breeders, and it is hardly within the province of grain growers to undertake breeding work, but the work of improvement of the general crop by head selection should be carried on by every farmer, and it is better if one person on each farm looks after it. There are great possibilities in this work. Yields may be increased and purer and better quality of grain may be secured.

Select the heads of wheat or oats for seed purposes after the grain is fully ripened. I favor selecting the heads in the field from the standing grain, although many prefer to harvest the grain and then select the heads from the sheaves. By walking through the field one can observe stiffness of straw and physical character of head, both of which are important features. It is essential that one know accurately all the physical characteristics of the variety, else head selection will not do much practical good. This is especially important if one wishes to produce a pure variety. When selecting heads these points should be kept in mind: Select only such heads as are carried on stiff, erect stalks, and it is preferable to select for stiffness of straw from the poorer ground rather than from the best. Then take the largest and best-filled heads. One will find the greatest variation in the way heads fill. Some will be completely filled and some may not be more than two-thirds filled. I have frequently examined the heads of Turked red wheat growing on a piece of ground three feet square. There are scarcely two heads alike, and I have found heads which would contain 40 per cent. more grains than the majority of heads within a given area. These outstanding, heavy, uniform heads are the ones which should be selected for foundation seed stock. Varieties have become so confused that it is only through this work of hand selection of heads can we get back to pure seed stocks. —L. C. Brown.

Growing Better Timothy.

A Parke county, Indiana, correspondent writes: "Can you refer me to anyone who has a superior strain of timothy and alfalfa seed?"

Not much work has been done in the improvement of timothy, but wherever any work has been carried out surprising results have been had. Two points are sought after, viz.: Larger heads and more leafy growth. Those who have selected timothy seed heads averaging six inches or more, and followed up this work, have secured more uniform heads in subsequent crops. There is a good field here to work, and if the work is carried farther, it will pay to select for several years in succession the best individual stems and heads for seed purposes. A variety of alfalfa known as the "Grimm" strain has proved hardier than other strains, and it appears to be adapted to a wider range of conditions than any of the other strains.—L. C. Brown.

To Favor Foreign Interests.

The Citrus Protective League, composed of American lemon growers, is not going to sleep, and we are very glad of it. Most of the lemons marketed in this country have to cross the continent by rail for sale in the East, and the rates from California to New York are higher than the ocean freight rates to New York City from Palermo, Sicily, where most of the foreign lemons come from. The foreign lemons have such a wonderful market here that the government collected $2,233,527.87 in customs duties last year on foreign lemons at the low rate of 1½ cents a pound. This is a revenue duty with incidental protection to home interests.

Naturally, the foreign lemon importers do not care a cent for the United States except as a market for their goods, and they wish to have the duty taken off. The American growers of lemons wish the duties to remain as they are, but unfortunately it appears that Congress was called together for the purpose of reducing duties, and the American lemon growers are just simply fighting the battle of their lives.

They sent abroad to make a study of foreign lemon growing, and one of the items they claim to have found out is that a corruption fund is raised for the purpose of influencing American voters and to influence American legislators. The representative of the American lemon growers found in Palermo a very vigorous organization which is collecting funds and sending them to the United States to be handled through the American-Italian importers. The existence of this fund is no secret in Italy, but its purpose is known and understood by everyone. Prior to May 1st this money was collected by the American importing interests. A change was made in the place of collection on account of the difficulty of making the collection in New York. It was ascertained in Palermo that the collection of the fund is provided for in the steamship rate. The rate was raised to cover the amount of the assessment for the fund, and the amount of the increase is rebated and paid into the anti-tariff campaign fund in the United States, with which the foreign interests are seeking to influence public sentiment and to affect legislation in Congress. We hope that the American lemon growers will be able to retain the duties on foreign lemons.

Reduction of American duties is a stake worth playing for. It is for this that the Sicilian growers are giving up an assessment which has ranged from four cents to ten cents on every box of lemons shipped to the New York market. It is for this that they are vociferously demanding the reduction or abolishing of the lemon tariff. It is for this that they are hiring lawyers and lobbyists to try to influence American legislation. It is because of this meddling with American legislation that the names of certain Congressmen, who are held to be friends of the Sicilian lemon growers, are spoken freely in Italy, and that they are referred to as friends of the alien rather than as representatives of American industry.

With a well-financed campaign like this, aimed at an American industry, it became necessary for the lemon growers to defend their commercial existence, and we are glad to see that they are working.

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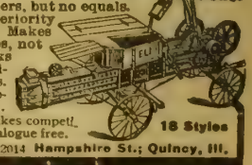

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American Meat Products in China.

[From Consul General Samuel S. Knabenshue, Tientsin, to the Bureau of Commerce and Labor.]

The Chinese people very rarely eat beef, and its use is practically confined to the foreign residents of the empire.

The Chinese are extremely fond of pork, but it would be imposible for American firms to ship barreled pork to China and meet the competition of the native-grown article. Good Chinese pork sells at retail at a far cheaper rate than it can possibly be put on the market in the United States, to say nothing of the freight cost halfway around the world. The new trade in Chinese pork which has sprung up between Southern China ports and England is a profitable one, owing to the cheap price of the hog. Pork grown in South China is said to be a very good article, comparing favorably with American pork. Here in the north the animals are inferior.

For the reasons given above it would be impossible for Amerian lard to compete with the Chinese product, and I can not find that any lard compound has ever been placed on the market here. It is the opinion of the Chinese compradores of several firms that I have consulted that it would not be worth their while to try to find a market for vegetable oils, as there is a large production here in the north of such oils (peanut, sesamum, soya, etc.), which are used for soap making and other purposes. Nor would there be any market for oleo oil, as the Chinese do not use butter at all; hence would not take kindly to a butter substitute.

From the Field to the Table.

From Beloit, Kas., June 28th, was announced what is thought to be the world's time record in harvesting, threshing and milling wheat and baking bread was made with grain from the W. S. Gable farm, two miles west of town. The time consumed in the entire process was exactly thirty minutes.

At 3:14 o'clock the team started into the field with the header and one minute later the harvested wheat was at the threshing machine. At 3:23 Mr. Gable drove his touring car to the mill door with a grist, and at 3:29 flour had been made from the wheat by the Beloit Milling Company. At 3:30 the flour was delivered to Walker Bros. bakery and G. H. Mills made biscuits that were taken from the oven at 3:44 o'clock, thirty minutes from the time the header went into the field.

Sale of Jersey Cattle.

On May 28th, from Kirksville, Mo., it was reported that Viola's Golden Jolly, a seven-year-old Jersey bull, which has been the pride of the big Kinloch Farm, brought $13,000 at the annual Jersey sale, the purchasers being the proprietors of the Ellendorf Farms, Lexington, Ky. Jolly Royal Sultan, two years old, a son of Viola's Golden Jolly, dam Lady Papula, was sold to C. G. Southerland, of Bentonville, Ark., for $10,000. Majestic Lady Papula, a six-year-old cow, was sold to the Ellendorf Farms people for $3,425. These figures are said to set world records for the sale of Jersey cattle.

Viola's Golden Jolly is a son of Golden Jolly and Lady Viola. He was brought from St. Queen, Island of Jersey, by T. S. Cooper & Sons, of Coopersburg, Pa., and was bought from them by the Kinloch Farm owners for $12,000 at auction. In all, 175 head of cattle were sold, netting $70,292—$401 per head for cattle of all ages.

Remedies Against Ants.

[By S. Arthur Johnson, Colorado Agricultural College, Fort Collins.]

The kinds of ants are so numerous and their habits vary so greatly that it will be to our advantage to discuss them in groups.

Ants in Houses.—Many kinds of ants infest houses. Sometimes they establish homes there, but more frequently they are in search of food. This they find in all sorts of edibles, and very often a well-defined line of travel is established between the ant nest and some source of supply, such as a sack of sugar or a store of bread crumbs. The first rule in such cases is to keep all food and bits of food out of the reach of the insects. Tight jars and bread boxes should be used. Persistent trapping will reduce the pest and often drive them away from the premises. Moisten a sponge with sweetened water and put it where the ants are frequently seen. They will collect in the sponge in great numbers. The sponge may then be thrown in boiling water and the ants killed. After the sponge has been washed to free it of the dead insects, the trap may again be set. Progress in this way is not always very rapid, but in the course of a few days the trouble will be greatly lessened.

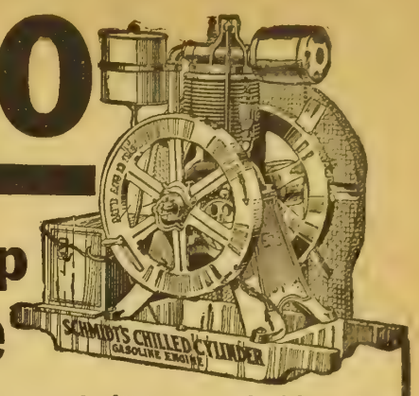
When the nests can be found in the house or near it, a number of remedies may be applied. If the insects are under boards or stones, these may be lifted and boiling water poured on the inhabitants. Nests in the walls and foundations of houses are more troublesome. Often they may be reached with gasoline by pouring it in the cracks and crevices. Sometimes such a substance as carbolic acid or naphthaline may be used as repellants. When ants are in the habit of visiting a table, they may be kept off by setting the table legs in cups containing water. Of course, in this case, the table must not touch the wall.

Ants in the Road and Lawn.—Carbon bisulphide has been found to be about the best remedy in these cases. This is a very volatile and explosive fluid and may be purchased at the drug store. While using this substance, fire of every description must be absolutely banished. With a sharp stick make holes in the nest and pour in from two to four tablespoonfuls of the fluid, depending upon the size of the nest. A tub should be immediately turned over the nest and the edges about it tightly chinked with moist earth to prevent the escape of the fumes. The insects are killed by the gas which is made when the fluid volatilizes. The tub should remain in place for some hours. There may be some danger to the grass from the use of this substance, but it will scarcely be more serious than that which the ants will themselves inflict. The same remedy is often used under flagging, but it is somewhat more difficult to make a thorough application under these circumstances.

Mound-building Ants.—In this Western country a large species of brown ants builds nests in the open fields almost everywhere. The center of the nest is conspicuous because of a mound which is built of sand or small pebbles which the insects collect or dig out of the earth beneath the nest. These mounds vary in height from two inches to two feet, depending upon the size and the age of the colony. The ground for several feet about the nest is kept scrupulously clean of vegetation, which makes the homes of the insects more striking. The interiors of the nests are formed of galleries, about three-eighths of an inch in diameter, which connect chambers one to three inches across. In some of these chambers the eggs and the young are kept; in others, food, consisting of small seeds of all kinds, is stored; still others are used as living rooms. The chambers are most numerous near the surface of the ground, but are sometimes built down for several feet. There are from one to eight openings to the nest, usually about three, which are kept open during the greater part of the day but closed at night.

To kill the insects, enough poison must be used to penetrate every chamber. The Kansas Experiment Station has found that carbon bisulphide is an excellent remedy. Choosing a time of day when the doors are open, place a dish on the top of the mound and pour into it from two to six tablespoonfuls of the fluid. Invert a tub over the mound so as to include as many of the openings as possible and stop the openings around the edges of the tub with dirt. Also, stop up any openings to the nest which the tub does not cover. The tub should be left over the nest not less than five hours. This remedy is not very expensive and will pay well where the ants are troublesome.

$7.50



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Strawberry Shipments.

From Monett, Mo., on June 27th, it was reported that the Ozark Fruit Growers' Association, with headquarters at Monett, had shipped 290 car-loads of strawberries. The total number of crates shipped by the association was 146,500, for which was received $309,647.60, an average of $2.15 per crate. Owing to the drouth, the berry crop was short, but this looks like a good showing.

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The Trade in Cantaloupes.

About this time of year the cantaloupe trade becomes interesting. On the first market day of July, at St. Louis, the market was steady and the demand good for fancy California, but weak and irregular on overripe and soft; Georgia melons selling at wide range in price, owing to great difference in quality. Fancy California standard crates in jobbing way were delivered at $2.00, and pony crates at $1.50 to $1.65—soft less. Sales included one car standard at $2.00 delivered; one car at $2.00 for standard and $1.50 for pony crates; one car at $2.00 and $1.65; and one car at $1.50 to $1.75 for standard and $1.00 to $1.25 for pony—all delivered; Georgia standard crates selling at 50c. to $1.50—mainly at $1.00 to $1.25; Alabama hampers at 25 to 40c.

Free Veterinary Advice.

On page 14 will be found a coupon which entitles the holder to free advice concerning lameness in horses. This coupon must be cut out and sent with the request for information. The coupon is issued by the McKallor Drug Company, of Binghamton, N.Y., owners of Mack's Thousand Dollar Spavin Cure. Don't forget page 14.

On the Fourth of July the Governor of Missouri was at St. Louis at a flag raising, and he said the reception was the warmest in his life, the thermometer being 101 degrees.

I SAY—ALL MEN ARE EQUAL

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Castrating Pigs.

Lots of us make the mistake of operating on our pigs after a feed. It is better to let them miss two feeds, but at least one should be omitted before they come under the knife.

If surgeons use scrupulous care to have their hands and instruments clean and disinfected, and never smear into the wound anything, and use care to keep the wound clean, can you see any reason for filling the scrotum of the pig with salt and ashes or axle grease and the like, as many farmers do? If there is danger of flies, it is admissible to smear around the wound something that will keep off flies and not enter the wound. After the operation a run in a clean, shady grass lot is better than in a close pen, and if there is clean running water in which the pigs can bathe at will you have ideal conditions for comfort and prompt healing. It is better to trim a pig when the weather is neither very hot nor very cold. D. M. Magie said the time to trim is when your knife is sharp, regardless of moon or weather, but it is better not to have the weather too hot.

As to the age of pig, trimming may be done any time after the pig is strong enough. A few days before weaning is a good time. If one is a breeder he can make better selection a few weeks after the pigs are weaned and before they begin to ride one another.

The best way for the young man to learn how to castrate is to see it done by a good operator, and then in his presence try it.

Note how he first cuts through the skin a gash long enough to allow the testicles to pass out readily and low enough to permit drainage. After the skin comes the thin, white, paper-like covering. Cut through this and let out the testicles. Pull it out two inches and notice the cord and a flat striffin. Put the point of the knife just under the testicle and next to the cord and cut the striffin loose, and, holding the testicle, pull it out; the cord will break in the body. Next be careful that no part of it or the striffin appears outside the cut. If it does, this is a ready means of infection and blood poison.

Some operators scrape the cord off; others pull out the testicle, letting the fragment recede. Handle the pig as gently as possible, and never use more force than is necessary to give the operator a chance to do his work well. We often see a pig hobble off on three legs because the hind leg has had a wrench unnecessarily. It is easy to break the ham bone by a twist or pull.—Swineherd.

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and on all manufactured goods admitted into the country, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and state and he pays indirect taxation for the support of the federal government. We believe that the advantage of the markets of the United States belongs to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the state receives support and the farmer has a very moderate degree of what is called protection. In times of scarcity foreign farm productions can come in on a fair basis, and in times of abundance the country thrives without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would shut his doors. Legislation against the farming interest is the height of folly. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Three pieces of proposed legislation now before Congress are foolish and unnecessary. One is the bogus reciprocity bill; the next is the humbug farmers' free list; and the next is the proposed reduction of the duty on wool and woolens. None of these bills ought to pass, and the business of the whole country will learn what stagnation is if these bills do pass. The reciprocity bill may pass or be rejected before this paper is fully distributed, but the other two bills will not be passed so soon. Every effort the individual farmer can bring to bear upon these bills should be exerted to prevent their passage.

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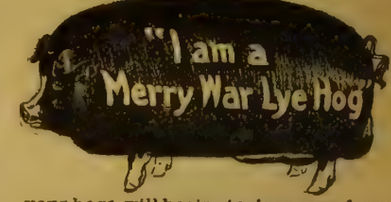

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IMPORTANT WARNING!

Don't infer that ordinary, or regular, lye can be used as a hog remedy.

MERRY WAR LYE is prepared ESPECIALLY as a hog remedy and it is the only lye that is guaranteed to be absolutely safe to feed to hogs.

Save These Directions

Follow these directions carefully: Mix one tablespoonful MERRY WAR LYE with slop for 10 hogs, or ½ can with barrel of swill. Stir well and feed night and morning. If your hogs are on a dry feed ration, mix ½ can MERRY WAR LYE to each barrel drinking water.

At All Leading Dealers

Most dealers handle MERRY WAR LYE. If yours can't supply you, write us, stating your dealers' names, and we will see that you are supplied and will also send you, free, a valuable booklet on, "HOW TO GET THE BIGGEST PROFITS FROM HOG RAISING."

MERRY WAR POWDERED LYE comes in 10c cans, full case of 4 dozen cans for $4.80, at Grocers', Druggists' and Feed Dealers'. There are no substitutes.

E. Myers Lye Co., Dept. 22 St. Louis, Mo.

Another Beef Inquiry.

There is another beef inquiry, and it has begun at Washington, D. C. One of the first witnesses examined was Gustav Bischoff, of St. Louis, who is in opposition to the great packers, as President of the St.Louis Independent Packing Company. He gave the committee the benefit of his experience in the packing business since 1863 and dwelt with emphasis upon the great strides that have been made since the introduction of refrigeration. It is his opinion that cattle producers obtain better prices for their product at present than before the days of the big packers, and that the consumers enjoy the benefits of lower prices due to the economies of the packing houses.

He said the packers could undersell the local butcher because they utilized every part of the animal slaughtered.

"Do you believe the consumer gets his meat in better condition now than he did before the advent of the packing establishments?" asked Senator Reed.

"He positively does; I know it," replied Bischoff.

The Wool Situation.

The United States produced 321,000,000 pounds of wool in the year 1910; imported 264,000,000 pounds of wool in 1910 and imported 264,000,000 pounds of woolen goods in 1910. Congress is now trying to do away with a large portion of the revenue derived by the government from the duties on the foreign importations, also to increase the foreign importations at reduced duties for the purpose of decreasing the value of the home productions. This legislation is supposed to be for the good of the country, but it is more likely to be (as was the removal of the duty on hides) for the benefit of other countries.

Crops For Hogging Off.

A Boone county, Indiana, correspondent asks: "I have a piece of corn that I am intending to commence to hog off just as soon as the corn is hard enough. How would it do to sow alfalfa in this corn? Would it make any feed for the hogs this fall?"

It would not pay to sow alfalfa seed among corn which is to be hogged down. Seeding among rows is not considered a safe practice, and the trampling of the hogs would just put another burden upon the crop. If the prime object is to obtain additional green feed for the hogs, I should sow rape or soy beans. Rape makes excellent green food, and while it will not balance up the corn as do peas or beans, still it supplies succulence. There is no short cut in establishing alfalfa or grasses, and I advise against using them for mere catch crops, especially when we have so many other crops which will fill in much better.—L. C. Brown.

COUGHS and DISTEMPER

Among Colts, Mares and Stallions cured with one bottle of FRAZIER'S DISTEMPER CURE, or your money refunded. One dose placed in trough or feed will prevent all cases. Influenza, Pink-Eye, Catarrhal Fever, Colds and all forms of Nose and Throat Troubles cured in four to eight days. $1.00 bottle holds three 50-cent size bottles. Send postal for free booklet on the horse. Sold by druggists or prepaid from

BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.

The Profit in Alfalfa.

A few years ago it was the generally accepted idea that the successful growing of alfalfa was confined to a few especially favored states. That this belief was without foundation is proven by the crops that have been grown in localities where it was thought this profitable forage crop would not grow. For instance, who would have believed that alfalfa would grow and survive the rigorous winters of the Canadian Northwest? Yet such is the case. As to the time of year best adapted to sowing the seed, much depends upon the locality. It is sure, however, that the seed bed must, in every case, be properly prepared, good seed used and properly sown. The Superior Grain Drill, manufactured by The American Seeding-Machine Co., Incorporated, Springfield, Ohio, is admirably adapted for sowing alfalfa. The seed can be sown through the furrow openers and drilled in rows, or it can be broadcasted by detaching the grass seed tubes from the grain tube tops, thus letting the seed fall between the discs. In either case, whether drilled or broadcasted, the discs give the ground an additional cultivation and thus prepare a more mellow seed bed. The Superior Grain Drill is not only adapted to the sowing of alfalfa, clovers and grasses, but all known seeds, from wheat to seed as large as bush Lima beans, and in any amount desired to the acre. This machine is manufactured in plain grain and combined grain and fertilizer styles. It can also be had in all sizes with different spacing between furrow openers. Single discs, double discs, hoes and shoes can also be had. Write to The American Seeding-Machine Co., Incorporated, Springfield, Ohio, for their Superior Drill catalogue. Then go to your nearest implement dealer and ask to see the Superior, which is guaranteed to do and to be all that the manufacturers claim.

The Value of Grosbeaks to Agriculture.

The grosbeak is a very much maligned bird, and, instead of being destructive to crops, he is, on the contrary, of great benefit, according to Farmers' Bulletin 456, just issued by Secretary Wilson. The bulletin states that seven kinds of finches, commonly known as the grosbeak, summer within our boundaries. A majority of these are good friends of the farmer and deserve to be widely known in order that their services may be appreciated. The grosbeaks are easily distinguished from other finches by their stout form, bright plumage, massive bills and melodious voices. Two of them live mainly in cold, mountainous areas and have little to do with farms or with the insects that prey upon crops, and these may be dismissed without further notice. The other five live largely in agricultural regions and secure most of their food about cultivated lands. They perform invaluable service in destroying certain of our worst insect pests.

The rose-breasted species is a great destroyer of the potato bug. He breeds over Kansas and the mountains of Tennessee. The investigations of the Department show that the bird is fond of green peas, but invariably consumes enough injurious insects to more than offset the damage. He has become famous for his preying on the Colorado potato beetle, and no less than one-tenth of the total food it consumes has been proven to be the potato beetle. It attacks the cucumber beetle. It has proven an active enemy of the Rocky Mountain locust during that insect's ruinous invasions, and among the other pests it consumes are the spring and fall cankerworms, orchard and forest tent caterpillars, tussock, gypsy and brown-tail moths, plum curculio, army worm and chinch bug. In fact, states the bulletin, it attacks the worst enemies of agriculture.

The cardinal or red-bird species, ranges from Southern Mexico, Lower California and Arizona north to Iowa and Ontario, and east to the Atlantic Coast. They are permanent residents, spending the summer and winter in the same locality. It has been claimed that they pull sprouting grain, but no evidence of damage to either grain or other crops is shown from over 500 examinations. On the contrary, they do much good. They feed on locusts, periodical cicado, the Colorado potato beetle, the rose chafer, cotton worm, plum or cherry scale, the zebra caterpillar of the cabbage, the cucumber beetles, billbugs, locust flea beetle, corn-ear worm, cotton cutworm, Southern fig-eater, coddling moth and boll weevil, and, in addition, are great consumers of injurious weed seeds.

The black-headed grosbeak hails from Southern Mexico and invades North Dakota and Nebraska. It fills the same place in the West that the rose-breast does in the East. It is a foe to the worst pests of horticulture, the scale insect composing a fourth of its food.

The blue grosbeak breeds over the southern two-thirds of the United States and is greatly destructive to weevils, grasshoppers, locusts, caterpillars and worms.

The gray grosbeak inhabits Texas, Arizona and New Mexico. It is a consistent enemy of the boll weevil and cotton worm. It also consumes great quantities of harmful weed seeds.

The bulletin winds up with a plea for the protection of the grosbeak, and says: "Present investigations prove that the services of the grosbeak in destroying insect pests are invaluable. Each kind pays especial attention to certain pests, which, if unchecked, would cause enormous loss. Few of our birds are to be credited with more good and with fewer evils than the grosbeak, and none more clearly deserves protection by the practical farmer."

Cost of Raising Grain.

Including the item of rent, the cost of raising wheat in the year 1909 was estimated by the Department of Agriculture at 66 cents a bushel; the cost of raising corn was 38 cents a bushel; and the cost of raising oats was 31 cents a bushel. These figures are probably a reasonable statement of fact where the three grains are successfully grown.

The average wheat fields were 59 acres; corn fields, 30 acres; and average oat fields, 25 acres.

The wheat cost the farmer to raise it $11.15 per acre; the corn, $12.17 per acre; and the oats, $10.91 per acre. On the selling basis of 95 cents a bushel on farms, the wheat showed a profit of $5.33 per acre; on the selling basis of 62 cents a bushel on farms the corn showed a profit of $7.82 per acre; on the basis of 40 cents a bushel at the farm the oats showed a profit of $4.17 per acre. These are the figures of 1909. Today there is considerable decrease in price of grain and farmers are not making any such profits.

Pasture For Next Spring.

A Jasper county, Illinois, correspondent writes: "We are going to be short on pasture next spring. How would it do to sow grass seed in corn?"

Under present conditions I do not think that very much good would result in sowing pasture grasses or clover in corn. The ground is too dry. Sowing clover and timothy seed at present prices would mean a considerable loss, and the chances for the seed amounting to anything would be very small, unless we have more rain during July and August than we had during May and June. Instead of sowing grass seed this summer, expecting it to make a permanent pasture, I should sow winter rye or winter vetches. Both of these crops will make some feed late this fall, and they will come on early next spring and make good feed for all kinds of stock, except horses.—L. C. Brown.

Exporters cleared away the surplus cheese in the month of May, otherwise the New York market would have been overstocked. The May exports were 20,782 boxes, against 2,133 boxes the year before. Cheese is cheap, and that accounts for the exports.

The Howard Watch

As soon as a man owns a motor car he begins to take a new account of time. And as soon as a man appreciates precision in a timepiece he is in line for a HOWARD Watch.

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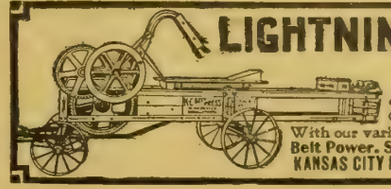

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National Egg-laying Contest.

From Mountain Grove, Mo., it was reported on June 24th that arrangements have been completed and the buildings are being erected for the National Egg-laying Contest, to be held at the Missouri State Poultry Experiment Station at Mountain Grove.

The contest will be under the direct charge of T. E. Quisenberry, Director of the Station, and the Missouri State Poultry Board, assisted by an Executive Board consisting of Prof. F. S. Jacoby, of the Kansas Agricultural College; Prof. W. A. Lippincott, of the Iowa Agricultural College; Prof. A. G. Phillips, of Purdue University, Indiana; Prof. D. O. Barton, of the Illinois Agricultural College; Prof. Jas. G. Halpin, of the Wisconsin Agricultural College; N. E. Chapman, of the Minnesota State Board of Agriculture; and R. C. Mawry, of the Yester Laid Egg Farm, Pacific, Mo. The men are among the leading poultry experts of the country, and they will have direct charge of the details, records, management, etc. Absolute fairness, impartial judgment and correct records are assured, so the best birds will win.

Farmers Can Investigate.

In one of the circulars issued by the German Kali Works we find a paragraph saying:

"Every crop takes from the soil more potash than phosphoric acid, but practically every brand of ready-mixed fertilizer in common use contains more phosphoric acid than potash. Consequently what you need is potash, and lots of it, to make up for the years of underfeeding."

Farmers can investigate this first by sending to their State Agricultural College a sample of their soil for analysis and asking the chemist to designate what amount either of the three ingredients — nitrogen, phosphoric acid and potash—are deficient.

Then take the list of fertilizers sold at retail and see from the guarantee what the mixed fertilizers contain.

It will be found, almost invariably wherever low-grade fertilizers are bought continually, that the land is deficient in nitrogen and deficient in potash.

Millions upon millions of acres of lands, especially in the South, are deficient in nitrogen and potash and stuffed with phosphoric acid. The aim of the fertilizer manufacturer in catering to the demand for cheap goods is to send out fertilizers that contain either none, one or two per cent. of nitrogen, and one or two per cent. of potash, and eight to eleven per cent. of phosphoric acid, because it is the cheapest element.

For many years farmers have been paying for an excess of phosphoric acid when they needed nitrogen, and they have been buying an excess of phosphoric acid when they needed potash. Farmers can verify this for themselves, and directly they prove it they will quit buying low-grade mixed fertilizers and buy each ingredient they need and cut out buying what they do not need.

We have been told that the surplus of phosphoric acid remaining in the soil may not be available; but the phosphoric acid was bought to be available, and, if not available, it is useless to buy any more. But the potash is not available if it is not in the soil; neither is the nitrogen available if it is not in the soil. This simple statement is necessary to clean up the talk about availability. We cannot have a good crop of oats if the land is stuffed with phosphoric acid, if it is also deficient in nitrogen and potash. Sixty bushels of oats take from the soil 55 pounds of nitrogen, 22 pounds of phosphoric acid and 62 pounds of potash. Yet the fertilizer agent sells on the basis of two pounds of potash, no nitrogen, and ten pounds of phosphoric acid for $16 a ton, and then we expect to raise oats on poor land that needs fertilizer. On page 3 there is interesting reading about mixing your own fertilizers; it is worth money to those who will read it.

The Corn Market Situation.

The corn crop of the present year will not be so large as it was last year by several hundred million bushels, but it will be worth more money.

This is not our report, or the government report, or any other report. It is the opinion of the Chicago grain dealers; not any particular one of them, but the composite opinion of the whole push and fraternity. The opinion may vary from day to day, but corn has advanced in price on the opinion already expressed.

On June 30th, a year ago, cash corn at St. Louis was quoted at 60½ cents a bushel, and this year, on June 30th, the quotation was the same. On May 31st cash corn was selling at St. Louis at 52½ cents, and on June 30th at 60½ cents, showing a clean advance of 8 cents a bushel in a month.

We now turn to Chicago and find that the July option quoted May 31st at 53⅜ cents advanced to 58⅞ cents by June 30th. We find the September option quoted June 30th at 61¼ cents a bushel, which is 1½ cents higher than September was quoted a year ago. We also find the December option quoted at 60⅛ cents a bushel, which is 1¾ cents higher than a year ago.

Looking at the market quotation, June 30th, it appears as though 60 cents a bushel is the favorite Chicago market figure for the next six months, with such variations as different opinions may bring forth.

Forget the Overstocked Markets.

The commission firms who collected commissions for selling two and a quarter millions of cases of eggs in New York City in three months of 1911 were the people who started the howl that we had to go to Canada for eggs to feed our people. For the time being they have stopped the racket, but they will start it up again directly they have time to forget who feeds them.

Wheat Heads Not Filled.

Another correspondent writes: "I find scattered through my wheat fields heads of wheat which have ripened prematurely, and which are only partially filled. What is the cause of this?"

Crop observers who have been traveling lately through the early wheat fields have noticed many heads carrying only three or four plump berries. No doubt this has been due to lack of moisture. Light-colored heads which carry no berries or only affected with insects or with a peculiar blight which has been observed in Indiana wheat fields for several years. In other regions where moisture conditions have been more favorable the crop is heading and filling almost perfectly, and the crop in Northern Indiana promises equally as big as last year.—L. C. Brown.

Two Profit Earners
This 1½ H. P. Waterloo Boy Farm Pump Engine
is the simplest, lightest, strongest gasoline engine for its size and rating in the world. It is geared up directly to the pump by a strong double back gear. This cuts out all belting and makes it Simple, Powerful and Economical. You can disconnect it in an instant and belt it up to any other farm machine, from cream separator or washing machine to corn sheller or light dynamo.
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Mexico Importing Food.

Mexico is not collecting import duties upon grain during the month of July. It is a war measure. They have been engaged in a revolution, and it has been found that the crops do not grow if they are not planted. The break from the habit of collecting customs duties is only temporary.

Not a Patent Medicine.

Bodi-Tone, the tablet medicine which is becoming so popular through its cures, is not a patent medicine. Its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit. Read the trial offer on last page.

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The Market For Peaches.

On July 1st, at St. Louis, receipts of peaches were light, and large-sized fruit with good color in pretty good demand; small and hard on poor-colored stock dull. Texas Elbertas (express receipts) sold at 85c. to $1.25 for four-basket crate, according to condition, and clean-up of a car Arkansas Mamie Ross six-basket crates at $2.25. Express receipts Missouri and Arkansas four-basket crates at 50 to 60c., and one-third bushel boxes at 50c. Alabama flat crates large yellow at 75c. to $1.00, and white at 75c. for sound—specked less. Home-grown and nearby early halves dull at 20 to 50c. per half-bushel basket.

How to Save the Corn Crop.

Sam Jordan, corn expert in the employ of the Missouri State Board of Agriculture, known in every Missouri corn county as a Farmers' Institute lecturer, has issued this statement to corn growers:

"Boys, don't give up the ship. A serious drouth threatens us. All that can be done is frequent, persistent, shallow, level cultivation. Once a week, if possible, make a dust mulch. These things done may mean a crop with very little rain. Neglect it and with little rain it means sure failure. Missouri corn growers can put across a crop with very little rain by borrowing dry-farming methods. You must act. Keep the cultivators going in the dust.

"After a shower a crust forms on the ground. In this crust are thousands of little cracks that are like chimneys to let the water out of the soil into the air. From a soil with reasonable moisture about 126 tons of water per acre evaporate in one week of dry, hot, windy weather. Shallow, frequent cultivation stops this.

"Get busy, keep busy, save the corn. Sit and wait for the rain and you lose."

Here is what President Worst, of the North Dakota Agricultural College, says:

"If I were to come onto your farm and set 750 teams to work for a week hauling water onto a quarter section at the rate of four tons a day, I would then only put on as much water as evaporates in a week when there is a good moisture content in the soil. A thorough harrowing will stop this evaporation and save that amount of water."

Automobile Boat Power.

With the advent of real summer weather a new use has been discovered for the automobile which will doubtless add materially to its popularity in the sunny days of July and August. This latest duty of the family machine is that of a "power plant" on a house boat, a simple but ingenious device serving to apply the power of the engine to navigation.

It was the owner of a Case car on the upper Mississippi river who first devised the simple method of jacking up the rear wheels of his car, after firmly blocking it on his house boat, and then by means of skeleton sprocket wheels bolted onto the wheels of the car, connecting the machine with the paddle wheel on the rear of his craft. By having the driving sprockets small and the paddle wheel sprockets rather large the proper ratio of speed and power is obtained.

After this has once been done it takes but a few minutes to remove the attachments or to put them on again, and a party may have either an automobile or a power house boat at will. There were but few autoists along the water courses and lakes that took advantage of this arrangement last summer, but this year their number has rapidly increased.

While the Case car was the first to prove its versatility in this respect, there have been many other makes put to the same use but with less success. The reason is that the steady drag of a boat is more trying on an engine than is land locomotion, and consequently it takes a better engine to "stand up" under it. The engine put out by the J. I. Case Threshing Machine Company, however, has demonstrated its ability to run smoothly even with this handicap, and, having conquered land and water, it may seek aerial laurels next.

The Oats Market Situation.

It is of very little benefit to the farmer that oats have advanced a little in price. The entire surplus crop of the year 1910 was sold at low figures. For ten straight months the prices in market fluctuated from 31 to 34 cents a bushel. After paying freight bills and commission charges the farmer who netted 25 cents a bushel for his oats was in luck.

The oats crop situation on July 1st, 1911, is an uncertain quantity. The speculative forces look for a very much smaller crop in 1911 than last year. The next crop report issued by the government, available on July 10th, is expected to sustain the reports already received on the market—that it will be one of the lowest acre yields in history.

The people who trade in grain have some regard for the United States government report, mainly because it is issued by authority of the government and is accepted as such in other countries. Active buisness men anticipate the government reports; or, to be more precise, it is proper to say that active business men endeavor to anticipate the effect of the government report on other people. The United States Department of Agriculture does produce some careful compilations, but the Department does not pretend to foretell the future. With the government report in hand and with considerable fresh information coming in from time to time the statistical experts in the employ of the grain dealers are able to reach commercial conclusions upon which it is safe to buy and sell.

After all is said and done, the market quotations represent the consensus of opinion, backed by dollars and cents, and the quotations are not mere figures to play with. "Money talks" is a good old saying, and when we read the Board of Trade quotations we are reading figures backed by money that talks louder than words.

On May 31st, at St. Louis, cash oats were selling at 33½ to 34 cents a bushel, and thirty days later, on June 30th, the cash price was 44 cents; here is an advance of 10 cents a bushel of 32 pounds. We always mention the St. Louis cash quotation, believing it to be the clean result of a competitive market, and the grain appears to be going directly into consumption.

At the Chicago Board of Trade, on May 31st, the May oats option was closed out at 34½ cents a bushel, and the July option was quoted at 35½ cents; on June 30th the Chicago July option closed at 43¼ cents, showing an advance in a month of 7¾ cents a bushel. The September oats option closed on May 31st at 35½ to 35⅝ cents a bushel, and on June 30th the same option closed at 44⅝ cents, an advance of 8¾ cents a bushel in a month. Then again oats have been contracted for delivery in December at 46½ cents. A year ago the same option was quoted at 38⅞ cents.

Whosoever may read this reference to the oats market situation, dated June 30th, should remember that it can be brought completely up to date by looking over the daily market which is just issued. There may be a further advance, and there is room for it.

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The Juicy Watermelon.

On the first market day in July, at St. Louis, the watermelon trade was weak under large offerings, but there was a pretty active demand (best for large melons) and free movement. The range in a jobbing way delivered at 70 to 90c. per 100 pounds for Watsons and 60 to 75c. for Kolb Gems. Sales on track: One car Alabama Watsons (24,000 pounds) at $145; one car Florida do. (24,000 pounds) at $155; one car 25-pound average Florida Watsons (showing decay) at $160; one car 22-pound Florida Watsons at $190; two cars 26 and 28-pound do. at $225. Delivered, per 100 pounds: Four cars Florida Watsons at 70c. for 20 and 22-pound; 80 and 85c. for 24 and 26-pound, and 90c. for 28-pound; two loads 24 and 25-pound Georiga Watsons at 70c.; half car 28-pound do. at 80 and 85c.; two loads 27-pound do. at 90c.; one car 28-pound Florida do. at 80c.; two cars do. at 85c.

Grain at St. Louis.

Sample wheat, in bulk, on track: No. 2 red—New sold at 86½ to 87½ cents; No. 1 at 87 to 87½ cents; No. 3 red—New sold at 84½ to 85¼ cents; No. 4 red—New sold at 78 to 83 cents; No. 2 hard—Quote at 88 to 95 cents, nominal; No. 3 hard—Quote at 86 to 92 cents, nominal, per bushel.

Sample corn on track: No. 2 corn, 60½ cents; No. 3 corn, 59½ cents, nominal; No. 4 corn, 58 cents, nominal; No. 2 yellow, 60½ to 61 cents; No. 3 yellow, 60 cents, nominal; No. 4 yellow, 59 cents, nominal; No. 2 white, 60½ cents; No. 3 white, 59½ to 60 cents; No. 4 white, 58 cents, nominal. Cob corn—Mixed, 60 cents, nominal; white, 61 cents, nominal, per bushel.

Sample oats on track: No. 2 white, 45½ cents, nominal; standard, 44½ to 45 cents; No. 3 white, 44 to 45 cents; No. 4 white, 43½ to 44 cents; No. 2 oats, 44 cents, nominal; No. 3 oats, 43½ to 44 cents; No. 4 oats, 42 cents, nominal, per bushel.

Poultry at St. Louis.

Live poultry quotations at St. Louis, July 1st: Spring chickens, 1¼ pounds and under, 16c.; do., 1½ pounds, 18c.; do. 1¾ pounds and over, 19c.; chickens, fowls, 10c.; cocks and stags, round, 6c.; turkeys, choice, light or medium hens, 15½c.; turkeys, Toms and heavy rough stock, 13½c.; old ducks, 9c.; spring ducks, 12c.; old geese, 5c.; spring geese, 9c.; Guinea chickens, young, per dozen, $7.00; do. old, per dozen, $2.00. Dressed iced poultry: Turkeys, hens, 16½c.; Toms, 14½c. Spring chickens, 17 to 20c. Fowls, 11c. Stags and cocks, round, 7c. Old ducks, 10c.; spring ducks, 13c. Old geese, 6c.; spring geese, 10c. Eggs, 12 to 13½c. a dozen.

Farmers will not have to sell the 1911 crop of oats at 25 cents a bushel on farms. There will not be so many oats, but there will be just as much profit.

A bread-baking combine is being stocked up with 80 per cent. water. The works ought to be confiscated by law before they start business. It is no better than a combine for housebreaking purposes.

J. G. Robbins & Sons, of Horace, Ind., held an auction sale of Shorthorn cattlle at Omaha, Neb., June 15th. The average of forty-nine head was $123; forty-two females averaged $111.20, and the seven bulls averaged $192.15.

Simple Cream Calculation.

A simple way to determine the amount of cream of any desired richness a given quantity of milk should produce is given by the De Laval Monthly:

This is something one would often like to know, and is capable of determination in a very simple manner, provided the percentage of butter-fat in the milk is first ascertained.

Multiply the pounds of milk by the per cent. of fat in the milk, and then divide the product by the per cent. of fat it is desired that the cream should contain.

The result will be the pounds of cream that the amount of milk would produce of the prescribed degree of richness, and if this is divided by 2.091, which is the weight of one quart of cream, the figure thus obtained will be the number of quarts of cream that would be produced.

For example, if it is desired to know what quantity of 30 per cent. cream would be produced by 100 pounds of 5 per cent. milk, proceed as follows:

Multiply 100 by 5 equals 500; divide 500 by 30 equals 16.66 2-3; divide 16.66 2-3 by 2.091 equals 7.97, the number of quarts of cream there would be.

First Creamery and Separator.

According to Hoard's Dairyman, the first creamery building in the world was erected April 1, 1872, at Spring Branch, three and one-half miles from Manchester, Iowa. It was not a very pretentious building, containing only two rooms, one of which was utilized for storing milk in pans, the other containing a churn and Bennett's Butter Worker. In this building Mr. M. Van Deusen, the first creamery buttermaker in the world, manufactured butter which commanded the highest price on the New York market.

The real cream separator did not appear on the market until 1879. During that year two machines were perfected; one was known as the Danish Weston, invented in Denmark; the other, the De Laval, invented in Sweden. Both of these separators were hollow-bowl machines. The cream separator originated in 1865 when Prandtl, of Munich, Germany, creamed milk by means of two cylindrical buckets revolving upon a spindle.

Cheese was made right after the war by C. W. Gould, of Elgin, Ill., and in 1866 he and David Hammond built a factory on Gould's farm. In 1868 they built one five and one-half miles east of Elgin, in which A. Nolting took an interest and became the owner in 1870. Several others sprung up in these localities at about the same time. Butter was made at some of these cheese factories, but just the exact date we cannot give. The first cheesemakers sold cheese as high as 38 cents and not lower than 12½ cents. Creamery butter sold for 40 cents and over for several years.

Heifer With Congested Udder.

I have a heifer (calved about three weeks ago) which has a lot of blood coming out with the milk; sometimes the milk is half blood. The heifer is very quiet, not knocked about in any way, so that it is not the result of bruising. I do not think that she cleansed properly, or there was some trouble, because a lot of bloody slime came away days after calving. Is there any way to stop the blood coming with the milk, and what is the cause? Yours, etc., "Rustic."

The blood in the milk is probably the result of a congested condition of the udder. The blood-stained slime which came away from the passage for days after she calved points to some after trouble there, and it may be that a portion of the membranes did not come away. This could have a bearing on the present condition of the udder. Unless she gets the blood poisoning as a result of the trouble behind, she should recover, and it is quite possible that she will be all right by the time this reaches you. If she is not, give the passage and the womb a good washing out with a couple of gallons of warm water in which two tablespoonfuls of Jey's fluid has been added. For this use the funnel and tubing supplied for treating cows afflicted with contagious abortion. Also give her a drench composed of Epsom salts, twelve ounces; powdered aniseed, one ounce; warm, thin gruel, one and one-half pints. After an interval of three days follow this with three ounces of Epsom salts once daily for four days. Do not let the udder get full of milk. Draw away all you can three or four times daily.—Farmer and Grazier.

Increase in World's Production of Cotton.

The world's production of cotton in 1910, as measured by the factory supply—that is, the quantity entering into commercial channels—was 19,171,000 bales; in 1909 it was 16,776,000 bales; in 1908, 19,636,000 bales; and in 1907, 16,512,000 bales. The 1910 production for mill consumption represents an increase of 2,395,000 bales, or 14.3 per cent., over the production in 1909—a decrease of 465,000 bales, or 2.4 per cent., from 1908, and an increase of 2,659,000 bales, or 16.1 per cent., from 1907. The average production of cotton for the world during the past seven years has been approximately 18,085,000 bales, or 1,086,000 less than the production of 1910. It is pointed out that the figures are intended to state the world's yield of cotton for mill consumption and not the total production. Large quantities of the fiber grown in China, India, Persia, Russia and other eastern countries and in South and Central America are consumed in the homes of the people and do not enter commercial channels. No accurate estimate can be made of the amount of this cotton. The world's production in 1910, shown in the table, amounted to 9,585,500,000 pounds, with an estimated value of about $1,250,000,000.

In 1910 the United States contributed 59.9 per cent. of the total quantity of commercial cotton of the world; British India, 18.3 per cent.; Egypt, 8 per cent.; and Russia, 4.7 per cent.—From Census Bulletin.

Peas Two Years in Succession.

A Newton county correspondent asks these questions about cowpeas and vetches: "Would it do to sow cowpeas two years in succession on the same piece of ground? Will small grain do to follow winter vetch?"

I do not recommend sowing cowpeas too frequently upon the same piece of ground. The reasons are these: When grown for two or three years in succession peas are liable to become infested with insects, which work upon and destroy the roots of the plants. I frequently have my attention called to fields which seem to be struck with blight; that is, the leaves turn yellow, and many of the vines finally succumb. This is due to nematode worms. Peas will do better when grown in rotation with other crops. Peas really are of the same character as clover—the crop is likely to deteriorate if grown longer than one year on the same piece of ground.

As to vetches, some practical farmers claim that they dry out the ground too much, to be followed by a crop of small grain.—L. C. Brown.

Crimson Clover For Hay.

A correspondent wants to know whether I recommend crimson clover for hay, and also whether there is anything better for a cover crop.

Crimson clover, because of its habits of growth, does not make a first-rate article of hay, although it is used for that purpose in some regions where other clovers have failed. It is sown in the fall and used largely as a cover crop, but has never been looked upon with much favor. Hairy or winter vetch is much better for fall sowing, and it produces the earliest spring feed. Winter vetch is now used very extensively for cover crops in orchards, and when handled right it is an ideal crop for this purpose.—L. C. Brown.

Better Grain-Sorghums.

Another farmers' bulletin, No. 448, from the United States Department of Agriculture, came to hand in the month of June. It is by Carleton R. Ball, the farmer specialist who has charge of grain-sorghum investigations. It begins by saying: "The aim of this paper is to tell the farmer who is growing grain-sorghums how he can best improve these crops." It gives the map of the grain-sorghum belt. It gives pictures of the varieties and history thereof and goes into every particular concerning them. We earnestly advise our readers to send for this bulletin. The varieties specially mentioned are Red Kafir, Shallu, Blackhull, Kafir, White Durra, Brown Kowliang, Milo and Dwarf Milo. There are thirty-six pages to the bulletin.

Quit Doing This → Get a GOOD Spreader

EVERYONE knows that if soil is not fertilized it will soon wear out. The barren condition of thousands of farms in this country proves this statement. A large percentage of this number could be improved if manure were spread judiciously.

Field experiments prove that eight tons of manure evenly spread are as good as twice that number spread in a haphazard way. Hand spreading requires at least twenty loads to cover an acre. With a manure spreader, eight loads will cover the same amount of ground more evenly, but—

Your problem of soil fertility is only half solved when you decide to get a manure spreader. The other half—of equal importance—is in deciding just which spreader is best for you to buy.

If you investigate thoroughly and decide carefully, you will select a spreader that thousands of other progressive farmers are having great success with—one of the

I H C Manure Spreaders

The simple design and unusual strength of all working parts of I H C Spreaders account for their long life and light draft.

The method of transmitting power from the wheels to the beater is simple and direct. There are no unnecessary parts to wear. The beater is large in diameter and the teeth are long, square, and chisel pointed. By using this style of tooth, the manure is thoroughly pulverized and is thrown out before it wedges against the bars. By using a square tooth, rimming of the bars is overcome.

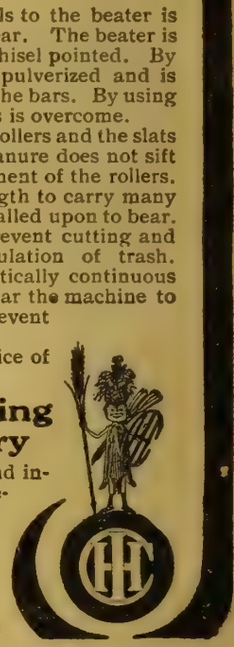
I H C Service Bureau

The Bureau is a clearing house of agricultural data. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problem to the I H C Service Bureau.

The apron is supported by steel rollers and the slats are placed close together, so that manure does not sift down and interfere with the movement of the rollers. The steel wheels have ample strength to carry many times the weight they will ever be called upon to bear. The rims are flanged inwardly to prevent cutting and rutting of meadows and accumulation of trash. Z-shaped lugs give the wheel a practically continuous ground-bearing surface and do not jar the machine to pieces. There is no reach to prevent short turning.

In the I H C line, you have choice of these three famous styles—

Cloverleaf Corn King Kemp 20th Century



All are simple, strong, and durable—all are easily and instantly adjustable to spread light or heavy, as the soil requires, and all three are made in sizes suitable to any size farm. See the IHC local dealer—and get catalogues from him, or, write direct.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
Chicago (Incorporated) U S A

National Dairy Show.

The Sixth Annual National Dairy Show to be held at the International Live Stock Amphitheater, Chicago, October 26th to November 4th, is expected to be the greatest educational and most comprehensive of any exhibition of this class of the dairy industry and all its allied interests previously undertaken. Not since the Columbian Exposition at Chicago and the great World's Fair at St. Louis is it expected there will be such a congregation of conventions, dairy cattle, dairy products, dairy machinery, cold storage and refrigeration apparatus and the manufactured product of their allied commercial accessories.

The National Dairy Cattle Breeders' Associations with their membership of many thousands throughout the United States and Canada, recognizing this great annual Exposition as the premier event of the year, have not only increased their appropriations, but are arranging to hold special conventions of their respective breeds during the Exposition at Chicago, which will be attended by the most noted representatives in the broad field of dairy husbandry.

Fifteen thousand dollars will be offered in cash prizes for dairy cattle. Special premiums will be awarded in the milk, cream and butter tests. Scholarships in the national student judging contest will be given by several Agricultural Colleges, pure-bred dairy cattle clubs, butter manufacturers and individuals. Preparations through special committees of the cattle clubs are being made to assist in bringing out not only a great show, in numbers of their respective breeds, but are planning to exhibit many of the most celebrated animals of the breed.

The National Dairy Show of 1911 will be held in the largest and best fitted live stock amphitheater in America. This modern and convenient building, with complete ventilation, will enable the National Dairy Show Association to present an exhibition in keeping with this great industry, an industry representing an annual output of nearly $1,000,000, greater than any other with the one exception of corn.

THE NATIONAL DAIRY SHOW ASSOCIATION,
A. O. Auten, General Manager.
Chicago, June 20th, 1911.

Once More Dolly Dimple.

Dolly Dimple is a Guernsey cow, and the readers of The National Farmer and Stock Grower have seen her picture before this. She has once more added a wonderful year's work to her credit.

By it she places herself at the head of all Guernseys in milk production—18,808.5 pounds—and is the holder of the best record for three consecutive milking periods of any cow in the world.

Dolly Dimple has been under Advanced Registry test in every one of her lactation periods.

As a two-year-old, she made a record of 14,009.1 pounds milk, 703.36 pounds butter-fat, and placed herself at the head of the two-year-old class, and the ranking two-year-old cow in the world.

As a three-and-one-half-year-old, her second milking period, her record was 18,458.8 pounds milk, 906.89 pounds butter-fat, and placed her again at the head of her class, beating her mother, Dolly Bloom, 12,770, Adv. R. 40, whose record up to that time had been the best, 17,297.51 pounds milk.

Dolly Dimple by her present record extends her former figures to 18,808.5 pounds and still is the "Queen of the Guernsey Milkers."

This young cow is the result of most careful breeding and comes of record-producing stock on both sides.

Her sire was Imp. Yeoman, 8,618, Adv. R. 99, whose dam is Imp. Hayes, Rosie 15,476, Adv. R. 116, with a year's record of 14,633.08 pounds milk, 714.31 pounds butter-fat.

Dolly Dimple was bred and is owned at Langwater Farms, Mr. F. L. Ames, Proprietor, North Easton, Mass.

In the test just closed Dolly Dimple produced a total of 18,808½ pounds of milk in a year; her butter-fat average was 4.66 for the year, and the butter-fat record is **876**.338 pounds for the year.

Dolly Dimple has also to her credit the following records for shorter periods, which are the best of any Guernsey cow:

Single days—**72**.0 pounds milk, **3**.865 pounds butter-fat; **81**.61 pounds milk, **3**.956 pounds butter-fat.

Seven days—**533**.8 pounds milk, **23**.064 pounds butter-fat; **529**.2 pounds milk, **23**.465 pounds butter-fat; **479**.70 pounds milk, **23**.902 pounds butter-fat.

One month—**2,109**.3 pounds milk, **92**.451 pounds butter-fat.

Three months—**6,177**.9 pounds milk, **274**.791 pounds butter-fat.

Six months—**11,296**.9 pounds milk, **499**.271 pounds butter-fat.

New York Milk Plentiful.

During the middle week in June, milk receipts at New York City were 329,000 cans. This is largely in excess of last year's supply and accounts for the low price ruling. Shippers in the twenty-six-cent freight zone were being paid 2½ cents per quart net, which makes the cost $1.31 per can of forty quarts delivered in New York. Dealers are inclined to think that there will be no change from this rate until supplies begin to shorten up.

Plowing Up Oat Ground.

A Vermillion county, Illinois, correspondent asks these questions: "Oats are so short here that they are not even high enough to mow. Many are thinking of plowing up their fields, but do not know what to put in. I have a field of oats and field peas, but they have not done much good. How would it do to mow them and then sow cowpeas?"

Whatever is done with these catch crops must be done promptly now, so that the ground may be kept in good condition and the crop have as long growing period as possible. If one can use rough feed right on the farm, sow millet, Hungarian, cane, cowpeas or soy beans any time up to the middle of July. Millet will make a big lot of tolerably good feed, and it has the advantage that it will stand drouth better than other crops. On clean ground it is profitable to grow it for seed, and here is a good way to turn ground to account. Where hay or rough feed is not wanted, sow good, clean seed, about three pecks per acre, and allow the crops to mature seed. Under ordinary conditions the crop would yield twenty bushels of seed per acre.

The field of oats and peas referred to by our correspondent may be cut now to good advantage, and if well cured it will make a first-class article of hay. If this crop is very short, I should mow it and rake it up, cure it in windrows and mow promptly. This ground may then be plowed and harrowed and sown to cowpeas or millet.

Ground is very dry, so that thorough preparation is essential if much is expected from these late-sown crops. There is a large acreage of ground which will not produce more than a quarter of an oat crop at the very best, and the proper handling of these lands, if plowed up, is a matter of the gravest importance right now.—L. C. Brown.

Demand For Holsteins.

"The demand for our cattle is far beyond the supply; in fact, the present existing demand, in my judgment, cannot be met by the supply which will be afforded us during the next decade, while the demand will continuously increase, thereby making it imperative that the farmer or breeder who would take advantage of the best that is afforded him, direct his attention toward no other breed. Records of butter and milk yields have multiplied, prices of cattle have increased, until it is difficult, upon analysis, to determine whether the records keep pace with the prices readily obtained, or whether the prices keep pace with the records that are constantly being made."—From address of President Chas. W. Wood, of Worcester, Mass., at the Annual Meeting of the Holstein-Friesian Association.

A "Baby Chick" Bulletin Free.

The State Poultry Board have just issued a bulletin on baby chicks. It is very complete and tells all about feeding, incubation, brooding and a great many things which will enable you to overcome much of the trouble you have been having with your chicks. It will be sent free to all Missouri farmers and poultry raisers as long as the edition lasts. Can be had by sending a request to the Secretary, T. E. Quisenberry, Mountain Grove, Mo.

Method of Feeding Calves.

The calf should be allowed to take the first milk from its dam, as nature requires this, and if her rules are violated, there will surely be trouble. After the calf has once nursed, it should be removed from its mother, but fed its mother's milk for a few days, depending on the vigor of the calf. Commence to add skim milk after a week or ten days, adding a small amount at first and increasing it daily until the calf is on an entire skim-milk diet.

There are a few simple rules to follow in growing calves on skim milk. The milk must be sweet; it must be as warm as the mother's milk and care must be exercised not to feed too much of it. There are many more calves injured by being fed too much skim milk than there are by not having enough. Four quarts at a feed twice per day is sufficient for the average size calf for the first month. Add a spoonful of ground flax seed to each feed and teach the calf to eat a little corn meal as soon as possible. Corn is the most economical food to balance a ration containing so much skim milk. Feed shelled corn as soon as the young calf will digest it well.

At the Indiana Experiment Station, in Bulletin No. 47, a record of work is given to show the relative cost of calves grown on skim milk and on whole milk. The skim-milk calves cost less than four cents per pound and the whole-milk calves cost ten cents per pound, and the calves fed skim milk make as good growth as the ones fed whole milk.—Roy C. Potts, Oklahoma Agricultural College.

Government Land in Missouri.

According to the Missouri Blue Book, the 12,600 acres of United States land in Missouri two years ago are now reduced to 1,061 acres. The following are the counties having goverment land and the amount in acres: Benton, 6; Camden, 40; Hickory, 80; Howell, 40; Madison, 80; McDonald, 43; Perry, 40; Pulaski, 193; Reynolds, 40; St. Genevieve, 40; Shannon, 62; Taney, 28; Vernon, 40.

Pure-bred Cattle Importations.

According to the report by the United States Department of Agriculture, from January 1st to March 31st, 1911, 28 head of Alderney cattle, 7 Ayrshires, 262 Guernseys, 182 Jerseys and 39 Shorthorns were imported. The grand total was 518 head, consisting of 47 bulls and 471 females. A full list by names of animals and importers is given in the circular. The Alderneys, consisting of three bulls and twenty-five cows, were imported at New York City by F. G. Benham and W. W. Marsh.

You may consider this to be a pretty good paper if you read it through.

DE LAVAL
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not only save their cost every year but may be bought on such liberal terms as to literally pay for themselves. Why should you delay the purchase of the best separator under such circumstances?

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Shoo-Fly THE ANIMALS FRIEND

Keeps flies and all insects and pests off animals—in barn or pasture—longer than any imitation. Used and endorsed since 1885 by leading dairymen and farmers.

$1 worth saves $20.00 in milk and flesh on each cow in a single season. Cures sores, stops itching and prevents infection. Nothing better for galls. Kills lice and mites in poultry houses.

SEND $1, if your dealer can't supply you, for enough Shoo-Fly to protect 200 cows, and our 3-tube gravity sprayer without extra charge. *Money back if not satisfactory.* Write for Booklet, free. Special terms to agents.

Shoo-Fly Mfg. Co., Dept. 28, 1310 N. 10th St., Philada.

Editor knows from experience that Shoo-Fly is O. K.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, **Profitable Dairying,** as a premium. Address

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DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, cannot spill or tip over; will not soil or injure anything. Guaranteed effective. Of all dealers, or sent prepaid for 20 cents.

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COWPEAS,

MILLET, RAPE AND ALL OTHER FIELD SEEDS IN SEASON.

SHIELD BRAND ALFALFA,

99½ PER CENT. PURE.

Amber and Orange Cane Seed,

Golden Arrow Seed Corn,

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Vegetable and Flower Seeds.

EVERYTHING FOR THE GARDEN.

Send For Golden Arrow Seed Catalogue.

A. W. Schisler Grain Co.,

708 and 710 N. Fourth St., ST. LOUIS, MO.

Strawberry Plants.

OVER 75 VARIETIES.

Raspberry, Blackberry, Gooseberry, and Currant Plants, Grape Vines, Fruit Trees, and other Nursery Stock.

Asparagus, Roots, Cabbage, Cauliflower, Celery, Brussells Sprouts, Tomato, Sweet Potato, Pepper and Egg Plants.

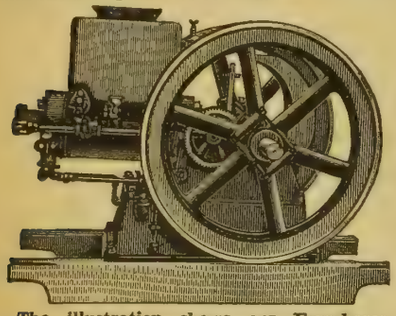
All Leading Varieties of High-Grade Garden and Farm Seeds.

HARRY L. SQUIRES,

REMSENBURG, N. Y.

Stover Gasoline Engine.

Claims to superiority of STOVER ENGINES are based upon symmetrical appearance, simplicity of operation, economy of fuel, the correct mechanical workmanship and the best grades of material.



The illustration shows our Four-horse-power Hopper Cooled Engines, popular size. When installed as stationary, are excellent power for operating light machinery. For farm purposes, can be mounted on skids or light truck. The gasoline is contained in the base and engine is shipped ready for operation with all gasoline pipe connections made complete. The series is named THE STOVER JUNIOR. The sizes are 1, 2½ and 4 horse power. This is absolutely the best make of Gasoline Engine on the market today. See us or write us for Stover Junior Catalogue.

WEBER IMPLEMENT AND AUTOMOBILE COMPANY,

1900 Locust Street, St. Louis, Mo.

SPECIFY "FRAZIER'S."

When buying a remedy from your druggist for the cure and prevention of distemper, influenza, shipping fever, catarrhal fever, pink-eye, coughs, colds and other diseases of a similar nature affecting the nose and throat, specify "Frazier's." Such specification will insure your receiving a remedy of the highest attainable purity and which enjoys the confidence of 90 per cent. of the owners, handlers and breeders of horses in the world. "Frazier's" has been the standard distemper remedy in the country for the last twenty-five years. You will find plenty of substitutes and imitations of "Frazier's." Insist on getting the only guaranteed remedy on the market. The $1.00 bottle holds three 50-cent bottles. All first-class druggists sell "Frazier's," or direct, prepaid. Binkley Medical Co., Sole Owners, Nappanee, Ind. Send for free book on the horse.

Top Price For Cattle.

Clay, Robinson & Co., live stock commission agents, sold thirty-eight Hereford steers, averaging 945 pounds, at $6.50 per 100 pounds. This was on June 19th, and the price was the highest paid on the open market for cattle at the Denver Stock Yards in the year 1911. These cattle were bought by the Agricultural College, Fort Collins, Colo., last October, weighing 550 pounds average, at $5.00 per 100 pounds. They were fed for experimental purposes.

The Lightning Rod.

The lightning rod that is the standard and has been manufactured for sixty-five years is advertised in this paper. We refer to the Cole Bros.' Franklin Rod, manufactured in St. Louis and which has stood every possible test. Defective rods sold cheap because they are useless brought the ordinary lightning rod into disrepute; but the reliability of the standard rod has caused the officials of Agricultural Colleges and Experiment Stations to explain the necessity for protection against lightning by reliable means. Write to Cole Bros. Lightning Rod Company, 316 South Seventh street, St. Louis, Mo., for particulars and prices.

Which is the Best Cover Crop?

A Union county, Illinois, correspondent writes: "A neighbor claims that soy beans are better for a green crop, sown in grain stubble, than cowpeas. This is not in accordance with your articles. Please tell me more about it."

This very thing has been tested out many times, and I know of no instances where soy beans produced more green growth than peas. In all the tests I know of the peas made fully one ton more growth above ground, per acre, than soy beans. Although taking top growth and roots together, I think soy beans would be more valuable.—L. C. Brown.

No Lawful Combinations.

According to the Milk Reporter, published at Sussex, N. J., several of the leading milk contractors in New England were indicted by the Federal Grand Jury, May 26th, for "engaging in a combination in undue restraint of trade." The New York, New Haven and Hartford Railroad Company and the Elm Farm Milk Company were also indicted for giving and accepting concessions. The word "undue" is used for the first time in the Federal courts in that state, and follows the decision in the Standard Oil case.

The railroad company is charged sixty counts with permitting the Elm Farm Milk Company to ship from Willimantic, Conn., to Dorchester, Mass., from 1,149 to 1,725 cans per car at $23.02, while others were allowed only 840 cans at that rate. The milk company is charged with accepting the concessions.

The milk contractors are alleged to have agreed on a uniform price to be paid farmers for milk, and William A. Hunter, Secretary of the Boston Co-operative Milk Producers' Association, is indicted with them for agreeing at a metting held in Boston, September 21, 1908, to accept the uniform price.

Home Mixing of Fertilizers.

By writing to the German Kali Works, Continental Building, Baltimore, Md., any farmer can obtain a booklet entitled "Home Mixing of Fertilizers and How to Do It." This is a very interesting publication, and every one of our readers can learn something from it. The whole story is told so chearly that it does not require an interpreter. The book includes a table giving the composition of all farm manures and commercial fertilizers, with formulas adapted to all crops and the amount of fertilizer ingredients taken from the soil by all farm crops. Send for it without delay. See advertisement on page 14.

Course in Agricultural Education.

The State Board of Education has authorized a new course at the Iowa State College—a course in agricultural education. Its purpose is to train teachers for agricultural and domestic science work in secondary schools. There is a wide and rapidly-increasing demand in favor of industrial training in the public schools. The demand is far in excess of the supply of teachers. Public school work has not heretofore appealed to the graduates of the Agricultural Colleges. Recently the demand has become so great that the schools are paying from $1,000 to $1,500 for graduates, with assurance of a rapid advance as merited. Out of 855 students enrolled in the Division of Agriculture at Ames during the past year, comparatively few are looking forward to a teaching profession. Of the seventy-eight students graduating from the Division of Agriculture this year not over 10 per cent. will become teachers. The establishment of this course is in recognition of the demand upon Agricultural Collges for teachers specially trained for the secondary schools. It is recognized that the progress of this work will be measured by the qualifications of the teachers having it in charge. It will probably be many years before the supply of such teachers is equal to the demand. Prof. A. V. Storm has been elected to head the new department.

He Got the Pass.

"I want a pass."

"Pass? You're not entitled to a pass. You are not an employee. Sorry."

"No; but here the anti-pass law says free transportation can be granted to 'necessary caretakers of live stock, poultry and fruit.' Well, I'm going on this trip with an aunt, that's a hen—there's your poultry; a girl that's a peach—there's your fruit; and a nephew that's a mule—there's your live stock. Gimme a pass."—Southwestern Book.

The Wheat Market Situation.

The Hon.W.D.Hoard, who was once Governor of his state, and who is a good authority on farm subjects, has recently expressed his poor opinion of any farmer who is raising wheat, because it is his idea that we all ought to be dairymen. He is also in favor of admitting Canadian wheat into our markets duty free, probably because he does not raise wheat.

Mr. Hoard has only expressed in his own language our oft-repeated question: Why does a farmer raise wheat when he can make more money doing something else? The answer is, that wheat growing is the farmer's pet occupation. He is always hopeful that the yield will be large and that the price will be satisfactory. He is often disappointed, but "hope springs eternal in the human breast," and the farmer continues to raise wheat, even though he may be simply trading dollars.

Farmers have been barely cashing dollars on their wheat crop of the past year, and we regret to see that the prospect for the future is not good. The proposed reciprocity treaty with Canada is for the purpose of reducing the price of wheat produced by American farmers, but not to reduce the price of bread; the duty to protect the miller and the baker still remains, but the duty which protects the farmer in his own market is to be taken away. At present, however, the bill is not passed, although the shadow of a rush of wheat from Canada still remains. We believe the wheat market has ranged 6 to 7 cents a bushel lower than it would have done had the alleged reciprocity bill never been heard of.

A year ago, at St. Louis, June 30th, cash wheat closed at $1.07 per bushel; this year at 87½ cents, which is 19½ cents a bushel less. Last year, at Chicago, July wheat closed at 97 cents; September, 97½ cents; December, 98⅞ cents; this year, June 30th, the figures are: July, 88⅞ cents; September, 89⅞ cents; and December, 92¼ cents.

If Congress passes a law in order to reduce the price of wheat produced by American farmers, Congress should not be surprised if they have shifted the farmer's favorite crop over the border.

FARM AND RANCH LANDS.

ARKANSAS.—Farm of 640 acres, Arkansas river bottom land, all very fertile; 500 acres in cultivation; rents for $7.00 acre, cash; some clover and alfalfa; one nice dwelling house; twenty tenant houses, etc. Can sell at $20,000. A great bargain. **P. O. Box 11,** Little Rock, Ark.

ARKANSAS. — Fine Stock Farm. 887 acres, within 2½ miles of Warren, the county seat of Bradley county. Finest proposition in the state. Creek cuts land in middle. Five hundred acres in grass; level as a floor. Under fence. Price, $25.00 per acre. Terms to suit. **Jno. A. Culbreath & Co.**, Warren, Ark.

FREE Literature will be sent to anyone interested in the wonderful Sacramento Valley, the richest valley in the world. Unlimited opportunities. Thousands of acres available at right prices. The place for the man wanting a home in the finest climate on earth. No lands for sale; organized to give reliable information. Sacramento Valley Development Ass'n, SACRAMENTO. **California**

THE FINEST FARM

In Southern Illinois, located east of Marion, county seat of Williamson county, 540 acres, all in cultivation and grass, excepting 40 acres virgin hardwood timber; fenced and cross-fenced; six-room dwelling, two large barns, outbuildings; finely watered. Splendid stock and grain farm. Coal of finest quality under entire farm.

Owner lives in St. Louis; cannot give farm any personal attention. He is anxious to sell. Terms, $5,000 cash; balance mortgage on land.

ALFRED RICKETTS REALTY CO.,
608 Chestnut Street, St. Louis, Mo.

MISSOURI. — For Sale: Well-improved stock and grain farm; 6½ miles from R. R. station; on public road; rural free delivery and telephone; now occupied by good tenant for crop rent; can give possession January 1 if desired; two sets of improvements. **Charlie Murphy,** Dixon, Missouri.

TENNESSEE.—For Sale: 200-acre stock farm with 250,000 feet of gum and oak timber and sawmill on same. All for $20.00 per acre. **Harry Roberts,** Pinson, Tenn.

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

FARMS WANTED! We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property **FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

MISSISSIPPI.—Eight hundred acres of land in Mississippi for sale for $5,000. Payments half cash and balance reasonable time at 6 per cent. This land is situated in Tishomingo county, and consists of a square section, 640 acres, and 160 acres adjoining, being 800 acres in a solid body. The land commences a little over a mile east of the station of Holcut, on the Birmingham Branch of the Illinois Central Railway, about twenty miles south of Corinth. This land was cut over a long time ago; is as good soil as any in Northern Mississippi. It consists of ridges, hills and valleys, and every inch is available when cleared for cultivation. Wells can be dug anywhere. This land is in a good farm settlement and will make a fortune for any first-class farmer who can handle it himself, or it will support forty families of vegetable growers. Address the owner, **Philip H. Hale,** 3550 Vista avenue, St. Louis, Mo.

VIRGINIA. — BIGGEST BARGAIN IN VIRGINIA. 555-acre dairy farm, stocked, crops and implements included in price; large modern dairy barn, 40x90 feet; 40 stanchions; box stalls; concrete floor; storage, 100 tons hay; horse barn, 10 head, and storage for 15 tons hay; many other buildings, all in good repair; comfortable six and seven-room houses; two orchards; farm well fenced; two-thirds of land under cultivation, balance good timber; four miles R. R., Loudon county, Virginia, 35 miles from Washington, D. C. A sacrifice. Price, $26,000; $10,000 cash; balance two, three and four years. Further information furnished those interested. **J. W. Latham,** 1420 New York Ave., Washington, D. C.

Raising 228 Bushels An Acre.

The boy who raised 228¾ bushels of corn on an acre of land tells how he did it. His name is Jerry Moore, and he lives in South Carolina. Writing to the Progressive Farmer he says:

"My soil was light, gray sandy upland top soil, about three or four inches deep, with yellow subsoil. Very old land, level, but naturally well drained. Cotton was grown on this acre in 1909, producing about 1,200 pounds of seed cotton.

"I spread three hundred one-horse wagon-loads of rich dirt on this acre during the 1st of March, 1910. Followed this with fifty one-horse wagon-loads of stable manure, scattered broadcast. March 25th broke with two Boy Dixie plows,double-breaking, one plow following in the furrow of the other, and with the two breaking from ten to twelve inches deep. Without harrowing broke across like first time. March 29th, harrowed and laid off in rows 3½ feet with Dixie plow. Distributed 500 pounds 8—3—3 guano in furrow and covered with furrows, making a small ridge, somewhat under surface. March 30th, opened ridge with shovel plow, making a furrow about three inches deep, in which I dropped three gallons of Batt's Prolific Four-ear Corn, dropped corn by hand, almost sowing, covered corn with small shovel plow about 2½ inches deep. Same day sowed 800 pounds acid phosphate along rows and harrowed all over ground, leaving surface about level. Did not harrow just at this time because of the dusty and dry condition of the soil.

"April 24th, good rain. April 25th, sowed 700 pounds kainit along the rows, and harrowed with Little Joe harrow, going twice to the row; also barred-off. May 5th, made a mixture of 600 pounds of cotton-seed meal, 200 pounds acid phosphate and 200 pounds kainit, and with a Cole distributer sowed on each side of rows and in furrow. Then plowed down in middle with a shovel plow and harrowed, going twice in the row.

"On May 10th, made a mixture of 600 pounds cotton-seed meal, 200 pounds acid phosphate and 200 pounds kainit, and sowed on each side of rows, using a Cole distributer and going four inches farther from corn than in making the other application. Sowed by hand 300 pounds nitrate of soda along rows, and harrowed with Little Joe harrow, going twice in row. May 24th, good rain. June 5th and 6th, good rains. June 7th, harrowed and sowed 200 pounds nitrate of soda along rows. Corn about 5½ feet high and growing very fast. June 11th, storm and corn blown down. June 12th, set corn up. Corn beginning to silk. June 4th, harrowed very lightly. Rains very frequent since June 5th, and corn now in full silk.

Gathered fodder middle of August; fodder weighing 3,000 pounds, worth $30. Corn was weighed and measured according to government methods, and made 228 bushels and 3 pecks. Corn was gathered in September.

Cost of preparation of seed-bed	$ 4.00
Cost of planting	2.00
Cost of cultivation	11.50
Cost of gathering fodder	6.00
Cost of gathering corn	8.00
Cost of manure	25.00
Cost of commercial fertilizer	66.55
Total cost	$123.05

Total number bushels corn, 228¾; fodder, 3,000 pounds.

Value of corn	$228.75
Value of fodder	30.00
Total value of crop	$258.75

JERRY MOORE, Winona, S. C.

A. J. MILTON.

RAY DeFOREST.

Cattlemen of Texas, Oklahoma and the Southwest

It will pay you to put your shipments to **EAST ST. LOUIS** through our house. In the two years we have been established at that market we have worked into second place in volume of business handled.

Our head cattle salesman, A. J. MILTON, is universally conceded to be one of the very best cattle salesmen at the National Stock Yards. He was formerly cattle salesman for us at South St. Joseph and has also had long experience with us on the Chicago market.

In the selling of quarantine cattle he will be ably assisted by RAY DeFOREST, who has had long experience on the Fort Worth market and will give you excellent service at his new post.

These two men form a team that will pull hard and effectually for your interests.

Remember that we are equally well equipped to handle your consignments at Kansas City, South St. Joseph, Fort Worth, Chicago and other markets.

Ship Your Cattle To

CLAY, ROBINSON & CO.

LIVE STOCK COMMISSION

East St. Louis Chicago Kansas City South St. Joseph Fort Worth
Denver East Buffalo Sioux City South Omaha South St. Paul

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, posts, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A NEW DRY-LAND CROP.

Experiments Show Spanish Peanuts Provide Fine Hog Food, Excellent Hay and Dry-land Legume.

[By H. M. Cottrell, Agricultural Commissioner for Rock Island Railroad.]

Last year was the driest year in the Texas Panhandle and Western Oklahoma since the country was settled. Farmers in about forty-four counties in this section planted Spanish peanuts. After the plants became six to eight inches high, there were several weeks of drouth and hot winds. The peanuts withered badly through the day, but freshened at night and stood still, but lived. A shower came and they immediately filled out and matured. The plants were too small to harvest and hogs were turned into the fields to gather the crops. One man who had a large field weighed his hogs carefully when he turned them in and weighed them when he took them out fat, ready to ship to market, and they made a gain of 1,023 pounds for each acre of peanuts pastured. Reports from both states show gains of from 500 to 1,000 pounds of hogs per acre of peanuts, the hogs gathering the crop themselves.

In Western Oklahoma the government demonstration farm men found that on a farm where corn yielded thirteen bushels to the acre, Spanish peanuts yielded forty bushels. Farmers report that in fields where corn gave no grain whatever, Spanish peanuts yielded twenty to twenty-five bushels per acre. Farmers and stockmen all over this region report that the Spanish peanut stands drouth fully as well as either sorghum or milo. The results secured in the Southwest have been so encouraging that farmers throughout Colorado and Central and Southern Kansas should test Spanish peanuts this year on a small scale, and if it does as well as it promises, it will become a staple dry-land crop with them. Each farmer should plant five acres to make a test.

The Spanish peanut is the small red peanut, with only two nuts in a pod. It matures in ninety days after planting. The large peanut found in the candy stores is the Virginia peanut. It requires 140 days for maturing, and is worthless on the plains, as in dry seasons it does not fill out. The Spanish peanut requires one bushel of seed to plant an acre. The seed should be soaked thirty-six to forty-eight hours before planting, soaking the unshelled pods. The wet pods, not shelled, should be planted in rows three feet apart, dropping single pods twelve to fourteen inches apart in the rows. In Eastern Colorado they should be planted from May 20 to June 15. Of course, the wet pods must be planted in damp soil, and if the surface soil is dry, a furrow should be opened down to moist earth. These pods should be covered about two inches deep and the crop should be cultivated about four times, the same as corn. In a year of regular rainfall the vines grow from twelve to eighteen inches in height. The vines of the Spanish peanut grow upright. When the pods are ripe, the vines may be cut and cured the same as alfalfa hay.

The peanut is a legume, the same as alfalfa, clover and cowpeas, and, like these, enriches the soil on which it grows.

In all the leading Southern markets baled peanut hay sells at about the same price as alfalfa and has about the same feeding qualities. Hay from peanut vines and milo make a food equal to alfalfa and corn for fattening steers, and peanut hay is one of the best dairy feeds. In some sections dry-farmers do not have hogs to consume the peanut crop. In that case, when the crop is mature, the row may be opened with a lister or with a sweet potato digger which will throw the whole plant, vines and pods out on the surface. The plant should then be gathered and cured in cocks and stacked the same as alfalfa. As the nuts contain 30 to 50 per cent. of oil,this hay from the whole plant is exceedingly rich and forces dairy cows to high yields. The butter is too soft for market and the cows must be fed some crop like milo with this feed to harden the butter.

I found a planter in Louisiana who is this year putting out 3,500 acres of crops. On several of his farms his work mules while plowing the land and planting the crops, had no feed whatever except the hay from the whole plants of Spanish peanuts, the nuts furnishing the grain and the vines the hay. The mules kept fat throughout the spring.

The highest-priced ham in the United States is the Smithfield ham of Virginia, which sells in Eastern markets for 40 cents per pound and upward. The producers of this ham found that the only feed which would command this price was peanuts. On account of the large quantity of oil in the peanuts, the pork is very soft, and while the peanuts make large gains, the packers object very strongly to hogs fattened on peanuts alone. After becoming fat, the hogs should be fed from two to three weeks on milo or corn and the flesh becomes as firm as if the hogs were fattened on corn alone, while the meat still retains the delicious peanut flavor.

Peas Fail to Grow.

A Morgan county, Indiana, correspondent writes: "I sowed some cowpeas on May 2d, but they did not come up. They were mixed seed and looked all right. What do you think the trouble is?"

In the first place, these peas were sown too early. Cowpeas will not stand as much as corn, and if they are sown when the ground is cold or in poor condition they are liable to be disappointing. The soil must be warm and there must be ample moisture to insure a favorable start of cowpeas. Another thing which has contributed to many failures this season is poor seed. I do not advise sowing cowpeas or soy beans over one year old, and then with the fresh seed only the best quality is sure to give good results. Low-grade seed peas have sold this season as low as $1.35 per bushel, while the choicest grade sold at $3.00 to $3.50 a bushel. This low-grade seed is always unsatisfactory, on account of weak vitality, and seldom makes a decent crop. Those who complain of failure should be more careful and sow nothing but fresh, sound seed.—L. C. Brown.

Cure That Lame Horse Without Risking A Penny

We Take All The Risk, And Protect You With A $1000 Guarantee Bond

WE want to show you that there isn't any affliction causing lameness in horses that can't be cured, no matter how long standing. We will do this for you **absolutely free.** Fill out the "Free Diagnosis Coupon" and send it to us at once.

It means money to you to relieve your horse of its misery at once. **Ask us**—and you will get the **best** and **most reliable** diagnosis **absolutely free.** All you have to do is to fill out the "Free Diagnosis Coupon," mark just where your horse has a swelling, sore or any one of the big number of possible causes for lameness, and send it to us. We will then give the coupon to our trained Veterinary Specialist for his expert diagnosis. This diagnosis is invariably correct. We then inform you of the cause of your horse's lameness and the remedy that **will absolutely cure him.** We do all this for nothing.

He Asks You To Please Send This

Be Positive, Know What You Are Doing and know that you are treating the right spot in the right way. Don't disfigure your horse and reduce his market value. Write to us. Get our **"Free Diagnosis."** You paid good money for him when he was sound. What is he worth to you now, or anyone else when he has a Spavin, or Ringbone, Thoroughpin, Curb, Capped Hock, Shoe Boil, Sprung Knee, Ruptured Tendons, Sweeny, or any one of a hundred different causes of lameness that your horse might be heir to. You know that he isn't worth 50 per cent, no—nor 25 per cent of his original value.

Relieves Cases Formerly Considered Incurable

No matter how long your horse has been lame, or what the nature of his lameness, you can absolutely rely upon **Mack's $1,000 Spavin Remedy.** We know of many cases where owners have paid out big fees and had valuable animals tortured with "firing," "blistering" and other good-for-nothing methods and as a last resort tried **Mack's $1,000 Spavin Remedy,** and were amazed at the painless, positive, quick and permanent cure.

Nearly Every Mail Brings Us Letters Like the Following:

"The remedy you sent me cured the two horses that the hoof was coming off. The mule's foot was nearly off when I got the medicine, but in five days the mule was able to walk on it. The horses are working every day, and have been since using your remedy the third day. It is the best medicine I ever saw for the foot. Our Vet. said those horses would not be able to work in 12 months, but he sees his mistake now. I recommend your medicine to every one as I know it is all O. K." Yours truly,
Ludowici, Ga., Dec. 7, 1910. J. T. COLLINS.

"I am pleased to tell you that MACK'S THOUSAND DOLLAR SPAVIN REMEDY has proved far beyond my expectations. My horse had been lame with side bones on each side of foot for about eighteen months, and I had thought of shooting him at different times. I tried to work him but he would go so bad he would hop along on three legs. My neighbors told me he would never be of any use as they had had horses with the same trouble. I tried other remedies without success, but am working him now and he is sound, and have tested him well. I recommend your 'MACK'S $1,000 SPAVIN REMEDY' to all." Yours truly,
Summerland, B. C., Dec. 4, 1910. R. H. STEWART.

Your Druggist Will Obtain Mack's $1,000 Spavin Remedy For You

if you ask him. Price $5.00 per bottle. If he refuses, remit $5 to us and we will see that your order is filled without delay. Every bottle is absolutely guaranteed, and is accompanied by our $1000 Warranty Bond, which insures you that your money will be refunded if the remedy fails to do all we claim for it, as stated in our guaranty.

McKALLOR DRUG COMPANY
Distributors Binghamton, N. Y.

FREE DIAGNOSIS COUPON

On pleture of horse mark with an X just where swelling or lameness occurs, then clip out coupon and mail to us with a letter, telling what caused the lameness, how long horse has been lame, how it effects the animal's gait, age of horse, etc.

We will tell you just what the lameness is, and how to relieve it quickly. **Absolutely no charge. Write today.**

Free Book "Horse Sense"

Send us the Free Diagnosis Coupon, get absolutely free a copy of our book "Horse Sense." Describes and illustrates disease of horses' limbs, shows correct name for every part of horse and tells valuable facts every horse owner ought to know.

Rubber Roofing

Warranted For Twenty-Five Years.

FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Colorado, New Mexico, N. Dakota, S. Dakota, Wyoming, Montana. Special prices to these states on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 548, East St. Louis, Ills.

Potash in Manuring.

One of the foreign farm papers received at this office says:

"A glance at the relative quantities of the different kinds of plant food extracted from the soil by the principal crops proves that potash is one of the most essential elements of plant life. The following table gives the plant food extracted per acre:

Average Crop.	Nitrogen.	Potash.	Phosphoric Acid.
Potatoes	47	76.5	21.5
Mangels	149	300.7	52.9
Swedes	98	79.7	21.7
Hay	47	50.9	12.3
Oats	52	46.1	19.4

"It is not surprising, therefore, that the application of a due proportion per acre of a good potash manure is attended by good results. The benefit to be derived from the use of potash has been grasped to a far greater extent by cultivators of the soil on the continent than in this country, as is shown by the following figures. The approximate quantities consumed per 100 acres of arable land in continental countries is:

	Pounds.
Holland	976
Germany	695
Belgium	436
Sweden	380
Britain	112
Russia	4

"These figures explain why small countries like Holland and Belgium can produce enormous quantities of market garden produce, not only sufficient for their own populations, but leaving quantities for export to our big cities.

"Some soils, notably heavy clays, contain naturally a good supply of potash, but under intensive cultivation the available supply is soon exhausted and the plant may be starving for potash. Mr. Berry, Professor of Chemistry, West of Scotland Agricultural College, says:

" 'Eighty per cent. or more of the constituents of soils are insoluble in strong acid, and it frequently happens that soils containing abundant supplies of potash and phosphates will not grow good crops without considerable application of soluble phosphatic and potassic manures.' Farmers can also be liberal in the use of potash, as it is not washed out of the soil, and if not utilized by the growing crop in one season, is stored up for the benefit of the following crop."

NEW BOOKS JUST ISSUED.

Weeds of the Farm and Garden.

This new and valuable book is by Prof. L. H. Pammel, Professor of Botany, Iowa State College, and Botanist of the Iowa Agricultural Experiment Station.

The loss caused by weeds amounts annually to hundreds of millions of dollars. The weed question, therefore, is both important and vital to every tiller of the soil. Until the appearance of this booklet, there has been available no modern, up-to-date, authoritative work on the subject. In bringing together the latest knowledge about weed eradication, Professor Pammel has performed a task that will be useful for all time to come. It is peculiarly fitting that this book come from this author. He is the master weed man of the country, and his book is the result of study, investigation and observation for nearly a lifetime.

The important weed problems are discussed from a broad viewpoint. The text matter has been arranged in pedagogical order, making the book useful for both high school and colleges. It is a book for every one who teaches flowers and practical botany, especially weed subjects. Then, too,, there are practical suggestions for the treatment of weeds. In this rspect alone the book is worth while. Moreover, it is a book for the practical man. If a weed trouble is present, turn to this book and get the suggestion for its correction. In a hundred ways the farmer, land owner, gardener and park superintendent will find the book helpful and authoritative.

The book is profusely illustrated, 5x7 inches, 300 pages. It is published at $1.50 per copy, nicely bound in cloth, by the Orange Judd Company, 315 Fourth Avenue, New York City.

The Bakers' Combination.

The principal bakeries of the country have organized a combination which is said to conform to the law, but is intended to be an active, perpetual monopoly in foodstuffs, and which is just as clearly against the law as if it was a combination to commit burglary or to burn down other people's bakeries.

In order to put the people of the cities to sleep and keep them quiet while the conspiracy is forming the announcement is made that under control of this "benevolent" monopoly with a capital of thirty million dollars the price of bread will probably be decreased, and they don't hesitate to say that the purpose of the combination is to buy flour or grain in such immense quantities as to obtain the lowest possible prices.

It is in all probability a combination to control the millers or to establish milling plants, thereby eliminating the miller from the business. Probably some of the millers are in it, but there is no telling. The secrets of such combinations are not told to the newspapers. It is also stated that the bakery combination has been approved by the Department of Justice at Washington, which cannot find in it the elements of a trust. This, however, we doubt, because it is positively intended to be a trust; is organizing for the purpose of controlling the price of wheat, the price of flour and the price of bread. If the law will permit it, this combination should be "nipped in the bud." The millers' organizations and the farmers' organizations should join together in action against this combination, and an injunction should be obtained, if possible, to prevent them doing business.

There ought to be a law to confiscate properties of the trusts which are found to be organized and conducted in defiance of the law. Some day that is what will happen, but it will be difficult to pass such a law under present circumstances.

If this government was satisfactorily organized and proper duties were assigned to the different United States Departments, the Department of Agriculture would be the first to resist the organization of monopolies in food products.

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

The Profit From the Farmer's Toil.

In the cities one hears a great deal about the great profits the farmers are making out of their business. The citizens say: "Of course they are making big profits; look at the prices we have to pay for everything grown on the farms." And the unsuspecting citizen goes to sleep unmindful of the existence of the ones that are really causing the high prices the consumer has to pay.

The farmers are really getting about the same prices they have been getting for a generation back for most of the stuff they produce. The writer has followed the market quotations for over twenty years and knows that this is a fact. To mention these prices is to invite criticism because continual changes are taking place. The market reports will show the proof of our assertion. Cattle, hogs and sheep have often been higher when the population was considerably less than it is now. Whenever the farmer receives less than a dollar a bushel for wheat, 50 cents a bushel for corn and 35 cents a bushel for oats, he is not doing much more than cashing his labor; and when he has to pay freight bills to market out of these figures he is simply farming because he has no other occupation.

Meanwhile the buyers, who are classed as consumers, have to limit the amount of country produce they can buy on account of the high prices they have to pay. In the localities in and around Chicago, in the retail markets, the purchaser pays five cents a head for a stalk of lettuce and thinks himself lucky if he can get three stalks for ten cents. But the farmers that own the truck farms around Chicago are getting no more for their produce than formerly.

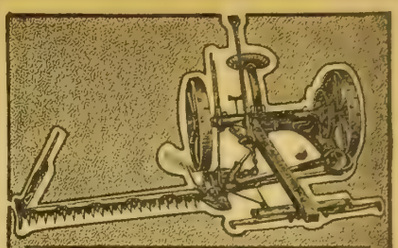
The other day the writer happened to be passing through Haymarket Square, Chicago, the one place in the city where the wagons of the truck farmers stand while they dispose of their loads. The price of lettuce was 15 cents a box. The writer bought a box and found it contained ten beautiful full stalks, which would certainly have retailed at five cents each, or 75 cents for the box. There was a profit of 400 per cent. from the producer to the consumer. He purchased ten bunches of radishes at a cent a bunch. These sell at five cents a bunch in many groceries and are peddled out from wagons of peddlers at two for five cents. But the consumer pays the grocer five times as much as the grocer pays the farmer.

Last year a truck raiser fifteen miles from Chicago fed his lettuce to his hogs because the grocers in Chicago would pay him but two cents a box for it. Yet the poor of Chicago could not afford to eat much lettuce because it was so dear. How long will the great consuming public on the one hand and the great producing public on the other hand stand this sort of thing? When will we be intelligent enough to do business with our eyes open instead of with our eyes shut?

The middleman is a necessity and should have a fair compensation for the services he renders the public; but just now he has worked into a position where he is able to absorb a large part of the revenue of the producing and consuming community.

The illustrations cited above are but a few of the many that might be given. The writer has made it his practice to buy both from the local grocer and from the great market mentioned and knows how far apart are the prices paid.

Education and organization are the only factors that can improve matters and secure to the farmers the returns that justly belong to them.



The DAIN Vertical Lift Mower

leads all others. It's easy on the horses, convenient to handle, and so strongly made that it will be doing duty years after other mowers have gone to the scrap heap.

Its **Compensating Gears** and **Cutter Bar Realigning Device** are successful examples of the wonderful inventive genius of Mr. Joseph Dain. The gears are so mounted in relation to each other that perfect balance and true mesh are permanently insured and the crank shaft is relieved of all end thrust, preventing lost motion, reducing draft and mutiplying cutting power. That is why the Dain Mower runs lightly and cuts where others fail.

Other points of superiority are: **Adjustable Draft Hitch; Automatic Clutch Shifter; Long Pitman and extra large Knife Head.**

The Vertical Lift is so handy to operate a boy can raise the cutter bar with ease. It is the only mower you can realign, yourself, right in the field with your wrench. This practical adjustment for maintaining the cutter bar in line with the pitman, means added efficiency and years of extra service.

The Dain is the mower that will give you complete satisfaction.

Consult the nearest Dain dealer; learn all about this greatest of all Mowers, and about the entire line of Dain Hay Tools, Loaders, Side Delivery Rakes, Stackers, Sweep Rakes, Presses; every one the best of its kind.

We make best hay tools because we've been specializing on them for over a quarter of a century.

Send for full particulars and a **free** copy of "*All About Hay*," the most complete and practical booklet on the subject every written. Write today. A postal card will do.

DAIN MFG. CO.
828 VINE STREET
OTTUMWA, - IOWA

THE UNIVERSAL MAGAZINE

Is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for twenty-five cents to pay for one-year's subscription to the Universal Magazine we will send a splendid prize packet of **FIFTY ELEGANT, ASSORTED POST CARDS,** or a packet of **FIFTY MASTER PAINTING POST CARDS,** or a packet of **FIFTY ROUND THE WORLD POST CARDS.** Make your selection of Post Cards. The paper is worth the money. The cards are worth twice the money. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

BE A SALESMAN

Earn While You Learn!

Trained Salesmen make from **$1,200.00 to $10,000.00 a year** and expenses. Hundreds of good positions now open. No former experience needed to get one of them. We will teach you to be a Salesman by mail in eight weeks and assist you to secure a position where you can earn a good salary while you are learning. Write today for free particulars about how to get one of the hundreds of good positions we now have open, also testimonial letters from hundreds of men we have recently placed in good positions. Address nearest office, Dept. 161.

National Salesmen's Training Ass'n.
Chicago, New York, Kansas City
New Orleans, Seattle, U.S.A.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales will be conducted by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL., As usual, during the season of 1911. The Third Sale will be held on

THURSDAY, JULY 13,

And every two weeks thereafter until the close of the season. The Fourth Sale will be held on

THURSDAY, JULY 27.

We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS. ILL.

Hog Market and Prices.

On June 30th, at St. Louis, the good to choice hogs averaging 230 to 300 pounds sold largely at $6.55 to $6.70 per 100 pounds; butcher hogs, 180 to 225 pounds, sold at $6.60 to $6.75, the top hogs weighing 204 pounds. Light hogs, 160 to 185 pounds of good quality, sold at $6.60 to $6.70. A lot of inferior pigs, culls and throw-outs sold at $5.00 to $6.25.

Horse and Mule Notes.

The purchase of the great little race mare, Penisa Maid, 2:04¼, for $25,000, by R. J. McKenzie, a prominent railroad man of Winnipeg, as a wedding present for his bride, is another indication of the fondness for the American trotter.

Emory H. Smith, horse breeder, who has sold his ranch in Texas, has a very fine black Hackney stallion, which he will sell at a bargain. The advertisement is on page 20.

Bargains in Feeding Sheep.

Clay, Robinson & Co. buy large numbers of stock ewes and feeding sheep for their customers. It is one of their specialties to be "strong" for sheep at all the markets. They now announce that this is a good time to stock up. Our readers are advised to keep close to the market reports of Clay, Robinson & Co. They do business at ten markets, as will be seen on page 13.

Hay Market Report.

Hay is selling so high that the commission firms are taking advantage of it to raise the commissions from 50 cents to 75 cents a ton. This is done by the Merchants' Exchange. The shipper is not consulted. At the close of the month of June the following represented the range of prices; Choice timothy, $25 to $25.50; No. 1, $22 to $24.50; No. 2, $18 to $21; clover mixed ranging in price from $12.50 to $21 for heavy stuff up to $22 for light mixed; new timothy ranging in price from $16 to $20.50; choice prairie, $20; No. 1, $18.50 to $20; No. 2, $15 to $18; choice alfalfa, $17.50; No. 1, $16 to $17; No. 2, $13 to $15 per ton.

Mutton Sheep Sales.

At the St. Louis National Stock Yards, during the closing week of June, mutton sheep sold at $3.35 to $3.50 per 100 pounds. Some choice young, good-quality ewes sold to go to the country for breeding purposes at $3.75. Mixed stock sheep sold at $2.00 to $3.00, while old, common cull ewes sold at $1.00 to $1.85. Bucks sold at $2.25 to $2.50 per 100 pounds.

Draft Horse Importation.

Trumans' Pioneer Stud Farm, of Bushnell, Ill., report as follows on June 28th: "Our fourth importation for 1911 arrived at Bushnell in first-class condition. The greater part of the shipment were two-year-old Percheron stallions, and I am satisfied that never at any one time have we had as many strictly high-class Percheron colts as this shipment contained. In addition to our importation that arrived last month, it makes us thirty-five extraordinary Percheron two, three and four-year-old stallions, quite a number of them being dark greys, the balance blacks. Included in the last importation were several horses purchased from the noted Bury studs. We have been enjoying a very fair summer trade in stallions. We had the pleasure of a visit from our old customer, C. L. Hardman, of Marion county, Iowa, and he took home with him an imported Hackney stallion, which will do much to improve the harness-horse industry of his section. We have also sold the following horses: To Harry Broadbent & Company, Henry county, Illinois, an imported three-year-old Shire stallion; an imported Percheron stallion to J. O. & Dick Hendricks, of Colorado; two imported Shire stallions and pair of imported Shire mares to Ed H. Magowan, of Buffalo county, Nebraska; to B. F. & C. E. Reed, Warren county, Iowa, an imported Shire stallion to head their herd of pure-bred Shire mares; to Stratton Percheron Horse Company, Colorado, an imported Percheron stallion; to Peter Hansen & Company, South Dakota, an imported Shire stallion; to C. Julius Fritz, Colorado, an American-bred Percheron stallion; to our old customer, M. P. McKeown, of Muscatine county, Iowa, an imported Shire stallion; to G. W. Davis & Company, Colorado, an American-bred Percheron stallion. We have a few very choice two-year-old Percheron fillies and an extraordinary lot of first-class imported Shire mares for sale."

The St. Louis Mule Trade.

The following is an extract from a recent circular by Holland, Nugent & Maxwell Bros. at the St. Louis National Stock Yards; "The mule trade is about the same as it has been the past two months. Good miners are selling well. Draft mules of quality are selling all right. Some demand for pit mules. The other classes are not wanted and are hard to sell at prices that will do the shippers any good. We look for fair trade right along all summer."

Increase in Horse Business.

Mr. T. H. Holland, head of the firm of Holland, Nugent & Maxwell Bros., horse and mule commission salesmen, said: "I wish you would make a note of the wonderful growth of the horse and mule market at the St. Louis National Stock Yards. Here we have received 93,363 head in six months, an increase of 34,618 head over the same period last year. We sell these horses very well indeed, and it is done quickly. The horses are handled at the least cost in commissions, yardage, feed, freight bills, etc. This is the natural accumulating and distributing center. We never had more horses than we handled comfortably, and the mule buyers naturally concentrate here to fill their contracts." Holland, Nugent & Maxwell Bros. hold auctions every Monday and Tuesday at the National Stock Yards.

A First-class Commission House.

In consigning live stock for sale at the St. Louis National Stock Yards, remember the Evans-Montague Live Stock Commission Company. It is a successful firm, highly competent and persevering in the interest of their customers. The Evans-Montague Commission Company solicit consignments of cattle, hogs and sheep for sale on the market, and desire stockmen to take notice that the company has special buyers who select and buy stock and feeding cattle for their customers. Colonel James H. Campbell, the veteran and renowned cattle salesman, has recently joined this house as Vice-President, in charge of the cattle department. His presence adds strength to the organization. Stockmen requiring market information should address Evans-Montague Commission Company, Box 68, National Stock Yards, Ill.

Western Range Horses.

The auction sales of Western range horses at the St. Louis National Stock Yards continue as advertised. Two have been held, and the July sales on the 13th and 27th are advertised. Campbell & Reid and the Western Sale Stables Company holding these auctions are to be congratulated upon bringing the Western range horseman and the domestic state farmer in close communication. They used to sell all the horses in car-loads, but now the best of them are sold in pairs. We cannot quote all the sales, but give a few: Twenty-one horses went to Kentucky at $115 per head; twenty-two horses to Tennessee at $55 per head; twenty-seven horses to Southern Illinois at $46 per head; twenty-eight to Tennessee at $65 per head; eighteen horses to Tennessee at $71 per head; two bay mares for $290; two brown mares for $225; two bay mares for $395; one bay mare in foal, $125; six yearlings to North Carolina at $36 each; ten horses to Kentucky, $90 per head; nineteen yearlings to Illinois, $52 each. These are sample sales. Anyone desiring further information should address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Clay, Robinson & Co.'s St. Louis Record.

One of the most remarkable records of modern business achievement is the success of Clay, Robinson & Co at the St. Louis live stock market. Clay, Robinson & Co. are salesmen and buyers of cattle, hogs and sheep in the interest of their customers. They are well established at ten different markets. This firm entered the St. Louis market a little over two years ago and started at the bottom of the list of commission firms. Since then, although the list is a long one, they have now reached the second place in the volume of business done. The St. Louis market is famous for active, reliable, skillful live stock commission firms, and Clay, Robinson & Co.'s record is all the more remarkable for that reason. See page 13 of this paper.

Homeseekers' Land Books Free.

The Union Pacific Railroad Company has gone deeply into land investigations. This is for the purpose of giving the homeseeker correct information. Each farmer has his preference, and the railroad people try to advise the individual to go where he will have the best chance to prosper according to the special ability he may have. To get started right, to save you time and money, write to Homeseekers' Information Bureau, 791 Bee Building, Omaha, Neb., and state what you have done and what you wish to do in a new country.

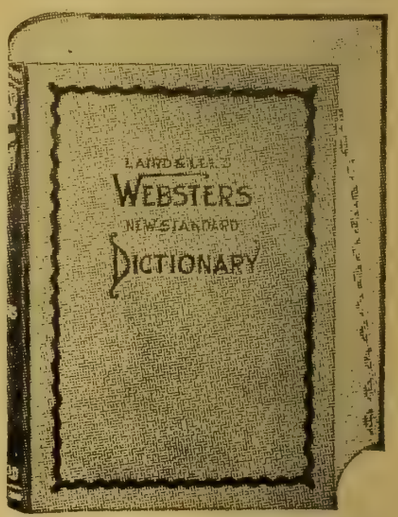
Whitman's Hay Press.

Attention is invited to the Whitman Hay Presses advertised on page 2. These presses are in use in every country of the world and have undergone constant improvement since the first presses were first put on the market forty years ago. For illustrated catalogue address Whitman Agricultural Co., 6901 South Broadway, St. Louis, Mo.

WEBSTER'S DICTIONARY.

The Most Compact, Useful, Handy Book Ever Issued by the American Press.

This is Laird & Lee's Webster's New Standard Dictionary, of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography,



geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with converson tables; weighs twenty-eight ounces. Our offer to you: Send us One Dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Lamb Sales at St. Louis.

During the last week in June, on the St. Louis market, the best lambs, averaging 68 to 70 pounds, sold at $7.60 per 100 pounds. A good many sales were made at $7.00 to $7.40. Some loads of 62 to 69-pound lambs classed as Southwest sold at $6.25 to $7.25 per 100 pounds. Culls and common lambs sold largely at $3.50 to $4.50 per 100 pounds.

Evans-Montague Commission Company

THE MEASURE OF SUCCESS attained by a SHIPPER OF LIVE STOCK depends largely upon THE COMMISSION HOUSE to which he consigns his CATTLE, HOGS AND SHEEP.

If you wish to receive TRUSTWORTHY AND RELIABLE SERVICE, and have your consignments SOLD BY CAPABLE AND CONSCIENTIOUS SALESMEN, you cannot do better THAN PATRONIZE OUR HOUSE.

The Shippers' Interests ARE OUR INTERESTS, and our rapidly-increasing business IS THE STRONGEST TESTIMONIAL of our ability TO PLEASE OUR CUSTOMERS.

Evans-Montague Commission Company

P. O. Box 68,
NATIONAL STOCK YARDS, ILL.

Missouri Wheat, July 1, 1911.

The wheat harvest is remarkably early, 96 per cent. of the harvest having been completed, with more than half of the correspondents reporting threshing well under way. Ninety-seven per cent. of the 1,881,000 acres seeded last fall will be harvested, as compared with 86.1 last year. The preliminary estimate on yield is 14.8 bushels per acre; last year, 13.2. Quality of new crop is placed at 91. Straw is fine and is being saved for feed. Much will be baled.

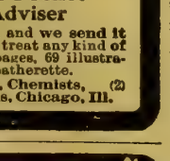
The Blue Grass Fair on August 7th opens the Fair season at Lexington, Ky.

VETERINARY INSTRUMENTS (Trocars, Hopples, Impregnators) for Horses, Cattle, Swine, Poultry, Etc. Received Only Award World's Fairs, Chicago, St.Louis. Write for Illustrated Catalogue.
HAUSSMANN & DUNN CO., 708 So. Clark St., Chicago.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use
Fleming's Spavin and Ringbone Paste
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Not used on splint, curb or soft bunches. Write for
Fleming's Vest-Pocket Veterinary Adviser
Best book on blemishes, and we send it free. Read it before you treat any kind of lameness in horses. 192 pages, 69 illustrations, durably bound in leatherette.
FLEMING BROS., Chemists, (2)
218 Union Stock Yards, Chicago, Ill.

KENDALL'S SPAVIN CURE



—has saved thousands of dollars and thousands of horses. The old reliable cure for Spavin, Ringbone, Splint or any lameness. For sale at all druggists. Price $1 per bottle, 6 for $5. "Treatise on the Horse" free at druggists or write to Dr. B. J. KENDALL COMPANY, Enosburg Falls, Vt., U. S. A. 5

The Cost of Horse Labor.

The tradition that "it doesn't cost anything to keep a horse, when you live on a farm," is rudely shattered in Bulletin No. 15, by Prof. Thomas P. Cooper, just issued by the College of Agriculture, St. Paul, Minn. The writer shows that, taking into account only such items as a city business man would consider in keeping a debit and credit account with a horse, every such animal really does cost the farmer a round sum for his keep.

First, there is the interest on the purchase price or selling value of the horse. Putting the rate at 6 per cent. and the value at only $150, the interest comes to $9.00.

Next, we must consider that the average working life of a horse does not exceed ten or twelve years; therefore at least one-twelfth of his value must be annually charged to depreciation. There goes another $12.50 on the $150 horse; and if the animal is worth $300, the depreciation cost is doubled.

The average duration of a frame barn, according to underwriters' tables, is forty years, and the capital per head, invested in such structures, may be said to average $60. Divide this by forty, and we have $1.50 as depreciation and $3.00 as interest, making the cost of shelter for a horse, per year, $4.50.

The items of use and depreciation of harness, shoeing and miscellaneous expenses add an average of at least $2.87 annually, and bring the total cost on the $150 animal up to $28.87, without any reference to the cost of feed and labor expended in caring for the horse. The farm value of the feed, based on accounts with 100 horses kept in different parts of Minnesota, averages $54.84 per horse; the value of labor spent in caring for them, $15.25 per horse. These items bring the aggregate average cost of keeping a $150 horse in Minnesota, for one year, up to $98.96. Mr. Cooper's tables, however, are based on an average valuation of considerably less that $150 per horse, and omit any allowance for the cost of barn room or shelter; hence, they make the cost of maintenance only about $85 per year.

Even at this lower figure, however, it will be seen that, with say four horses on the farm, the expense entailed reaches the very respectable sum of $340 a year. As the work horse on the average farm actually works only about 1,000 hours in a year, it is seen that the cost of horse labor, with the low-priced animals used as the basis of Mr. Cooper's figures, is 85 cents per day of ten hours.

A variety of suggestions are made, looking to a reduction of this heavy drain upon the farmer's resources. These include: (1) The use of more brood mares on the farm; (2) A better distribution of horse labor throughout the year by diversified farming; (3) Reducing the number of work horses on the farm; (4) More economical methods of feeding; (5) The use, on small farms, of machinery requiring less horse power. Among these methods, the substitution of brood mares for the geldings most commonly employed will commend itself as the most desirable. It is demonstrated that mares in foal can, with care, be worked ten months in the year, not only without injury, but with advantage to both mare and foal. The three and four-year-old colts can be used, for much of the work, in the place of the aged horses now driven. And finally, the sale of colts will more than pay for the keep of the mares.

Best Price For Yearling Cattle.

At Chicago, on June 26th, Clay, Robinson & Co. sold for S. C. Wolf, of Craig, Neb., thirty-two head of Shorthorn yearlings, fourteen of which were heifers, 841 pounds average, that sold for $6.50 per 100 pounds, the best price for yearling cattle on that day.

Dakota Cattle at Chicago.

Mr. J. E. Babcock, a well-known breeder, feeder and farmer of Avon, S. D., was on the Chicago market Friday, June 23d, with forty-four Shorthorn and Angus cattle of his own raising and feeding, all of which were handled by Clay, Robinson & Co.. Included were eighteen steers, mostly horned, which tipped the beam at 1,210 pounds and sold at $6.60, or 35 cents per 100 pounds higher than any other firm obtained that day. In spite of it being Friday, the sale was within 10 cents per 100 pounds of being as high as made on this market since April. There were also twenty-six yearling heifers and steers mixed which averaged 850 pounds and went at $6.40, or 15 cents per 100 pounds higher than any cattle handled by any other firm made.

Missouri Corn Prospect.

On July 1st, the Missouri Crop Report said:

"To-day Missouri stands to make or lose one of the best corn crops in her history. With plenty of rain from now on, an immense yield is assured, fields being free from weeds and well worked. But with continued dry weather during July there will be no pyrotechnical performances (to use a Fourth of July phrase) except that the August report will show that corn condition has fallen like a sky-rocket stick. Condition of corn is now 83.6; one month ago, 85.6; one year ago, when there was still some corn to plant, owing to the wet June, 75.9; ten-year average, 82.5. A favorable early spring, coupled with persistent and proper cultivation, has almost enabled corn to hold its own up to this time. The acreage planted is 3.6 per cent. short, as compared with last year's crop, but the tand is much better."

The Unhappy Calf.

"The prodigal son" was the subject of the Sunday school lesson, and the teacher was dwelling on the character of the elder brother.

"But amidst all the rejoicing," said the teacher, "there was one to whom the preparation of the feast brought no joy, to whom the prodigal's return gave no happiness, only bitterness; one who did not approve of the feast and had no wish to attend it. Now, who can tell me who this was?"

Silence for several moments; then a hand raised and a small, sympathetic voice:

"Please, ma'am, it was the fatted calf."—Exchange.

THE BOARD OF TRADE REPORT.

Snow's report for July 1 shows an increase of 500,000 acres in the corn area, the increase being mainly in Iowa and the Northwest. The condition is reported at 82.4, against 83.1 last year, and with the exception of 1903 is the lowest July average reported in ten years. Hot, dry weather has greatly damaged the crop in the extreme Southwest, and is injuring it in the lower Missouri Valley. In Iowa, Nebraska, and east of the Mississippi river, conditions are high, but in the Western district the crop is under a severe strain at the beginning of the month. Conditions in important states are: Texas, 40; Oklahoma, 47; Kansas, 76; Missouri, 83; Nebraska, 89; Iowa, 97; Illinois, 87; Indiana, 87; Ohio, 87; Kentucky, 88; Tennessee, 90; South Dakota, 87. Present conditions maintained until harvest would warrant a crop expectation of 2,950,000,000 bushels. Snow estimates the crop at 2,920,000,000 bushels.

Mr. M. F. Horine, statistician for the Chicago Union Stock Yards, states that the Western supply of fat cattle is about exhausted.

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,
HOLLAND, NUGENT & MAXWELL BROTHERS,
P. O., National Stock Yards, Ill.

Congress adjourned over the Fourth of July, and if Congress would now adjourn over Christmas it would be a relief. Congress and the drouth in session at the same time is too much for the farmer.

Somewhere about July 15th, or later, we may look for a vote in the Senate upon the alleged reciprocity treaty.

Don't Have a Blind One

"VISIO"

An Absolute Cure for Moon Blindness
(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be removed with
ABSORBINE
also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. $2 per bottle, delivered. Book 3 E free.
ABSORBINE, JR., liniment for mankind. Reduces Goitre, Tumors, Wens, Painful, Knotted Varicose Veins, Ulcers. $1.00 and $2.00 a bottle at dealers or delivered. Book with testimonials free.
W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Bickmore's Gall Cure

Harness and Saddle Galls
Great hot weather remedy for galls, sore shoulders, wire cuts, sores. A healing, curing salve in use 18 years; standard remedy with horsemen. *Cures while horse works.* Sold by dealers; money back if it fails. Send 5c (for postage and packing) and get sample and 84-page valuable horse book.
Bickmore Gall Cure Company
Box 482 Old Town, Maine

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Some Poultry Experiences.

The raising of poultry may be considered a side issue on most farms, but there is a world of things that we have to learn about it. Even some of the oldest experimenters along poultry lines are constantly finding new phases of the subject.

A friend of the writer recently remarked to him that he had found a trick to turn on the sitting hen. He had one that had set for two weeks on some china eggs. Then he went to a hatchery and bought a dozen chickens cheap. He put them under the hen at night and in the morning she was clucking with delight at her new brood. He had saved the price of the eggs he would have set and the losses that would have come from some of the eggs being broken or being infertile. So he got a good start with twelve live chicks.

A few weeks later he said he had worked the same trick on another hen that had sat but a week; he said the hen looked puzzled but had finally decided to quit the nest after he had removed the fake eggs.

A few days ago he said the trick would not work under all cases. He had just had a sad experience. He had put the china eggs under a hen and had allowed her to sit for two days. Then he had gone out at night and pulled out from under her the eggs, and had put a brood of live chicks in their place. Then he returned to the house and went to bed. He was out again early in the morning and visited the newly-set hen. He found her in a belligerent mood and fighting mad. She was busily engaged in slaughtering the brood of chickens he had given her the night before. She was still sitting on the nest, but every time a chicken head appeared from under her feathers she struck it. She had already killed seven of the brood. He removed the other five chicks and broke up the nest. He said the hen knew she had not been sitting long enough to hatch the chickens and was settled on the fact that the chicks were invaders of her domicile.

The man would have done well to be satisfied with the good thing he had found. But he wanted to cheat the hen out of the pleasure of sitting for her brood.

Sitting hens vary enormously in their habits and usefulness. Some seem intelligent and some do not. The writer has just had experience with one of the unintelligent kind. She succeeded in ruining her entire setting of eggs. They were chilled at various stages, and every egg when broken had a dead chick in some stage of development. She was a very light hen, but broke five of the eggs in her nest by jumping in on them. Unlike most sitting hens, she came off about every day and stayed off an unreasonably long time. This resulted in the chilling of the eggs and the killing of the embryonic chicks. Some will say lice were the cause, but that is a mistake, as there are no lice on the hens or in the pens. Other hens of the same flock have brought off good broods of chicks.

The writer once had a heavy hen that smashed every egg put under her, yet had a settled determination to sit. She finally died after having persisted in her determination for over five weeks, though every effort was made to break her up.

Hens that prove successful sitters and good mothers should be marked so they can be used in subsequent years, in preference to the hens that prove themselves unsuitable to the hatching and raising of chickens.

Cold Storage of Eggs.

Cold-storage facilities for eggs have been taxed to the utmost in the East. There is a time when farmers do not estimate the value of cold storage, but it is not when the cold-storage houses are being filled up. In New York City, in the month of May, 847,759 cases of eggs were on the market, and the best Western eggs sold largely for immediate consumption at 16 to 19 cents a dozen; but the market was overstocked and the fresh-egg trade could not handle more than half of them. About 433,759 cases of eggs were all that the New York trade could handle or the people consume at any price during the whole month of May, and if the cold-storage speculators had not stepped in, bought and stored 414,000 cases at a cost averaging 13 to 15 cents a dozen, several hundred thousand cases of eggs would have failed to sell for enough to pay freight bills. Nearly all the excessive supply of eggs on sale would have been dumped at ruinous figures. Notwithstanding the storage buyers were helping the market, daily and hourly, the week ending June 6th saw many cases practically unsalable.

The eggs were affected by the heat and would have deteriorated rapidly but the pure air of the refrigerator chamber soon checked all possible deterioration, and when the eggs come out again to be sold, the market may not be oversupplied and the eggs may cost the buyers a cent or two a dozen over cost and carriage, but then again they may not, for profits are not guaranteed to speculators. But when these egg speculators try to get a profit on the eggs they will most likely be regarded as malefactors and very likely laws will be passed to injure the sale of their eggs.

Our sympathy does not extend very far towards the speculator, but we do believe that refrigeration is one of the greatest blessings derived from modern invention. Cold storage prevents extreme demoralization in advancing or declining markets; but it never injured an egg, let alone a human being. A government that has to be reasonable with the tobacco trust should certainly be reasonable in the matter of cold storage.

Chickens on Range Yield Greater Profit.

"The average farmer who keeps a few hens makes a decided mistake during the summer time in yarding his chickens too close to the farm buildings, instead of letting them run free on the range," says Prof. J. G. Halpin, head of the Poultry Department of the College of Agriculture of the University of Wisconsin. "The objections to yarding the flock on a limited area are that the ground becomes contaminated and diseased from the accumulation of the droppings, and also on account of the great scarcity of insect life near the buildings. Practical experiments have proved that the expense for feed bills may be reduced fully 50 per cent. where the chickens are allowed free access to the range, rather than being yarded.

"On the range, especially where the soil has been cultivated and is free from disease, where there is plenty of insect life and succulent feed, the flock will prosper. Many farmers have small special yards in which they raise chickens year after year. The ground is never plowed; in time it becomes contaminated and may result in the infection of the entire flock with some bacterial disease. Although the small yard is advisable for young chicks, as soon as they attain some size they should be moved out onto the open range; their yard should be plowed and sowed to some crop, such as buckwheat, in order that any possibility of the soil becoming contaminated may be controlled. The preferable time to move the flock out to the range is during late May and early June.

"Another important principle to observe in the care of the farm flock," continued Prof. Halpin, "is to protect late-hatched chickens from extremely strong sunlight. The hen and the chicks or the brooder should be placed in the shade of a tree or else some artificial shade should be provided. An old door fastened upon four stakes two feet above the ground on the north side and one foot high on the south, affords an inexpensive protection for the young chicks from the extreme heat. If desired, a heavy cloth or some old canvas can be tacked on the stakes in the place of the door. The main thing is to control the large losses of late-hatched chickens resulting from exposure to extreme sunlight."

Poultry Notes.

During the Hebrew holiday, "the Feast of Weeks," fat poultry is in great demand. At that time New York City was selling live poultry at 14½ cents for hens, 30 cents for broilers, 9 cents for roosters, and 14 cents for turkeys.

During the month of May the egg receipts in New York City were 847,750 cases, the largest number ever received, and in three months 2,260,070 cases arrived, which is also the largest three-month supply recorded.

I Guarantee to Cure

ECZEMA

TO STAY CURED!

It is also called SALT RHEUM, SCALD HEAD, TETTER, ITCH, WEEPING SKIN, MILK CRUST, PRURITUS—these are different names, but all mean one thing—ECZEMA.

DR. J. E. CANNADAY, THE DOCTOR WHO TREATS NOTHING BUT ECZEMA.

I prove every word that I have said—I give to every sufferer

A FREE TRIAL

Just to show you that you need my treatment. It is yours for the asking. If you have been to other Doctors, if you have taken patent medicine, and used lotions and salves till you are disgusted, write to me—I will send you ABSOLUTELY FREE OF CHARGE, A TRIAL TREATMENT. There are no strings to this statement. There is not one cent to pay—not a penny accepted. I know what my trial treatment will do; I know that it will convince you more than anything else on earth that you need my treatment.

Don't Miss This Chance for a Cure

If you are SUFFERING FROM ECZEMA you can only be cured one way—REMOVE THE CAUSE. What is the cause? ACID IN THE BLOOD. How do you remove it? By cleansing the blood of the ACID.

My treatment is soothing—relieves the dreadful itching at once and cures the disease quickly. You don't have to take treatment for months and months. ONLY ONE CASE IN TEN needs the second treatment—ONE IN FIFTY needs the third—think of that!

What Eczema Is

Eczema is a disease of the blood and affects all parts of the body—the face, lips, ears, hands, feet, genital organ, etc.

SYMPTOMS.—Yellowish red eruption; the pimples or patches may swell and the itching is so great the person will scratch the top off, then they bleed and dark scales form; there is an oozing of matter. In some the skin cracks and bleeds. Itching is terrible; a person suffering will scratch till they bleed. Scales form on parts of the body, where the clothing comes in contact.

Ten Years Guarantee

I positively Guarantee that every case cured by me will stay cured 10 YEARS! It must be good or it could not be sold this way.

Strong as Rock of Gibraltar

I am a graduate from two leading medical schools. I am the holder of a GOLD MEDAL taken in Competitive Examination. Does this not show that I am fully qualified? I will send you my book, showing endorsements of business men of all classes. Also testimonials and pictures from cured patients everywhere. Some of them may be YOUR NEIGHBORS.

MY BOOK

Is the most complete book ever sent out. I explain every form of the disease plainly and fully. I show pictures of many severe cases, which are extremely interesting. I send you names of thousands who have been cured and are grateful.

DR. J. E. CANNADAY
969 Park Square,
Sedalia, Mo.

Reliable Beyond Question

This is a statement from the bank of my home town, where I have done business for years.

THE CITIZENS' NATIONAL BANK OF SEDALIA
SEDALIA, MO.

February 11th, 1908.

TO WHOM IT MAY CONCERN:

This certifies that Dr. Cannaday's patients, from all over the United States, have been placing their money in this bank while they tried his treatment on eczema. In all this time we have been called upon but five times to return the patients money.

One died before the treatment was shipped; two did not get the treatment as it was lost in transit; one paid cash for the treatment three days later after getting her money; and one was not satisfied.

Citizens Nat. Bank
R. F. Harris
Asst. Cash.

FREE OFFER—CUT HERE

Dr. J. E. Cannaday,
969 Park Square
Sedalia, - Mo.:

Please send without cost to me prepaid Free trial treatment, also copy of your Free Book.

Name.....

Address.....

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Treatment and literature sent in plain wrapper.

Sheep in Missouri.

During the debate on the wool tariff, Hon. D. C. Dyer, of Missouri, brought forth the new census figures on Missouri sheep which had not previously been published. The figures for the year 1910 show that 44,010 Missouri farms reported sheep and lambs, against 38,013 in 1909. The total number of sheep and lambs reported in 1910 was 1,808,038, compared with 1,087,213 ten years previous, an increase of nearly 80 per cent. The number of wool-producing sheep raised in 1910 was 1,114,216, against 663,703 in 1900.

Treatment of Diarrhoea in Fowls.

[By B. F. Kaupp, Pathologist, Colorado Agricultural College, Fort Collins.]

The Veterinary Section of the Colorado Agricultural Experiment Station has been experimenting with different remedial agents with the view of finding some drug that would, at least, curtail the enormous loss among barn-yard fowls from the various forms of diarrhoea.

Space will permit the discussion of only one agent. The one that has thus far given us the best results is the sulpho-carbolates compound, prepared by The Abbott Alkaloidal Co., of Chicago.

One flock consisted of sixty birds. Several were sick at the time treatment commenced and four had died. The discharge from the bowels was of a greenish-yellow color, somewhat simulating fowl cholera. One thirty-grain tablet was dissolved in a quart of water and this fluid mixed with bran and corn chop. The mixture was then fed in clean troughs. In this way each bird got approximately one-half grain. This was repeated night and morning. No additional birds became sick, only two of those sick died, and the rest recovered.

Another flock consisted of 175 baby chicks. As soon as these birds were taken from the incubator they were fed the unhatched eggs that had been cooked and chopped. This mixture was reported to possess an offensive odor. The birds began dying with symptoms of diarrhoea, white pasty vent, weak, dull, droopy wings, etc. One-half the flock died before treatment was begun. One-half tablet was dissolved in warm water and the bread saturated with it. The birds immediately quit dying.

Still another flock consisted of 200 birds, including a few turkeys. Cholera had appeared on the premises the fall before. The outbreak was studied in the field and laboratory. The germ (B. Avicepticus) was isolated. In the last outbreak fourteen birds had died and several were sick. Similar treatment was used as in the above flocks, except that powder was used instead of the compressed tablets. One tablespoon, rounding full, was dissolved in each two gallons of water. This water was kept constantly before them. No more birds were taken sick and no more died after the sixth day.

The above is a good illustration of three types of diarrhoea in which we have found this drug by far the best agent tried.

The poultry people will probably be able to secure this drug through their local veterinarian or druggist. We have not investigated the commercial side of it.

From Nashua, N. H., on June 3d, it was reported that five cows were killed by lightning on the farm of Mrs. Della Whipple, on the Lowell road, known as the Highland Farm. The cattle gathered under a tree when the shower came and after the flash of lightning it was found that all five were dead.

Extraordinary Announcement: THE BOOK OF LIVE STOCK CHAMPIONS. EDITION OF 1911.

To Contain True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS

Winners in the Annual Live Stock Contests at State and National Fairs and Expositions.

THIS is the Fourth Edition of the most valuable book ever published in the interest of high-class stock raising.

The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Every breed of hogs, sheep and goats will be represented by the best in every breed.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

ISSUED AS A SOUVENIR SUPPLEMENT.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special Inducements to Paid-in-Advance Subscribers---To Old Friends and Patrons.

It is worth something for a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer. After publication the cloth-bound copies will cost Two Dollars a copy without the subscription.

HERE IS A SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1911, immediately after publication.

Name.....

Address.....

My occupation is.....

Write to Your Senator.

The bill providing for the bogus reciprocity treaty with Canada has not yet passed the United States Senate, and at this writing, on July 1st, a date has not been set for a vote. There is no telling now how it will be decided, and, as we stated three months ago, the bill may be passed or rejected by one vote. If it was a true reciprocal measure, admitting our goods into Canada duty free and admitting Canadian goods into this country duty free, just the same as Iowa, Illinois and Wisconsin interchange goods without a custom house between them, we would have but little objection; but this proposed treaty is a surrender of the protection due the farmer and retains the protection heretofore existing in other classes. We believe this country thrives best under a protective tariff system applied to all interests, and we do not believe in applying the protective system wrongfully to the disadvantage of the farming people.

All our Senators can be addressed care of United States Senate, Washington, D. C. They are all willing to read letters from their constituents and especially from farmers at this time. Until the bill is passed there is reasonable hope to defeat it. Every farmer has a voice in this matter, and if he fails to use it and the bill passes, he will have no one to blame but himself. There are two Senators from each state; therefore each farmer has two letters to write. Just write freely and frankly that you are opposed to the bill because it will serve no good purpose and is distinctly injurious to the farmer. If you have studied the subject and have arrived at any other conclusion, write and say so. This is the first time that the entire agricultural interest has been brought into politics, and if farmers do not exert themselves they will be considered a lot of dummies, and many laws will be passed against their interest. The time to act is before it is too late.

THE SENATE.

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Hon. John D. Works, of California.

Important to Poland-China Breeders.

Notice is given that a meeting of the stockholders of the Standard Poland-China Record Association will be held at the Court House in the city of Maryville, in Nodaway county, Missouri, on Wednesday, August 23d, 1911, at 9 o'clock a. m., for the purpose of voting on the proposition then and there to be submitted to increase the capital stock of said association from ten thousand dollars, its present authorized capital, to thirty thousand dollars, said increased capital to be divided into 2,000 shares of the par value of ten dollars each. The notice is signed by W. O. Garrett, J. R. Roberts, S. McKelvie, J. O. James and C. E. Tennent, Directors. Mr. Geo. F. Woodworth is Secretary of the association, with headquarters at Maryville, Mo. The new stock is required to strengthen the association by adding new members.

Are You Nervous?

Nervousness is often merely a sign of physical weakness, an indication that the body is out of Tone. Bodi-Tone, which is offered on trial to every reader, has proven of immense value in nervous exhaustion, tired nerves, jangling nerves and shattered nerves, because its action in toning the body is just what is needed in the big majority of these cases. See trial offer on last page.

Sales of Fine Cattle.

During the last week in June, at the St. Louis National Stock Yards, a full load of native-beef steers, 1,550 pounds average, fed by R. G. Howard, of Moniteau county, sold at $6.50 per 100 pounds; and on the same day a load of yearlings from Chariton county, 924 pounds average, sold at $6.40 per 100 pounds. They were fed by J. F. Thomas.

Blooded Stock Notes.

Messrs. C. J. Smith & Sons, of Greenville, Ill., breeders of pure-bred Shropshire sheep, are offering fine buck lambs for sale. They have a splendid flock, and their lambs give perfect satisfaction.

Alvey Bros., of Meriden, Kansas, are again advertising O. I. C. pigs. The prices are quite reasonable, considering they have always had a prize-winning herd. See page 20.

Mr. L. P. Sisson, Secretary of the American Devon Cattle Club, announces the removal of his office from Newark, Ohio, to Harvey, Ill. The Devon Cattle Club is in a prosperous condition, although the breed is not creating much of a disturbance.

Bellows Bros., of Maryville, Mo., sold forty-eight head of Shorthorn cattle at auction on June 13th, and the average of forty-eight head was $237.50. The fifteen bulls averaged $242.65, and thirty-three females $235.15. The top price for a bull was $525, and for a cow $610.

LIVE STOCK BREEDERS' CARDS.

SPLENDID POLAND-CHINA SWINE.

Come and see our great herd for yourself. We can show you Sows with litters that will wake you up to your interest. Come and see us or write.
KIRBY STOCK FARM, Marmaduke, Ark.

BLUE RIBBON HERD POLAND-CHINA HOGS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and their breeding is of the best. Write me for catalogue and description.

JOHN McLAUGHLIN, R. F. D. No. 1, Marmaduke, Ark.

CARPENTER'S BIG QUALITY KIND OF POLAND-CHINAS. Let me book your order for a big-type quality Pig to be shipped at weaning time. My Pigs are sired by four of the greatest Boars in the United States, and my Sows are the rich, mellow type, the best that money can buy.
WILDER CARPENTER, Grandview Breeding Farm, Marmaduke, Ark.

TRUMANS' PIONEER STUD FARM, America's Largest and Oldest,

Importers of
SHIRE, PERCHERON and HACKNEY STALLIONS.
Write for Catalogue.
Address,
J. G. TRUMAN, Manager, BUSHNELL, ILL.

BEST STRAINS OF POLAND-CHINAS.

Orders booked now for Pigs of July and August farrow. Ship at weaning time from $10.00 to $25.00. Write for particulars and circular.
D. F. BEAUCHAMP, Meredosia, Ill.

ELMER GIMLIN, Taylorville, Ill., White Wyandotte Specialist. Exclusive business. Duston strain. Stock, $2 each; 15 eggs, $1; $3 per 50; $5 per 100. Catalogue free.

HAMPSHIRE PIGS, eight to ten weeks old. Buff Plymouth Rock Eggs for hatching. We pay express on Eggs.
J. A. ROADRUCK, R. F. D. 19, Colburn, Ind.

PURE-BRED SHROPSHIRE SHEEP of good quality. First-class. Used to head flock. Good bone and well wooled. Ram now in use was imported from England.

Have some very fine lambs by him that have the size and are the kind to get some good stuff at the right price.
C. J. SMITH & SONS, Route 4, Greenville, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.
WILLARD MILLER, R. F. D. 2, Anita, Iowa.

FIRST-CLASS CHESTER SWINE FOR SALE: 100 August and September Pigs. We ship nothing but choice O.I.C. Pigs. Let us book your order. We can also spare a few March Pigs.

ALVEY BROS., Meriden, Kansas.

PURE-BRED REGISTERED ANGORA GOATS
Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.
R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at four State Fairs in 1909. Only made two exhibits in 1910, winning thirty-eight ribbons. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds.
CHAS. FORD, Mortonsville, Woodford County, Kentucky.

100 Head of Pedigreed **DUROC RED SPRING PIGS** at $8.00 a head.
CHAS. DORR, Osage City, Kansas.

Tamworths The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.
W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.

THE COOK FARMS JACKS AND STALLIONS.

Last Call For the Cook Farms Sale.

As we have decided to show no Jacks in 1911, we are offering our entire herd of Show Jacks. Included in the lot are yearlings, two and three-year-olds and a few aged Jacks, the best that we have ever had on our farms. These Jacks have never been offered for sale this season, and they are by far the best that you can find in the country. We have a few splendid Saddle and Harness Stallions that we are offering at Gelding prices. Come to the Cook Farms, Lexington, Kentucky, and we will please you in a Jack, Stallion and the price. You will find the best assortment in both Jacks and Stallions to be found at any barn at this time of the year.

J. F. COOK & CO., Lexington, Kentucky.

SUNSET JERSEY CATTLE HERD.

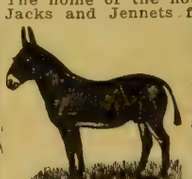
Three extra fancy registered Bull Calves for sale, out of three of the best Cows in my herd, and sired by Blue Belle's Golden Roseboy, 85,230, one of the greatest Bulls of the breed and half brother to Noble of Oaklands, just sold for $15,000.00. Write for price, breeding, etc. Satisfaction guaranteed.
ALBERT S. ENNIS, 712-21 Central National Bank Bldg., St. Louis.

MISSOURI TAMWORTHS.

Bred Gilts, also Boars, ready for service; all from mammoth parents. **W. J. White,** R. F. D. 1, Butler, Mo.

MILL CREEK STOCK FARM,

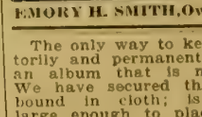
The home of the noted Starlight family of Jacks and Jennets for the past thirty-five years, is located seven miles southeast of Nashville, Tenn., on the N. C. & St. L. R. R., at Asylum Station, and has on hand at all times a nice lot of Jacks and Jennets, all of the best blood, from six months to six years old, for sale at reasonable prices. Write for catalogue. Also Jersey Cattle.



THOS. H. EZELL, Prop.,
(son and successor to the late H. C. Ezell),
Nashville, Tenn., Sta. B. R. F. D. No. 7.

FOR SALE AT HALF PRICE

A very fine imported Hackney Stallion; best of formation and disposition; seven years old; has very fine colts; color black without a blemish. Have sold ranch and am out of business.



EMORY H. SMITH, Owner, Fort Worth, Texas.

The only way to keep Post Cards satisfactorily and permanently is to place them in an album that is made for the purpose. We have secured the album. It is nicely bound in cloth; is 8x9½ inches. It is large enough to place two Post Cards on every page. There are openings for 100 Post Cards.

Intensive Methods in Poultry Raising.

There is no branch of farming in which intensive methods can be more advantageously applied than in poultry culture. Yet in the United States we find extensive methods more often used than intensive methods. That is, the common practice is to keep a small flock of fowls and allow them to roam at will over the farm or over the neighborhood. This is extensive culture, as a very large area is devoted to a small number of fowls.

As the population of the country increases in density, it is natural that poultry raising on many farms should take on more of the intensive character. More fowls than ever before are being raised per acre, and this intensity must increase.

Recently a friend of the writer visited friends in a distant state and accidentally ran across a man raising chickens on a four-acre farm. He was himself not a farmer, but was engaged in some mercantile pursuit. He hired a man at $40 per month to do much of the manual labor.

He is clearing about $3,000 per year from that little four-acre farm, and has his own salary to live on besides. He does it by raising poultry on the most intensive plan.

In the first place, he does not content himself with scrub fowls. He has been breeding for many years to get a high quality of egg-laying strain. He has made his reputation on his success in doing this. He has many fowls that exceed the 200-a-year limit, and one that has run as high as 244 eggs in a year.

He sells eggs from these fowls only, and everyone is anxious to get his eggs for setting purposes. He sells his eggs for incubator use and gets over $20 per hundred for them. So, though he has only 1,250 laying hens, he makes a fine income from them.

The poultry manure from such a flock has a considerable value per year, but this is not figured in the general estimates. On most farms, however, it would mean the continual enrichment of the farm. Poultry receive food very high in fertilizing value, as much grain is fed to fowls. The resulting increase of crops would on the ordinary farm amount to a good many hundreds of dollars per year, and this is one of the advantages in intensive poultry production.

There are specialists in every line, but the man referred to above is not even a poultry specialist, for he is engaged primarily in another business. His example, however, is a good one to follow on many a farm, especially on many a small farm. The farm that is run down is well adapted to the production of poultry, for it, more than any other, needs the manure that comes from the well-managed poultry farm.

On the farms that do not carry many fowls, intensive methods will often pay best, for the reason that it would make it possible to double the size of the flock without increasing the space to be devoted to it. The man spoken of above had all his fowls penned up, but in a large number of small houses and small yards. He managed to keep over 300 on each acre. Almost any of our farms could lose an acre of land from the general farm operations without the owner feeling it, and that acre would probably be the most profitable on the farm.

Poultry Notes.

An egg-laying contest instituted by John C. Lee, a poultry rancher at Hillyard, Washington, is to be started in November and continue twelve months. It is planned to have at least two entries of six chickens from each state and territory of the United States and each province of Canada. Important questions as to poultry culture for egg production are to be determined.

The Standard Watch Case.

In buying a watch, be sure to obtain the Keystone Watch Case. In order to understand this subject, see page 23. It is easy to obtain the benefit of the guarantee, for the reason that it is engraved inside every case. If you will take the trouble to examine the case you will then know exactly what you are buying, just the same as you know a gold coin issued by the United States Mine. The subject is worth investigating by all who buy watches.

The Summer Outing.

At this season, when her city friends are all taking their vacation, the farmer's wife, who must toil almost constantly, is apt, if ever, to bewail her lot. This is especially true if in addition to her regular work of the busy season is added that of opening her doors to uninvited guests. While her hospitality is unbounded, she must learn that she has rights which the exacting town people are bound to respect.

If they are willing to put up with the regular fare and help in the light duties of the house enough to make amends for the extra work, all goes well. But if they expect to have the hostess turn her time and manner of serving her meals upside down to suit their customs, it is certainly no breach of courtesy for her to inform them when her meals are served and to expect them to conform to her schedule, as she would expect to do if in their homes.

But while a change of scene is always preferable, the woman who must stay at home should still not be deprived of her vacation. If the family are a unit in the matter, some very delightful times may be had without the sacrifice of much in either time or money. There are popular resorts near many homes; that is, within easy driving distance; and there are secluded retreats quite as acceptable oftentimes. Get near the water, if possible. It has a cooling, reviving influence upon the human plant. You may not care to fish or to swim or to row, but the fresh air alwayss about the water will surely prove bracing.

The people who get the most good out of these outings of a day are not those who spend the day before in preparation of an elegant spread and then possibly the day following it in recovering from the feast. The simple picnic dinner of sandwiches, fruit and coffee or lemonade, with cheese, pickles or any relishes at hand, will give much better results. Salads of so many kinds can be easily prepared, and are quite in keeping with the outing plan.

There is more in the spirit than in the place. One party can have an ideal picnic under the maple bordering the small stream, with only the birds, flowers and fishes as companions, while another will find the most popular resort exceedingly dull. There are times when we enjoy the crowd, yet for pure rest the congenial gathering of a few in some favored spot is best.

If you cannot drive a few miles into a neighborhood, you can at least have the little picnic under the trees in your own corn field or orchard. It is a pleasure to get away from the work for a little while, even if you are not entirely out of hearing of it, and there is this advantage in the home rest—if a sudden shower comes up you are not at the mercy of the elements, neither have you a nice little sum tied up in canvas.

No two families will find the methods of the other exactly adapted to their own life. But the resourceful woman is sure to find some means of getting an outing. If there are berries to be picked, make it a jollification instead of a bit of drudgery. Make up your mind to take time for some of the fun, even if you do not get quite so many berries. The little folks especially like the variety, and if two or more congenial families can once or twice during the season unite the plan will prove doubly pleasant; or a new book or magazine may serve for entertainment. Even the family sewing is lighter work when done under the trees. But resolve to let some of the outings be pure rest periods, even if the clothes must in part be worn without ironing. Creases in the face are worse than those in clothing. And if there is a will, there is sure to be some way for a little outing, even though there is not a penny which can be appropriated toward it.—Bessie L. Putnam.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions**, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once. I would be pleased to send you the names of people who state they have been cured of various Stomach ailments and speaking the highest praise of this medicine. Just fill out the Coupon below—let me send you this wonderful treatment together with highly interesting literature, testimonials, etc. Don't suffer with agonizing pains—don't permit a dangerous surgical operation, which gives only temporary relief, when this medicine will permanently help you.

GEORGE H. MAYR, Mfg. Chemist
Mayr Building, 154-156 Whiting Street, Chicago
References:—Mercantile Agencies or State Bank of Chicago

Sign and Mail This Coupon To-day

Geo. H. Mayr, Mfg. Chemist, Mayr Bldg., 154-156 Whiting St., Chicago

Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy

Name.....

Address.....

City and State.....
Write Plainly

Express Office..... 76

You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to benefit.

Absolutely harmless. Guaranteed by the Pure Food and Drug Act, Serial No. 25793

Making Whitewash.

Slake in boiling water one-half bushel of lime. Strain so as to remove all sediment. Add two pounds of sulphate of zinc, one pound common salt and one-half pound whiting, thoroughly dissolved. Mix to proper consistency with skim milk and apply hot. If white is not desired, add enough coloring matter to produce the desired shade. This makes a cheap, attractive wash.

Whitewash For All Indoor Purposes.

To one-half bushel unslaked lime add sufficient boiling water to slake it and cover it to keep in the steam. Mix together one peck of salt, previously dissolved in warm water, two pounds of glue dissolved in three quarts of water, six ounces of bichromate of potash and one-half pound of whiting. Add these to the lime, stir well, strain and apply hot, either with a brush or a spray pump. Add water to thin the mixture so as not to clog the nozzle. A bushel of lime makes thirty gallons of whitewash. Light coats frequently applied are better than heavy ones. While still wet, a light coat may seem to have failed in its object, but when dry it becomes beautifully white.

Disinfectants For Stalls, Gutters, Etc.

No. 1.—Four pounds powdered bluestone (sulphate of copper), four pounds of fresh lime, forty gallons of water. Use as a spray.

No. 2.—Whitewash walls, ceilings, etc., with an ordinary lime wash to which has been added a quarter of a pound of chloride of lime to the gallon.

No Benefit, No Pay.

You ought to try a 25-day trial treatment of Bodi-Tone on its no benefit, no pay plan. This plan is fully explained in the large Bodi-Tone advertisement on the last page in this issue. If you have not yet tried Bodi-Tone you can get a dollar box on trial, without a penny in advance, simply by writing for it. Read the offer.

On Monday, July 3d, at Chicago, forty-eight head of 1,559-pound native beef steers sold at $6.90 per 100 pounds.

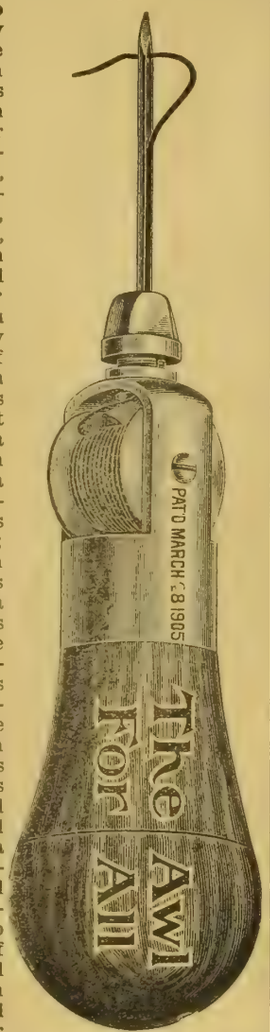
A CHEAP SHEEP DIP AND FRUIT TREE SPRAY

An increasingly large number of stock raisers and fruit growers throughout the country are learning that a most effective and very cheap germicide solution can easily and quickly be prepared by mixing a can of Merry War Lye with fifteen gallons of water. This solution is equally effective when used as a sheep dip and for treating sheep foot disease or for spraying fruit trees, shrubs and vegetables. In the former case, it quickly and thoroughly kills all lice and ticks on the sheep, cleans the wool, makes shearing easy and produces a soft, silky fleece. As a fruit tree spray it instantly destroys all pernicious insect life without the slightest injury to the leaves and buds. When applied to the trunks of fruit trees with a whitewash brush it destroys borers and other worms and insects, cleans the bark of scales and makes the trunk smooth. Fruit growers also say that the solution is very beneficial to the soil and does much to stimulate the growth of plants and trees.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.



Anyone who will send One Dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Amateur Millinery.

If a girl wishes to save money on her clothes and at the same time be well dressed there is no better or more interesting way in which she can do it than to make her own hats, the most expensive and at the same time the most perishable feature of a woman's wardrobe. Professional milliners may turn aside from this article, for it is written by an amateur pure and simple, but who has had such pleasing results from her attempts that she wishes to pass on her little knowledge.

For the girl inexperienced in this line, it seems the best plan to buy a wire shape in preference to making the shape. It is hard to tell whether or not an uncovered shape is becoming, but this difficulty can be overcome if the saleslady is at all obliging by telling her that you would like to try on a similar shape that has been trimmed, because you wish to make your own hat. Having selected the shape (and start with rather a simple one), buy your braid. To begin on, take a rather soft braid of medium width. The salesgirl will tell you about the amount required for the shape selected.

Before putting on the braid, cover the wire frame with crinoline or any thin material This is not essential, however, as a good-looking hat can be made by placing the braid right upon the wire; but it is easier to put the braid on if the frame is first covered. Have a pan of water on hand when putting on the braid. As you work, dampen the braid by dipping the fingers in the water and running them along the braid. Keep it dampened for about a yard ahead of your work. This makes the braid pliable, so that it is much easier to work with and it sets better to the wire shape when the hat is finished. Begin at the bottom of the frame and work toward the top. This makes it possible to always gather the slight fullness of the braid under the next row above and so gives a smooth finish, besides giving such a construction to the frame that there are no grooves in which dust and water can settle. Having covered the wire frame, next apply the trimming. The mistake that most amateur trimmers make is, that they insist upon giving a stiff appearance to their trimming. If you have bows of ribbon (and that is the ideal trimming for a girl who does much riding about the country) have them in great, soft loops that look as though they had made themselves. Use plenty of ribbon in the bows. If flowers are used, don't mass them in one stiff little bunch to the left front, but scatter them about in some natural way. Last of all, put in the lining, for which there is nothing better than a soft silk of black or white. This can be easily removed and washed frequently. This is something to be considered, as there is every reason why the hat lining should be frequently washed. If a bandeau is used to make the hat sit higher on the head, this is put in after the lining.—Janet Thomas Van Osdel.

Lawyers on Top.

Senator William Pierson Fiero, of Catskill, N. Y., was seated with others about the enormous fireplace in Keeler's Hotel, Albany, N. Y., on a cold night, when he told this story:

"I remember, thirty years go, when I was a lawyer, there were about fifteen or eighteen of us—all lawyers—seated about a fireplace much like this. It was a raw, wet night. A bedraggled stranger, wet to the hide, came in, tried to get accommodations and was told there was not a room left. The nearest other place was a mile away. Shivering, the stranger looked at the fire, but we formed such a solid line about it that he could not get near it. Finally one of the lawyers, in a spirit of frivolity, turned to him and said:

"'My friend, are you a traveler?'

"'I am, sir. I have been all over the world.'

"'You don't say so! Been in Germany, Egypt, Japan and all the countries in Africa and Asia?'

"'All of them—been everywhere.'

"'Ever been in hell.'

"'Oh, yes; been there twice.'

"'How do you find things there?'

"'Oh, much the same as here—lawyers all next to the fire!'"—New York Herald.

Cooling as an Icicle
If you want to think of crisp winter weather and sparkling frost; if you want to forget the heat and the dust and the thirst, for real, cool comfort, drink
Coca-Cola
As sparkling, wholesome and refreshing as a spring house icicle. So next time you're hot or tired or thirsty, if you're anywhere near a place that sells Coca-Cola, go in and give yourself a real treat.
Delicious — Refreshing
Thirst-Quenching
5c Everywhere
Send for our interesting booklet, "The Truth About Coca-Cola."
101
Whenever you see an Arrow think of Coca-Cola
THE COCA-COLA COMPANY
Atlanta, Ga.

Arkansas Farm Statistics.

The state of Arkansas has 214,275 farms averaging 81 acres per farm, against 178,694 farms averaging 93 acres ten years ago. The increase is 20 per cent.

The total value of farm land and buildings was given in 1910 as $308,129,000, as against $135,182,000 in 1900, an increase of $172,947,000, or 128 per cent.

The total value of all farm land alone was reported in 1910 as $245,137,000, as compared with $105,107,000 in 1900, a gain of $140,030,000, or 133 per cent.

The total value of all farm buildings alone was given in 1910 as $62,992,000, as against $30,075,000 in 1900, an increase of $32,917,000, or 109 per cent.

The farms are enumerated as follows: 36,079 that are 19 acres or less; 74,863 farms ranging from 20 to 49 acres; 45,333 farms 50 to 99 acre; 39,319 farms 100 to 174 acres; 17,131 farms 175 to 499 acres; 1,157 farms 500 to 999 acres; and 393 farms that are 1,000 acres and over.

Where Our Wool is Raised.

The principal domestic sources of the 321,000,000 pounds of wool produced in the United States in 1910 were: Wyoming, 36,000,000 pounds; Montana, 33,666,666 pounds; New Mexico, 19,200,000 pounds; Idaho, 19,000,000 pounds; Ohio, 17,000,000 pounds; Oregon, 14,500,000 pounds; Utah, 14,000,000 pounds; California, 13,333,333 pounds; and Michigan, 11,500,000 pounds; though practically all the remaining states are represented with totals ranging downward from 9,000,000 pounds produced in Colorado to less than 40,000 pounds produced in Delaware and Rhode Island, respectively.

The Important Thing.

We can understand the ease with which a fool and his money are parted, but what puzzles us is how the fool got the money to part with. —Cleveland Plain Dealer.

Hammond's Handy Atlas of the World.

This great Atlas contains 107 pages, 6x8 inches, is printed in colors and is bound in a durable red-cloth cover. It contains seventy full-page maps of every state and territory, with new railroads and towns. Every country in the world is shown by maps of the latest plates. We use this Atlas as a subscription premium. For fifty (50) cents paid in advance we will send one copy of **Hammond's Handy Atlas** post free by mail and credit one-year's subscription to The National Farmer and Stock Grower. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Sulphur in Soils is Being Depleted.

The sulphur of our soils is being rapidly depleted, according to the investigations of Prof. E. B. Hart and W. H. Peterson, of the Agricultural Experiment Station of the University of Wisconsin, as recently published in research bulletin No. 14 on "Sulphur Requirements of Farm Crops."

Sulphur has been considered relatively unimportant, as compared with phosphorus and nitrogen content of our soils. Tests made by Prof. Hart and Mr. Peterson, however, show that low results were due to the analytical methods employed by the early investigators, and according to more accurate determinations the sulphur content of our soils is of great importance.

Continuous cropping in connection with insufficient fertilization annually results in a heavy loss of sulphur. Combined with the losses of sulphur through drainage and the low original sulphur content of the soils it appears that this loss cannot be compensated by the sulphur obtained from the atmosphere. The surface eight inches of the normal soil contains only enough sulphur trioxide for about 100 normal crops of barley. The fact that the subsoil also has a low sulphur content shows that the upward movement of capillary water cannot bring much sulphur to the upper level. In a word, it is necessary to apply fertilizers containing sulphur to maintain the crop yields of such soils.

Superior crop results often attend the use of acid phosphate; the present investigations indicate that some of these improvements are due to the additional sulphate supplied in this form of fertilizer. The use of gypsum with its important content of sulphur has often added fertility and increased crop yields of soils which otherwise would have been materially reduced in their productive capacity. Sulphates in fertilizers have been used for many years, and the present tests establish the great benefits resulting from their use, and should impress their importance upon the farmer.

Under systems of live stock farming, when the crops and purchased feeds are fed and the manure is saved, the sulphur will find its way back to the land; but whether, even then, the losses by drainage and in the practical handling of manure must not be met by additional applications of sulphates, are questions yet to be solved. In systems of grain farming it appears that some form of sulphate should be used systematically in the fertilizer treatment of the soil, for the purpose of maintaining therein a permanent supply of sulphur.

The conclusions derived from these recent experiments show that the sulphur content of a number of our common farm products as determined has been much too low, and that much more sulphur trioxide is removed by crops from the soil than was previously supposed. In fact, soils cropped continuously for half a century with infrequent applications of manure have lost as high as 40 per cent. of their original sulphur content.

On the other hand, where farm manure has been regularly applied the sulphur content has been maintained and even increased. In brief, the gist of this investigation emphasizes the fact that for permanent and increased production of farm crops such systems of fertilization must be practiced as will not only supply to the soil nitrogen, phosphorus and potash, but also will add a sufficient quantity of sulphur to meet the losses sustained by cropping and drainage. Excellent fertilizers for such purposes include farm manures, trade fertilizers, such as ammonium sulphate, super-phosphate and sulphide of potassium, and gypsum or calcium sulphate.

Apple Notes.

Where are the men that twenty years ago were warning the people against setting out so many winter apple trees? The overproduction prophesied has not materialized.

The demand of the world for the winter apple has grown faster than the supply and bids fair to continue to grow. Every nation in the world wants the winter apple.

Nations that formerly could not hope to eat apples now have them, because the refrigerating service on steamers has developed so that apples can be carried to the tropics and through the tropics without spoiling.

The tropics cannot grow apples any more than the temperate zones can grow bananas. The tropical world calls for the apple and is willing to pay for it.

Oranges sell on Chicago stands at from ten cents to sixty cents a dozen. Apples sell on the same stands now at from thirty to sixty cents a dozen. A medium-sized apple costs five cents. A five-cent orange is much larger than a five-cent apple, which goes to prove that apples are the most costly fruit now on our markets, even in a country that is the greatest apple-growing country in the world.

The winter apple is the easiest fruit to keep of all. It can be held in cold storage for months, and even in cellars can be kept till midwinter. This makes it possible to unload the crop gradually instead of forcing it onto the market in a mass, to the detriment of the prices.

Plant more good varieties of winter apples. Every farmer that has a rocky acre can afford to put it into winter apples, if he lives in the cool part of the country. Apples will thrive on some land that is hard to use for anything else. White boulder clay is one of the best soils for it, and it often does beautifully on land that is so rocky that it is difficult to cultivate.

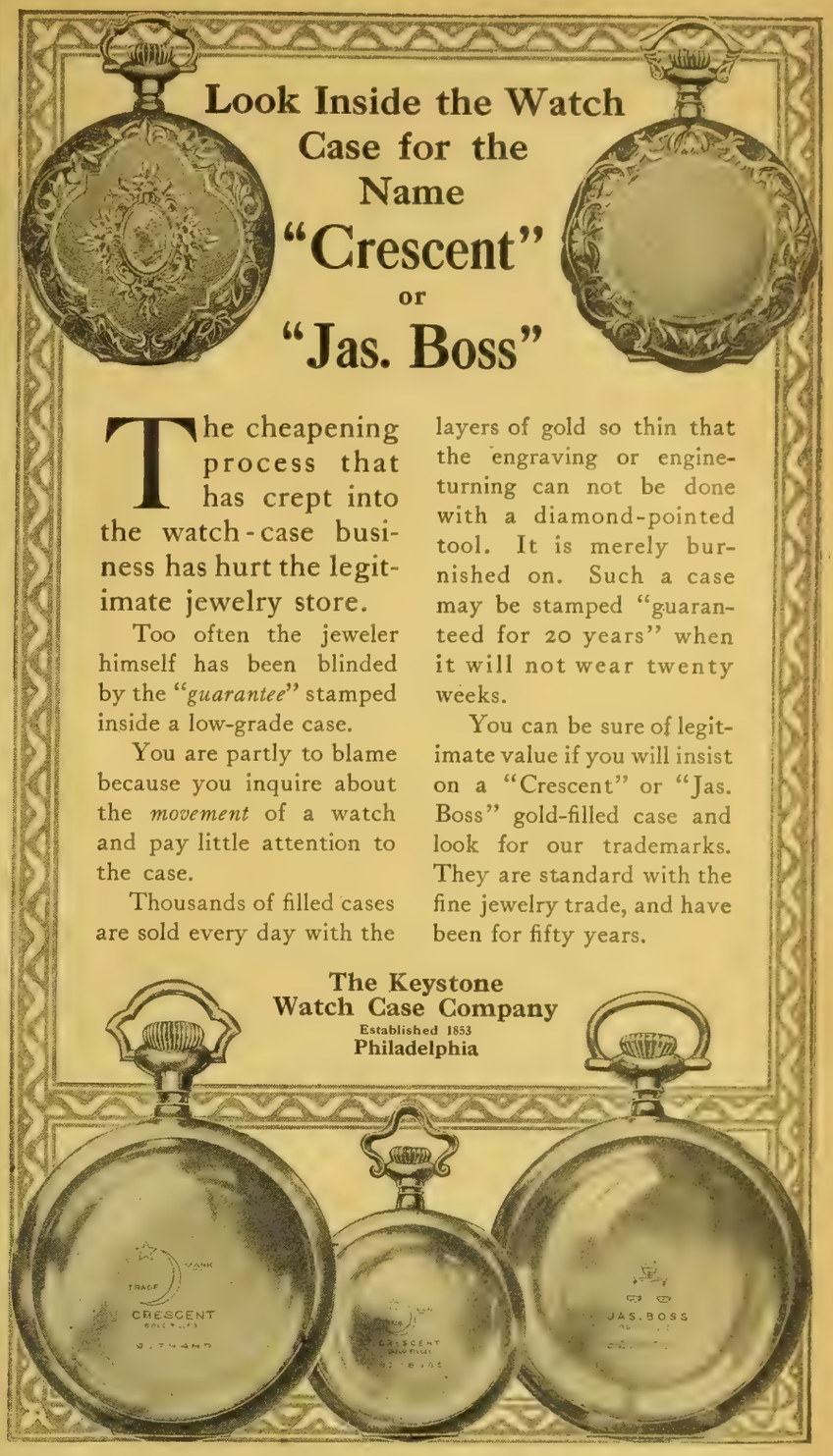
Then, too, the apple tree is at home on the hill top and the hillside, where cultivation is made difficult by the slope of the land. Its roots keep the soil from sliding, and if the soil is rich the tree does not object to a thin sod under it, which will further prevent erosion.

Remember that apple trees need fertility, and the hilltops and hillsides are often deficient in fertility, as they have been washed by the rains of centuries. See that all the elements of fertility are gotten into the soil. A dollar's worth of fertility will mean many dollars' worth of apples when the harvests begin.

Utilize the hiltops that are now bare of anything. There are also hilltops bearing useless scrub growths. Cut it away and put in the apple tree. Remember that the nations are looking to such countries as the United States and Canada for more apples than have ever been grown here.

Especially in the Northern States, in which the rainfall is good, there is no reason why more apples should not be grown. But avoid the short-keeping varieties, known as summer and fall apples, unless there is a ready near-by market, for a glut of these apples means certain loss.

Under right conditions of marketing, a sure sale awaits all winter apples when grown in sufficient quantities to be economically shipped.


Look Inside the Watch Case for the Name
"Crescent"
or
"Jas. Boss"
The cheapening process that has crept into the watch-case business has hurt the legitimate jewelry store.
Too often the jeweler himself has been blinded by the "guarantee" stamped inside a low-grade case.
You are partly to blame because you inquire about the movement of a watch and pay little attention to the case.
Thousands of filled cases are sold every day with the layers of gold so thin that the engraving or engine-turning can not be done with a diamond-pointed tool. It is merely burnished on. Such a case may be stamped "guaranteed for 20 years" when it will not wear twenty weeks.
You can be sure of legitimate value if you will insist on a "Crescent" or "Jas. Boss" gold-filled case and look for our trademarks. They are standard with the fine jewelry trade, and have been for fifty years.
The Keystone Watch Case Company
Established 1853
Philadelphia
CRESCENT
JAS. BOSS

All Seeds in Season.

The A. W. Schisler Grain Company, 708 and 710 North Fourth street, St. Louis, Mo., will send a catalogue of vegetable, flower, field and garden seeds to any of our readers who will write for it. It is called the Golden Arrow Seed Catalogue. This firm will furnish estimates promptly for all field seeds in any quantity.

Consolation.

With a sigh she laid down the magazine article upon Daniel O'Connell. "The day of great men," she said, "is gone forever."

"But the day of beautiful women is not," he responded.

She smiled and blushed. "I was only joking," she explained hurriedly. —Western Christian Advocate.

Beauty That All Can Have.

Once upon a time, not so very many years ago, there was a girl who had a very big heart and a very little pocketbook. It was the season of giving, and the girl wanted to give something to everybody, not merely her friends and acquaintances, but everyone she came in contact with in any way. She was walking down a crowded street one day, and as she walked she watched the faces of those she passed and she was much impressed with the number of gloomy, discontented faces she saw. Then she cried: "I know that I can give to everyone. It is a smiling face. That will be my gift to the world. So long as I am in it all of my fellow-creatures will be cheered by looking at my face."

Now, this girl was not beautiful, nor even pretty, before she made that resolve; but as she went about trying to cheer others with her own cheerful face there came a real beauty into her face that made her friends say: "How Mary has bloomed out! She used to be almost a homely girl, and now there is an attraction about her that no one can resist!" And to the people who knew her best she became known as Mary Sunshine.

Some years ago I was walking with a woman much older than myself in experience. A boy ten or twelve years old passed us, and as he passed he threw a smile that lighted up his homely features as a sudden burst of sunshine gladdens a dark day. The woman stopped and gazed after the boy as she said: "What a beautiful face!" Out of my inexperience with the real things of life I cried: "Why, he's a very homely boy. I do not see how you can call his face beautiful." And the woman replied: "A radiating smile like that would make the ugliest features in the world beautiful. It comes from a heart of good will toward all."

Through the years that smiling child's face has been with us. No merely pretty face could have made so lasting an impression as did the face with the beautiful smile.

Perhaps not so poetical but most eminently practical is another kind of beauty that could and should belong to everyone. It is the beauty of cleanliness—the cleanliness that comes from a pure life, a body kept clean, inside and out, clean teeth, clean hair, clean clothes. The features may be poorly proportioned, the clothes may be old-fashioned, but let the person be thoroughly clean and the attraction will be there. A twenty-five-cent sailor hat set upon a head crowned with hair fluffy from cleanliness is a far more attractive sight than a picture hat covered with willow plumes placed upon a head covered with "rats" and puffs, all perhaps in need of a shampoo. Let the girl who wears the cheap little sailor not look upon the owner of the expensive hat with envy, for there is a beauty about her own clean, naturally-arranged hair and simple headgear that the wearer of the willow plumes knows nothing of.

Far too many of our girls place the stress of good appearance upon costly clothes. They must have their heavily-plumed and beflowered hats, their embroidered and lace-trimmed waists, their beribboned underwear, their silk hose and velvet pumps. And these things take up so much of their time that they are many times forced to neglect the essentials of beauty, and the daily bath is unknown. A delicate subject? Perhaps. But notice a crowd of young girls and women at any general assembly where a mixed crowd gathers. Isn't there an apparently painful attempt to attract attention by means of clothes? And in many cases are not the most showily-dressed the ones most careless about the essentials?

While on this subject of cleanliness, may we make a statement of a fact of which most of the negligent are ignorant? The body of a human being each twenty-four hours throws off waste matter to the extent of two pints in the ferm of invisible perspiration. This does not mean the perspiration that dampens the clothes and runs down the face. When the body perspires to that extent the amount of waste matter is much greater than a quart. In cold or warm weather there is about the same quantity of invisible perspiration. Do not such facts make the daily bath seem a necessity?—Janet Thomas Van Osdel.

The Gypsy and Brown-tail Moths.

A new cry of warning has been sounded to the farmers and fruit growers throughout the United States, the importance of heeding which everyone who has lived in New England will thoroughly appreciate. In a recent importation of nursery stock from France it was found, after the mischief was done, that it was infested with the gypsy and brown-tail moth. That the dissemination of this pest is large is all that is definitely known. It may come to light in your own locality at any time.

Massachusetts has spent many thousands of dollars in fighting these pests within the last few years, and there seems to be a chance to spend many more before they are rid of them. The greatest hope of success centers in the importation of parasitic and other enemies which are known to keep them within bounds in the old world. Attempts thus far have been only in a measure successful, and while it is believed that the problem will ultimately be solved along this line, scientists decline to make any estimate as to how soon this end will be accomplished. The main thing now is to profit by the experience of Massachusetts, the victim of a single egg nest wafted from the open window of a Harvard professor, who was experimenting, and be on the watch for the enemy and ready to snuff out before it has had time to establish itself in our own locality.

The gypsy moth winters in the egg state, and the caterpillar hatches early in May, feeding upon almost any tree or shrub, evergreen or deciduous, but having a special liking for fruit trees, the oak, willow and elm. It is about three inches long when full grown, dark brown, the back being marked with yellow. Along the back are five pairs of blue spots followed by six pairs of red ones. These spots vary in intensity of color, growing darker with age.

In a couple of months this all-devouring caterpillar is transformed into a cocoon, and the moth emerges in July or August. The male is brownish yellow, about an inch and a half wide between wing tips, and a good flier. Its mate is nearly white, sometimes spotted with black and so clumsy that it cannot fly at all—about the only good thing which can be said of it save that it only rears one brood in a year. Its offspring consist of 500 eggs, encased in a mass of hair from the body. This is oval in shape, an inch and a half long and half as wide. It may be found on tree trunks, on the sides of buildings or in many waste places. As the larvae feed mostly by night and hide through the day, the practice of binding burlap bands around tree trunks is partially successful in trapping them beneath the fold. But the most effective method is hunting out the cocoon in autumn and winter.

The brown-tail, though a more recent comer, seems equally persistent and destructive. It, too, has a special liking for the fruit trees, but when these have been devastated it attacks those of the forest with equal avidity. The moth is pure white, save that the female has a conspicuous tuft of brown hair at the tip of the abdomen, hence the name.

In July the eggs are laid in masses on the under side of the leaves. They are brown and also covered with hair, but the masses are much smaller than those of the gypsy moth. They hatch in August, and the larvae are about one-quarter grown by the end of the season, when they gather into the web tent which has sheltered them nightly thus far, close up the holes of exit and pass the winter. It will be readily seen that a most efficient campaign is carried on in discovering these webs and destroying them. But, as said before, it is much easier to fight them out before they have taken the fortress.—Bessie L. Putnam.

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I will send it to you absolutely free, to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to prove my faith by sending out these 50-cent boxes free. So, dear reader, irrespective of your past experience, write to me at once — today — and I will send you the treatment entirely free by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the very best test of anything is a personal trial of it, and I know a 50-cent box of Balm of Figs Comcound will convince you of its merits. Nothing is so convincing as the actual test of the article itself. Will you give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a 50-cent box of this remedy absolutely free. Address,

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Antikamnia Tablets, Plain or With Codeine, 1-Oz. Can.	$1.10
Aspirin, 1-Oz. Box	50c.
Aspivin Tablets, 5-Gr., per 100	$1.10
Cascara Compound Tablets, per 100	30c.
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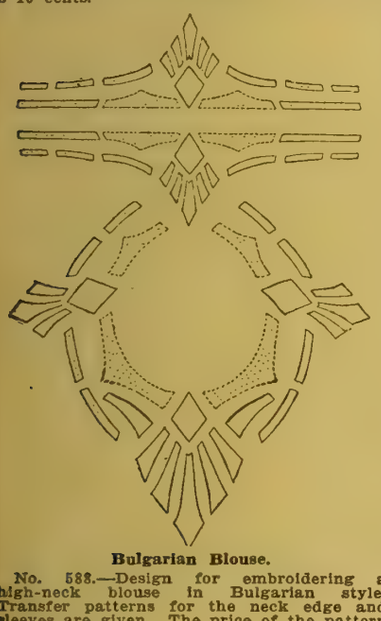
Round-neck Blouse.

No. 586.—Design for embroidering a round-neck blouse in cross-stitch style. Transfer patterns for the neck, with extensions at front and shoulders and for the sleeves are given. The price of the pattern is 10 cents.



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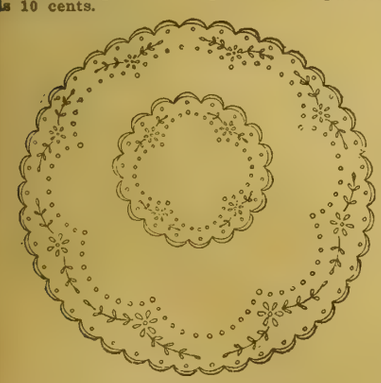
No. 588.—Design for embroidering a high-neck blouse in Bulgarian style. Transfer patterns for the neck edge and sleeves are given. The price of the pattern is 10 cents.



A Summer Hat.

No. 584.—Design for an embroidered hat with scalloped edges. The price of the pattern is 10 cents.

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No. 585.—Design for an embroidered border two inches wide. Three yards and three corners are given. The price of the pattern is 10 cents.

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No. 587.—Design for embroidering a fancy collar in sailor style. The price of the pattern is 10 cents.

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Many of your neighbors have used Bodi-Tone on its 25-day-trial-plan, for thousands in every state of the Union have tested it in this way. Ask them what they know about it; ask them how it cures. Read the trial offer on the last page of this issue.

Good Summer Cosmetics.

If buttermilk can be obtained, there is no cosmetic equal to it, as it whitens the skin and helps to keep the freckles away. Bathe with it both before and after exposure to the sun, letting it dry on the skin, and wash the face and hands with it before retiring. Let it remain on all night and tan will soon disappear.

Tansy leaves soaked over night in buttermilk will remove freckles; also the juice of green grapes and all such lotions should be applied with a piece of soft linen and allowed to dry on.

There is nothing better for sunburn or blistering than thick, sweet cream. This should be applied at night and washed off in the morning with good, pure soap and then rinsed and dried with soft, old linen.

An excellent lotion to use for tan or sunburn is made with two ounces of good cologne, one ounce of spirits of camphor and half an ounce of tincture of benzoin. Mix well and use a little in the water when bathing the face and neck.

A cucumber wash for the face to keep the skin soft and white is made by extracting the juice of cucumbers by slicing them, peel, and all into enough cold, soft water to cover them, and allowing them to simmer slowly until they are perfectly soft, then strain through thin muslin, and to every pint of the juice add four ounces of alcohol.

Another lotion that is said to be fine for the complexion is made by grating horseradish in sweet milk and allowing it to stand for twenty-four hours before using; and spirits of camphor poured on sliced, fresh horseradish will remove pimples from the face.

To prevent tan and sunburn, rub your face, neck and hands with a simple cream, wipe off the surplus cream and powder gently with borated talcum powder, and Mennen's Talcum Powder is the safest and best to use, as this powder is entirely free from any irritating properties, and this simple powder is much better for the skin than any of the regular face powders, as many of them contain chemicals which are poisonous to the skin. Prepare the face with the cream and powder before going out in the sun or wind, then wear a thin veil, and never wear white or black, but green, red and reddish browns are good colors, as they lessen the effect of strong light on the skin.—Martha.

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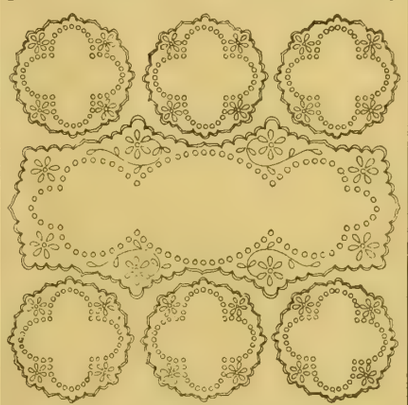
The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated below shows a dainty pattern that should be carried wholly



in eyelets, both ovals and rounds. This set was made especially for us and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us Thirty Cents and we will send you this dainty set for a short time only, absolutely safe delivery guaranteed, and the Universal Magazine for one year. The Universal Magazine is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns and has a number of original household articles. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

New Apples on the Market.

On the opening day of July, at St. Louis, the market for new apples was depressed and weak, also unfavorably affected by hot weather, which restricts the demand, as well as on account of the poor average quality of current offerings. Small and inferior fruit in baskets, small packages, crates and other irregular packages, especially hard to sell, while large, smooth, hand-picked apples in barrels, although comparatively scarce, meet slow sale. Lots in barrels at $1.25 to $3.00 in extremes of quality—topped for smooth large, hand-picked only. Illinois melon baskets, 20 to 35c.; two-third bushel boxes at 25 to 50c.—mainly up to 75 and 80c. for choice hand-picked, and bushel baskets at $1.00. Home-grown sold at 25 to 90c. per bushel loose, as in quality. Sales: Fifty half-bushel baskets at 25c.; seventeen boxes (two-third bushel) transparent at 80c.; thirty three bushel baskets do. at $1.00; fifteen melon baskets Illinois at 35c.; 110 baskets at 22c.

Farm College Graduates.

Sixty-six men have graduated from the Animal Husbandry Department of the Iowa State College during the years 1910 and 1911. They are engaged in the following lines of work: Farming, 52; college instructors, 8; agricultural journalism work, 3; teachers of agriculture in high schools, 2; dairy test work, 1.

Vegetables on the Market.

At St. Louis, opening market of July, new potatoes were selling from farmers' wagons at $1.40 to $1.60 per bushel; home-grown red onions at 65 to 90 cents a bushel; home-grown cabbage at 20 to 40 cents a bushel.

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Don't Put Paper On Your Pantry Shelves

It's a nuisance and a bother—doesn't look tidy, and quickly tears and soils—dust and grime slip underneath it. It isn't waterproof; every time you wash the wood, you must replace the paper, and you must leave your pots and pans hanging around for half an hour until the wood dries.

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Made in 18 colors and Natural (Clear)
Renews everything from cellar to garret

And Make Them Sanitary and Wholesome and Attractive

Drop in at your local store and order a 20c can of White Jap-a-lac. You need no experience to use it. Any woman can apply it. It brushes readily and flows evenly and dries out quickly, leaving a fine, high, permanent gloss like the glaze on a china plate.

It wears for years without replacing. It won't discolor; you can wash it every day without affecting its finish. A damp cloth will remove any dust or stains.

Do the same thing with the top of your kitchen table and tear off that strip of dingy, smelly oilcloth. The oilcloth costs more than Jap-a-lac, and isn't nearly as good. It won't last one fourth as long, and you know, can't be kept really clean from the moment it begins to crack. Remember there is a different kind of Jap-a-lac for every kind of use.

There's a Jap-a-lac with which you can bring back that new look to your floors. It's as elastic as a coat of rubber. Won't crack or whiten, and keeps its glistening beautiful polish after months of scrubbing.

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VICTORY FOR COCA-COLA CO.

Favorable Ruling in Its Favor by United States Federal Court.

The result of the hearing was a complete victory for the company. On practically every point on which the company asked a favorable ruling it was right and the points excepted, the government withdrew. Those who have heard the evidence in the case were prepared for the result, since the government failed, as the court concludes, to show that the beverage was injurious, that it had any deleterious effect whatever upon health, or that it had any habit-forming qualities that might ultimately lead to the impairment of either physical or mental powers. The decision puts at rest what has appeared to many to be a causeless complaint and draws attention to the necessity for some sort of restraint on the Pure Food Bureau in its overzeal in attacking established businesses.

The Coca-Cola people, as well as the government, have been put to an enormous expense in testing a question which, it would seem, should never have been entertained. In the present widely divergent opinions of chemical experts upon the effects of certain ingredients of beverage compounds, it would seem to the lay mind not only to be folly, but a rank injustice, to haul men before the courts upon a purely empiric opinion of a single interested individual—Dr. Wiley. All of the investigation might easily have been made in the government laboratories and the opinions of eminent doctors and chemists obtained before bringing suit, in which case it is fair to infer the government would have been saved a large sum of money and the Coca-Cola Company the enormous expense and trouble the useless litigation has occasioned. It would seem that an official chemical bureau ought to know that a certain beverage, food preparation or other commodity coming under government supervision is unquestionably injurious and harmful before invoking a judicial hearing. Men may differ among each other on matters affecting their personal rights and interests, but the government ought to be sure of its ground, especially when business of large importance is put in jeopardy, on a charge about which there should not be any issue.—Chattanooga Times.

Fortunes in Little Things.

The big things of the farm receive most attention. The big things are the grass crop, in meadow and pasture, corn crop, the wheat crop and live stock of various kinds, with of course oats and potatoes making up the long list of things to which many farms are chiefly devoted.

But there are many small crops, like small fruits, truck of various kinds, and poultry and bees, which really frequently yield good fortunes to the men that have become expert in managing them.

Poultry raising has given many a man a competence on a small farm. It is true that failures in poultry raising are more numerous than the glittering successes, but that is so in many other lines of business. Most of the big successes in poultry raising have been made on farms and the facts have not been advertised. Here and there are to be found farmers that have many hundreds each of fowls and who have a regular set of customers that are supplied with eggs and other poultry products.

Bee-keeping has been a source of larger income here and there to men that had grown old in the business. The writer remembers one old farmer that lived among the mountains of an Eastern State. His rocky farm produced fair crops, but his great revenue came from his bees. His fields were so high up in the air that they were above the fogs that hung along the coasts and his bees worked when bees in better localities kept in the hives waiting for the fogs to go away. The rocky farm of that man was notably profitable for this reason and his income was more than enough for all uses.

Small fruit plantations have yielded good incomes to thousands of people who had the patience to look after them as they should be looked after. A strawberry is a little thing, but some of the growers have attained such success with them that their berry fields are masses of red in the strawberry season. Some individual farmers have taken from their fields in a single season more value in dollars than their farms originally cost.

Yet the writer has never heard of one of the successes being obtained by novices, who generally expect to turn things upside down the first year or two. In fact, because of failure to do so, most people drop anything they may be doing, and this is one cause of the long list of failures to be found in any one line of effort. It is the tenacious person that usually wins out in the end.

The beauty about the small things is, that they may be engaged in with very little capital at the start, which is not true of the large lines of agricultural effort. A little land and a few dollars give sufficient basis for embarking in any one of the lines of agricultural effort mentioned. If it comes, so much the better, but let expensive mistakes be expected. This will soften the blow when they do come. But beyond the mistakes and the losses lies success to many of those that persist in seeking it.

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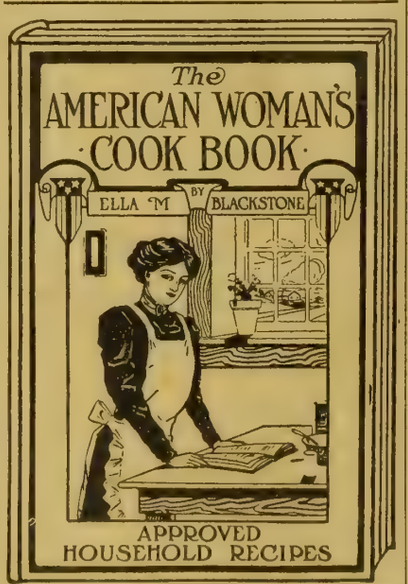

everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.

The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar, and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Stock Buyer—I'll lose money on the hogs at $4.52½ unless the market improves by tomorrow. The weight is 3895 lbs. Here is your check for $166.25.

Farmer—There surely is a mistake somewhere. Ropp's New Calculator makes it $176.25. (p. 58.)

S. B. (after figuring it over carefully)—Correct. Here is a $10 bill with your check. Pardon my mistake.

in the twinkling of an eye. As handy as a watch, always ready and reliable. Anyone who will send 50 cents for one-year's subscription to this paper, The National Farmer and Stock Grower, can select one copy of **Ropp's Commercial Calculator** as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

"About the only thing some men are ever responsible for is a delay."—Exchange.

PROF. SAMUELS ORIGINATES PECULIAR METHOD OF TREATMENT

HIS PHENOMENAL SUCCESS CAUSES ENMITY OF DOCTORS

ARRESTED MANY TIMES

But Acquitted by Juries and Judges and Permitted to Continue in a Work That He Alone Can Do, as He Is the Only Man in the World Using His System—Patients Make Startling Statements of His Successful Method of Treating Consumption, Bright's Disease, Kidney Trouble, Blindness, Fits, Catarrh, Heart Disease, Cataracts, Nervous Prostration, Dropsy, Hay Fever and Many Other Diseases That Baffle the Skill of the Ordinary Physician.

WICHITA, Kas.—The almost miraculous cure of hopeless invalids made by Professor Samuels, of Wichita, Kas., have been of such a startling character that they have aroused wide-spread wonder, admiration and curiosity. Time and again he has taken cases pronounced hopelessly incurable by the medical profession and restored the patients to health in a most phenomenal manner.

There is considerable mystery attached to Professor Samuels' method of accomplishing these marvels, and it is known that he does not use the drastic drugs and medicines that doctors depend upon. And it is a matter of proof that with the system this discovery gives him, he has made the blind see and the lame walk. He has revived the flickering spark of life to bodies on the very verge of the grave, and restored to health men and women given up to die by doctors and specialists.

Professor Samuels came into note several years ago by his almost miraculous cure of "Blind Joe," of Topeka, Kas., who was well known in that city, having sold peanuts and popcorn on the streets there for years. He had been blind for ten years, and had exhausted all the means in his power to be cured, but had given up in despair until he fell into the hands of Professor Samuels, who effected a cure.

Professor Samuels has been arrested many times for practicing his system without having a diploma. On being interviewed a few days ago relative to his many arrests, Professor Samuels said:

"Yes, I have been arrested many times for practicing without a license, but in no case have I been convicted. Naturally, the medical profession are jealous of my success, and are fighting me most of the time, but how are they going to convict me? Do you suppose any jury, when my patients come into court, as they did at Alva, Okla., Newkirk, Okla., Ponca City, Okla., and other towns, and tell how they have been cured of all manner of trouble, do you suppose for a minute that any jury hearing these people and seeing with their own eyes what has been accomplished, is going to convict me? My trial at Alva was before a very able judge, Jesse J. Dunn, who is now Chief Justice of the state of Oklahoma; after hearing the evidence for and against me I was acquitted. At Newkirk I was tried before Judge Hausley, a very able judge. Judge Brown, a noted lawyer, was the prosecuting attorney, and fought the case very hard, but I was acquitted. These persecutions were brought because I have no license. Being the originator and only practitioner of my system of healing, how am I to have a diploma? I can't issue it to myself, and the medical fraternity, trotting along in the same harness for half a century, too blind to accept my discovery, which accomplishes actual results, make it impossible for me to procure a license as a representative of any of the recognized schools. So what am I to do but to proceed in my own way and accomplish results that astound humanity?

The professor here showed a report from the court records showing the proof of his assertion that the court had not convicted him.

Professor Samuels is a remarkable man. Bright, alert, progressive, and although 60, he is straight and active and gives one the impression that he is much younger. He talks with such an earnest conviction and enthusiasm of his work that the listener must believe him and believe in his work.

"What is the nature of your treatment?" was the next question.

"That is a secret that has taken many years of my life to accomplish. I can only say that my results are obtained treating diseases by dropping a colorless liquid, which I prepare, into the eye. Strange as it may seem, so-called incurable cases of consumption, Bright's disease, dropsy, epileptic fits, nervous prostration are treated in this apparently miraculous way. My system is based absolutely on scientific principles. The eye is the window of the soul. I have evolved a system of treating other bodily ills based on the relation of the eye to the system as a whole. This may seem strange, but here are the proofs."

Thereupon the professor placed before his interviewer his "Message of Facts," affidavits and letters in great numbers, many of them from responsible and well-known people, all bearing on his statements.

The case of Mr. C. C. Miller, residing near Hutchinson, Kas., who for years had suffered untold agony from hemorrhage of the kidneys and various complications of that dire malady, is another example of the almost miraculous results of Professor Samuels' strange treatment. Mr. Miller in his testimonial states that he had tried every remedy suggested by his medical advisers without obtaining relief, and at last, hearing of Professor Samuels' wonderful cures, decided to take his treatment. At that time he was in a deplorably enfeebled and emaciated condition, weighing only 118 pounds, and was almost without hope. Six months after beginning the treatment he was absolutely restored to health, weighed 155 pounds, and has had no recurrence of his trouble. Mr. Miller has lived in the vicinity of Hutchinson since 1877, is a man of high integrity, and his endorsement of Professor Samuels' method of cure should be regarded as the strongest kind of proof of its merit and reliability. In fact, the greater number of the professor's patients are of a class whose testimony cannot be discounted, and perhaps this has been one of the main reasons why his fame has spread so rapidly and brought so many of the afflicted to his office for treatment.

Mr. George Hartman, living at 211 North Meridian street, Wichita, Kas., in his testimonial states he had what some physicians pronounced Bright's disease and others called it diabetes. Various doctors — among them his family physician—had given him up to die. He was so weak he could hardly walk. About this time he heard of Professor Samuels and placed himself in Professor Samuels' care, and showed change for the better in a few weeks. He states that at the end of ten months he felt just as well as he ever did, and claims he is absolutely cured and has never had a recurrence of the trouble.

Mrs. J. T. Williamson, who resides at 200 B street West, Hutchinson, Kas., in her testimonial states she was almost on the verge of the grave with consumption and nervous trouble, and that for nearly twenty-two years she was seriously afflicted with St. Vitus' dance in addition to tuberculosis. She states that a leading physician had pronounced her incurable, and that she would die and be buried with the falling of the leaves in autumn. As a last resort, she turned to Professor Samuels, and after starting his treatment she says she had only one hemorrhage of the lungs, and began to improve. In a short time, she states, she was able to do her own work, and that she recently had her lungs examined by a doctor, who pronounced them absolutely sound and well.

Mrs. H. J. Burroughs, living at Collins, Ia., and who in her testimonial said she had a serious case of heart trouble, in a recent letter to Professor Samuels states: "I have not taken a drop of medicine since I began your treatment. Before that I had to take from one to four heart tablets a day. I had dizzy, blind spells, and my heart did not beat regularly at all, but just flutter. Now it beats regularly and does not bother me a bit. It tell everyone I talk with of your treatment and what it has done for me."

Mr. C. W. Neel, living at Broken Arrow, Okla., in his testimonial says he had a very bad case of rheumatism. Writing Professor Samuels in a recent letter he states as follows: "Thank you, Professor, ten thousand times for your assistance in curing me of that awful rheumatism. I am still hard at work and feeling fine."

Miss Daisy Hubbard, who lives at Alva, Okla., in a recent letter wrote: "For fifteen years I have been subject to epilepsy, and have received treatment from several noted doctors and have failed to receive permanent good." As a last resort she began treatment from Professor Samuels, and now in her testimonial says she has no symptoms of the disease.

Mrs. Louisa Lockhart, living at Washington, Kas., in her testimonial says she had a very bad case of kidney and bladder trouble. She had reached the point where her kidneys and bladder were in an awful condition. In a recent letter to Professor Samuels she states: "After taking your treatment two weeks I was able to do my own housework, which I had not done for months. I took the treatment one month and now I am well in every respect, thanks to your wonderful treatment."

"Is it necessary for your patients to come to see you to be treated?" was asked. "No, my treatment can be sent by mail. Many of my patients come to see me, but it is not always necessary. My treatment is sent to hundreds, and, in fact, I am as successful in treating that way as though the patients were right here. To people from a distance who write me, an information blank is sent to fill out. In this way I am enabled to send them the treatment with full directions for its use."

"I should think with your ability to cure you would be in a position to demand big money from your patients," remarked the interviewer. "No, I do not do that now. My charges, when the patients used to call on me in person, used to be pretty high. I am getting old, and I feel that it is my duty in my last years to place my treatment in the hands of the poor as well as the rich. I believe that I owe a duty to mankind, and that as many people as possible, no matter what race or nationality, nor where located, should be benefited by my life's work. On this account, I have reduced my charges so they are within reach of all.

"My greatest aim in life from now on will be to relieve the ills of humanity, and when death shall claim me, I have arranged so that my secret will not die with me, but will be known, so that men in all ages to come will reap the reward of my life's work."

Everyone who is sick, no matter what their troubles may be, should write Professor Samuels, room 110, Samuels Bldg., Wichita, Kas., for his "Message of Facts," and they will find something in it of interest to them.

The Geese Were Talking.

A farmer hired Kerrigan, an Irishman, to attend to his stock farm. In the evening he asked Kerrigan if he had fed the stock and what he had given to the geese.

Kerrigan—"Two bales of hay,sir."

Farmer—"What? Two bales of hay to the geese to eat?"

Kerrigan—"Yes, sir."

Farmer—"And did they eat it?"

Kerrigan—"No, they did not; but they were all talking about it when I left."—Jack Ryan, in Post-Dispatch.

The Awful Stilly Nights.

Mrs. Suburban—"But why must you leave us, Mary? Don't you like it out here?"

Servant—"Well, ma'am! It's all right days, but nights it's awful. I have to pull the bedclothes over my head and ears to shut out the dead silence."

Squaring the Account.

"Just think! That lady doctor who died last year owed her dressmaker 20,000 marks."

"Well, what happened?"

"Her husband couldn't pay, so he married the dressmaker." — Fliegende Blaetter.

The poetry which is published in The National Farmer and Stock Grower from month to month is alone well worth the subscription price of the paper.

MAY MANTON PATTERNS.

Very Elegant Pattern Service, With Full Instructions For Ordering and Making.

This is the very best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration twenty-three seasonable patterns absolutely up-to-date, with directions for ordering and quantity of material required.

LADIES', MISSES' AND CHILDREN'S ATTIRE.

No. 7057.—Three-quarter or Full-length Coat. 34 to 44 bust. With one-piece bell or two-piece regulation sleeves, with square or round collar, with or without seam at center back.

No. 7025.—Tucked Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7012.—Two-flounce Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7052.—Semi-Princesse Gown With Two or Four-piece Skirt. 34 to 42 bust. With sailor collar that can be made round or square, with low or high shield.

No. 7048.—Child's One-piece Dress. Two, four and six years. To be closed under the arms with buttons and buttonholes or with seams.

No. 6888.—Four-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years, with high or natural waist line.

DAINTY MODELS.

No. 7042.—Short Jacket For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 6885.—House Jacket. 34 to 44 bust.

No. 6991.—Fancy Tucked Blouse. 34 to 42.

No. 6936.—Three or Two-piece Skirt With Simulated Tunic. 22 to 32 waist.

No. 6970.—Nine-gored Skirt. 22 to 36 waist. With inverted plaits or habit back, with high or natural waist line, in walking or round length.

No. 7001.—Girl's Empire Dress. Two, four and six years. With round or high neck, sleeves plain or gathered into bands.

PRETTY MODELS.

No. 7051.—Fancy Eton Jacket. 34 to 40 40 bust.

No. 7063.—Child's Jacket. Four, six and eight years.

No. 7050.—Long or Short Kimono. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust.

No. 7037.—Outing Blouse. 34 to 42 bust. With or without shield, with elbow or long sleeves.

No. 7044.—Short Coat, With Three-quarter Sleeves. 34 to 42 bust, with fancy or sailor collar.

VARIOUS MODELS.

No. 7040.—Surplice Peasant Waist. 34 to 42 bust. With seams over shoulders, with or without collar and revers, with or without French lining, with high or natural waist line.

No. 6843.—Fancy Blouse. 34 to 44 bust.

No. 7053.—Girl's Dress. Six, eight and ten years. With or without tabs.

No. 7009.—Peasant Blouse With Bolero Effect. 34 to 42 bust.

No. 6999.—Straight Plaited Skirt. 22 to 30 waist.

No. 6717.—Boy's Suit. Two, four and six years.

Please be sure to give the size of pattern ordered and write your own name and address plainly, that no mistake can be made to cause delay.

The price of each pattern is 10 cents.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

FREE TO YOU—MY SISTER

Free to You and Every Sister Suffering from Woman's Ailments.

I am a woman.
I know woman's sufferings.
I have found the cure.
I will mail, free of any charge, my home treatment with full instructions to any sufferer from woman's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourselves at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is a safe and sure cure for Leucorrhoea or Whitish discharges, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors or Growths; also pains in the head, back and bowels, bearing down feelings, nervousnnss, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney and bladder troubles where caused by weaknesses peculiar to our sex.

I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that it will cost you nothing to give the treatment a complete trial; and if you should wish to continue, it will cost you only about 12 cents a week, or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all, old or young. To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in Young Ladies. Plumpness and health always results from its use.

Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases, and makes women well, strong, plump and robust. Just send me your address, and the free ten day's treatment is yours, also the book. Write today, as you may not see this offer again. Address

MRS. M. SUMMERS, Box H. • • • Notre Dame, Ind., U. S. A.

Treatment of Roses.

The general idea is that roses don't need any treatment in summer, except to cut the rose blooms as needed, or let them bud and bloom and fall, so far contributing their share to our pleasureable enjoyment; yes, and, of course, weed round them sometimes, and if it should be very dry, gives them a little water, and if they are ever-bloomers, expect them to just go on blooming. Don't the catalogues say, when new ones are introduced, they will bloom continuously? Why do people generally form and hold such ideas? Because they have never taken the trouble to study the rose. They love roses and deservedly give them the first place, but they don't know anything about them beyond admiring their beauty and enjoying their fragrance. While the family of roses was represented by and confined to those that bloomed only once a year, it did not matter so long as they were pruned in winter, in the South, and in early spring in the North, but it is different with the monthlies, or so-called ever-blooming. The question naturally is, "Why do you prune roses?" To take out all dead and worn-out wood, also such blind shoots as are not needed for shaping or foliage purposes; also to shorten such stems or laterals as have bloomed and have from six to twelve, or even twenty, undeveloped buds, as the sap rushes to the extreme ends of these sprays or stems, leaving the lower buds undeveloped and giving the bush a straggling appearance.

The roses of which I am writing have all their blooms on new wood; that is, wood of each new growth. It will be seen, then, that if these stems or laterals are left to themselves they will have a series of new growths at each extreme end, leaving the bush unshapely and compelling the sap to travel a long distance for no good purpose. As there are some of the hybrid perpetuals and hybrid teas that have their blooms only on the ends of long sprays, let them so bloom before being cut back.

In answering why these roses should be cut back or pruned every time they bloom, be it monthly or longer, I think I have at once taught how to prune, and if this were properly attended to, there would be scarcely any winter pruning needed. I had perhaps better say that there is one branch of the rose family that should not be pruned in this way; that is the Austrian Briar, of which the old yellow Harrison Yellow and Persian Yellow are the only ones known among us here. These bloom only once a year and have their blooms on the year-old wood, so you see pruning as previously mentioned would cut all the bloom wood away. Best let them alone, except to take out dead or worn-out wood, and thin out a little.

Roses grown for cut-flower purposes require special treatment, but I am not writing to give information about cut-flower roses. I am very desirous that our people should learn how to treat roses, especially our lady friends, who generally have most to do in rose cultivation for the home. Some of these prunings can be used for making young roses.—William Lomas, in Chicago Drovers' Journal.

Safety During Thunder Storm.

The Colorado Experiment Station gives the following directions for personal safety during severe storms:

"Do not stand under trees, near wire fences, in doorways, or near cattle, chimneys or fire places, and never use the telephone during electrical storms."

Lightning strike is not, as a rule, fatal. If a person is struck by lightning, do not give up hope, but stimulate respiration and circulation, keep the body warm, rub the limbs rapidly, give water, wine or hot coffee and send for a physician.

The best way to prevent being struck by lightning is to see that the house and outbuildings are all protected by reliable lightning rods properly grounded, then go into the house or the barn and wait in safety until the storm is over.

95 cents

Post Paid

Guaranteed 5 Years

To advertise our business, make new friends and introduce our great catalogue of Elgin Watches we will send this elegant watch to any address by mail post paid for ONLY 95 CENTS. Regular gentleman's size, open face, full nickel silver plated plain polished case, Arabic dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. In addition to the watch, and without any extra charge whatever we send five Midge Certificates worth one dollar each when used as part payment on purchases from our catalogue. Send this advertisement to us with your name & address and 95c, and watch & certificates will be sent by return mail postpaid. Satisfaction guaranteed or money refunded. Send 95c today as this advertisement may not appear again. **R. E. CHALMERS & CO., 356 Dearborn St., CHICAGO**

Stomach and Lung Troubles

Rheumatism, Kidney and Liver Troubles

Weak Circulation and General Debility Have Been Cured By Magnetic Shields

In Hundreds of Cases After All Other Treatment Had Failed.

We Prove It To You

By the Words of Those Who Say They Have Been Cured With Magnetic Shields

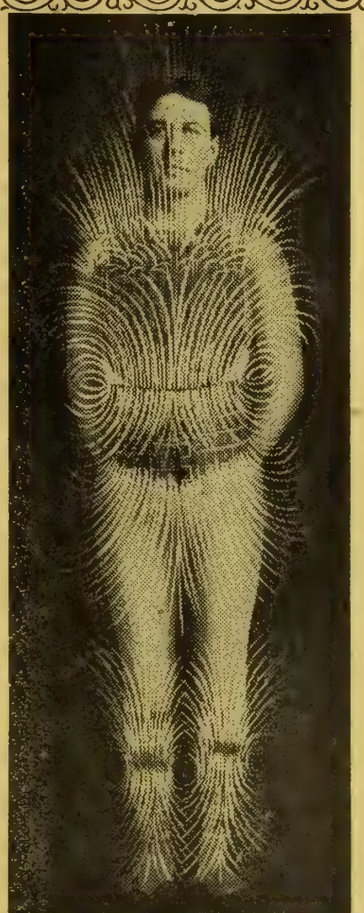
All we wish is an opportunity to show you the evidence, and after you have seen what wonderful work has been accomplished by Magnetic Shields, **YOU ARE TO BE YOUR OWN JUDGE** as to whether or not you want to use Magnetism in your own case, the same as others have. We do not urge anyone to buy Magnetic Shields; we simply give you the facts, and after considering the facts you follow your own inclination. It is your duty to investigate. It will cost you nothing to get the facts, and you will obtain much valuable information, free of charge, upon the subject of Magnetism, if you send statement of your case.

You Have Everything To Gain

By a careful, thorough investigation, for Magnetic Shields have done all we claim for them and a great deal more, or we certainly would not ask you to make an investigation and use the result of that investigation as the basis from which to judge of the merit of Magnetic Shields as a curative agent.

We Make Shields For Every Part of the Body For the Treatment of Every Form of Disease

The accompanying cut shows how Magnetism is radiated from the Lung Shield, Belt and Lower Leggins into all the vital organs, as well as lower extremities, giving new life and activity to the circulation from head to foot, thus strengthening all the vital organs and large nerve centers and assisting nature in the work of eliminating diseased conditions by reason of the better circulation of blood that is established as soon as the Shields are applied. This set of shields contains over eight hundred powerful Magnetic Storage Batteries, that are guaranteed to hold their power and will never have to be recharged.



Read the Truth

More Forcibly Expressed in These Letters Than Any Statements We Could Make

"GOD BLESS DR. THACHER!" PARALYSIS OF LOWER HALF OF BODY OF SIXTEEN YEARS' STANDING

THACHER MAGNETIC SHIELD CO., CHICAGO, ILL.

Dear Sirs: It would take a large amount of space to give a history of my case from start to finish, but for the sake of suffering humanity I will give a few words to help along, if possible, the great work you are doing for the afflicted. In 1883 I was taken with malarial fever of typhoid form, causing complete muscular paralysis. By the aid of the best medical skill in the East, I became, after several years, able to sit up and use my arms, but my lower limbs remained paralyzed until after I put on the Magnetic Shields in 1899, sixteen years afterward. My case is a noted one in New York State, and all the medical fraternity decided I would never be able to walk again. Dr. C. I. Thacher said I could and would walk again, and he was right and all the rest were wrong. It is needless to say that I had spent money freely all these years without receiving results, until I found the Magnetic Shields. We who have been restored by its wonderful power begin to realize the great work being accomplished by Dr. Thacher, and we would be unjust to our Creator and to our fellow-beings, as well as being very ungrateful, if we did not use all our efforts and powers in spreading the grand truth, bringing greatest joy and hope to the chronic invalid, deliverance from disaster, transition from the old life to the new. I am one of the thousands who, with all my heart, can say fervently: "God bless Thacher and his great work." All personal letters, inclosing stamp for reply, will be promptly answered for those wishing minute data of my case. Yours truly, CLARENCE D. SMITH, R. F. D. No. 6, Rome, N. Y.

SERIOUS COMPLICATION OF LUNG, STOMACH AND KIDNEY TROUBLE. A MARVELOUS CHICAGO RECOVERY

DR. THACHER:

Dear Sir: It gives me great pleasure to testify to the perfect cure I have gained by using your wonderful Shields. After suffering fifteen years with stomach troubles, although doctoring the greater part of the time, I kept getting worse until I was the victim of a severe complication of stomach and kidney trouble, which a year and a half ago all seemed to go to my lungs. Had dreadful pains, lost my appetite, could not sleep, became so very weak I could hardly walk across the floor, and not able to do my work. At times when my pains were not so severe I would try to read, but could not for more than five minutes at a time, as I was very nervous. My family and friends thought I could not live another month. I was getting tired of taking medicine. Nothing helped me. I happened to see your advertisement in the paper, which read: "Magnetism Cures Without Medicine." I thought "While there is life there is hope." So just one year ago today I put on your wonderful Magnetic Vest, Leggins and Insoles. The result was a miracle, for in two days I felt relieved; in a week very much better; in three weeks entirely cured.

Words cannot express how thankful I am to you for your kind advice; also for the treatment, to which I owe my life. May you live long for suffering humanity's sake. May your great and sure cure be known a great deal better than it is today.

Yours respectfully,
MRS. O. RAY, 2316 Ridgeway St., Chicago, Ill.

Complicated Case of Piles and Stomach Trouble Restored to Youthful Vigor at Age of 64

Dr. Thacher, Chicago, Ill.

Dear Dr. Thacher:—It is now eleven years since I first made my acquaintance with the Magnetic Shields. I was then a physical wreck from indigestion and piles, which made life a burden to my existence. I had suffered with a weak stomach from my boyhood, and in the army I contracted the piles and other complicated conditions which disabled me from active work. One day I called at a house and for the first time learned of the Magnetic Shields. The book, "Plain Road to Health," had been sent to those people and I got it and read it. I recognized and felt the truth of your statements in that valuable work, and concluded that I would send for a Belt and Leggins. I soon felt a new impetus of life and general improvement. My piles left me in three days and I never had them since. I recovered my health perfectly, and am now in my sixty-fourth year, and I am as sound and active as I was at twenty. I wear the Shields every winter and I am always free from colds, grip, etc. I never have any "tired feeling" and "under the weather," as the majority of people tell about their feeling. I have no aches and pains because the Magnetic vibration of the Shields has re-established perfect circulation of my blood in every fiber of my body; hence my prefect vigor of youth at the advanced age of sixty-four years.

I desire to have this statement published that it may go out for the benefit of humanity. I shall gladly answer anyone wishing to know more of my case and the nature of this statement.

I am yours with love and gratitude,
N. AEBISCHER, Wausau, Wis.

We have hundreds of letters like the above, stating what marvelous results have been obtained in cases that were considered incurable in many instances. Do not be discouraged. Do not give up hope, even if you have been told your trouble could not be cured, as Nature's methods are wonderful and many cases are restored where medicine has failed to give beneficial results, as shown by the indisputable proof that we will supply you. Investigate our claims, for it is a duty that you owe yourself. All that we ask is for you to write us and send a complete description of your case and let us prove to you what has been done in some cases.

We will send you FREE OF CHARGE our new book, "A PLAIN ROAD TO HEALTH," by C. I. Thacher, M. D., and will advise you just what application of Magnetism will be required for your case. Write us fully to-day and we will take the same careful pains to advise you as if you called at the office and saw us in person.

WARM FEET A pair of FOOT BATTERIES, the very smallest shield we make, worn in the shoes, will produce warm feet and convince the most doubting skeptic of the curative value of Magnetism. They are good for Rheumatism, Cramps, Sore Feet, and all irregularities in the feet. $1.00 a pair, or 3 pair for $2.00. Send size of shoe when ordering FOOT BATTERIES. Write to-day and let us assist you all we can by Free Advice.

THACHER MAGNETIC SHIELD CO., Inc., Suite 272, 169 Wabash Avenue, CHICAGO, ILL.

Simpson-Eddystone Fast Hazel Brown Prints

are brown cotton dress-goods that are "worth making up."

These calicoes have the most beautiful shade of brown printed absolutely fast on well-woven cloth of enduring quality—the result of 68 years' skill and experience. They are absolutely tub-proof, sun-proof, and perspiration-proof. The designs are new and particularly attractive.

Show this advertisement to your dealer when you order, and don't accept substitutes. If not in your dealer's stock write us his name and address. We'll help him supply you.

The Eddystone Mfg. Co., Philad'a

Founded 1842 by Wm. Simpson Sr.

SELECTED POETRY.

IN MORGAN'S CAMP.

Our merry troop had stopped a while
Beneath the greenwood trees.
Our sun-browned faces grateful caught
The balmy morning breeze.
In grotesque costumes, grotesque men,
We paused to rest one day.
Our purpose firm, our motive stern,
Yet threw we care away,
For Morgan's men were cavaliers,
With soldiers' hearts and bold,
And not excelled in chivalry
By any knights of old.
They loved the pipe, they loved the bowl,
The dance and jolly song,
The soldier's will, the sportsman's way,
Were theirs, and ever strong
Their fancy for fair maidens,
The gun, the horse, the chase;
To-day we stopped at Bowling Green,
All bent upon a race.

Crit Edmunds rode a Vandal mare,
Inbred through great True Blue;
And Capt. Trigg in Betty Bolt
Was on a Vandal, too.
These mares were colored deep dark bay,
Both of the royal blood,
Both sprung from rich Arabic stock
And bred at Bedford's stud.
The fame of these two thoroughbreds
Had spread throughout the clan,
That they might run for the lives of kings
Was known to every man
In Morgan's camp. In many a fight,
In many a quick retreat,
They'd shown the Yankee cavalry
The power of lightning feet.
But others rode on royal backs,
On royal necks held rein
And gave to Trigg and Edmunds
A challenge, strain for strain.

Cal Cheatham rode a great brown horse,
Bred down in Tennessee,
A Priam of the Harding stock,
Reared at old Gamma's knee.
His height was fully sixteen hands,
His name was Tinkle Bell.
With strength and sturdy heart and will,
His speed no man could tell.
But many wagers could be found,
That he could best the mares.
Cal Cheatham was both cool and keen,
Ne'er taken unawares.
He covered all the cash that came
To say of his big pet:
"You cannot beat the Vandal queens,
Cal Cheatham, this I bet!"
But many men were backing him,
As sure as men could be,
No thoroughbred in Morgan's band
Could beat old Tennessee.

Jim Buckner's horse was stout and tall,
A gelding, flea-bit grey,
With him he'd kept the pace of Rings
For many a night and day.
Men noticed not this scrawny steed,
Smooth-coated, homely, thin.
Jim Buckner chuckled to himself,
Resolved the race to win.
Jim's grey-green eyes and frecked face,
Big feet and yellow hair,
Helped make him and Bill Barlow
A much derided pair.
Bill's sire was great Grey Eagle,
His dam of Wagner stock,
And Buckner's claim for Billy
Seemed solid as a rock.
But the boys would guy Jim Buckner
And smile upon his grey,
And when he talked of racing, said:
"Oh! that's Jim Buckner's way."

They called poor Billy Barlow
A peach, a guy, a honey;
They smiled at thought of such a nag
E'er racing for the money.
But Billy's legs were long and strong,
His flanks had little hair,
And any judge of horse-flesh saw
That Billy's blood was rare.
His nostrils red, and large and thin,
His big eyes clear and bright,
For long foray, to go and stay,
This horse was built just right.
Jim Buckner chuckled to himself,
And grinned while others smiled,
Good-natured as a seraph
And docile as a child.
When they poked fun at Billy,
Jim Buckner only smiled:
"Bill's grandam was a Wagner,
His dam a thoroughbred!"

But now the race was ready called,
And all the troop was out
To see the two miles settled
Which long they'd talked about.
The mares were steady favorites,
With the odds on Bettie Bolt;
But many staked their shekels
On Cal Cheatham's Gamma colt.
Crit Edmunds was a horseman rare,
The first to take the track,
While Capt. Trigg and his bay mare
Were close behind his back.
Cal Cheatham on his great brown horse
Came next, majestic rider!
The Priam colt, then Bettie Bolt,
Her sister close beside her,
Swept down the stretch, a trio grand,
None finer in Kentucky;
The man who picked the winner here
Was simply mighty lucky.

The word to start was almost called,
When back to left and right
The crowd made way for one more pair.
Jim Buckner! What a sight!
Jim's legs hung loose at Billy's sides,
Bill's eyes showed all their white.
In Billy's ragged, tangled mane
A witch had rode all night.
No coat, no spurs, no whip, no style,
Jim Buckner sported now.
"A sorry-looking outfit this, good friends,"
I do avow.
"A foolish pair of guys," they said,
"To enter sport of kings."
And yet that day, as it turned out,
Bill Barlow sure had wings.
None viewed these two in earnest,
The boys joked them and jeered,
But when the mares and stallion passed
The regiment all cheered.

"Appearances deceive, you know,
And good horse sense is rare,
And horses run in any shape,"
Jim Buckner did declare.
"Bill's ugly, that I know," quoth he,
"His beauty I can't boast,
But when it comes to running,
He's swifter than a ghost."
Jim's curly locks shone in the sun,
As he jogged down the track
And took position in the ruck,
Just at Crit Edmunds' back.
And now, they're off! At steady pace,
A gallop, nothing more.
One blanket, as they passed the post,
Might cover up the four.
But Bettie Bolt soon took the lead,
Her sister at her neck,
And at their heels the Priam colt
Cal Cheatham held in check.

While in the rear wide open-mouthed
Bill Barlow leaped and reared,
And as the lordly three drew off
The crowd good-natured cheered.
See how they come! The Vandals first!
The mares seem running fast;
Now Bettie Bolt is running some.
She flies! Gods! Can she last?
No! No! Old Tennessee is surging up,
He's passed the little mare;
He's nose and nose with Bettie Bolt.
Oh! what a noble pair!
"It's ten to one! The Priam wins!"
Somebody shouts out loud.
"Just look! The grey is coming up;"
A lull falls o'er the crowd.
It's everybody's race right now,
As down the stretch they fly,
Men hold their breath. In fever heat
Excitement now runs high.

The little mare has lost her stride,
And Bettie can't go faster;
That princely fellow Cheatham,
His brown colt lifted past her.
The Priam never slackened pace,
Ne'er faltered on his pins,
And all the crowd were shouting:
"He wins! Yes! Priam wins!"
But reckon not without your host!
It was a killing pace,
And, after all, Bill Barlow
Was certain in the race.
Look at the grey! He's gaining now!
He's coming! He's a winner!
It's nip and tuck! It's nose and nose!
He wins as I'm a sinner!
Jim's old hat, both whip and spur,
He used it. Oh! 'twas funny.
The boys had jeered till they were hoarse
And Jim had all their money.

From that day on men doffed their caps
To Jim's flea-bitten grey,
Jim Buckner smiled acknowledgments,
Bill Barlow went his way;
The great two-miler's tale was told
At bivouac and camp.
He oft took lead in wild foray,
Advance and wearing tramp,
Pursuing or retreating, it was
All the same to Bill.
He'd get there first, sure winning out
At brave Jim Buckner's will.
And time flew by. The grand old grey,
The regimental pride,
Was pointed out where'er he went,
Distinguished far and wide.
Alas! The soldiers wept one day!
Ah! sad but truthful story!
A minie bullet struck old Bill.
Thus ended all his glory.

—Charles P. Curd.

THE PREACHER AND THE HORSE.

A preacher once wanted to buy a horse,
And, being a man of considerable force,
He thought it all over and made up his mind
That he knew to a dot what he wanted to find.
He sought the advice of some plain-looking men
Who knew all about the good horses, and when
He happened to find them together one day,
In language like this he proceeded to say:
"I must have a horse that can keep a swift pace,
For my son delights in a spirited race.
And he must be quiet and easy to guide,
So my wife can drive him when she wants a ride.
He must be a strong horse, on wagon or plow,
And he must keep easy, for I don't know how
I can furnish much feed, and I am very sure
I will not drive a horse that is scraggy and poor.
He must be a young horse, so he will improve;
Yet thoroughly trained so he knows every move
A good horse should make. As for price, I can pay
About sixty dollars, without much delay."

When he was through speaking, a plain man looked cross
And said: "Why, you blamed fool, there ain't no such hoss."
My friend, let me tell you, the plain man was right
When he answered the preacher in words true and trite:
The lesson he taught with such plainness and force
Is as true of a man as it is of a horse—
If you look for perfection in others you'll find
They never can fully come up to your mind;
Why, they will despise you, as sure as you live,
If you try to get more than you're willing to give.

—Rev. R. H. Shaftoe.

I GOT TO FACE MOTHER TO-DAY.

I got to face mother to-day, for a fact!
I got to face mother to-day!
And jist how I'll dare to, an' how she will act,
Is more than a mortal can say!
But I got to face her—I got to! and so
Here's a' old father clean at the end of his row!

And Pink an' Wade's gone to the farm fer her now—
An' I'm keepin' house fer 'em here—
Their purty new house—and—all paid fer! But how
Am I goin' to meet her and clear
Up my actchully heppin' 'em both to elope?
('Cause mother wuz set—and wuz no other hope.)

I don't think it's Wade she's so biased ag'in,
But his bizness—a railroadin' man
'At runs a switch engine, day out and day in,
And's got to make hay while he can—
It's a dangerous job, I'll admit—but see what
A fine furnished home 'at he's already got!

And Pink—w'y, the girl wuz jist pinin' away—
So what could her old father do
When he found her, hid-like, in a loose load of hay,
But jist to drive on clean into
The alge of the city, where—singular thing!
Wade switched us away to the 'squire, I jing!

Now—a-leavin' me here—they've driv off, with a cheer,
On their weddin' trip—which is to drive
Straight home and tell mother—and toll her back here
And surrender me, dead or alive.
So, I'm waitin' here—not so blame' overly gay
As I wuz—'cause I got to face mother to-day!

—James Whitcomb Riley, in The Reader.

KATY DID.

When I was strolling through the gloam
I glimpsed a maiden fair.
"Oh, mistress, may I see you home?
You need protecting care."
She dropped her eyes in sweet demur;
Said she: "We've never met.
I can't allow it, gallant sir,"
But yet—but yet—but yet;
Katy did! Katy did! Katy did, did, did!
Katy said she couldn't, but she did, did, did!

The stars were peeping 'midst the blue,
But none save them descried.
Just broad enough the path for two
If closely side by side,
My arm in half a circle lay
Her waist within its ken;
Said she: "I never walk this way."
And then—and then—and then:
Katy did! Katy did! Katy did, did, did!
Katy said she didn't, but she did, did, did!

Her cheeks with blushes wooed me oft
As slow we onward paced.
Her mouth was like a cherry soft,
Inviting one to taste.
I deftly stopped. She cried: "Alack!
All kissing, pray, forego."
Said she: "I must not kiss you back,"
But oh!—but oh!—but oh!
Katy did! Katy did! Katy did, did, did!
Katy said she wouldn't, but she did, did, did!

—Edwin L. Sabin.

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BELINDA'S GARDEN.

Belinda had a garden fair,
Laid out to suit her fancy,
With magic blossoms blooming there—
The strangest necromancy.

The largest flowers were, of course, in beds;
In cradles were the smallest;
The larkspur had the highest heads,
Because they were the tallest.

And all the larks that on them grew
Kept up a wondrous singing;
The trumpet-vine its trumpets blew,
The bluebells kept a-ringing.

In perfect time the four-o'clocks
Held up their open faces,
And on the heads of brilliant cocks
The cockscomb bloomed in spaces.

To take her tea Belinda sat
Upon a satin pillow,
Where here and there a pussy-cat
Grew on a pussy-willow.

Gay slippers on her feet were worn,
The lady slipper bore them;
The corn flower yielded ears of corn
So large she had to store them.

To give her butter, fresh as dew,
The buttercups were handy,
And on the candytuft there grew
The best of sugar candy.

The honeysuckle on the spot
Supplied her well with honey.
Now, with such flowers as these, was not
Belinda's garden funny?
—Farmers' Advocate.

LITTLE BROWN HANDS.

They drive home the cows from the pasture,
Up through the long shady lane,
Where the quail whistles loud in the wheat fields
That are yellow with ripening grain.
They find, in the thick waving grasses
Where the scarlet-lipped strawberry grows,
They gather the earliest snowdrops,
And the first crimson buds of the rose.

They toss the new hay in the meadow;
They gather the elder-bloom white;
They find where the dusky grapes purple
In the soft-tinted October light;
They know where the apples hang ripest,
And are sweeter than Italy's wines;
They know where the fruit hangs the thickest
On the long, thorny blackberry vines.

They gather the delicate seaweeds,
And build tiny castles of sand;
They pick up the beautiful sea shells—
Fairy barks that have drifted to land.
They wave from the tall, rocking tree tops,
Where the oriole's hammock nest swings;
And at night-time are folded in slumber
By a song that a fond mother sings.

Those who toil bravely are strongest;
The humble and poor become great;
And so from these brown-handed children
Shall grow mighty rulers of state.
The pen of the author and statesman—
The noble and wise of the land—
The sword, and the chisel, and palette,
Shall be held in the little brown hand.
—Mary H. Krout.

A ROSE FROM CORINTH.

Just a rose from the field of Corinth,
Where the sweet magnolias grow,
Where the jessamine clings to the cypress
And the pink oleanders blow;
But it brings to my mind a picture
Of the hills with their wonderful grace
As they bask 'neath the turquoise skies
Of that dear old familiar place.

Just a rose from the field of Corinth,
But it speaks of a day that's dead,
When the serried hosts in battle met
And the streams with blood ran red,
When the pines on the high bluffs trembled
To the roar of the shot and shell,
When the bravest soldiers of this fair land
Rallied, and charged, and fell!

Just a rose from the field of Corinth—
It grew by a blasted tree
That stood in the path of a canister,
And waved its proud crest free;
It bears in its fragrant bosom
A message of peace and cheer—
An emblem of love and affection
That shall grow from year to year.

Just a rose from the field of Corinth,
But it fills my eyes yith tears
When I think of the hearts yet shadowed
That have waited for years and years
For those who went down in the battle
In a cause they believed was right;
They'll answer again in the roll-call
On the fields by the river of light.

Just a rose from the field of Corinth,
Where all is at peace once more,
With the gentle sunshine streaming
The hills and the woodlands o'er;
And it pleads for a peace still broader
In the land that we love so well,
But we cherish the names of the heroes
That at Corinth fought and fell.
—Clyde Edwin Tuck.

AN ODE TO THE HEN.

Poets in all lands and ages
That the thought of man engages,
Since the early days of Homer and a thousand years before,
Have delighted oft in springing
Odes on birds that do the singing,
Birds that sail the briny ocean or that roost along the shore.

I have read since early childhood
Of the birds that haunt the wildwood,
And I've heard their mellow voices when the earth by spring is warmed;
But no music I can tackle
Is so pleasing as the cackle
Of the barn-yard hen whose duty has been patiently performed.

To become a great musician
Is no barn-yard beauty's mission,
As with fortitude becoming in her daily task she pegs;
Here to cackle when she's able
And supply the Christian's table
With the tempting fries in autumn and the early scrambled eggs.

There is dignity of bearing
When she goes out for an airing
Where the early melons nestle among vines that seem to squirm;
When she hikes with self-reliance,
Bidding all the world defiance,
To the garden in the morning to procure the early worm.

Much I love the wild bird's matin
And its plumage soft as satin,
And the meadow larks and robins are to me a keen delight;
And I used to lie enraptured,
With my senses fairly captured,
When the whip-poor-wills were singing in the middle of the night.

How the songbirds in the wildwood
Now remind me of my childhood,
And, as idle years affect me, do I love them more and more;
I delight to see and hear them,
And am happiest when near them,
But the home-grown hen of commerce is the bird that I adore.
—A. L. Bixby, in New York Farmer.

THE CHILD'S PRAYER.

Before I lay me down
Upon my couch so white,
I kneel to ask Thee, Lord,
To keep me through the night.

To ask Thee to protect me
In this erring world so wide;
If I should die to-night
To take me to Thy side.

Oh, lead me in the path
Of righteousness, from sin,
And I will follow lowly
My heavenly crown to win.

Thy goodness and Thy mercy
Are cherished in my heart;
From covetousness and evil
Oh, Lord, may I depart.

But this I ask of Thee,
Whom I worship and I love,
May I walk in Thy peace
Until I meet Thee above?
—New Orleans Picayune.

REAL LIFE.

It was back in old Missoury,
In a peaceful farming vale,
And the folks were plunged in trouble—
Hushed the music of the flail.
There a villain held a mortgage
On the dear old farm house roof;
Much he loved the widow's daughter
And betrayed the cloven hoof.

But, alas! there was no hero
To arrive with manly grace,
And with ringing cries of "Dastard!"
Fling the gold into his face.
Yet the villain paled and faltered,
While he muttered: "Foiled again!"
For his ear had caught the cackle
Of the mortgage-lifting hen.
—McLandsburgh Wilson.

THE FARMER AND HIS WIFE.

The farmer sows his crop,
And his good wife sews his clothes;
The farmer darns the weather,
And his good wife darns his hose.
The farmer pitches in the hay,
But should he cross her whim,
His good wife lays aside her work
And pitches into him.
—Judge.

As They Measure in Jersey.

"The wilds of New Jersey," said Frank Malone, "reward the explorer well. If they who sojourn at Atlantic City or Long Branch would but penetrate into the wilds, they would see and hear many interesting things.

"Take, for example, the measurement of distance. I once asked the keeper of the general store in a New Jersey village choked with sand how far it was to Skeeter swamp.

" 'Skeeter swamp?' said the storekeeper. 'Well, I should say Skeeter swamp was 'bout two whoops from here—or mebbe two whoops and a holler.'

"I asked a man in Skeeter swamp how far Flytown was. The man shifted his quid to the left cheek and replied:

" 'Flytown, stranger, is about three chaws to the south—unless y're a fast chawer. Then I'd say it was about three chaws and a half.' "—St. Paul Dispatch.

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"Mamma," he said, "I can't wear these pants; they are too tight. Why, mamma, they are tighter than my skin."

"Oh, no; they're not, Billy," replied his mother. "Nothing could be tighter than your skin."

"Well, all the same, these pants are. I can sit down in my skin, but I can't in these pants."—Knoxville Sentinel.

The first Texas bale of cotton of the crop of 1911 was received at Galveston from San Benito on June 10th. It was shipped by officers of the San Benito Land and Water Company, in Cameron county, on the St. Louis, Brownsville and Mexico Railroad. Last year the first Texas bale reached the market on June 22d.

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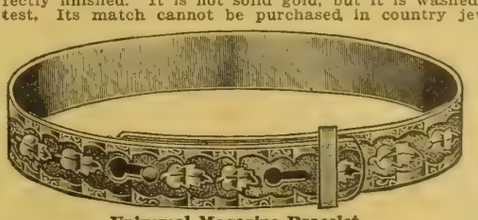

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does just what its name means—*cures disease by toning all the body*, and we want you to try a box at our risk and see what it will do for *your* body. Bodi-Tone is a small, round tablet, that is taken three times every day. Each box contains seventy-five of these tablets, enough for twenty-five days' use, and we send you the full box without a penny in advance, so that you can try it and learn what it is, so you can learn how it works in the body, how it *cures stubborn diseases* by helping nature to tone every organ of the body. Tone is a little word, but it means a great deal, everything in health. When all the organs are doing their part, when each is acting in a perfectly natural and healthy manner, when the energy, strength and power of resistance to disease are all at a natural point, then the body is in proper tone. When disease has attacked any part, the tone of the entire physical body should be raised to the highest possible point, to make all the body help in the cure. This is the power which underlies all of Bodi-Tone's great work for the sick, this is the power it offers you to help you get new health and strength.

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Bodi-Tone is not a patent medicine, for its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit.

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You Need It

If you are tired of ceaseless doctor bills and wearied of continual dosing without results, *you need Bodi-Tone right now.* If your local doctor has done you no aeal good, if you have given him a chance to do what he can and the ordinary medicinal combinations he used have failed, give this modern, scientific combination of special remedies a chance to show and prove what it can do for you. Its greatest triumphs have been among men and women with chronic ailments who had tried physicians and specialists at home and elsewhere without lasting benefit, and for this reason all chronic sufferers are invited to *try it at our risk.*

Bodi-Tone offers its valuable services to you right now, right from this page, if you are sick, if you need medicinal help, if your bodily organs are not acting as they should, if your body is not in right and natural tone. That is what Bodi-Tone is for—to restore health, vigor, vitality and strength by restoring tone to the body.

If there is anything wrong with your Kidneys, Bodi-Tone helps to restore tone to the Kidneys, helps to set them right. If there is anything wrong with your Stomach, Bodi-Tone helps to tone the Stomach, helps to set the wrong right. If there is anything wrong with your Nerves, your Blood, your Liver, your Bowels or your General System, the health-making ingredients in Bodi-Tone go right to work and keep on working day after day, exerting always a definite action that produces curative results of the kind sufferers appreciate. If you have Rheumatism, Bodi-Tone helps to eliminate the Uric Acid from the system while it restores tone to the Kidneys, Stomach and Blood, thereby preventing a continuance of Rheumatic poison and putting new activity into muscles, nerves and joints. Bodi-Tone should be used by all women suffering from any Female Ailment, for its toning properties have been found especially valuable in such ailments. Bodi-Tone should be used by all persons whose bodies are not up to the full maximum of natural vigor, strength and vitality, for its purpose is to restore the body to its highest plane by making health in every bodily function.

We Risk All

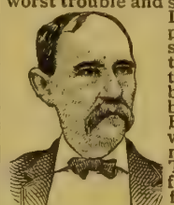
Why delay another day, when a trial of this proven medicine is yours for the asking. Why keep on suffering, when by clipping the coupon, filling in your name and address and mailing it to us, you can get a twenty-five days' treatment of this great remedy which has restored thousands to health. It just costs a stamp, and you don't pay a penny unless it benefits you. You take no chances, for the value and curative powers of Bodi-Tone have been amply proven by two years of glorious cures. It has been tested in thousands of cases, covering ailments in both sexes, at all ages.

Persons suffering from Rheumatism, Stomach trouble, Kidney, Liver and Bladder Ailments, Uric Acid Diseases, Female Troubles, Bowel, Blood and Skin Affections, Dropsy, Piles, Catarrh, Anaemia, Sleeplessness, LaGrippe, Pains, General Weakness and Nervous Breakdown, have tested Bodi-Tone and fully proven its great remedial value in such disorders.

Their experiences have proven beyond a shadow of doubt how the Bodi-Tone plan of *toning all the body* is a right plan that helps to *cure* these and other disorders, that it is *a real aid to nature.* Many who have for years been in poor health and have tried most all of the prominent medicines, have found that *one single box of Bodi-Tone* did more good than *all* the others combined. Others who had suffered for many months, and many for years, trying many doctors and specialists, found their first real benefit in Bodi-Tone, after all else had failed and hope was almost gone. It goes to the root in the body and cures because its work is rational and thorough, the only kind that makes cures permanent. Bodi-Tone makes the body right, with its maximum strength, vigor and vitality, which it may not have possessed for years previous, even when in fair health. Bodi-Tone works what seems a miracle by *putting tone where tone was needed.* Send the coupon and try a box.

BAD CATARRH CURED AT SIXTY-NINE YEARS.

ROYAL, ARK.—I suffered for years with Stomach Trouble, Indigestion and Catarrh of the Bladder, as a result of Malarial Fever. For the past eight years my worst trouble and suffering has been with my Bladder.



I had great difficulty at times in passing water, there being a painful smarting and burning, and at other times I would have difficulty in retaining it. My condition finally had become very serious, as slime and blood were passing, and I feared that Brights Disease had set in. I tried various remedies and doctors with no benefit until I read about Bodi-Tone in one of my papers and sent for a one dollar box. The results from this box were so satisfacory I ordered more Bodi-Tone and kept right on using it. I have now used three boxes, and with such great benefit that the Bladder trouble has entirely ceased. I am also much better in other ways. I am sixty-nine years old, and consider Bodi-Tone a remarkable medicine to do such good work for me at my age and in my serious condition. H. E. EVARTS.

HAD DROPSY, RHEUMATISM AND HEART TROUBLE.

OSCEOLA, IOWA.—Bodi-Tone has done everything for me. I had Dropsy, Heart Trouble, Rheumatism and Kidney Trouble. I would bloat very badly and feel very uncomfortable all of the time. I had spent so much money in doctoring that I had become discouraged, for I had been in poor health for many years. I learned of Bodi-Tone and decided to take it. Now I cannot speak too highly of it. I took it for a number of months and feel better in every way. My Rheumatism is gone, I do not become bloated as formerly and I can walk good and attend to my duties. It is a wonderful medicine for the sick, and every person who is troubled in any way ought to try it. MRS. MYRA CARTER.

Cured of Rheumatism and Stomach Trouble.

FAYETTE, MO.—Bodi-Tone has done for me what all other medicines failed to do. It has cured me of Rheumatism, which I have had for five years, and a Stomach trouble which had made me miserable for years. I feel like an altogether different person. J. WAYLAND

Trial Coupon

Clipped from National Farmer and Stock Grower

Bodi-Tone Company,
Hoyne and North Ave., Chicago, Ill.

I have read your offer of a dollar box of Bodi-Tone on 25 days' trial, and ask you to send me a box by return mail, postpaid. I will give it a fair trial and will send you $1.00 promptly when I am sure it has benefited me. If it does not help me I will not pay one penny and will owe you nothing. Neither I nor any member of my family have ever before used Bodi-Tone.

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National FARMER

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BEAUTIFUL PICTURE, ENTITLED "FAITHFUL FRIEND."

In cold, black ink it is impossible to describe the beauty of the picture entitled "FAITHFUL FRIEND." It is 21 inches wide and 28 inches high. It is a lithograph reprint in four colors of a famous oil painting. It is upon extra thick paper, almost as durable as canvas.

We are using "FAITHFUL FRIEND" as a souvenir premium for anyone who will send Twenty-five Cents to pay for six-months' subscription to The National Farmer and Stock Grower. This is our first offer of the subscription campaign and it is likely to be the very best. Send Twenty-five Cents to the HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo., and we will send you The National Farmer and Stock Grower for six months and the picture "FAITHFUL FRIEND," safe delivery guaranteed.

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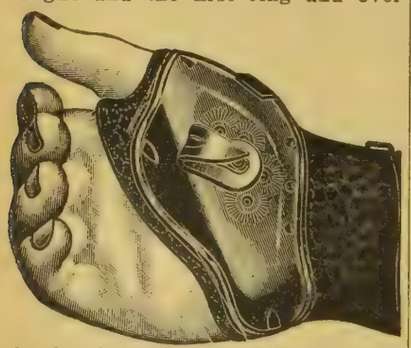

the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Poor Results From Manure.

A La Porte county, Indiana, correspondent writes: "I have a small pasture which was manured very heavy last winter. The grass on it does not seem as good as it is on a field which has not been manured for three years. How do you acoount for it?"

It is likely that the manure was applied to this field so late that not much of its goodness has become available. Heavy applications of manure need more moisture than we have had this summer to bring it into a condition where it would benefit the ground and the growing crop. The lack of moisture really puts heavily-manured ground into worse condition than if no manure had been applied at all. So the poor condition of a heavily-manured pasture is not to be wondered at. Of course, the manure is not lost, for its effect will be seen in the crop next year.

A heavy application of manure upon a thin meadow or pasture, without following it up with heavy reseeding, is not a good practice. The richness of manure makes conditions favorable for the growth of weeds; so, if the ground is not fully occupied by grass roots, weed seeds germinate, and these thrive to the detriment of the grass. One wonders where all these weeds come from, and often a field is more weedy following a heavy application of manure than it ever was before.

It is a mistake to apply manure to meadows or pastures during late winter or early spring. I should apply it in the fall, so that it will get the benefit of the fall rains, and then the melting snow or spring rains will help break it up and the goodness will sink into the ground, when it is easily available. A heavy application of manure upon this grass land should be balanced with heavy reseeding, and this reseeding should be followed up for two years at least.

Many practice manuring grass land very lighty, upon the theory that this produces a thriftier growth of grass and it does not stimulate weeds so aggressively. But whatever practice is followed in manuring, the object should be to get the ground fully occupied with grass, and this calls for frequent reseeding. No amount of manure will revive dead grass roots. The thing to do is to make the conditions of the ground favorable for the growth of grass and then get it filled with grass as quickly as possible.—L. C. Brown.

Scattering Straw on Meadows.

A Starke county, Indiana, correspondent asks me if it will pay to scatter straw upon a meadow.

Putting straw back onto the land is a good thing, providing the straw is evenly distributed. Clover is clipped and the clippings are left as a mulch about the roots. This is considered a good thing, in that it not only enriches the ground, but the mulch affords an efficient winter protection for the grass roots. Straw serves the same purpose, but of course it is not as valuable as clover stems and leaves. There is another feature about the scattering of straw which should commend the practice. The light mulch helps to soften up the ground and in this way helps retain moisture.

It is quite a common practice all over Northern Indiana to scatter straw upon fields, and about the only difficulty is in getting it scattered thin enough. Last fall I observed some farmers in Starke county putting straw upon corn ground. That was not a good thing to do, and, as might have been expected, that straw has given no end of trouble this season. If straw is put upon ground which is to be plowed, it should be applied as early in the season as possible. This conservation of straw is a good thing, and the important thing is to scatter it so it will not interfere with other crops.—L. C. Brown.

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Mechanical Irrigation.

The International Harvester Company has issued an illustrated pamphlet entitled "Mechanical Irrigation." It is very interesting, showing both ancient and modern irrigation systems, also the different up-to-date methods of irrigation by flowing, flooding, seepage and sprinkling. Then there are thirty different illustrations of irrigation plants under different conditions, with engines of different sizes. At the end of the pamphlet the tabulations give complete information for the practical study of irrigation on the farm; for instance: "Power required to raise water; capacity of cylinder pumps; irrigation quantity tables; friction of water in pipes, etc." To obtain a free copy of this pamphlet address International Harvester Company, Chicago, Ill.

Endurance of the Horse.

From Geneva, Switzerland, July 15th, it was reported that Captain Paun, of the Roumanian Army, who is riding across Europe from Bucharest to Paris, to which capital he has been dispatched on a special mission, arrived recently at Lausanne. He rides the same horse, while a second young horse carries the luggage. All were in the best condition after crossing the Tyrolese Mountains, St. Gothard, the Furka passes and the great Scheidegg. The highest altitudes reached were between 7,000 and 8,000 feet, where deep snow and occasional snow storms retarded the journey. It took Captain Paun forty days to reach Lausanne, whence he departed after a short rest for Paris. The distance between the two capitals in a beeline is 1,300 miles.

English Formulas For Making Cements.

A.—Plaster of Paris mixed with water and a cold solution of alum is a good cement for stoneware, sets slowly and becomes quite hard.

B.—A lime cement for connecting water pipes, baths, etc., is made by mixing two-thirds fine brick dust, two-thirds unslaked lime and two-thirds hammer-slag together, and afterwards stirring up with lye or hot oil to a stiff dough.

C.—For closing the joints of stoves and boilers a useful cement can be made by mixing two parts fine coal ashes with one part common salt. Add sufficient water to form a paste and apply immediately.

Iron Cements.—Take twenty-four pounds iron filings or borings, four ounces sal ammoniac and two ounces of sulphur. The filings are rapidly oxidized and the escape of carbonic acid increases the volume of the cement and completely fills the crevices.

Take fifteen parts iron filings, five parts clay and one part salt; add vinegar and stir to form a magma. Will stand heat.

Thinking of Sacrifice Sales.

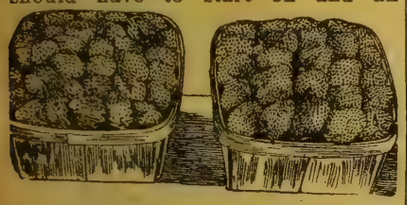
Mrs. Bargandy (at ball game)—"Dear me! What a miserable little hit that is! He ought to be ashamed of himself."

Bargandy (excitedly)—"Why, you marble-top, that's a sacrifice!"

Mrs. Bargandy—"O-o-oh! And is that why so many players rush to it?"

The Strawberry Culturist.

This is a handy little jewel of a book. It is by Andrew S. Fuller, one of the greatest horticulturists. It contains all the necessary information to enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book contains that which a beginner should have to start on and an



expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The National Farmer and Stock Grower for one year for Sixty Cents. This is a splendid opportunity to get a good book for the cost of postage. An average crop of strawberries is 1,701 quarts to the acre. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

More Fruit Trees.

A large percentage of farms do not grow the fruit used in the family. They have the apple orchard, with possibly a few stray trees of other varieties; but when fruit-canning time comes, a bushel of fruit is bought here and another there, perhaps with the self-consoling words that it is cheaper than to raise it.

This may seem true of almost anything consumed on the farm. And yet, where would the owner be at the end of the year by applying the rule generally? Besides, if a bushel of strawberries is purchased, we think the allowance a fairly liberal one; but if they are raised, several bushels will be consumed, and the family the better off for the variety.

Almost everyone considers peaches a luxury; and yet it is strange how few grow their own fruit. Even though you do not happen to be in the fruit belt, where growing them for market is profitable, if your neighbors can raise enough for family use, you ought to be able to do as well.

A large majority of the trees which furnish for home use came from seed. The feminine side of the house is usually the one to thank, too. What if the crop is not a sure one every year, when the trees can be raised so as to cost only the space occupied—her time being a factor omitted—a woman sees possibilities in planting the peach pit.

Some of the finest peaches in cultivation have come from seed. Of course, the trees do not as a rule produce the same fruit as the ancestral tree; but even here we note the advantage in pedigree. The extra fine peach stone is more apt to produce choice fruit than the dull fruit. And even when you buy budded trees, they are sometimes disappointing.

The largest peaches that we ever saw outside of the professional ranks came from a seed. It was one of the Crawford's Early; but, unlike the parent, it was a very late peach, ripening about the time the snow fell; but it was much larger than any Crawford's Early, and with the rich yellow flesh, which is a favorite for canning. As a rule, seedling fruit trees do not pay; but it does pay to grow your own peaches in this way.

Select seeds only from the choicest fruit. Put them in a bag and place out doors during the winter, where they will freeze enough to split the stones. Plant in spring. In a year or two they are ready to transplant, and in a few years you have a profitable bearing orchard. If some of the fruit proves of little value, remove the trees and replace with something better. While the objection is made that peach trees are short-lived, on the other hand they mature quickly.

Plum trees are equally desirable, and almost as easily grown. Unless you have a good outlet for them, guard against stocking up too heavily. A few trees will suffice for family use, selecting varieties which mature at different seasons, when they can be sprayed thoroughly, thus insuring a good crop.

Pears should also be included in this list. But do not attempt to grow them from seed, for a puckery or tasteless pear is about as worthless a fruit as can be found. Select standard sorts and deal with a reliable nurseryman. Pear trees may seem expensive, yet when we stop to consider, a good one pays for itself many times over, and the fruit of even one year is enough to make things even to the buyer.

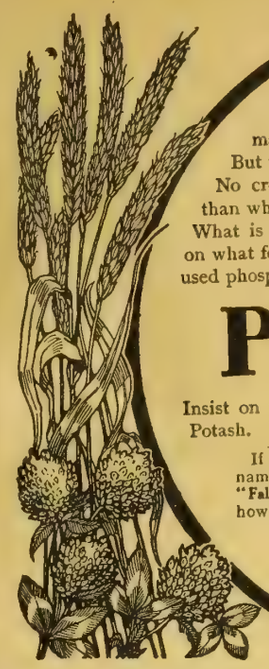
Cherries are delicious, and easily grown, insuring a crop before any fruit but the strawberry is ready. But do not think that one or two trees will suffice. You do not wish to quarrel with your best friends, the birds, and they are bound to take their toll for the insects they have destroyed. Plant enough for the birds, too. You will then be glad to see them enjoy the feast with you.—Bessie L. Putnam.

Sow Late Crops.

Keep sowing. With seared pastures and scant meadows and poor straw, the forage situation is the big August problem. Hungarian, amber cane, turnips and cowpeas may still be sown. Barley will come on and make fall feed. Vetches, crimson clover and fall rye will help some late in the fall. And then corn will take the place of other forage, if it is handled properly. The man who has a silo need not worry very much over short hay crops. The situation is so critical now that it will not do to take further chances. Save the straw, and by all means get ready to save the corn fodder. It is now time for quick and decisive work.—L. C. Brown.

The Lumber Trust.

A few years ago mention was made of the fact that a number of firms had engaged in the business of selling lumber, mill work and house-construction material direct to farmers on the basis of quick sales and small profits. Some of the firms that we have advertised were the Chicago House Wrecking Co., Montgomery Ward & Co., Sears, Roebuck & Co., and Gordon-Van Tine Co., all first-class, honorable houses that have done much good in placing the house and barn construction material on the market as they did. That is what is usually called mail order business, and the wholesale and retail lumber companies, organized in what is now called a trust, appear to have been determined that farmers should not have the benefit of buying direct from the mail order houses. The trust thereupon instituted a boycott against a number of firms, and said trust is charged with doing some very dirty work. As we anticipated and hoped for, fourteen secretaries of different lumber associations are now under indictment for conspiracy, and we will await the outcome with confidence that justice will be done. In the meantime, although the boycotted firms have had many a battle to fight against all kinds of persecutions, they are still doing business direct with farmers and are determined to do so to the end.



Wheat and Clover

Many farmers stick to wheat raising mainly because clover follows it in the rotation. But why not get the best possible out of both crops? No crop returns better profit for the right fertilizer than wheat.

What is the right fertilizer? That depends on the soil and on what fertilizer you have used on it. The longer you have used phosphate the sooner it will pay you to balance it with

POTASH

Insist on your wheat fertilizer containing 6 to 8 per cent. of Potash. **Potash Pays** on both wheat and clover.

If your dealer does not carry Potash, write us for prices, naming quantity needed, and ask for our free books, "**Fall Fertilizers**" and "**Home Mixing.**" They will show you how to save money and increase profits.

GERMAN KALI WORKS, Inc.

Baltimore: Continental Bldg.
Chicago: Monadnock Block
New Orleans: Whitney Central Bank Bldg.

The Sheep Census.

The sheep census of the year 1900 was taken on June 1st after lambing and the sheep census of 1900 was taken April 1st during lambing. In the year 1910 the total was 51,638,590 head on farms and ranches in the United States, made up of 29,707,000 ewes, 7,148,366 rams and wethers, 2,614,946 unclassified, and a half lamb crop amounting to 12,168,278 head, against a total in the year 1900 of 61,503,713 head of sheep and lambs, consisting of 31,857,652 ewes, 7,995,315 rams and wethers, 825 unclassified, and a full lamb crop of 21,650,746 head. Had both enumerations been taken on the same date the total figures for 1900 and 1910 would not be far apart.

In ten years the number of farms and ranches raising sheep decreased from 763,518 in 1900 to 608,363 in 1910. In the North Atlantic division the decrease was 48,907 farms; in the South Atlantic division the decrease was 30,146 farms; in the South Central division the decrease was 44,440 farms; and in the North Central division the decrease was 32,240 farms. In the Western division, mostly ranch country, there was a small increase of 578 sheep-raising farms. The total decrease in ten years was 155,155 farms that abandoned sheep raising, and the remarkable feature is that there was no actual decrease in the total of mature sheep in the country.

One fact worthy of notice is shown by market reports and not by the census. At Chicago, St. Louis, Kansas City and Omaha, in the year 1900, 6,102,255 sheep and lambs were sold; and in the year 1910, at the same four markets, 10,790,959 sheep and lambs were sold. Formerly sheep were kept longer, but there is quicker action now by the breeding of younger stock, earlier maturity and the enlarged marketing of lambs.

BALED HAY PAYS BEST.

Our readers have probably noticed the advertisements of the Collins Plow Company, of Quincy, Ill., advertising their "Eli" Baling Presses. These advertisements are of interest to every farmer who raises hay to any extent at all, for they tell about "Eli" Baling Presses and they invite you to write for the "Eli" Baling Press Book, which tells all of the facts about these excellent hay presses, and this book also tells you all the reasons why you should bale your hay, whether you feed it or sell it.

Baled hay is actually worth 25 to 30 per cent. more than loose hay, whether you keep it on the farm or whether you ship it. Baled hay takes up much less room, is much easier handled and preserves the nutritious qualities of the hay in better shape than loose hay. If you stack your hay you know how much is wasted by sun, wind and rain. This waste often amounts to 20 per cent. Then, again, loose hay must always be sold near home. It cannot be shipped to a distance, and the local dealer knows this and pays you his price. Baled hay can be shipped anywhere at any time. You can hold it in your barn for top prices and sell where you get the highest price. There are so many advantages of baling your hay and it is so easily done that there is absolutely no reason why an "Eli" Baling Press will not pay you a big dividend. You can do custom baling for your neighbors or rent your press at a good profit. Why not get the facts anyway? Write to the Collins Plow Company at 2014 Hampshire street, Quincy, Ill., for their new big book, which will surely interest you. A postal request will do, and it may be the means of your making a lot of extra profit from your hay crop over what you made last year. Write the postal now.

Belgium, in Europe, is stated to have increased the wheat crop fourteen bushels, barley nineteen bushels, oats twenty-two bushels and potatoes seventy-five bushels per acre by a system of agricultural education.

This Thrifty BLIZZARD Ensilage Cutter Makes Short Work

Send for New Catalog

of any feed and our improved wind elevator carries any height or direction. Every BLIZZARD cutter is tested by 50% harder strain than is ever called for in ordinary use. That's why we can and do *guarantee* them.

Used for 38 Years and Proved Most Practical

Easiest running, strongest. Only cutter with knives adjustable while running at top speed. Self feed table. Mounted or unmounted. Shipped ready to put up. Nothing complicated. Ask for free book, "Why Silage Pays."

JOS. DICK MFG. CO.
1416 W. Tuscarawas St. Canton, Ohio

Mounted or Unmounted

The Guaranteed Cutter. Why take Chances on Unknown Makes.

NEW BUCKEYE IMPROVED
SAW MILL
Simple in construction, economical in power, durable in every part and moderate in price.
Guaranteed the Most Up-to-Date Saw Mill on the Market.
ALSO Engines and Boilers from 12 to 50 horse power for Saw Mill work.
Fully illustrated descriptive catalogue sent free on request to interested parties. Address
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Buy This
POTATO DIGGER
Extra strong, very durable, light draft, easy on horses, positively best potato digger on market. Fully guaranteed—still priced low. Get free book on Diggers, Pickers and Sorters. Hoover Mfg. Co., Box 98, Avery, Ohio.
Transfer points—Buffalo, N.Y., Detroit, Mich, St. Paul, Minn., Marshalltown, Ia., Idaho Falls, Id., Portland, Ore., Spokane, Wash., Winnipeg, Man., Hamilton, Ont., Fond du Lac, Wis.
The Hoover

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Prices Sent Free
Chicago Scale Co.
1021 Jackson Boulevard, Chicago, Ill.

BEES HOW TO MAKE THEM PAY. The pleasures, the work and the profits of bee keeping are fully covered in "Gleanings in Bee Culture." 6 months trial subscription 25 cents. Write for book on Bees and free catalog—both free.
THE A. I. ROOT COMPANY, Box 72, Medina, Ohio.

WITTE ENGINES
GAS — GASOLINE — DISTILLATE
Cheapest of all powers. One cent average cost per horse power per hour. Nothing can equal.
FIVE YEAR GUARANTEE
We build all sizes. Hopper jacket or water tank cooling. Inducements to introduce in new localities. Write stating size and style wanted.
WITTE IRON WORKS CO.
1653 Oakland Ave., Kansas City, Mo.

ADMIRAL 2-MAN PRESS
3 FEEDS TO THE ROUND SELF FEEDER CONDENSING PACKER
ADMIRAL HAY PRESS CO. KANSAS CITY MISSOURI

I WILL MAKE YOU PROSPEROUS
If you are honest and ambitious write me today. No matter where you live or what your occupation. I will teach you the Real Estate business by mail; appoint you Special Representative of my Company in your town; start you in a profitable business of your own, and help you make big money at once.
Unusual opportunity for men without capital to become independent for life. Valuable Book and full particulars FREE. Write today.
NATIONAL CO-OPERATIVE REALTY CO.
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E. R. MARDEN President

AUTO-FEDAN HAY PRESS.
Only successful self-feed. Two men can operate it. 20 per cent. less expense to operate. Record run, three tons in one hour.
AUTO-FEDAN HAY PRESS COMPANY,
1506 W. 12th Street, KANSAS CITY, MO.

BINDER Attachment with Corn Harvester cuts and throws in piles on harvester or in rows. Man and horse cuts and shocks equal with a Corn Binder. Sold in every state. Price $20 with Binder Attachment. S. C. MONTGOMERY, of Texaline, Texas, writes: "The harvester has proven all you claim for it. With the assistance of one man cut and bound over 100 acres of Corn, Kaffir Corn and Maize last year." Testimonials and catalog free showing pictures of harvester.
NEW PROCESS MFG. CO., SALINA, KAN.

Stover HIGH GRADE *Gasoline Engines*
From 1 to 60 h. p. Circulars & prices on application.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Dried Fruit at St. Louis.

Late in July, new evaporated apples were beginning to arrive. The market was bare of stock and a large demand to be supplied. Surely a great inducement for farmers to save and cure all available fruit. Light sales reported as follows: Evaporated ring apples from 9½c. for poor to 12½c. for prime; peelings at 3c.; chops at 5c.; sun-dried apples worth 6 and 7c., and sun-dried peaches at 6 and 6½c. Sales: Fifteen and ten sacks rather poor evaporated rings at 10c.; three do. at 10¼c.; twelve sacks chops (mixed with pears) at 3c.; six sacks chops at at 4c.; peelings at 3c.

St. Louis Root Quotations.

Country shipments of roots for sale on the St. Louis market, late in July. Quote by the pound: Golden Seal at $2.85; Lady Slipper, 15c.; Seneca, 32c.; Pink, 18c.; Black, 6c.; May Apple, 3½c.; Snake, 22c.; Kansas Black Snake (Echinacea) 12c.; do. Oklahoma, 8c.; and Missouri not wanted; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 4c.; Blood, 4½c.; Blueflag, 5c.; Sassafras—Bark of root, 5c.; Wild Ginger, 8c.; Spikenard, 3c.; Skullcap, 7c.; Ginseng—Wild, $5.50 to $5.75, and cultivated $5.25 to $5.50.

Some Principles of Weed Control.

[By B. O. Longyear, Colorado Agricultural College, Fort Collins.]

Weeds may be roughly divided into two classes: Those which grow and spread entirely from seed, and those which, in addition to this, propagate by means of perennial roots or underground stems. The first class is made up largely of annuals, plants which start from seed, produce flowers and ripen seeds the same season, after which the whole parent plant dies. The pigweeds, tumbleweeds, marsh elder, wild sunflower and mild mustard are examples of such weeds. They are best controlled by rooting them up when young, as in hoeing, cultivating, pulling by hand, and, in some cases, by chemical sprays. To prevent their going to seed is the principal thing.

In the second class are found the poverty weed, iron weed, Canada thistle and field morning glory. Such plants, when once established, are very persistent and constitute our worst weed pests. When cut off or pulled up, new sprouts soon appear from the underground parts, while cultivation in the ordinary way often serves to scatter pieces of the plant to other parts of the field, where they may take root. The only remedy consists in digging out and removing every part of the plant, in choking it out by means of some stronger growing crop plant, such as alfalfa, or by starving the underground parts of the plant. The last method is accomplished most frequently by careful and constant hand hoeing and pulling, on small areas, supplemented by thorough cultivation on large areas. To be effective this method requires that every sprout which comes above the surface be cut off, or pulled, or otherwise destroyed.

The food of such plants is manufactured in the leaves that come to the light, hence if every sprout is cut off before the leaves have time to get to work, it is merely a question of one or two seasons until the underground parts are no longer able to put up new sprouts.

Anything that kills the foliage will also accomplish the same thing. Unfortunately, most of these plants are not greatly injured by chemicals other than those that are poisonous also to animal life.

Turning the infested area into a sheep or hog pasture for two or three years, especially if the animals are somewhat crowded, has been found effective in some cases, such as land infested with the field morning glory.

In any case, persistent, thorough work is necessary to success in eradicating weed pests of this character, and the best time to begin is just as soon as the weed is discovered and before it covers large areas.

Corn Market Situation.

There is no depressing Canadian influence in the corn market. It may be that wheat growing will decrease in the United States in consequence of the Canadian invasion, but corn will not decrease. On July 31st, at St. Louis, cash corn sold at 65 cents early in the day and at 64 cents a bushel later. These are the highest closing cash prices for corn at St. Louis since last July.

At Chicago the July option, which closed last November at 47⅞ cents, was closed out at 62⅛ cents a bushel, a difference of 14¼ cents a bushel. The September option, which closed February 28th at 49½ cents, was quoted at 63¾ cents at the close of business, July 31st. The December option, which on November 30th was closed at 44¼ cents, was closed on July 31st at 61½ cents.

In reviewing these grain markets on the last day of each month we endeavor to make a clear statement of facts. We are reminded of a wool merchant in Boston who was bright and clever to all appearances and yet he was so often on the wrong side of the market that he failed in business. He was not satisfied to leave the market without an explanation, and he went to a Hebrew trader who was quite successful and asked him to explain matters. "Oh," said the Jewish trader, "that is easy; you are always trying to find out how the market ought to be; I am trying to find out how it is." The traders who buy and sell grain do not wait upon anybody else; they act on the minute and upon the facts that they have in possession; they study the weather and crop conditions, and they study human nature and the time it requires to remove grain from one point to another; they study money matters and keep posted to the minute, yet the best of them make mistakes. One thing they respect, and that is the quotation. On July 31st, at the close of the market, No. 2 corn for delivery on May 31st next year, was quoted at 63¾ cents a bushel. It means that the average opinion of the entire Board of Trade at the close of the market July 31st was that ten months hence corn will still be worth 63¾ cents a bushel for delivery on the Chicago market.

What we now need is a City Life Commission to report upon the way the people in the cities are living. There is very much more poverty, ignorance and incapacity in the cities than in the country. The country boys can make a living, no matter where they land, and that is more than can truthfully be said of boys of city raising.

Australia is prospering under the protective-tariff system. That, however, is no reason why we should admit Australian wools into the United States free of duty.

Many of the very best farmers had to start on wild land and chop the farms out of the wilderness. The only way to judge results is to form a good idea of the beginning.

Mitchell AUTOMOBILES
Runabout, fully equipped, $1200
No cars run more easily.
No cars run more smoothly.
No cars are more easily controlled.
30 h. p. 4 Cyl. $1200

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No cars with working parts more accessible
No 30 or 50 h. p. cars are more powerful.
There *are no cars more* dependable.
5 Pass., fully equipped, $1500
$1500

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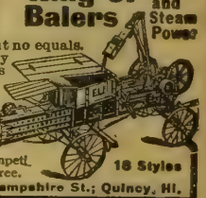
Mitchell T
Remember the 5 Cardinal Points: Silence, Power, Safety, Strength and Dependability, and *then* add the 6th, the new Mitchell make-good Policy, which means that if anything in your car proves defective it will be made good to you without question or argument, and *without charge*
7 Pass., fully equipped, $2250.
$2250

50 h.p. 6 Cyl.
Mitchell S
If *you* are in the market for a car, your money in a Mitchell is the best investment you can make. See us before buying.
Weber Imp. and Auto Co.,
1900 Locust st., St. Louis.
Four blocks directly north of Union Depot
P. S.—Agents wanted in unoccupied territory.

THE LARGEST AND BEST LINE OF
WELL DRILLING MACHINERY in America. We have been making it for over 20 years. Do not buy until you see our New Illustrated Catalogue No. 44. Send for it now. It is FREE.
Austin Manufacturing Co., Chicago.

The "Eli" King of Balers Horse and Steam Power
A train of followers, but no equals.
Proves its superiority wherever it goes. Makes tight shapely bales, not loose bundles, works fast, avoids accidents and endures. Little draft, tremendous power.
The machine that makes competitors tremble. Eli catalogue free.

18 Styles
Collins Plow Co., 2014 Hampshire St., Quincy, Ill.

Make Your Old Wagon New

Just as strong and as good as ever and more convenient. Write us and let us show you how cheaply we can fit your old running gear with our superb
Electric Steel Wheels
which put an end to all break-downs. No shrinking or drying apart or tire setting. Makes your wagon a real handy wagon. Our 48 page book shows you why no other wagon wheels in the world equal the famous Electric Steel Wheels. Reading it will Save you time, money and horse flesh. It's free. Write for it to-day to
ELECTRIC WHEEL CO., Box 40, Quincy, Ill.

Buy Automobile Tires
Plain or Bailey Treads, for Clincher, Quick Detachable, or Dunlop Rims (Quick Service), from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Missouri Melon Crop.

Estimates based upon railroad and express returns indicate that in the year 1910 the state of Missouri produced 7,878,000 watermelons of the dark-green variety, each filled to the overflowing with rich, red meat and as sweet and tasty as nature can make them.

At an average wholesale price of 11 cents each, this crop was worth $860,580 to the growers. With a crop of cantaloupes for the same year worth $350,000, it means $1,126,580 worth of melons were grown in Missouri in 1910. Labor Commissioner Austin W. Biggs, in a Red Book bulletin, gives the information.

So favorable is the climate and the soil of Missouri for watermelons that about ninety counties produce them, but the majority produce only enough for home consumption. More would be raised if farmers knew there is a market for all they can ship out.

The banner watermelon section is in the southeast, not many miles below Cape Girardeau. Scott, Mississippi and Dunklin counties in 1910 marketed 3,742,200 melons, which sold for $411,642. With 500,000 melons coming from other counties in the same vicinity, this leaves about 3,636,000 for the remainder of the state.

Farmers all along the Mississippi, Missouri, Gasconade, Osage and other streams with rich, sandy bottom lands, have melon patches which help to produce the remaining millions.

Missouri watermelons are rushed to St. Louis, Chicago, Kansas City, Topeka, Indianapolis, St. Paul, Milwaukee, Minneapolis and other large Northern commercial centers, and are sold there for from 15 to 40 cents each.

Scott county marketed 1,823 cars, each car averaging 25,000 pounds, which makes the total weight, with some scattering smaller shipments added, 45,927,177 pounds. Blodgett, a small community, sent out 725 car-loads, and Morley 363 car-loads. Diehlstadt is credited with 158 car-loads; Benton, 215; Oran, 18; Sikeston, 135; McMullen, 78; and Brooks Junction, 97 car-loads.

In cantaloupes Morley shipped out 36 cars, weighing a total of 900,000 pounds. Dunklin county, besides being Missouri's banner cotton center, also has a reputation for its watermelons and cantaloupes. To advertise this end of the state and its resources, in 1910, many car-loads of melons were sent out gratis to different portions of Missouri. Attorney C. P. Hawkins, of Kennett, who has several times represented this county in the State Legislature, sent two car-loads to Jefferson City with his complimtnts.

The watermelon center of Dunklin county is around Clarkton, which town in 1910 shipped 337 car-loads, weighing 8,425,000 pounds. Frisbee shipped out 90 car-loads; Kennett, 20; Gibson, 27; Holcomb, 77; Malden, 137; and Phillips, 50.

Many car-loads of cantaloupes, all iced and ready for the market, went out from Dunklin county during last summer. The Clarkton returns indicate that twenty cars, each loaded to the brim, were shipped from there alone.

Oliver Chilled Plow Company.

During the month of July a contract was let to erect a six-story concrete building at Broadway and Warren street for the Oliver Chilled Plow Company, of South Bend, Ind. The contractor is a South Bend company. The St. Louis branch of the company recently sold the building at Twenty-second street and Scott avenue, which it has occupied for a number of years, and will join the group of agricultural implement houses which have located on North Broadway within the last few years. The new building is to be completed about January 1.

Figuring on Sheep.

From Ogden, Utah, July 29th, it was reported that W. C. Barnes, representing President Taft and the Tariff Board in checking up the information gathered by special agents of the government on wool and sheep industries, arrived in Ogden that morning, after visiting four of the largest sheep states of the West.

In a statement that day he says the data obtained proves that sheep can be raised, wool clipped and marketed and lambs disposed of at a cost of $1.50 a head, the annual revenue from which with wool at 13 cents, totals $3.31, leaving a profit of $1.81 a head. His figures follow:

Cost a head to raise sheep, all expenses incident to grazing, herding, shearing, dipping, lambing, freight on wool and mutton, interest on money invested, etc., $1.50.

Average clip of wool, per head, 7 pounds, at an average of 13 cents per pound, delivered, 91 cents.

Average price of lambs, $3.00; average increase being figured at about 80 per cent., placed on market, $2.40.

Total receipts, $3.31.

Total net receipts, per head, $1.81.

Mr. Barnes says that there may be a slight variation by states in the cost of raising sheep, and in marketable value as to the wool clip, lambs and mutton, but that the figures show the average in the territory over which he has traveled. He suggests that the cost of raising sheep might be reduced considerably by better business methods.

(Note by the Editor.—The farmer who owns and raises sheep for the purpose of earning an honest living produces meat and clothing for the people. Whenever the government passes laws to injure such an industry Congress destroys that which it cannot restore. Sheep raisers are not obliged to raise sheep, and it is easier to dispose of a flock than to start another one. A discouraged sheep raiser ought not to be expected to have more patriotism than a Congressman.

Oats and Horses.

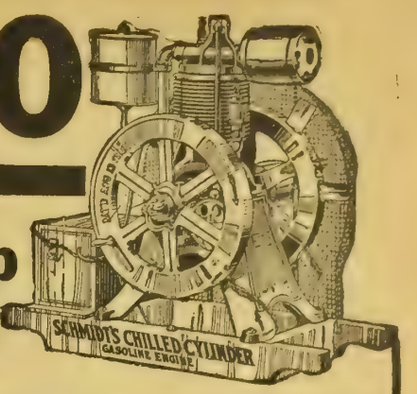
The oat crop ranks third in importance among cereals in the United States.

The weight of oats varies greatly. For illustration I may state that it is often found that a bushel measure full of Southern oats may weigh only twenty or twenty-five pounds, while our Western oats weigh more, as a rule, than the legal thirty-two pounds designated by the laws of the various states as constituting a bushel. It is estimated that the hull constitutes about 24 to 48 per cent. of the entire weight of the grain.

As to feeding value, we find that the oat grain contains a higher proportion of digestible protein (muscle-building material) than does corn or wheat, while the other extract (fat-forming materials) exceeds that of wheat and nearly equals that of corn. This grain in itself contains a well-balanced ration for the horse. The mettle shown by horses fed on oats has caused some people to believe that this grain contains a stimulating principle. Some chemists and experimenters claim to have isolated from the grain a stimulating principle which has been called Avinine.

New oats will soon be on the market for feed. Old oats are usually so called after they have gone through the sweat. There is a change which takes place in this sweating process, because of which old oats may be fed without fear of danger to the digestion of the horse. Not so with new oats. Care must be taken in feeding new oats, or oats, in other words, that have not gone through the sweat. New oats are not fit to feed hard-working horses. They loosen the bowels of the horses, soften the horses, make them sweat easily, and in general put them out of condition. Often colic results. —B. F. Kaupp, Pathologist, Colorado Agricultural College.

$7.50



And You Keep This Great Engine

Yes, sir, that's right—you keep this engine for $7.50, a wonderful gasoline engine offer, an offer without a parallel. We ship you Schmidt's Chilled Cylinder Gasoline Engine on your simple request without an order or any promise from you. You use the engine 10 entire days, use it all you want to. Then if you don't want it, send it back at our expense. If you do wish to keep it, pay us **only $7.50 and the rest in the easiest monthly payments. We send you the engine free,** to prove that it is the greatest **air cooled** 3 horse power engine on earth. It is the only engine with the marvelous, powerful **chilled cylinder.** The only engine for farm use with a **spark retarder.** The new type gasoline engine that has revolutionized the gasoline engine industry. The only engine good enough to send out on **actual free trial** without a cent down in any way.

Ten Days' Trial FREE

This is the first genuine free trial ever offered on gasoline engines for farm and shop use. We want you to see that women and children can run this engine. Use the engine to run any machinery you have—the pump—separator—washing machine—corn sheller—grinder—anything. Engine is ready to run when you get it. We will send you prepaid our sensational offer and our very useful book "How to Use Power" free.

Long Time to Pay

If you like this engine after trying it out for ten whole days you can keep it and take long time to pay for it on **easy monthly payments,** or after using it free for ten days, just send it back at our expense.

Makes Woman's Work Light and Easy

5 Years Guarantee Schmidt's Chilled Cylinder Gasoline Engine is absolutely guaranteed for 5 years in every piece and part. The biggest bank in Iowa backs our $1,000 challenge offer.

How to Use Power To all who will write promptly we will send our useful book "How to Use Power" free. Send us your name and address today.

Schmidt Bros. Co. Engine Works, Dept. 313 X, **Davenport, Iowa**

"Put It in the Sermon."

"Dr. J. H. Jowett believes it is the minister's, not the congregation's, fault if the church doesn't go."

The speaker, a member of the Fifth Avenue Presbyterian Church in New York, smiled and continued:

"Dr. Jowett once told me that he sided with an old lady who always went to sleep during the sermon time.

"'Why don't you take snuff during the sermon?' the minister said to her. 'That will keep you awake.'

"'Why don't you put the snuff in your sermon, sir?' retorted the old lady.'"—Pittsburg Gazette-Times.

How He Escaped.

"I understand," said the special correspondent to the long, lank, bewhiskered native of Adams county, Ohio, "that you are the only man in your section who was not indicted for accepting a bribe for his vote at the last election."

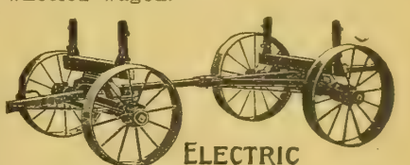
"That's right, sir," replied the native.

"Would you object to telling me your reasons for not taking a bribe? You see, you being the only man who didn't sell his vote, anything you have to say will be—"

"I didn't know a thing about 'em buyin' votes. I was up in Logan county visitin' my sick son an' missed the election."—Chicago Post.

The Low Handy Wagon.

With the coming on of fall work the advantages of the low-down handy wagon become more and more apparent. No one who has ever used one of the low wagons, or has ever seen them in use, can fail to see the disadvantages the man works under who still uses the old-style high-wheeled wagon.



In advocating the use of low wagons, the mind naturally turns to the Electric Handy Wagon. So many of these wagons have been sold that they are becoming a familiar sight in the country. They are so well built, are so strong and their lasting qualities are so great that we are fully persuaded one should be found on every farm. For full particulars write to Electric Wheel Company, Box 40, Quincy, Ill.

The Rock Island Lines in the past eleven months have operated agricultural trains in ten states. These trains have covered 10,640 miles, have been operated eighty working days and on them have been held 682 meetings with a total attendance of 172,893.

The Indiana State Fair opens at Indianapolis, September 4th, and the Nebraska State Fair opens on same date at Lincoln.

KANSAS CITY VETERINARY COLLEGE

Thorough and complete course. Great Demand for Graduates as Practitioners, Teachers, Investigators, Sanitary Officers, Army Veterinarians, U. S. Inspectors. Catalog and other information sent on application.
DR. S. STEWART, Secretary, **1312 East 15th Street, Kansas City, Mo.**

Younger Nursery Stock.

It is very interesting to observe the change which has been taking place in reference to the age of nursery stock used in orchard planting. Twenty-five years ago a three-year apple formed the demand which ruled widely and generally. The same age ruled in the case of the pear and the plum. With the peach two-year-old trees were set, but with the others the tendency was all towards the older grades.

During the past ten years, as orcharding has become more distinctly commercial, a decided change has taken place, and the three-year-old tree is the marked exception, while the one-year-old tree in the stone fruits and the pear is the ruling demand. This is partly due to the fact that nurserymen now grow better trees than they formerly did, they being larger at one year old than they were formerly at two years old. Then again, it has been learned that there is little gained in using the larger stock. The orchardist is taking a larger share in the heading of his trees and to this end he begins their training at an earlier age. This practice is sometimes carried to an extreme, as in the case of using June buds in planting peaches, but on the whole the tendency is making for progress in fruit growing.—National Nurseryman.

Thinning Apples.

[By R. S. Herrick, Field Horticulturist, Colorado Agricultural College, Fort Collins.]

It is time that trees that are heavily loaded with fruit were thinned. There are several reasons for thinning, the following being the principal ones: First, maintaining the vigor of the trees; second, securing annual crops instead of alternate; third, to be able to produce fruit of maximum size, color and quality.

For thinning purposes, apples may be divided in two classes, viz.:

Those, such as the Winesap and Missouri Pippin, which, when the tree is loaded, do not attain sufficient size for the better grade of pack; and those like the Ben Davis type, which generally attain sufficient size, but often so weaken the vitality of the tree as to cause it to become a "shy bearer" the next year. With proper pruning and thinning these difficulties can be overcome to a large extent. We believe that props have no place in the orchard and are only a sign of very poor orchard management.

Study each tree individually and thin so that at picking time the tree will hold up well under a load of uniform, good-sized apples. Apples of the Winesap type should be thinned to a distance of from nine to ten inches. Fruit of a larger growing type could be left a little closer.

In thinning, take off all terminal apples on long, slender branches and break all doubles. Take off all wormy apples and all those that are much smaller than the average. Take off all limb-bruised or badly frost-marked apples, and also those that are likely to become limb-bruised as they grow in size. Leave the apples in singles and in such a position that they can have the best chance to grow in size, color and uniformity, and be as free as possible from blemish.

Imports and Exports.

Dutiable imports decreased fifty-two millions of dollars and imports free of duty increased twenty-seven millions of dollars. That is the import statement comparing the year ending June 30th, 1911, with the year ending June 30th, 1910. Our excess of exports during the year ending June 30th, 1910, was only $520,000,000 over the imports, and that is no sign of prosperity; in five of the years previous exports were larger, and as far back as 1898 our exports exceeded imports by $615,000,000. The balance of trade will soon be against us, and our representatives and Senators in Congress will be responsible for it.

The American Royal.

The Thirteenth Annual American Royal Live Stock Show will be held at the Kansas City Stock Yards, October 9th to 14th, 1911, in the American Royal Pavilion and in new buildings now being erected. The Horse Show, for several years a big feature, will be held five nights, beginning Monday, October 9th.

The Illinois Legislature appropriated $20,000 to the Agricultural College to purchase forty acres of land to establish a poultry plant. A committee, consisting of Geo. A.Heyl, D. T. Heimlich, H. C. Wilhits, Col. C. F. Mills and John L. Waddell, was named by the association as an Advisory Committee.

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We desire to invite attention to our three-year subscription proposition. We hope to obtain one hundred thousand additional subscriptions during the present year to continue for three years. It is practically a trial subscription and payable at the end of the first year. The subscription can be stopped at any time by paying for the period the paper is taken. This method of taking subscriptions is the invention of Uncle Piper, our subscription editor, who has guaranteed that every one of them will be paid when they are due. The subscription price of this paper is $1.00 for three years, and the bill for the subscription is sent to the subscriber at the end of the first year. When the bill goes out Uncle Piper slips in a list of handy premiums for the subscriber to select one from, providing he pays the bill promptly, and the general result is that the bill is soon paid. When it comes to getting subscriptions from intelligent, high-class farmers, Uncle Piper is at the head of the class.

Uncle Piper.

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Gentlemen: — You are hereby authorized to enter my name as a subscriber to The National Farmer and Stock Grower for three years. At the end of the first year I will pay One Dollar for the three-year period. This order is given with the understanding that I am at liberty to stop the paper at any time by paying the subscription to that date.

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Every farmer knows that if he can keep his hogs on their feed and free from worms he need not worry about his pork profits.

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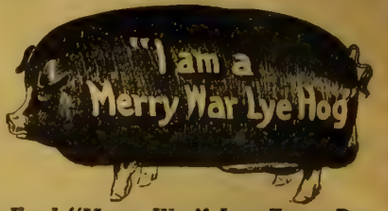

How Adam Schultz of McLouth, Kansas Conditioned His Herd—

"Before I began feeding MERRY WAR LYE my hogs did not eat as they should and they looked rough. Sometimes some of them would not eat at all, and some would eat a little and then go off and lay down; but after I had fed MERRY WAR LYE about eight or ten days, I could see a marked improvement in my herd. They began to all come out at meal time and take a hold as they should to eat, and they now look sleek and thrifty. I consider MERRY WAR LYE the best remedy I have ever used, and the cheapest. I have spent a good deal of money at times, but I never got the results from any of the so-called Hog Cholera and Worm Cure remedies as I have from MERRY WAR LYE."

Not An Expense

MERRY WAR LYE is not an expense. It is an investment that yields an actual profit, because it not only prevents hog losses from Cholera, Worms, etc., but also puts on many pounds of good healthy flesh and fat.

Feed "Merry War" Lye Every Day

The best thing you can possibly do to insure your pork profits is to feed MERRY WAR LYE EVERY DAY, just as regularly as you would the ordinary ration of swill or dry feed. Try it today. It will make your hogs fat quicker than anything else.

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MERRY WAR LYE is prepared ESPECIALLY as a hog remedy and it is the only lye that is guaranteed to be absolutely safe to feed to hogs.

Save These Directions

Follow these directions carefully: Mix one tablespoonful MERRY WAR LYE with slop for 10 hogs, or ½ can with barrel of swill. Stir well and feed night and morning. If your hogs are on a dry feed ration, mix ½ can MERRY WAR LYE to each barrel drinking water.

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Most dealers handle MERRY WAR LYE. If yours can't supply you, write us, stating your dealers' names, and we will see that you are supplied and will also send you, free, a valuable booklet on, "HOW TO GET THE BIGGEST PROFITS FROM HOG RAISING."

MERRY WAR POWDERED LYE comes in 10c cans, full case of 4 dozen cans for $4.80, at Grocers', Druggists' and Feed Dealers'. There are no substitutes.

E. Myers Lye Co., Dept. 22 St. Louis, Mo.

Rice as a Summer Food.

We do not, as a people, appreciate rice as a food, especially as a summer food. It is nourishing but not heating. It more than takes the place of potatoes, supplying more nutriment and less heat than they do. And rice can be used in such a variety of ways. If any woman reader has been cooking it just one way she may be interested in trying some of these recipes:

Breakfast Cereal.—Have ready boiling water in a large kettle; add to this the desired amount of rice and a seasoning of salt. Cover tightly and boil for twenty minutes, then strain off the water, place back the rice on the flame for a moment and toss it about with a fork. If rightly done, each grain of rice should be separate from the others and yet be soft and well done. Serve this cereal with butter and sugar or cream and sugar.

Tomato Rice.—Cook the rice the same as above, but when finished add to it tomatoes (about one-half the quantity of the rice) that have been stewed for a few minutes and seasoned generously with butter, salt and a dash of red pepper; stir all together and cook for several minutes. It is good served hot or cold.

Creole Rice.—Slice several good-sized onions and fry in lard; heat two tablespoons of butter and brown in it one tablespoon of flour; stir rice, which has been cooked as for the cereal, into the pan containing the browned flour, add the onions and a Spanish pepper that has been cooked and chopped; or, if the pepper is not convenient, add a cupful of tomato seasoned with red pepper.

Rice Pudding.—To one quart of rich milk add one cup of rice, one beaten egg, one-half cup of sugar, one-half teaspoon of salt and a seasoning of cinnamon; place this in the oven and bake for four or five hours. The rice will become so dissolved in the milk as to make a creamy, custard-like pudding. — Janet Thomas Van Osdel.

Clever Roping Contest.

From Muskogee, Okla., on July 17th, it was reported that Thomas L. Greer, of El Paso, Tex., won the top prize in the Oklahoma Roping Contest by roping and tying a steer in :29 2-5 seconds, making the best average for three-days' roping. Geo. W. Weir, of Kermit, Tex., was second; and Joe Gardner, of Sierra Blanco, third. Fifty cowboys participated in the contest.

Grass seeds are selling very high because of the scarcity.

In ten years the state of Texas has increased the number of farms from 352,190 to 416,377, which is a gain of 64,187 farms.

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FRAZIER'S SID STEMPER CURE

For Distemper, Epizootic, Influenza, Pink-eye, Catarrhal Fever, Coughs and Colds. One bottle of **FRAZIER'S DISTEMPER CURE**, a guaranteed cure, or your money back. This is a liquid, given on the tongue. Absolutely safe for Mares in foal, Stallions, Colts and all others at any age or under any condition. $1.00 bottle holds three times as much medicine as the 50c. size bottle. All drug stores sell **FRAZIER'S**, or prepaid direct. On request, we will mail our 32-page horse booklet free.

81 **BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.**

Keep Posted on Seeding Conditions.

Everything changes, and this certainly includes farming operations. Even people change every seven years. The man who thinks he is able to run his farm the same old way his father and grandfather conducted it is sure to come out the small end of the horn. The time was, when the soil was rich, that seed scattered broadcast over the surface of the soil would grow and produce fair crops. But improved methods have materially increased the yields per acre, as well as the quality of the grain. The Kentucky Grain Drill, manufactured by The American Seeding-Machine Co., Incorporated, Richmond, Ind., has proved its merits for the best possible work in all sections of the country. Among the many styles and sizes of Kentucky Drills, there can be had a machine that will successfully sow all kinds and sizes of seeds or handle all brands of artificial fertilizers—a drill that is absolutely and unreservedly guaranteed. It is a light-draft drill, simple, durable and positive in its work. Puts the seed in at an even depth—no bunching, choking or skimming. Send to the manufacturers for a Kentucky catalogue. Call on your local implement dealer and insist on seeing the Kentucky Drill.

Home Mixing of Fertilizers.

By writing to the German Kali Works, Continental Building, Baltimore, Md., any farmer can obtain a booklet entitled "Home Mixing of Fertilizers and How to Do It." This is a very interesting publication, and every one of our readers can learn something from it. The whole story is told so clearly that it does not require an interpreter. The book includes a table giving the composition of all farm manures and commercial fertilizers, with formulas adapted to all crops and the amount of fertilizer ingredients taken from the soil by all farm crops. Send for it without delay. See advertisement on page 3.

Emergency Information.

Why Pastures Fail.—Many pastures fail in midsummer because they are not made right. Too few grasses and clovers are employed in the mixture. In many sections, particularly in the Central West, timothy is the only grass used. This should be supplemented with clovers that mature earlier and again come on later in the season than timothy. Some of the other grasses with different habits of growth and seasons of maturing should also be used in the mixture, thus securing with the clover not only more pasture but a far better quality of pasture.

Pasture Mixtures. — Instead of seeding timothy alone the following mixture is suggested, per acre: Timothy, ten pounds; red clover, eight pounds; alsike, two pounds; orchard grass, four pounds; Italian rye grass, five pounds; English rye, four pounds; meadow fescue, four pounds. Such a mixture will give a heavier hay crop and hay of better quality than timothy alone, and when left as pasture will afford a much greater quantity of forage throughout the growing season, besides being earlier. Kentucky blue grass will usually come into the pasture of its own accord, but can be hastened by seeding about five pounds with the mixture mentioned above. If the grasses mentioned above are not available, then a mixture of twelve pounds of timothy, eight pounds of common red clover, four pounds of mammoth clover and four pounds of alsike may be seeded.

The grasses should be seeded in the fall with the winter grain and the clovers in early spring when the frost goes out, or both may be seeded together with the spring grain. If a grass-seed attachment to the grain drill is not available, the seed may be mixed in the proper proportions with the grain in the grain box and allowed to run down the grain tube with the grain.

The timothy and clover will be available for hay the first year after the grain is cut. By the third year a good permanent sod will be secured that, if properly cared for, will improve with age. Such pastures will not produce much feed during periods of intensive drouth, but if they have been properly cared for will begin to grow again as soon as rains come. To avoid as much as possible the injury from drouth, it is essential that pastures be not grazed too closely. There should be a good green cover or "grass mulch" in order to protect the roots from the hot sun. Such a pasture will remain green longer during dry weather and will begin to grow as soon as the drouth is broken, thus shortening the period of bare pastures.

However, provision should always be made to supplement the pastures at this season by planting summer forage to tide over.

Supplementary and Summer Pastures.—An excellent plan in providing against shortage of pastures is to grow each year some of the supplementary crops, such as rye, millet, cowpeas, rape or sorghum, mentioned above to be used during the dry season. An excellent annual pasture can be made by seeding together in spring one and one-half bushels of oats, thirty pounds of sorghum and ten pounds of mammoth or common red clover. The oats are ready for pasture in late spring and early summer, the sorghum comes on at its best in the hot midsummer, while the clover gives some fall pasture.

Disking Stubble Ground.

Disking stubble ground as soon as possible after the grain is taken off is a good start for an easy-working field next season. Many good farmers do not favor July disking, claiming that it is extra work without giving any material advantage. But let us see. This early July or August disking prevents baking. It stirs up weed seeds and gives them favorable conditions for growth. Two or three inches of disked surface act as a mulch and tends to soften up the soil for later plowing. This is a new practice with Illinois farmers, but I have observed that early disked fields plowed better in the fall and such ground was in much better mechanical condition the next spring than stubble ground which had been left undisturbed until along in September or October.—L. C. Brown.

Feeding or Plowing Under Clover.

A correspondent states that he has a fairly good crop of clover, grown primarily for turning under, but on account of short feed he would like to feed it, and asks which will be the most profitable.

By all means feed the crop and return to the ground the manure. Clover hay is worth right now around fifteen dollars a ton, practically twice as much as its real manurial value, so that the only question of profit between feeding or plowing under is whether one has stock to feed, so that the greatest possible amount of manure may be returned to the soil. By the time the clover is cut for hay there will be several tons of root growth per acre. This will be a benefit to the soil, and, together with the value of the hay crop, will give a pretty fair return for the ground and clover seed.—L. C. Brown.

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Several months ago the demand for the higher-priced HOWARDS became so great that we had to discontinue the making of the models at $35 and $37.50.

The lowest-priced HOWARD that we are making now comes at $40. It is a 17-jewel *double roller* cased in Crescent or Boss gold-filled. The 23-jewel HOWARD in a 14K solid gold case sells at $150—there are several grades in between these prices.

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Send us your name on a postal card and we will send you—FREE—our pamphlet—THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

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Dept. No. 122, Boston, Mass.

When to Sow Cover Crops.

A Jasper county, Illinois, correspondent asks when is the best time to sow a cover crop in an orchard, and he wants to know how rye will do.

The benefit of a cover crop is in proportion to the growth or bulk made before the crop is killed down. Hence it is best to sow as early as possible, providing, of course, there is sufficient moisture in the ground to start the seed. Rye is sometimes used as a cover crop in orchards, but any of the legumes is so much better that I would not consider rye. If clover will not do well in Jasper county, I should sow winter vetch. Cowpeas will make a tolerably good growth during the fall and probably crimson clover would do well in this particular region. Any of these crops will produce material much more valuable than rye for plowing under, and, besides that, make an efficient winter cover.—L. C. Brown.

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Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and on all manufactured goods admitted into the country, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and state and he pays indirect taxation for the support of the federal government. We believe that the advantage of the markets of the United States belongs to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the government receives support and the farmer has a very moderate degree of what is called protection. In times of scarcity foreign farm productions can come in on a fair basis, and in times of abundance the country thrives without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would shut his doors. Legislation against the farming interest is the height of folly. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Our Weather Predictions.

We have decided to publish weather predictions one month in advance. The September forecasts are published in August, commencing on page 26, and by keeping the paper on hand our readers will be able to start off with the weather on the first of each month.

There are several scientists investigating weather conditions with more or less success, mostly less, and after several-years' study of the results we have decided to use the forecasts of Prof. W. Wadsworth Marsh. His predictions were used exclusively for many years by one of the great Cincinnati papers, but hereafter The National Farmer and Stock Grower will receive his forecasts regularly, and, as stated, publish them one month in advance.

The September forecasts indicate a busy month in weather, and some of the expected developments may be startling, yet the month of September is usually an active month in this department, and if there is anything coming to us it is well to prepare for it as best we can.

How Senators Voted on the Reciprocity Bill.

Against (Republicans.) — Borah Idaho; Bourne, Oregon; Bristow, Kansas; Burnham, New Hampshire; Curtis, Kansas; Cummins, Iowa; Clapp, Minnesota; Clark, Wyoming; Crawford, South Dakota; Dixon, Montana; Gronna, North Dakota; Gamble, South Dakota; Heyburn, Idaho; Kenyon, Iowa; La Follette, Wisconsin; Lippit, Rhode Island; Lorimer, Illinois; McCumber, North Dakota; Nelson, Minnesota; Oliver, Pennsylvania; Page, Vermont; Smith, Michigan; Smoot, Utah; Warren, Wyoming—24.

Against (Democrats.) — Bailey, Texas; Clarke, Arkansas; Simmons, North Carolina—3.

For (Republicans.)—Bradley, Kentucky; Brandegee, Connecticut; Briggs, New Jersey; Brown, Nebraska; Burton, Ohio; Crane, Massachusetts; Cullom, Illinois; Guggenheim, Colorado; Jones, Washington; McLean, Connecticut; Nixon, Nevada; Poindexter, Washington; Penrose, Pennsylvania; Perkins, California; Richardson, Delaware; Root, New York; Stephenson, Wisconsin; Townsend, Michigan; Works, California; Wetmore, Rhode Island—20.

For (Democrats.)—Bacon, Georgia; Bankhead, Alabama; Bryan, Florida; Fletcher, Florida; Chamberlain, Oregon; Chilton, West Virginia; Culberson, Texas; Davis, Arkansas; Foster, Louisiana; Gore, Oklahoma; Hitchcock, Nebraska; Johnson, Maine; Johnston, Alabama; Kern, Indiana; Martin, Virginia; Martine, New Jersey; Meyers, Montana; Newlands, Nevada; O'Gorman, New York; Overman, North Carolina; Owen, Oklahoma; Paynter, Kentucky; Pomerene, Ohio; Reed, Missouri; Shively, Indiana; Swanson, Virginia; Stone, Missouri; Smith, Maryland; Smith, South Carolina; Taylor, Tennessee; Watson, West Virginia; Williams, Mississippi—32.

Absent.—Dupont, Delaware; Frye, Maine; Gallinger, New Hampshire; Lea, Tennessee; Percy, Mississippi; Rayner, Maryland; Tillman, South Carolina—7.

Paired With Absentees.—Dillingham, Vermont; Sutherland, Utah; Thornton, Louisiana—3.

There are two Senate vacancies —Georgia (due to the resignation of Senator Terrell) and Colorado.

Released From Obligation.

On Saturday, July 22d, 1911, the United States farmer was released from all obligation to other people. Formerly the home market belonged to the home farmer, and his market was protected from the invasion of foreign supplies unless from the foreign supplies was collected a reasonable import duty. The farmer was therefore under obligation to feed his own people. On July 22d a law was enacted by the National Legislature which calls upon the people of Canada to feed the people of the United States. This law was passed for the express purpose of reducing the price of the United States farmers' products, and it was made a law before the farmers of the United States had received substantial benefits of the duties previously imposed and before the farmers had failed in their obligation. Furthermore, the treaty, which was specially designed to reduce the price of the United States farmers' products, was also specially designed to hold up prices of these products after manufactured conditions. It therefore doubly discriminates against the farmer. If therefore in the future the farm products of the United States decrease instead of increase, the farmer cannot be held responsible, because he has been released from all obligation.

What Congress is Doing.

Congress is legislating against our bread, meat and clothing-producing industries and doing more damage in one session than a dozen Congresses can restore. Some day the cry will go up: "Where is our wheat to make our bread? Where are our sheep that used to furnish wool and mutton?" The answer will be: "Your wheat is in Canada. Your wool is in Australia, and your meat is in Argentine." Another cry will go up: "Where is the money?" The answer will be: "It is on the ocean, going to foreign countries, just as it goes out now from England." The theory that the United States can thrive by buying most of our food and clothing necessities from foreign countries is foolish in the extreme, no matter if it is the basis of legislation at Washington.

Two Profit Earners
This 1½ H. P. Waterloo Boy Farm Pump Engine is the simplest, lightest, strongest gasoline engine for its size and rating in the world. It is geared up directly to the pump by a strong double back gear. This cuts out all belting and makes it Simple, Powerful and Economical. You can disconnect it in an instant and belt it up to any other farm machine, from cream separator or washing machine to corn sheller or light dynamo.
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All clubs are made up with class numbers. This is the simplest method of subscribing for publications through a subscription agency. You thereby obtain the lowest rate that is possible. The most wasteful method of buying papers is to buy them one at a time. For instance, the Saturday Evening Post is 5 cents a copy 52 times a year, which amounts to $2.60, and the subscription rate is $1.50, a saving of $1.10, or 22 copies out of 52. This agency is unable to make any reduction on the Saturday Evening Post, yet we use it as an example of economy in subscription work.

Class Numbers of Publications.

In looking over the class numbers of publications, please remember that from these numbers you obtain the clubbing price. Orders for single publications have nothing to do with class numbers. When you club several publications together you obtain the class rate. All you have to do is to add the class numbers of the papers you desire to subscribe for together, multiply by 5 cents and remit the amount.

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Class Number.			Full Price.	Our Price.
18	American Agriculturist	W.	$1.00	$1.00
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16	American Cultivator	W.	1.00	80
7	American Farmer	M.	40	35
19	American Thresherman	M.	1.00	85
23	Breeders' Gazette	W.	1.75	1.75

(THE BREEDERS' GAZETTE is also called the American Stock Farm. It is a great publication, sometimes the first-named of all weekly farm papers. Being in Class 23, it is very cheap in club combinations.)

15	Colman's Rural World	W.	1.00	75
16	Connecticut Farmer	W.	1.00	85
23	Country Gentleman	W.	1.50	1.50
65	Country Life in America	S.M.	4.00	4.00
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(FARM AND HOME is a remarkable semi-monthly publication at a low price, but it is very instructive and valuable. We recommend that it be included in every club.)

17	Farm and Ranch	W.	1.00	1.00
9	Farm and Fireside	S.M.	50	50
9	Farm Home	M.	50	45
17	Farm Journal, five years	M.	1.00	90
5	Farm News	M.	25	25
5	Farm Progress	S.M.	$0.25	$0.25
20	Farmers' Home Journal	W.	1.00	1.00
18	Farmers' Review	W.	1.00	90
9	Farmer's Voice	S.M.	50	45
15	Fruit Grower (St. Joe)	M.	1.00	75
7	Fruitman and Gardener	M.	50	40
22	Garden Magazine	M.	1.50	1.50
8	Green's Fruit Grower	M.	50	40
18	Hoard's Dairyman	W.	1.00	90
8	Home and Farm	S.M.	50	45

(HOME AND FARM, of Louisville, Ky., is published semi-monthly and is a standard publication for Southern farmers. Added to any clubbing list it will cost but little and will surely please the subscriber.)

12	Indiana Farmer	W.	60	60
17	Inland Farmer	W.	1.00	85
16	Iowa Homestead	W.	1.00	85
15	Irrigation Age	M.	1.00	90
8	Journal of Agriculture	W.	50	45
15	Kansas Farmer	W.	1.00	85
30	Kentucky Stock Farm	W.	2.00	2.00
8	Kimball's Dairy Farmer	S.M.	50	40
18	Michigan Farmer	W.	1.00	90

Class Number.		Full Price.	Our Price.
8	Mo. and Kansas Farmer	M.	$0.50	$0.50
5	National Farmer and Stock Grower	M.	50	40

(THE NATIONAL FARMER AND STOCK GROWER is a splendid monthly publication, four columns to the page, 32 pages. It can be used at small expense to the advantage of all who are engaged in farming and stock raising. It is equally valuable in any state.)

18	New England Homestead	W.	1.00	1.00
13	Ohio Farmer	W.	75	75
7	Oklahoma Farm Journal	S.M.	50	40
18	Orange Judd Farmer	W.	1.00	1.00
35	Pacific Rural Press	W.	2.00	1.80
17	Practical Farmer	W.	1.00	90
36	Rocky Mountain Husbandman	W.	2.00	2.00
16	Rural Californian	M.	1.00	90
8	Rural Farmer	M.	50	50
7	Rural Life	M.	50	40
20	Rural New Yorker	W.	1.00	1.00
16	Southern Cultivator	S.M.	1.00	85
9	Southern Planter	M.	50	50
9	Southern Ruralist	S.M.	50	50
50	Suburban Life	M.	3.00	3.00
17	Tribune Farmer (N. Y.)	W.	1.00	1.00
18	TwentiethCenturyFarmer	W.	1.00	1.00
18	Wallace's Farmer	W.	1.00	1.00
13	Wisconsin Agriculturist	W.	75	75
15	Wisconsin Farmer	W.	1.00	90

ENGINEERING AND MECHANICAL.

33	Am. Carpenter & Builder	M.	$2.00	$1.75
34	Am. Engineer & R.R. Jour.	M.	2.00	1.75
20	American Machinist	M.	1.00	1.00
77	American Machinist	W.	4.00	3.85
17	Blacksmith & Wheelw't.	M.	1.00	1.00
19	Building Age	M.	1.00	1.00
28	Cement Age	M.	1.50	1.40
37	Clay Worker	M.	2.00	1.85
28	Electric Journal	M.	1.50	1.40
57	Electric Railway Journal	W.	3.00	3.00
20	Electrical Age	M.	1.00	1.00
24	Electrician and Mechanic	M.	1.50	1.50
19	Engineering Review	M.	1.00	95
16	Gas Engine Magazine	M.	1.00	85
15	Gas Power	M.	1.00	80
34	Horseless Age	W.	2.00	1.75
14	Industrial Magazine	M.	1.00	85
37	Metal Worker	W.	2.00	2.00
16	Modern Electrics	M.	1.00	90
15	Modern Machinery	M.	1.00	90
9	Modern Methods	M.	50	50
22	Photo Era	M.	1.50	1.50
15	Popular Electricity	M.	1.00	1.00
28	Popular Mechanics	M.	1.50	1.50
58	Popular Science Magazine	M.	3.00	2.90
16	Practical Engineer	M.	1.00	1.00
45	Scientific American (new)	W.	3.00	2.75

(THE SCIENTIFIC AMERICAN has been for many years the foremost engineering and mechanical educator in the United States. In Class 45, in clubs of not less than three publications, it is brought within the bargain list.)

15	Stenographer	M.	1.00	90
22	Technical World Magazine	M.	1.50	1.50
52	Telephony	W.	3.00	3.00
18	Wood Worker	M.	1.00	90

FRUIT, NUTS AND VEGETABLES.

8	American Fruit and Nut Journal	M.	$0.50	$0.50
37	California Fruit Grower	W.	2.00	1.85
15	Fruit Grower (St. Joe)	M.	1.00	75
18	Fruitman's Guide	M.	1.00	90
18	Fruit Trade Journal	W.	1.00	90
7	Fruitman and Gardener	M.	50	40
8	Green's Fruit Grower	M.	50	46
8	Nut Grower	M.	50	50
18	Orchard and Farm (Calif.)	M.	1.00	1.00
18	Pacific Fruit World	W.	1.00	1.00

JUVENILE PUBLICATIONS.

17	American Boy	M.	$1.00	$1.00
15	Boys' Magazine	M.	1.00	1.00
35	Boys' Own Paper	M.	1.80	1.80
9	Boys' World	M.	50	50
27	Cassell's Little Folks	M.	1.50	1.50
17	Children's Magazine	M.	1.00	1.00
26	Children's Star	M.	1.50	1.35
9	Girls' Companion	M.	50	50
34	Girls' Own Paper	M.	1.80	1.80
17	Little Folks	M.	1.00	1.00
35	St. Nicholas (New only)	M.	3.00	2.85
10	Young Idea	M.	50	50
35	Youth's Companion	W.	1.75	1.75

LIVE STOCK PUBLICATIONS.

17	American Bee Journal	M.	$1.00	$1.00
36	American Horse Breeder	W.	2.00	2.00
19	American Sheep Breeder	M.	1.00	1.00
18	American Swineherd	M.	50	40
50	Bit and Spur	M.	3.00	2.75
23	Breeders' Gazette	W.	1.75	1.75
17	Gleanings in Bee Culture	S.M.	1.00	90
18	Hoard's Dairyman	W	1.00	90
18	Horse Gazette	W.	1.00	90
47	Horse Review	W.	2.50	2.35
35	Horse World	W.	2.00	1.75
35	Horseman and Spirit	W.	2.00	1.75

(THE HORSEMAN AND SPIRIT OF THE TIMES is issued weekly. The annual stallion number is almost worth the price of the year's subscription.)

30	Kentucky Stock Farm	W.	2.00	2.00
8	Kimball's Dairy Farmer	S.M.	50	40
15	Live Stock Journal	W.	1.00	90
5	National Farmer and Stock Grower	M.	50	40
85	Rider and Driver	W.	5.00	4.50
16	Spirit of the West	W.	1.00	80
35	Saddle and Horse Show Chronicle	W.	2.00	1.90
68	Sports of the Times	W.	$4.00	$3.50
37	Thoroughbred Record	W.	2.00	1.90
34	Western Horseman	W.	$2.00	$1.75

MONTHLY MAGAZINES.

27	Adventure	M.	$1.50	$1.40
22	Ainslee's Magazine	M.	1.80	1.50
22	American Magazine	M.	$1.50	$1.50
20	American Suburbs	M.	1.50	1.50
20	Argosy	M.	1.00	1.00
77	Atlantic Monthly	M.	4.00	4.00
16	Black Cat	M.	1.00	90
27	Blue Book	M.	1.50	1.50
48	Bookman	M.	2.50	2.50
20	Cavalier	M.	1.00	1.00
77	Century Magazine	M.	4.00	3.85
20	Columbian Magazine	M.	1.50	1.25
16	Cooking Club Magazine	M.	1.00	90
17	Cosmopolitan	M.	1.00	1.00
45	Current Literature	M.	3.00	2.50
22	Everybody's Magazine	M.	1.50	1.50
45	Forum	M.	2.50	2.50
35	Fra Magazine	M.	2.00	2.00
22	Hampton's Magazine	M.	1.50	1.50
20	Harper's Bazaar	M.	1.25	1.25

(HARPER'S BAZAAR is a stand-by. It solves every programme in life for the American woman. It is the chosen magazine of the best and most thoughtful class of women in this country.)

70	Harper's Magazine	M.	$4.00	$4.00
17	Human Life	M.	1.00	1.00
16	Judge's Library	M.	$1.00	$1.00
8	The Ladies' World	M.	50	50

(THE LADIES' WORLD, published at 50 cents a year, is a miracle of beauty, elegance and utility. It is ornamental, instructive, with colored covers.

35	Lippincott's Magazine	M.	2.50	2.25
22	McClure's Magazine	M.	1.50	1.25
20	Metropolitan Magazine	M.	1.50	1.25
20	Munsey's Magazine	M.	1.00	1.00
22	National Magazine	M.	1.50	1.25
28	New England Magazine	M.	1.50	1.50
70	North American Review	M.	4.00	4.00
28	Out West Magazine	M.	1.50	1.50
25	Overland Monthly	M.	1.50	1.25
20	Pacific Monthly	M.	1.50	1.25
22	Pearson's Magazine	M.	1.50	1.25
17	Philistine	M.	1.00	90
18	Pickings From Puck	M.	1.00	1.00
16	Pictorial Review	M.	1.00	90
16	Progress Magazine	M.	1.00	90
16	Railroad Men's Magazine	M.	1.00	90
27	Red Book	M.	1.50	1.40
40	Review of Reviews	M.	3.00	3.00

(REVIEW OF REVIEWS keeps the busy man and woman fully informed on the work of the world and condenses the matter into readable shape. It is a time-saver and probably the most valuable of all publications classed as magazines. We have it in Class 40, but it cannot be included in any class where the class total is less than 60.)

20	Scrap Book	M.	1.00	1.00
57	Scribner's Magazine	M.	3.00	3.00
25	Short Stories	M.	1.50	1.35
16	Sis Hopkins' Magazine	M.	1.00	90
40	Smart Set	M.	3.00	2.50
22	Smith's Magazine	M.	1.50	1.40
28	Strand Magazine	M.	1.50	1.50
19	Success Magazine	M.	1.00	1.00
22	Sunset Magazine	M.	1.50	1.25
22	Taylor-Trotwood Magazine	M.	1.50	1.25
22	Technical World	M.	1.50	1.25
22	Travel Magazine	M.	1.50	1.25
15	Uncle Remus Magazine	M.	1.00	90

(UNCLE REMUS MAGAZINE is a delightful publication, especially for the South. It has some of the most attractive stories and instructive articles in print. In Class No. 15 is a low-price magazine, but that does not detract from the high quality of the publication.)

15	Vegetarian Magazine	M.	1.00	85
15	Watson's Magazine	M.	1.00	80
34	Wide World Magazine	M.	1.20	1.20
22	World To-day	M.	1.50	1.40
40	World's Work	M.	3.00	2.50
22	Young's Magazine	M.	1.50	1.35

MUSIC AND DRAMATICAL.

65	Bill Board	W.	$4.00	$3.75
18	Choir Herald	M.	90	90
18	Choir Leader	M.	90	90
69	Dramatic Mirror	W.	4.00	3.50
69	Dramatic News	W.	4.00	3.50
22	Etude	W.	1.50	1.50

(THE ETUDE, for music lovers, contains each month twelve pieces of new music, with instructions and interesting reading for pianists, violinists, organists, children and clubs.)

18	Metronome	M.	1.00	90
32	Music Trade Review	M.	$2.00	$1.60
34	Musical America	W.	2.00	1.75
90	Musical Courier	W.	5.00	5.00
17	Musical Observer	M.	1.00	1.00
22	Musician	M.	1.50	1.50
65	New York Clipper	W.	4.00	3.50
29	Organist	B.M.	1.50	1.50
67	Standard and Vanity Fair	W.	4.00	3.40
60	Theatre Magazine	M.	3.50	3.25
24	Violinist	M.	1.50	1.35
9	Violin World	M.	50	45

POULTRY AND PET STOCK PAPERS.

8	American Poultry Advocate	M.	$0.50	$0.45
8	American Poultry Journal	M.	50	45
17	Cat Journal	M.	1.00	85
18	Dogdom	M.	1.00	90
8	Dog Fancier	M.	50	40
9	Farm Poultry	S.M.	50	45
8	Inland Poultry Journal	M.	50	45
9	Pet Stock Magazine	M.	50	45
16	Poultry	M.	1.00	90
8	Poultry Keeper	M.	50	45
8	Poultry Success	M.	50	45
8	Poultry World	M.	50	45
7	Reliable Poultry Journal	M.	50	40

(RELIABLE POULTRY JOURNAL is a wonderful monthly publication. It is here for club raisers in Class 7. There is no equal to it in all the poultry books that are advertised at fancy prices.)

7	Standard, The	M.	$0.50	$0.40

SPORTING AND RECREATION.

16	Amateur Sportsman	M.	$1.00	$0.90
80	American Field	W.	4.00	4.00
45	Am. Homes and Gardens	M.	3.00	2.75
35	American Sportsman	W.	2.00	1.75
50	Automobile	W.	3.00	2.75
35	Automobile Topics	W.	2.00	2.00
25	Baseball Magazine	M.	1.50	1.35
50	Bit and Spur	M.	3.00	3.00
65	Clipper, New York	W.	4.00	3.50
65	Country Life in America	S.M.	4.00	4.00

(COUNTRY LIFE IN AMERICA is issued twice a month and is the most beautiful and costly periodical issued in the United States. It appeals to every artistic instinct without detracting in the least from the productive possibilities of every acre of ground.)

30	Field and Fancy	W.	2.00	1.60
22	Field and Stream	M.	1.50	1.50
16	Fly	M.	1.00	1.00
45	Forest and Stream	W.	3.00	3.00
35	Golf	M.	2.00	1.75
35	Horseman and Spirit	M.	2.00	1.75
45	House and Garden	M.	3.00	3.00
19	Hunter, Trader, Trapper	M.	1.00	1.00
18	Journal of Outdoor Life	M.	1.00	90
47	Motor Age	W.	3.50	2.75
34	Motor Boat	S.M.	2.00	1.75
16	Motor Boating	M.	1.00	1.00
15	Motor Field	M.	1.00	90
15	Motor Print	M.	1.00	90
34	Motor World	W.	2.00	1.75
18	National Sportsman	M.	1.00	1.00
27	Outdoor Life	M.	1.50	1.35
27	Outers' Book	M.	1.50	1.35
47	Outing Magazine	M.	3.00	3.00
25	Physical Culture	M.	1.50	1.50
35	Recreation	M.	3.00	2.00
85	Rider and Driver	W.	5.00	4.50
60	Rudder	M.	3.00	3.00
22	Shields' Magazine	M.	1.50	1.35
38	Sporting Life	W.	2.00	2.00
34	Sporting News	W.	2.00	1.75
26	Sports Afield	M.	1.50	1.50
50	Suburban Life	M.	3.00	3.00
33	Trotter and Pacer	M.	2.00	1.75
28	Yachting	M.	2.00	2.00

WOMEN'S PUBLICATIONS.

18	American Motherhood	M.	$1.00	$1.00
15	Baby	M.	1.00	1.00
17	Boston Cooking School	M.	1.00	1.00
16	Cooking Club Magazine	M.	1.00	1.00
16	Delineator	M.	1.00	1.00

(THE DELINEATOR is a great, popular favorite. In Class 16 it is very moderate in cost and yet is the equal of any woman's publication. We take a great many subscriptions for THE DELINEATOR.)

12	Designer	M.	75	75
17	Dressmaking At Home	M.	1.00	1.00
9	Everday Housekeeping	M.	50	50
20	Good Housekeeping	M.	1.25	1.25
20	Harper's Bazaar	M.	1.25	1.25
16	Health	M.	1.00	1.00
12	Home Needlework	B.M.	75	75
45	House Beautiful	M.	3.00	3.00
16	Household Companion	M.	1.00	85
16	Housekeeper	M.	1.00	1.00
30	Ladies' Home Journal	S.M.	1.50	1.50
9	Ladies' World	M.	50	50
9	McCall's Magazine	M.	50	50
12	Modern Priscilla	M.	75	75

(MODERN PRISCILLA is high-grade in every respect. Devoted to art needlework, painting, brass work, pyrography, basketry, stencilling, etc. It is valuable and cheap.)

10	Mothers' Magazine	M.	50	50
9	New Idea Magazine	M.	50	50
17	Table Talk	M.	1.00	1.00
32	Toilettes	M.	2.00	1.60
70	Vogue	S.M.	4.00	4.00
15	Woman Beautiful	M.	1.00	80
22	Woman's Home Companion	M.	1.50	1.50
18	Woman's Nat. Daily. 6 Issues.		1.00	1.00
76	Woman's Work	M.	$1.00	$1.00
75	Young Ladies' Journal	M.	4.00	3.75

WEEKLY NEWSPAPERS.

20	Arkansas Gazette	W.	$1.00	$1.00
17	Atlanta Constitution	T.W.	1.00	90
17	Atlanta Journal	S.	1.00	90
20	Baltimore American	S.W.	1.00	1.00
30	Boston Transcript	W.	1.50	1.50
19	Buffalo Courier	W.	1.00	1.00
18	Charleston News & C.	S.W.	1.00	90
8	Chattanooga News	W.	50	50
18	Chicago Evening Post	W.	1.00	1.00
15	Chicago Inter-Ocean	W.	1.00	80
17	Chicago Ledger	W.	1.00	1.00
30	Chicago Saturday Times	W.	2.00	1.60
15	Cincinnati Enquirer	W.	1.00	1.00
99	Collier's Weekly	W.	$5.50	$5.50
18	Dallas (Tex.) News	S.W.	1.00	1.00
10	Denver Post	W.	50	50
19	Denver Republican	W.	1.00	1.00
19	Denver Times	W.	1.00	1.00
19	Detroit Courier	W.	1.00	90
18	Detroit Journal	S.W.	1.00	90
19	Duluth Herald	W.	1.00	1.00
45	Family Story Paper	W.	3.00	2.25
18	Fort Worth Record	S.W.	1.00	1.00
70	Harper's Weekly	W.	4.00	4.00
19	Houston Post	S.W.	1.00	1.00
35	Independent	W.	3.00	3.00
15	Jeffersonian (Watson's)	W.	1.00	1.00
90	Judge	W.	5.00	5.00
5	Kansas City Journal	W.	25	25
4	Kansas City Star	W.	25	25

(THE KANSAS CITY WEEKLY STAR is a splendid newspaper, fully equal to any of the higher-priced weekly publications. Added to any club it will produce a weekly visit to any home that will be worth double what it costs.)

80	Leslie's Weekly	W.	5.00	5.00
80	Library Journal	W.	4.00	4.00
90	Life (with picture)	W.	5.00	4.50
55	Literary Digest (new)	W.	3.00	3.00
18	Los Angeles Express	W.	$1.00	$1.00
17	LouisvilleCourier-Journal	W.	1.00	1.00

(THE LOUISVILLE COURIER-JOURNAL is a valuable publication for the homes in the Southern States. In addition to giving all the news, there are home departments and current literature.)

10	Memphis Com. Appeal	W.	50	50
9	Montgomery Advertiser	W.	50	50
10	Nashville American	W.	50	50
58	Nation	W.	3.00	3.00
18	New Orleans Picayune	S.W.	1.00	1.00
18	New York Tribune	W.	1.00	90
18	New York World	T.W.	1.00	90
9	Oklahoman	W.	50	50
17	Omaha World Herald	S.W.	50	50
60	Outlook	W.	3.00	3.00
19	Pathfinder	W.	1.00	1.00
15	Pittsburg Dispatch	W.	1.00	1.00
19	Pittsburg Post	W.	1.00	1.00
90	Puck	W.	5.00	4.50
18	Richmond Times Dispatch	W.	1.00	1.00
15	St. Louis Globe-Democrat	S.W.	1.00	80
10	St. Louis Republic	S.W.	50	50
18	San Antonio Express	S.W.	1.00	90
18	San Francisco Call	W.	1.00	90
27	San Francisco Examiner	S.W.	1.50	1.50
30	Saturday Evening Post	W.	1.50	1.50
15	Sioux City Tribune	S.W.	1.00	90
20	Tacoma Ledger	W.	1.00	1.00
15	The Commoner	W.	1.00	80

(THE COMMONER, edited by William Jennings Bryan, is here in Class 15 and helps to make a very attractive club upon an economical basis.)

15	Toledo Blade	W.	1.00	80
19	World's Chronicle	W.	1.50	1.50

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The Reciprocity Treaty.

The National Farmer and Stock Grower was opposed to the reciprocity treaty with Canada and did all that was reasonable, fair and consistent against it. As it now stands, all that is necessary to put the treaty into effect is for it to be ratified by the Canadians.

In Canada the people can get a vote upon almost any important question. The new Canadian Parliament will meet October 11th, but action on the treaty is expected to take place late in that month. It may be taken for granted that the Canadians will be glad of the chance to accept the treaty; it is to the Canadians "like picking up money in the street." It gives the Canadian farmer free entry for his products into the United States. The dominant party in Canada is in favor of the treaty and the election will be a mere routine.

It was reported from Kenton, O., on July 16th, that Peter Bohem, 45, a farmer, was struck by lightning and instantly killed, while riding on a load of hay near Dola, northwest of Kenton. Henry Bohem and Christopher Burger, who were riding with him, were knocked from the hay by the shock.

Liberal Use of Fertilizers.

The wise farmer will use fertilizers liberally if he can figure out a profit from the application. The unwise farmer will not use them, even if he can figure a profit from so doing.

Here is an astonishing fact: That many men, after having fully recognized the value of fertilizer using, still continue to scratch over half-fertile land, which they farm often at no appreciable profit.

To-day, more than ever before, we have a vast fund of information on the value of fertilizers. Almost every phase of agriculture has been investigated as to its relations to the various kinds of fertilizers that are available. The books are full of the experiments, and the various governments are constantly sending out new bulletins telling what results can be obtained.

It is certain that if the liberal use of fertilizers were not a paying process the campaign of education in favor of them would long ago have died out. The fact that the education is continued from decade to decade and from century to century proves of itself that the matter is one of vital interest to the farmer and to the food-consuming world at large.

This thought must be kept to the front: It costs just as much to till an acre of land that is not fertilized as one that is fertilized. Probably it is safe to say that it costs far more to till an acre of non-fertilized, little-productive land than it does an acre of productive land.

With the poor acre there is a constant battle with weeds due to the fact that weeds take possession of waste places. Where the crop is luxuriant the weeds are kept down to a point where a little cultivation at the right time finishes them. Also the land is kept from baking and the soil bacteria are always working in the process of elaborating plant food.

The writer has seen the wonderful effect of fertilizers again and again. He has in mind one very highly-fertilized piece of land that was this past spring put into several kinds of garden truck. Now, when the hot weather is daily wilting many fields, this highly-fertilized acre is a mass of green and does not show signs of deterioration. The roots of the plants have struck deep and are evidently in a stratum of moist soil that is supplying them with all the moisture they need. This is always the effect of high fertilization. Drouth-resisting plants are the deep-rooting plants, and plants do not strike deep on soil that is deficient in plant food.

If one sets down to figure it, the cost of fertilizer per acre is small. With almost all kinds of fertilizers the effect is to be seen for years after. Even nitrogenous fertilizers, the most elusive of all, because based on nitrogen, will last astonishingly in the soil.

Four years ago the writer gave one plat a very heavy application of nitrogen. He did not expect to see its effect after the first year; but even this year the results are notable because of the ranker growth of the foliage of plants on that plat and by the darker, richer green in color.

The Scope of Agricultural Education.

We are only at the beginning of agricultural education. The few things we try to learn to-day are but a handful of the things we shall learn. The science of agriculture expands on every side. The more we learn about it the more there is to learn.

Agricultural education is like a globe that is constantly growing. The larger it becomes the greater the surface on which things may grow, and, as there is no limit to the increase in size, so there is no limit to the plants of knowledge that may grow on it.

So the farmer that attempts to educate himself in all the phases of his profession is entering on an endless task, but a task that has its own compensations and its own pleasures.

There is nothing more godlike than creating things and learning to create. The more the human being grows in intelligence the more does he learn to create. After a time the creating of things becomes a passion, and he enters on a course of constantly creating new things. His farm takes on new forms. The unsightly things disappear and in their place come the elements of beauty. He creates a new color on the old house. He creates new orchards where the old and decaying ones used to be. He creates new barns, new fences, and even new utensils. Little by little he creates new and better ways of doing things, and wonders why he never thought of the improved ways before.

The farmer who educates himself in all the branches of agriculture will find himself facing in many directions, but this many-sided effort makes him a greater man and endues him with new powers.

One line of this education is in the study of the soil, its varying texture, as to sand, clay, lime, humus and water content. The chemistry of this alone is a matter that will require long study, and the knowledge of its chemistry will make easier and cheaper the process of fertilization or refertilization. The quality of capillary attraction will in itself engage long attention.

The study of crops is a stupendous one. Even the varieties of the same crop have different characteristics, and to learn even these is often to learn the secret of success. Many a man grows the wrong crop on his particular soil and is the loser by so doing. The stupid man continues to grow the wrong crop and becomes poor.

The study of live stock is one that ramifies through the whole world. Many farmers raise live stock without knowing much about live stock. This is evidenced in a hundred ways and results in the reduction or the dissipating of profits. To get stock raising down to a mathematical certainty is to eliminate from it the unprofitable methods and to retain the profitable things. Errors are costly, and the constantly repetition of costly errors brings many a farmer to ruin and many a good old farm into disrepute.

The matter of the sale of crops is a branch of agricultural education that must receive more attention from the farmer in the coming time. To-day the farmers for the most part are selling their products blindly and at a great loss to themselves. The prices the farmers receive and the prices the consumers pay have very little relation. The study of this branch includes the study of co-operative selling in all its parts.

And, in addition, there is the study of household affairs; the study of politics, which is by right a part of agricultural education, and the study of the community life. The latter includes the roads and the schools.

Agricultural education is the broadest education in the world.

Another Great Cheese.

The National Dairy Show is going to have another mammoth cheese on exhibition at the coming show to be held in Chicago at the International Live Stock Amphitheater, October 26th to November 4th, 1911. This time it is going to be the "greatest ever." The cheese exhibited at the last Dairy Show weighed over 4,000 pounds and was the largest cheddar cheese ever made. This year's cheese will weigh over 10,000 pounds and will take sixty-five tons of milk and cream from 6,500 cows milked by 1,350 men. Eighteen expert cheese makers and twenty-five assistants will be employed in the construction af the cheese, which will be transported to Chicago in a specially-constructed refrigerator occupying an entire flat car.

The entry comes from Mr. N. Simon, of Wisconsin, who also made the big cheese last year. It is not built alone for exhibition purposes, but will be of the finest commercial quality. The world's greatest cheese will undoubtedly attract wide-spread attention, and every means will be adopted by the officials of the National Dairy Show for exhibiting it in the most attractive manner.

High Price For Timothy Seed.

At St. Louis, Mo., on Saturday, July 22d, nine bags of timothy seed were sold at wholesale at the enormous price of $15.48 per 100 pounds. The drouth is responsible for the high prices. The seed sold at $3.50 to $4.00 per 100 pounds a year ago. This particular consignment of timothy seed was shipped by F. J. Taylor & Co., of Creston, Iowa, consigned to the Eaton-McClelland Commission Company, and bought by the Schisler-Corneli Seed Company.

Stirred Up the Neighborhood.

"Our whole neighborhood has been stirred up," said the farmer.

The editor of the country weekly seized his pen. "Tell me about it," he said. "What we want is news. What stirred it up?"

"The plow," said the farmer.—Ex.

The First Step In Scientific Farming Is An I H C Manure Spreader

YOU will never get the most out of your soil, until it is properly fertilized. And it will never be properly fertilized until you use a good manure spreader, because the use of a spreader will enable you to overcome the practice of spreading on one acre what should be used on two. Why delay the profits that are rightfully yours? Why not look into this manure spreader proposition at once? Learn the many reasons why thousands of other progressive farmers are having such great success with I H C Manure Spreaders.

When you examine one of these spreaders, note the extreme simplicity and great strength of the working parts; note that the beater driving gear is held in a single casting, thus there is no binding nor cutting of parts caused by the gearing springing out of alignment. Notice the roller bearing support for the apron which reduces the draft of the machine; operate the convenient levers; notice how quickly and easily the feed changing device can be shifted, and the wide range of adjustment.

Corn King Cloverleaf Kemp 20th Century

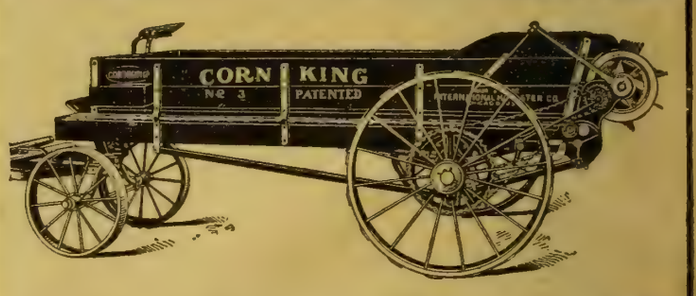
Each of these famous I H C Spreaders is simple, strong, and durable in every part. Each is instantly adjustable to spread light or heavy as your judgment tells you is best for the soil. Whether you have a large or small farm, or whether you want a spreader for orchard use—there is an I H C that will suit your requirements.

Why not see the I H C local dealer at once? Let him tell you why I H C Spreaders are so remarkably successful. Get catalogues from him, or, if you prefer, write direct for any information you desire.

I H C Service Bureau

The Bureau is a clearing house of agricultural data. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problems to the I H C Service Bureau.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
(Incorporated)
Chicago U S A



Best Holstein Records.

From the official report of Malcolm H. Gardner, of Delavan, Wis., Superintendent of Advanced Registry of Holstein-Friesian Cattle: "During the last fiscal year 4,476 animals, of which nearly one-half were heifers, produced within a period of seven consecutive days 1,793,762 pounds of milk, containing 62,937.259 pounds of butter-fat, thus showing an average of 3.51 per cent. The average production for each animal was 400.8 pounds of milk, containing 14.061 pounds of butter-fat, equivalent to 57.3 pounds or 27¼ quarts of milk per day, and 16.4 pounds of the best commercial butter per week. The mark set is so high that doubt may arise in some minds as to whether it is possible to better it; but up to the present time there has been no halt in the upward march of our records, and in my estimation we have not as yet reached the highest results obtainable."

Big Retail Milk Margins.

It will finally be necessary for milk producers to organize themselves for the purpose of selling their own product direct to the consumers. There is usually fourteen to sixteen cents a gallon margin between the price of the milk in the shipping can at the railway depot and the price of the milk sold by the pint and the half pint to the family consumer in the city. The milk sold to the hotels and restaurants being handled on a wholesale basis, does not carry so large a cash margin; but even if it is sold for a less price per gallon than the retail consumer pays, it is fully 50 per cent. over the cost price paid to the country shipper.

The matter of entering into the business of city milk distribution and sale is not an easy proposition. The large companies already in the business are well fortified and are satisfied to let prices be uniform without an agreement, so that they violate no law; but if a new distributing outfit invades the field, they buy the milk away from its shippers at temporarily advanced prices and leave the new competing concern to do business with empty wagons or reduced supplies. The temporary high prices paid to the farmer always get the milk away from the new competitor, and usually the new outfit goes broke. Some well-established plants known to be in difficulties either by want of sufficient capital or on account of internal troubles, are hastened out of business by the same process.

The only instances where success attends a new milk and cream distributer in a big city is where the supply is of superior quality, and, being owned by the distributer, cannot be taken away; and in this case the usual method is to buy out the entire concern, and making a contract for future supply at a fair price sends the new distributer back to his farm and leaving the city milk distribution where it was before. Large distributers are also insuring their supplies and making themselves independent of promiscuous shipments by establishing dump stations, where they receive, pasteurize and reduce the temperature and finally deliver milk at the city depot in better condition than the farmers' consignments arrive. All this has its effect to perpetuate the business of milk concentration and distribution, very much as it now stands. And we are free to admit that the conditions might be worse, providing the farmers could get together and sell their product as a unit. This, however, they usually fail to do, and in instances where they have contracted to deliver their product at a stated price the government has stepped in with the Sherman Anti-trust law, saying that it cannot be done; nothing, therefore, for the milk-producing farmers except to take in their own hands the organization of distributing companies, to take stock therein and to consign their milk and cream for sale just as they would and do to a co-operative creamery. In other words, co-operative creameries will have to be organized in large cities by farmers for the sale of butter, cheese, eggs, milk, cream, ice cream, buttermilk and all the forms by which dairy and creamery products are sold in cities.

Electric Power in Creamery.

We are using electricity for lighting and power in the Peterboro Creamery for the first time this season, writes A. Juby, of Peterboro county, Ontario, in Farm and Dairy. Electricity is most advantageous for lighting. In the short days of winter, particularly, electric light is very handy.

Electric power is more convenient and cheaper than is steam. Of course we will use the steam for heating, but it is not necessary to keep up pressure for churning. When we were using steam for both heating and power our coal bill for the year was $300. One hundred pays the coal bill now. The electric power costs us $100, which means a saving of $100 on the whole cost of power and heating. The light costs $1.00 a month extra.

Electricity is always ready to do the work for you. At any minute of the day it is just a case of turning on the current and going ahead, and it is far cleaner than a steam engine. The small dynamo takes up practically no room and there is no coal dust in connection with it. We use our five horse power dynamo to run the machinery of both our creamery and ice cream plant and it does the work just as easy or easier than did our eight horse power steam engine.

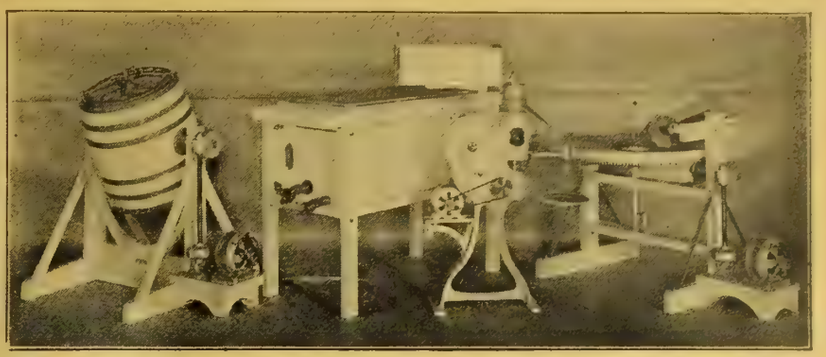
Butter Scores in Wisconsin.

The highest average score for butter examined at the University of Wisconsin, reached in the month of July during the past three years, has just been reported. For the eighty-five exhibits the average score was 92.52. The average water content was 13.66 per cent., the highest being 15.9, while seven samples had a water content of over 15. The lowest water content was 11.4. The average salt content was 2.48 per cent., the highest 4.7 per cent., and the lowest 1 per cent. In the milk class there were four exhibits with an average score of 95. In the milk and cream class there were 26 exhibits with an average score of 92.7, and in the cream class forty-one exhibits with an average score of 91.8.

Dairy and Creamery.

At the recent Buttermakers' Contest held at the Pennsylvania State College, forty-two tubs were on exhibit, and only fifteen failed to score 90 or better. The highest three scores were made by O. D. Mott, Edinburg, Pa., 94; W. L. Huntington, Burlington, Pa., 93; and E. S. Swope, Campbelltown, Pa., 93. These are creamery exhibits.

At Chicago, on July 26th, an organization called the American Dairy Cattle Congress, was completed. It grows out of the National Dairy Show. The officers are: President, C. W. Wood, Worcester, Mass.; Vice-President, J. J. Richardson, Davenport, Ia.; Treasurer, R. B. Swift, Libertyville, Ill.; Secretary, Charles F. Mills, Springfield, Ill.



A Dairy Equipment to be Proud Of.

There is little doubt if any better dairy equipment could be found anywhere in the world than this Vermont Farm Machine Company outfit, manufactured at Bellows Falls, Vt. At least, that is the opinion of Mr. Chas. S. Mellen, President of the N. Y. N. H. and H. R. R., who has installed the above complete outfit in his private dairy at his farm in Sturbridge, Mass.

This United States Separator, Surprise Barrel Churn and V. F. M. Butter Worker are all individual electric motor driven machines. No overhead wiring is seen in the room, as the wires are all under the cement floor. The cream ripening vat and all the other equipment is white enamel painted and all metal parts nickel plate. It is a most beautiful outfit and one which the wealthiest country estate owner would be proud to own.

These same machines, finished in natural wood, can be purchased at a very reasonable price and are within the means of every dairyman making butter on the farm.

By mentioning this paper, the Vermont Farm Machine Company will send you Catalog No. 125 to your address, fully explaining and illustrating their complete line.

Avoid Infection in Wounds.

Annually many deaths are caused by infection of wounds, and this is true both of the human race and the animals. Civilization has begun to lessen the number of deaths from this cause, and this is done by preventing the infection of wounds.

In the past many colts have been lost from the prevalence of deadly diseases, which were produced by germs entering the wounds about the severed navel cord. Now it is common to treat this part of the animal with a disinfectant as soon as born, thus shutting off the avenue by which the germs get into the circulatory system. There are various lotions for this purpose, and these may be learned by writing to any Experiment Station.

Every wound of an animal should be treated with some of the antiseptic solutions that are obtainable at the drug stores. A little wound may be as dangerous as a big wound, as far as the danger from infection is concerned. A pin prick has made way for the entrance of a deadly germ.

The rusty nail is often a most deadly weapon. When it penetrates the flesh of any animal or any person it often carries the germs of serious diseases, among them the germs of tetanus (or lockjaw). Whenever an animal or person is wounded by a rusty nail the wound should be washed out as much as possible by germ-killing washes such as druggists will be able to name.

The writer once lived near a boy who lost his life from stepping on a rusty nail. It resulted in lockjaw. A few years ago a young woman visited a United States revenue cutter anchored in Chicago harbor. As the girl leaped lightly down the ladder by which she had entered the vessel she struck a rusty nail, which went through the thin sole of one of her stylish shoes. A little wound was made, but was not thought serious; therefore, was not treated. The result was a case of lockjaw that resulted fatally, but which could have easily been prevented by the application to the wound of five cents' worth of any one of the antiseptic solutions so easily obtainable.

Every home, and especially every farm home, should keep constantly on hand washes recommended by the family physician or others that know, for the purpose of disinfecting wounds.

It was not so long ago that physicians, many of them, were very careless in the use of instruments in opening boils or performing other light surgical operations. The result was many infections that were often destructive of health and even of life. Now, the best physicians sterilize every instrument used in a surgical operation and also wash their hands in antiseptic solutions.

Often we find unskilled people doing such small surgical operations as lancing boils and using common needles and pins for the operation. The practice is a dangerous one, as it may cause infection. But needles, pins and other instruments used for such purposes should be dipped in antiseptic solutions before being used, or, if nothing else is available, dipping in boiling water should be resorted to. This will at least lessen the danger of wound infection.

Shoo-Fly THE ANIMALS FRIEND

Keeps flies and all insects and pests off animals — in barn or pasture—longer than any imitation. Used and endorsed since 1885 by leading dairymen and farmers.

$1 worth saves $20.00 in milk and flesh on each cow in a single season. Cures sores, stops itching and prevents infection. Nothing better for galls. Kills lice and mites in poultry houses.

SEND $1, if your dealer can't supply you, **for enough Shoo-Fly to protect 200 cows, and our 3-tube gravity sprayer without extra charge.** *Money back if not satisfactory.* Write for Booklet, free. Special terms to agents.

Shoo-Fly Mfg. Co., Dept. 28, 1310 N. 10th St., Philada.

Editor knows from experience that Shoo-Fly is O. K.

DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, cannot spill or tip over; will not soil or injure anything. Guaranteed effective. Of all dealers, or sent prepaid for 20 cents.

HAROLD SOMERS,
150 DeKalb Ave., - Brooklyn, N. Y.

ALFALFA,

Shield Brand, 99½ Per Cent. Pure.

TIMOTHY, CLOVER, RED TOP,
BLUE GRASS, WINTER VETCH.

SHIELD BRAND PASTURE,

HARDY, PERMANENT
GRASS MIXTURE.

SEED WHEAT and RYE,

TURNIP SEED,
VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

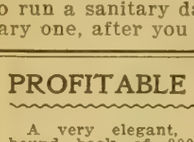
Send For Golden Arrow Seed Catalogue.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

In his own interest the dairy farmer should study to produce a sanitary product. It is just as easy to run a sanitary dairy as an unsanitary one, after you get used to it.

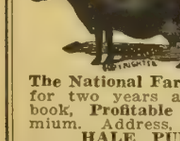
PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send **The National Farmer and Stock Grower** for two years and we will send the book, **Profitable Dairying,** as a premium. Address,



HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

SPRAGUE'S Fly Bouncer



drives away flies, mosquitos and insects. No pest can live where this magic liquid is used. Heavy lasting, harmless, healing. Cows feed quietly all day and give one-third more milk. SPECIAL OFFER: if your dealer does not handle Fly Bouncer send $1 for a large sample and special sprayer. Particulars free. Write to-day.

W.B. McCloud & Co., 327 W. Kinzie St. Chicago

Hon. Willet M. Hays, Assistant Secretary of Agriculture, Washington, D. C., is preparing two articles on "Country Life" for the Saturday Evening Post in which he advocates the concentration of all effort in each county to include crop improvement.

Garton & Cooper Seed Company is moving its main plant to Sugar Grove, a few miles out of Chicago on the "Q." They are establishing Experiment Stations in Iowa, Minnesota, Indiana and Illinois, and, with a view to finding a remedy, are making a study of the cause of weak straw in oats. They claim to have a solution of the difficulty.

National Dairy Show Notes.

The Executive Committee of the National Creamery Buttermakers' Association held a meeting at the office of the Secretary, late in July, for the purpose of deciding on the location and date of holding their next annual convention. The committee voted unanimously to accept the proposition of the National Dairy Show Association and the convention will be held in Chicago, November 1st, 2d and 3d.

The Executive Committe, after considering the overtures of neighboring cities, chose Chicago for their annual convention principally because the National Dairy Show will be in progress at that time.

The organization represents a membership in excess of six thousand, with an annual production of nine hundred million pounds of butter, the cash value of which exceeds two hundred million dollars.

The Executive Committee, consisting of A. C. Schultz, President. Plattville, Wis.; F. Eldredge, Vice-President, Breckenridge, Mich.; H. E. Forrester, Lake Mills, Ia.; Thor Moe, Winthrop, Minn.; were all present except Vice-President Eldredge, who is still confined to his bed as the result of a serious accident some weeks ago.

Wisconsin Grade Guernsey Breaks World's Record.

The world's record for milk and butter-fat production in one year has just been broken by Bessie, a grade Guernsey of the herd of R. W. Rowlands, Waukesha, Wis. Her record performance in three-year-old form was a production of 12,195 pounds of milk, average test 5.41 per cent., containing 1,755 pounds of milk solids and 659.3 pounds of butter-fat. The credit or handicap allowed due to her age increased the actual butter-fat production to 777.9 pounds.

Beauty, a four-year-old grade Guernsey in the same herd, made the best record in the Wisconsin dairy cow competition for March. Her month's test totaled 1,558.4 pounds of milk, containing 221.6 pounds of milk solids and 76.05 pounds of butter-fat. The credit allowed her increased this butter-fat production to 89.739 pounds.

Hay Sales at St. Louis.

The following is a report of the hay sold at St. Louis and East St. Louis on the last day of July: Sales on the St. Louis Side: New hay—One car clover-mixed at $16; three do. at $16.50; seven do. at $17; one do. at $17.50; part car do. at $18. Timothy—One car No. 2 at $16; one do. at $16.50; two good do. at $18; one do. at $18.50; two No. 1 at $19; two do. at $20; two do. at 21. Old timothy—Part car No. 2 at $18. Prairie—Two cars slough grass at $10; part car no-grade at $12; one car Missouri at 14; one car No. 2 at $17; one car good No. 2 at $18.50; one car No. 1 at $19.50; one car do. at $20. Alfalfa—One car No. 2 at $16.50; No. 1 quotable at $19 to $20; choice at $20 to $21.50. On East Side: New—One car part clover-mixed at $17.50 and part No. 1 timothy at $20. Timothy—One car warm at $14; one car do. at $14.50; one car No. 2 at $16.50, delivered to St. Louis; one car do. at $17, delivered; one car No. 1 at $19; two cars do. at $20; one car do. at $21; one car good do. at $21.50, delivered to St. Louis. Old—One car clover-mixed at $17. Timothy—One car No. 1 at $20; one car do. at $21. Clover—Two cars No. 1 new at $17, delivered to St. Louis.

Cash Grain at St. Louis.

The cash market is the sale of carload lots shown by samples on the Merchants' Exchange. The grain is graded, but inside of the grade classification there are points in quality. These cash sales indicate better than any other way the difference in quality of the grain offered for sale.

The following quotations represent the St. Louis market of July 31st, 1911:

Sample wheat in bulk on track: No. 2 red at 84¾ to 86c; No. 3 red at 83 to 84c.; No. 4 red at 78 to 81c.; No. 2 hard—Yellow, 88 to 91c.; dark, 90 to 92c.; Turkey, 95 to 96c.; No. 3 hard at 85 to 88c., nominal; No. 4 hard at 78 to 81c., nominal.

Sample corn on track: No. 2 corn—Early, 65c.; late, 64c.; No. 3 corn, 63c.; No. 4 corn, 62½c.; No. 2 yellow, 64½ to 65c., early; 64c. sellers late; No. 3 yellow, 63 to 63½c.; No. 4 yellow, 62c.; No. 2 white, 66½ to 67½c.; No. 3 white, 63c.; No. 4 white, 62½ to 63c.

Sample oats on track: No. 2 white, 39 to 39½c.; Standard, 38½ to 39c.—couple cars 39¼ to 39½c.; No. 3 white, 38 to 38½c.—car 39c.; No. 4 white, 37½c.; No. 2 oats, 38c. local; 38½c. destination; No. 3 oats, 37½c., nominal; No. 4 oats, 37c.

On a Third of an Acre.

The Sacramento Valley Monthly gives an example of what can be done by intensive methods on a small piece of rich ground in California. Mr. H. M. Wyatt, of Los Molinos, Tehama county, is past fifty years of age, but is thrifty and energetic. About four years ago he purchased two city lots, making his holding 100 by 140 feet. This is equivalent to about a third of an acre. On part of this lot Mr. Wyatt built a small house for himself and wife, occupying about 28 by 30 feet, and a barn and chicken house covering about 30 by 30 feet of his lot. The rest he brought under intense cultivation.

He utilizes every inch of ground not occupied by buildings. His vegetable garden is 18 by 30 feet. In this he raises lettuce, onions, peas, beets, etc. The remainder of the ground is planted to trees and berries. He has nine cherry, seven orange, twenty-six apple, six pear and nine peach trees, fifty-five grape vines, sixty loganberry bushes, fifty-five dueberry bushes and sixteen rows, 140 feet long, of strawberries. His live stock consists of a horse, two cows, nine pigs, sixty chickens and six turkeys. In one year his cash returns on his live stock were as follows: Milk and butter, $150; eggs and chickens, $200; hogs, $170. He pastured his cows on the county road, and his chickens and hogs were fed largely from the household scraps and waste. In May, 1910, he sold 650 boxes of strawberries. His trees and vines just came into bearing last year, and, although he realized some profit from them, he did not keep account of the amount. This year he expects a large profit from the vineyard and orchard portions of his farm.

Mr. Wyatt supports a family. The high cost of living has not bothered him, as his garden has furnished the household with nearly all the food necessary for the table the entire year round. Besides this, he has started a bank account. Mr. Wyatt was contemplating purchasing more land, but after mature deliberation concluded that his third of an acre gives him all the work that a man of his age cares to undertake and affords a comfortable and independent living.

Mr. Wyatt's experience is given to demonstrate the yielding capacity of the soil of the Sacramento Valley. Home-seekers locating in California on small farms are sure of success provided they are not lacking in industry and intelligence.

The Best Veterinary College.

Attention is specially invited to the advertisement of the Kansas City Veterinary College on page 5. This is the institution that has done more than any other towards establishing competent veterinarians in the farming country. If you contemplate becoming a veterinarian or know of someone else who desires to educate himself in this useful profession, write or have him write to Sesco Stewart, Secretary of the College, 1312 East 13th street, Kansas City, Mo., for the 1911-12 catalogue and any other information that may be desired. Fall term commences September 11, when examination for admission will be held.

FARM AND RANCH LANDS.

ARKANSAS.—Farm of 640 acres, Arkansas river bottom land, all very fertile; 500 acres in cultivation; rents for $7.00 acre, cash; some clover and alfalfa; one nice dwelling house; twenty tenant houses, etc. Can sell at $20,000. A great bargain. **P. O. Box 11, Little Rock, Ark.**

ARKANSAS.—For Sale by Owner: 168 acres in heart of fruit belt of Arkansas. Under fence. 40 acres nine-year-old apple trees, best varieties. 35 acres woodland. 12 acres pasture. Rest in cultivation. Good four-room house; necessary outhouses. **J. N. Greene,** R. F. D. 1, Summers, Ark.

FREE Literature will be sent to anyone interested in the wonderful Sacramento Valley, the richest valley in the world. Unlimited opportunities. Thousands of acres available at right prices. The place for the man wanting a home in the finest climate on earth. No lands for sale; organized to give reliable information. Sacramento Valley Development Ass'n, SACRAMENTO. **California**

THE FINEST FARM

In Southern Illinois, located east of Marion, county seat of Williamson county. 540 acres, all in cultivation and grass, excepting 40 acres virgin hardwood timber; fenced and cross-fenced; six-room dwelling, two large barns, outbuildings; finely watered. Splendid stock and grain farm. Coal of finest quality under entire farm.

Owner lives in St. Louis; cannot give farm any personal attention. He is anxious to sell. Terms, $5,000 cash; balance mortgage on land.

ALFRED RICKETTS REALTY CO.,
608 Chestnut Street, St. Louis, Mo.

ILLINOIS.—A good Illinois farm, 162 acres, near Crab Orchard, Williamson county, Illinois. Rolling land; every acre cleared and tillable; good, productive land. Good six-room house; large granite barn; granaries, etc. We can make especially attractive price on this farm. Easy terms. Write for full information. **Alfred Ricketts Realty Co.,** Leathe Building, St. Louis, Mo.

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

To Buy, Sell or Exchange Property address **Northwestern Business Agency, Minneapolis, Minn.**

FARMS WANTED! We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

MISSISSIPPI.—Eight hundred acres of land in Mississippi for sale for $5,000. Payments half cash and balance reasonable time at 6 per cent. This land is situated in Tishomingo county, and consists of a square section, 640 acres, and 160 acres adjoining, being 800 acres in a solid body. The land commences a little over a mile east of the station of Holcut, on the Birmingham Branch of the Illinois Central Railway, about twenty miles south of Corinth. This land was cut over a long time ago; is as good soil as any in Northern Mississippi. It consists of ridges, hills and valleys, and every inch is available when cleared for cultivation. Wells can be dug anywhere. This land is in a good farm settlement and will make a fortune for any first-class farmer who can handle it himself, or it will support forty families of vegetable growers. Address the owner, **Philip H. Hale,** 3550 Vista avenue, St. Louis, Mo.

50,000 MEN WANTED
In Western Canada

200 Million Bushels Wheat to be harvested

Harvest Help in Great Demand

Reports from the Provinces of Manitoba, Saskatchewan and Alberta (Western Canada) indicate one of the best crops ever raised on the continent. To harvest this crop will require at least 50,000 harvesters.

Low Rates will be given On All Canadian Roads

Excursions are run daily and full particulars will be given on application to the following authorized Canadian Government Agent. The rates are made to apply to all who wish to take advantage of them for the purpose of inspecting the grain fields of Western Canada, and the wonderful opportunities there offered for those who wish to invest, and also those who wish to take up actual farm life. Apply at once to

CANADIAN GOVERNMENT AGENT,
125 W. 9th Street, - Kansas City, Mo.

C. J. BROUGHTON,
412 Merchants Loan & Trust Bldg., Chicago, Ill.

The Wheat Market Situation.

Probably as good a way as any to explain the wheat market situation is a comparison of the quotations for May wheat options on July 31st of different years. The July 31st quotation for May 31st delivery is ten months before the final delivery of the goods.

July 31, 1909, May, 1910, option, $1.05⅛.

July 31, 1910, May, 1911, option, $1.08⅜.

July 31, 1911, May, 1912, option, 98 cents.

There is not a solitary reason of any kind that we know of that would indicate lower prices for wheat except the influence of expected large supplies from Canada before next May. It really ought to be and may yet be a higher market.

On July 31st, at St. Louis, cash wheat was selling at 84¾ to 86 cents a bushel. Last year, on same date, cash wheat was selling at $1.02 to $1.05 a bushel; and two years ago, on same date, cash wheat was selling at St. Louis at $1.08 to $1.19 per bushel.

Now comes the Chicago trading in wheat on July 31st. The July option was closed out at 87½ cents. Last October July wheat was quoted at 94¾ cents a bushel and fluctuated downward to the close. On June 30th the September quotation was 89⅞ cents, and it closed at the same figure on July 31st. The December wheat quotation was 92¼ cents on June 30th, and was quoted on July 31st, at the close, at 93⅝ cents. This little advance in value is the only bright spot in the market. Wheat is not selling at a fair price, so far as farmers are concerned.

The next option to be closed is September, and for the reason that an abundance of the new crop is available it is not usually the highest quotation of the year.

In closing this review, which is written July 31st, after the close of the market, we quote from a Chicago report:

"The large stock here and the fear of reciprocity being adopted by Canada are the underlying features of weakness. It was noticeable that on all the bulges wheat came out freely from the leading bull houses. There was selling by Barlett-Frazier, Colvin, Barrett, Clement-Curtis and Chapin. Armour bought December on the break, and Logan & Bryan, and the local crowd generally, were buyers of September early."

The Oats Market Situation.

The oats market can be reviewed with very few words and not many figures. On July 31st cash oats were selling at St. Louis at 39 to 39½ cents a bushel, about 5 cents less than a month ago. At Chicago the July option was closed out at 38½ cents, or 4½ cents' decline in a month. Here endeth the historical part of the review.

On July 31st the September oats option was quoted at 40⅜ cents; the December option at 43¼ cents, and the next May option at 46 cents. There is the whole story. Oats were plentiful and cheap; the supply is now being exhausted. Canadian oats coming in later free of duty is now a consideration, but our 1911 crop is short, therefore the May option for 1912 delivery is 5 cents higher than a year ago. Two big crops in succession raised by the farmers of the United States depressed their market, and the light crop will probably bring the farmer as much money as either.

Read about the Mitchell Automobiles advertised on page 4.

Don't Put Your Money

and labor into a bunch of Cattle, Hogs or Sheep and then "lose out" in the SELLING. That's the important part. An extra 5 or 10 cents, or more, per cwt. obtained through

GOOD SALESMANSHIP

means increased profit to you. The best service costs you no more than the poorest. Therefore

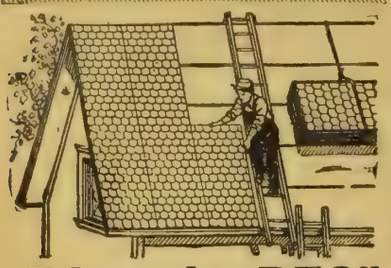
Consign Your Live Stock To

CLAY, ROBINSON & CO.

LIVE STOCK COMMISSION

East St. Louis · East Buffalo · Chicago · Denver · Kansas City · Sioux City · South St Joseph · South St. Paul · Fort Worth · South Omaha

Just Hammer and Nails and You Lay This Steel Roof



Edwards "REO" Steel Shingles

One man can easily lay these everlasting steel shingles. Hammer and nails all that is needed. Our patent interlocking device covers all nails, thus preventing rusting, leaking, etc., and also guards against any expansion or contraction that might be caused by the weather. Our $10,000 Guarantee Bond against lightning protects you for all time against the destruction of your Edwards "Reo" Roof by lightning.

You can apply Edwards "Reo" Steel Shingles over old shingles or on sheathing 12 inches apart.

Send us the dimensions of your building and we will tell you the exact cost of material, freight prepaid to your railroad station.

Special Money-Making Proposition to One Man in Each Community!

Write for it at once. Get our free Roof Book and select the handsomest, most durable roofs for your buildings.

Write for Free Standard Roofing Book No. 867.

THE EDWARDS MANUFACTURING CO.
807-857 Lock Street, Cincinnati, Ohio (52)
The World's Largest Manufacturers of Steel Roofing

Prophet Not on the Job.

Dr. Harvey Wiley, head of the Bureau of Chemistry at Washington, who has won much militant fame in the pure-food imbroglios, is an ardent and old-school Republican. Also he is a bosom friend of Willis Moore, Chief of the Weather Bureau. Last November they sat side by side in the Cosmos Club listening to the election returns that told of a Democratic landslide. The news at first ran bad for the doctor, then it changed and ran worse. But through it all he sat perfectly impassive and imperturbable.

At length there came in with the midnight a peculiarly disheartening dispatch from a one-time powerful Republican stronghold.

As the worthy doctor rose in disgust he turned to his companion, the Chief of the Weather Bureau, and witheringly said: "Willis, I wish you had predicted this."—Philadelphia Ledger.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

CONCRETE CISTERNS ON TOP OF GROUND.

Provide Concrete Houses With City Conveniences.

An abundance of soft water is a great aid in solving the labor problem of housekeeping. With the general use of concrete there has developed a new style of cistern which further lightens the work of the housewife. This new concrete cistern is built on top of the ground, and, by direct pressure, forces the water through pipes into the house and does away with the work and exposure of pumping and carrying water. The piping of the water allows the cistern to be located to the best advantage. Since the roof water from outbuildings is free from soot and other impurities, many persons prefer to build the cistern at the barn, granary or corn crib. The cistern shown in the illustration is placed on a three-foot terrace in the rear of the house. The carrying of water is thus reduced to the mere matter of turning a faucet in the kitchen.

The Forms and Foundation.

To illustrate the general method of construction, consider a cistern eight by eight feet square in the clear and eight feet high, with six-inch side walls and floor and four-inch roof. Such a cistern holds 121 barrels of water.

The first step in building a cistern is to have all materials on hand before beginning the work. Make the forms or molds of one-inch siding on two by four-inch studding spaced two feet. Remember that the siding always goes next to the concrete. Since the floor is six inches and the roof four inches thick, have the studs for the outside form not less than eight feet ten inches in length. The uprights for the inside form must be exactly eight feet long. As the pressure of the concrete will tend to hold the siding in place, tack it lightly to the studding. Board up the outside form only to height of three feet, so as to make easier the handling of the concrete and the placing of the reinforcing rods. Build each side separately in order that the entire form may be quickly erected. See that the forms are joined in such a way as to make their removal an easy matter when surrounded by the solid concrete.

From the side of the cistern strip off the sod and other foreign matter. Do not disturb the solid ground. Three to four feet below ground level (depending upon the depth of freezing), lay a two-inch house supply pipe and have the cistern end fitted with a pipe connection, set at the concrete floor level and one foot from the cistern wall. Carefully imbed the pipe in concrete to the first joint beyond the cistern wall. Thoroughly tamp back the earth removed, so that there can be no settlement underneath the cistern floor. Lay out the cistern nine by nine feet, out to out. Within these lines dig the foundation trenches one foot wide and three feet deep.

Mixing and Placing the Concrete.

With the forms ready and the foundation trenches dug, begin mixing the concrete. Proportion the concrete one part Portland cement to two parts sand to four parts crushed rock. Four parts of clean bank-run gravel may be used instead of the sand and stone. In measuring the materials, do not guess or count shovelfuls. Measure exact by means of a bottomless box, and count one bag of cement equal to one cubic foot. Mix the concrete mushy wet and fill the trenches to a level with the under side of the cistern floor.

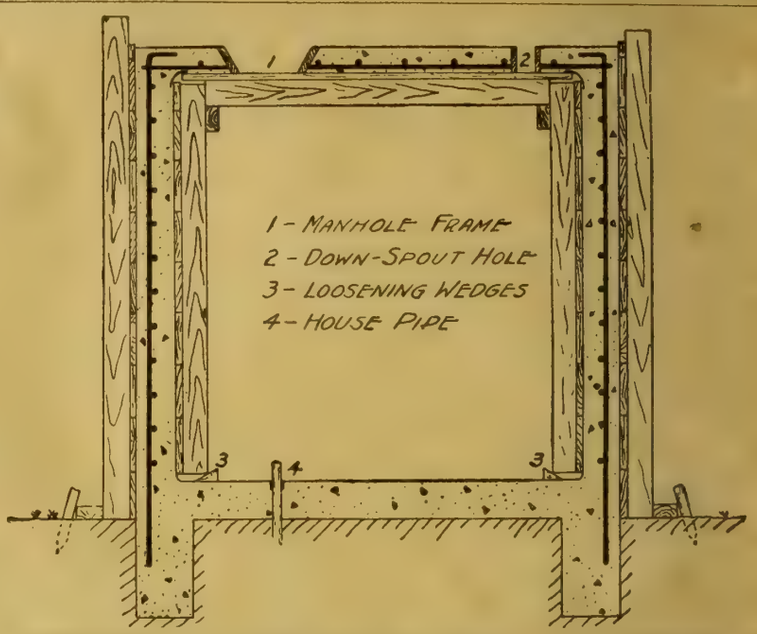
To take care of the water pressure, reinforcing rods must be run in both directions through the concrete wall. For this purpose use three-eighths-inch rods ten feet long. While the concrete in the foundation walls is yet soft, set the vertical rods in it (spaced eight inches) to the depth of one foot. Carefully place these rods so as to bring them within one inch of the outside of the cistern walls.

Next in order is the concrete floor. Make it six inches thick and tamp the concrete well. See that it overlaps the inside of the foundation wall and that the top of the pipe connection is at the floor level. Finish the surface with a steel trowel.

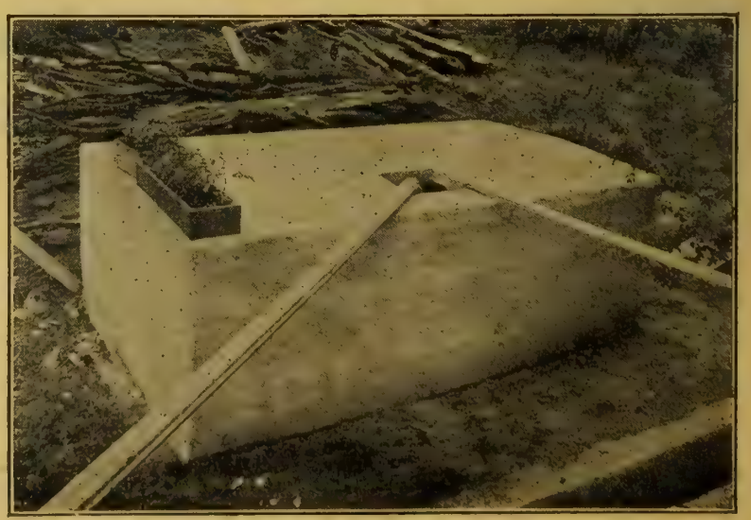
After the floor has hardened for three or four hours, erect the inside form. To aid in taking down these forms, place removable wedges between the ends of the studs and the floor. Before setting up the outside form, fasten the first four horizontal rods to the vertical reinforcing by means of small wire. These rods are spaced eight inches apart. The ends must be bent and spliced around the corners of the cistern. Set the outside form and begin building the concrete side walls. Use the concrete mushy wet and work it down next to the wall form with a wooden paddle. Place it in eight-inch layers carried around the entire cistern. See that exactly one inch of concrete is between the steel reinforcing and the outside form. As the work progresses, add the necessary boards of the outside form and the lengthwise reinforcing rods. Do not stop placing concrete until the walls are finished.

The Concrete Roof.

While the four-inch concrete roof is hardening, a temporary wooden platform is needed to support it. Build this platform of one-inch boards nailed lightly to two by four-inch joists. Let these joists rest on two by four-inch stringers nailed to the studding of the inside form at a distance of four inches below their tops, so that when the stringers are loosened the platform will come down. To keep the mushy concrete from wasting, place heavy paper or thin cloth at the edges of the platform. For providing a manhole opening, take one-inch boards five inches wide and build a bottomless frame four inches deep, two feet square at the top and eighteen inches square at the bottom—outside measurements; or have the tinsmith make a round bottomless dish-pan of the same dimensions at the top and bottom. Grease the manhole frame and set it on the platform where the opening is desired. For the down spout from the roof, make an opening by similar use of a round wooden plug or a short section of



CROSS-SECTION OF CISTERN BUILT ON TOP OF GROUND, SHOWING FORMS AND REINFORCING.



A FARM CISTERN BUILT ON A THREE-FOOT TERRACE.

drain tile or sewer pipe, which may be left in the roof.

Over the entire platform spread one inch of concrete. Quickly place the reinforcing of three-eighths-inch steel rods running in both directions (criss-cross) and spaced one foot apart. Bend the ends to a hook-shape and fasten them to the rods in the side walls. Immediately tamp in the remaining three inches of concrete. Increase the thickness to 3½ inches at the center, so as to shed the roof water. Finish the surface with a steel trowel. If the tin manhole frame is to be used, grease it, set it in place and build the cover along with the rest of the roof. Reinforce the cover with short lengths of rods laid criss-cross and within one inch of the bottom. As lifting rings, use two halves of an old bridle bit or two hitching post rings, the ends provided with knobs of twisted wire or with nuts and large washers for holding the bolts firmly in the concrete. If the wooden manhole form is used, carefully remove it after five hours. After three days build the manhole cover the same as for the tin form, with this exception—place greased paper around the edges to prevent the new concrete from sticking to that of the platform. When the cistern roof is three weeks old, lift off the manhole cover and saw an opening in the wooden platform. Descend, loosen the wedges under the studs and the stringers supporting the platform, remove the forms and pass them out through the opening. To keep the settlings out of the house pipe, screw a four-inch length of pipe into the joint coupling. Furthermore, the down spout should be provided with a cut-off, so that the first flow from the roof of the building may be kept out of the cistern. The cistern may be used for water storage after it is one month old.

Below is given the bill of materials and a liberal estimate of their cost. By consulting local dealers, it may be found that the cost of the cistern can be reduced.

Materials Required.

Crushed rock, twelve cubic yards, at $1.10	$13.20
Sand, six cubic yards at $1.00.	6.00
Portland cement, twenty-one barrels, at $2.50	52.50
Reinforcement (112 rods—⅝ inch by 10 inches) 420 pounds, at $0.02¼	9.45
	$81.15

If ornamental features are desired, moldings or tile decorations may be used. The point to bear in mind is, that an inexpensive cistern located on top of the ground provides the country house with the conveniences of a costly city water works.

COMMERCIAL FERTILIZERS.

Low, Medium and High-grade, With Relative Cost of Same.

In Farmers' Bulletin No. 457, issued by the United States Department of Agriculture, under the supervision of Prof. A. C. True, we get the facts derived from analyses of 127 brands of fertilizers sold in the market, together with the estimate of value to the farmer.

Low-grade Fertilizers.

The low-grade fertilizers averaged 1.13 per cent. nitrogen, 8.28 per cent. available phosphoric acid and 2.50 per cent. potash. The total plant food was 11.9 pounds per 100 pounds, the balance being filler; the average selling price was $24.50 per ton; the average Experiment Station valuation of the same was $16.85 per ton, showing $7.65 per ton loss to any farmer who bought a ton of this class.

Still Lower Grades.

The investigators evidently did not get down to the real, straight out-and-out low grades, such as the Planters' Champion—1 per cent. nitrogen, 10 per cent. phosphoric acid and 1 per cent. potash; also the Ever Ready—no ammonia, 10 per cent. phosphoric acid and 2 per cent. potash; also the General Lee Cotton Grower—2 per cent. nitrogen, 11 per cent. phosphoric acid and 1 per cent. potash. These have been sold to such an extent that the cultivated soils cropped regularly are impoverished for want of nitrogen and potash and are stuffed with phosphoric acid.

Medium-grade Fertilizers.

The medium-grade fertilizers averaged 2.32 per cent. nitrogen, 8.72 per cent. phosphoric acid and 3.66 per cent. potash. The plant food is 14.4 pounds per 100 pounds, the balance being filler; the average selling price was $30.00, against $24.84 valuation, a loss to the farmer of $5.16 on each ton.

High-grade Fertilizers.

The high-grade fertilizers averaged 4 per cent. nitrogen, 7 per cent. phosphoric acid and 10 per cent. potash; the total plant food was 21.0 pounds per 100 pounds, the balance being filler; the average selling price was $36.50 per ton, the estimated valuation being $32.70, showing the farmer's loss to be only $3.80 for each ton purchased.

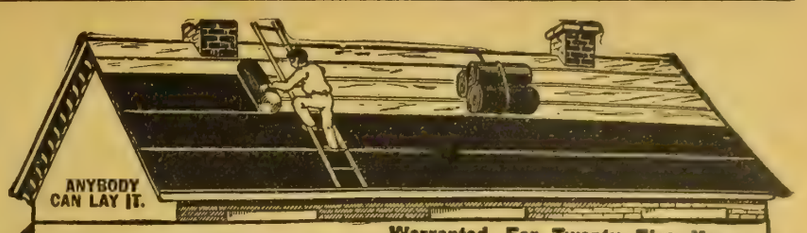
Every fertilizer carries filler that necessarily goes with it, nearly the same as the cob, husk and stalk constitute the filler to the ear of corn; but low-grade fertilizers as shown are 88.1 pounds out of the 100 filler; the medium grades were 85 pounds filler and the high grades were 79 pounds filler to the 100 pounds in the sack.

The bulletin has much more to say on the subject and concludes as follows: "It thus appears plain that not only are low-grade fertilizers more expensive as regards first cost of plant food, but they are much more costly to handle per unit of plant food supplied than the high-grade fertilizers, on account of the larger amount of worthless filler which they contain. If low-grade fertilizers are to be used, it is much more economical to buy the unmixed materials."

Meat High Priced in Paris.

Special reports from Paris, France, indicate that, generally speaking, all meat costs now as much alive as it did not long ago on the butcher's counter. Beef is quoted at about 39 cents the kilogram of two pounds and an eighth; veal at 52 cents; mutton at 50 cents, and pork at 41 cents, which are about double the prices of ten years back. The Syndicate of the Halles has sent a circular to stock breeders and large dealers, and the answers to the questions contained are instructive.

The reason of the increase appears to be the large and regular purchases of stock by German, Italian and Spanish agents in the provinces. The brokers representing foreign houses buy up cattle and sheep at such high figures that the temptation is too great for the farmers to withstand; and the Germans also buy large quantities of dead pork directly from the breeders without it ever coming onto the market. One correspondent writes: "Cattle will be scarce this year, and more so next, for the breeders have sold almost all they could;" and another says: "At some of the Fairs of Courtenay and Montargis there are now 50 cows where there used to be 100. Many buyers choose specially cows about to calve."



Rubber Roofing

Warranted For Twenty-Five Years.
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 614, East St. Louis, Ills.

The Inexpensive Life.

They tell of an official at Washington, known by his friends to be a rather "close" man, who has many a passage at arms with his wife, all by reason of that very "closeness."

One one occasion a friend had the misfortune to enter just as the pair were ending an argument touching some question of household expenditure. He was just in time to hear the husband say:

"See here, Marie, you cannot hoodwink me in these matters. Do you think that I have lived all these years for nothing?"

"I shouldn't be at all surprised," was the wifely repartee.—Exchange.

Must Walk While He Talks.

Senator Martine, of New Jersey, who at present is highly entertaining the Senate by his impromptu speeches in which the procedure of the Senate, ordinarily respected, is thrown to the winds, walks as he orates. Usually a Senator addressing the Senate or an interrupting Senator stands by a seat at best, moving but little from it in the excitement of his inspiration. But Martine cannot maintain himself thus. He must walk rapidly and for some distance as he talks, much after the manner when he used to "cradle" his New Jersey farm, as he says. So Martine is a circus to see as well as to listen to when he feels he must enlighten some Senator who professes to know more about farming than he.

And he accepts the fun with good grace.

"Why do you walk so?" Senator Bailey asked him.

"I cannot help it," replied Martine. "My tongue and legs move at the same time. Some reflex action somewhere. I have been reproved for this on the stump by an Irishman. Finding me at it as I am he shouted:

" 'Say, are you walking or are you talking? If you are walking, then walk; if you are talking, then talk. We can't hear you when you walk, and we cannot see you when you talk. Quit one or both.

"But here I am. I have never been cured."—Boston Advertiser.

Where Do the Papers Get It?

Until recently there was an aged elevator man who operated one of the lifts in the House wing of the Capitol. Most of his passengers were either Representatives or newspaper correspondents. The old man got to know all of the correspondents very well and always had a cheerful greeting for them. It was often noticed, too, that he seemed to be greatly interested in their conversation.

One afternoon, as three of them stepped out of the elevator, Sereno Payne, of New York, stepped in. As the car went down the old elevator man turned and said:

"Mr. Payne, I can't understand about those newspaper men. They puzzle me."

"What's the trouble with them?" asked Mr. Payne.

"Well, Mr. Payne, every day they ride in this car one feller will turn to another and say: 'What do you know to-day?' And the other feller will answer: ' Not a — thing. What do you know?' Then the first feller will answer: 'Nothing.' And yet, Mr. Payne, the papers are just full of news every day. It beats me where they get it."

"It beats me, too," said Mr. Payne. Washington Correspondence Brooklyn Eagle.

CORN HARVESTER

Has Given Universal Satisfaction in Every State in the Union.

A most practical corn harvester is made by the New Process Manufacturing Company, of Salina, Kansas. It will do almost anything that a corn binder will do and costs only a fraction as much. With it a man can cut and shock from four to six arces a day, and it is so simple in construction and operation that a boy can run it. It has been sold in every state in the Union and has given universal satisfaction. It will pay for itself in less than one season, and is so compact and well made that it will last for years.

If you will write them, mentioning this paper, they will send you full particulars.

YOU $5 TO $10 A DAY

EVEN if you never sold a dollar's worth of goods in your life, make $5 to $10 a day—selling our made-to-order suits and pants.

This Is Your Chance To Make Money.

We sell suits from $3 to $10 less than other houses, give better tailoring, make better fitting clothes, with absolute guarantee. You can undersell others; no work to take orders for us. You can not fail—our line is the only line where you can give satisfaction or money refunded. It is a snap to sell Regal Tailoring.

BIG MONEY—EASY WORK.

We start you Free. Send for samples now. We will tell you our capital and experience—you need money—we will instruct you and you can commence making money at once. Send us your name and address now and an outfit larger than all others with newest samples, large fashion plate, tape measure and everything necessary will be sent you FREE.

You Can Get Your Own Clothes At Inside Price to advertise us. We want one agent in each town to take orders for our famous tailoring. If you are interested show it to your friends—it is too good a thing to miss. The biggest chance to make money.

We Prepay Express Charges

REGAL TAILORING CO., 236 Regal Building, CHICAGO, ILL.
We use the Union Label on all our garments.

Evans-Montague Commission Company

THE MEASURE OF SUCCESS
attained by a
SHIPPER OF LIVE STOCK
depends largely upon
THE COMMISSION HOUSE
to which he consigns his
CATTLE, HOGS AND SHEEP.

If you wish to receive
TRUSTWORTHY AND RELIABLE
SERVICE,
and have your consignments
SOLD BY CAPABLE AND CONSCIENTIOUS SALESMEN,
you cannot do better
THAN PATRONIZE OUR HOUSE.

The Shippers' Interests
ARE OUR INTERESTS,
and our rapidly-increasing business
IS THE STRONGEST TESTIMONIAL
of our ability
TO PLEASE OUR CUSTOMERS.

Evans-Montague Commission Company

P. O. Box 68,
NATIONAL STOCK YARDS, ILL.

Struck by Lightning.

On page 30 there appears the advertisement of the Franklin Lightning Rod, which has stood the test for sixty-two years. This is a standard rod and by addressing the inventor and manufacturers you can keep away from worthless imitations. Struck by lightning is now the common heading in country newspapers, a calamity which can be prevented if ordinary precautions are taken.

Recent Feather Quotations.

Recent sales of feathers consigned to the St. Louis market indicate the following prices: Prime white live goose at 63c.; prime gray do. at 44c.; old white, 36 to 38c.; x grade, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck — White, 41c.; dark, 30c. Chicken—Prime, dry-picked body, 4c.; wet, damp and quill-mixed, 2c. Turkey—Wing, tail and pointers mixed, 19c.; body, 8 to 9c.

MILK FEVER OUTFITS, Dehorners, Teat Syphons, Slitters, Dilators, Etc. Received Only Award World's Fairs, Chicago, St. Louis. Write for Illustrated Catalogue.
HAUSSMANN & DUNN CO., 708 So. Clark St., Chicago.

Fistula and Poll Evil

Fully ten thousand horses are cured every year with
Fleming's
Fistula and Poll Evil Cure
and many of them are bad old cases that skilled doctors have abandoned. Easy and simple; no experience needed; no cutting to be done; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. Valuable information and full particulars given in
Fleming's Vest-Pocket Veterinary Adviser
Best veterinary book for farmers; 192 pages, 69 illustrations. Copy mailed free.
FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

Horses For the Army.

The Quartermaster-General has taken final steps to breed horses for the United States Army instead of buying them from the horse-raising farmers and stockmen. Captain C. H. Conrad, Jr., of the Cavalry, is to have charge of the establishment just being set up at Front Royal, Va., and will get to work at once. Let us hope that the United States Army will be able to sell enough surplus colts, fillies and mares so as to materially reduce the usual appropriations for the army. It is estimated by the editor of The National Farmer and Stock Grower that all army horses the Quartermaster-General will breed and raise to be fit for service will cost two thousand dollars per head and eight years will be required to produce enough horses to mount a troop of cavalry. The German government stud farms breed and raise cavalry horses at a cost of $500 per head, and we feel assured the United States Army starting out with liberal appropriations will multiply the German cost by four. Whenever the United States Army needs horses, and needs them bad, the time-honored custom of paying cash for them will be followed. The farmers of the United States can furnish all the horses the United States Army will need in time of war.

The army breeding establishment should now engage in farming, so that the young stock and the breeding animals can pay their way by field work. Depending solely upon the sale of five-year-old geldings will not make a horse farm rich, but the army appropriations come easy and will very probably go easy. Our estimate of cost is most likely to be too high than too low.

Great Increase in the Horse and Mule Business.

Mr. T. H. Holland, of Holland, Nugent & Maxwell Bros., horse and mule commission firm at the St.Louis National Stock Yards, again invites attention to the increased business at the St. Louis market. Total receipts for seven months, 101,264 horses and mules, an increase of 37,649 head over same period last year. The receipts are 26,117 head greater than the business done at Chicago, the nearest competitor. Said Mr. Holland: "I attribute the growth of this market to the ability to sell any and all kinds of horses; to its being the natural concentration point for mules and the most economical center of assembly and distribution for horses and mules in the country. When a dealer buys horses here he comes back again, and the same is true of the shipper. It is a good market that satisfies both buyer and seller." Horse and mule dealers should communicate with this firm when they need market information.

A First-class Commission House.

In consigning live stock for sale at the St. Louis National Stock Yards, remember the Evans-Montague Live Stock Commission Company. It is a successful firm, highly competent and persevering in the interest of their customers. The Evans-Montague Commission Company solicit consignments of cattle, hogs and sheep for sale on the market, and desire stockmen to take notice that the company has special buyers who select and buy stock and feeding cattle for their customers. S. T. (Tom) Boothe, who has been on the market for fifteen years, is native cattle salesman. Colonel James H. Campbell, the veteran, has recently joined this house as Vice-President, in charge of the Southern cattle department. His presence adds strength to the organization. The firm is equally well equipped to sell hogs and sheep. Stockmen requiring market information should address Evans-Montague Commission Company, Box 68, National Stock Yards, Illinois.

The New York Herald says: "Bishop Cox, a registered trotting stallion, by Potosi, son of Pistachio, whose dam was the dam of Maud S., 2:08¾, is said to be the largest standard-bred horse on record. He stands 17.1½ hands high and weighs 1,730 pounds. He is owned in Montana."

Topped the Chicago Cattle Market.

An understanding of the value of top grades of cattle can be had by reference to the sale on Wednesday, July 19th, of a load of cattle by Clay, Robinson & Co. for Earl Reed, of Fremont, Ind., a load of well-bred mixed grade Shorthorn and Hereford beeves, averaging 1,388 pounds, at $7.00, topping the market 10 cents per 100 pounds that day, there being no other cattle above $6.90. The price was also the top for the week and up to then as high as paid since April. Mr. Reed said that before he left home his neighbors told him he could not reasonably expect to top the market with this load of cattle, and naturally he was very highly gratified at the outcome, especially as he is a new feeder, having never fed cattle until last year.

Western Range Horse Sales.

The range horse sales at the St. Louis National Stock Yards continue to be successful. On Thursday, July 27th, about 1,100 head were sold. This was the fourth sale of the season. These horses arrived on Tuesday; a day was required to classify them, and they were all sold by Thursday afternoon. These sales are well attended by farmers and dealers, and all the offerings will probably come back to the market for sale again at a profit in the domestic sale ring. August sale dates are Thursday, 10th and 24th, and the first sale in September will be on Thursday, the 7th. These sales are conducted by Campbell & Reid and the Western Sale Stables Company at the St.Louis National Stock Yards.

Must We Import Wheat?

The Money Market Review, in its report on commercial conditions, has this to say in regard to the Nitrate of Soda situation:

"The consumption in Europe and in Egypt is progressive, but it does not progress by leaps and bounds, as will probably happen, and in the near future in the United States.

"The production of wheat in the United States does not increase on a par with the population, and, unless a prompt change takes place, this country, until now a great exporter of wheat, will see itself soon converted into an importer.

"The principal reason is that they have allowed the soil to become impoverished, without restoring to it what the crops have removed from it.

"It is imperative to modify this state of affairs, without waiting longer, and everything leads to the belief that this modification is about to be realized. Intensive cultivation will soon be an imperative necessity in the United States, and it will take but a few years for the quantities of Nitrate of Soda demanded by the United States to be limited only by the production of it."

The Auto-Fedan Hay Press is advertised on page 4. A fine illustrated catalogue is issued.

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,
HOLLAND, NUGENT & MAXWELL BROTHERS,
P. O., National Stock Yards, Ill.

Native Cattle Sales.

At St. Louis, on August 1st, a load of forty-six head 1,267-pound choice steers sold at $7.00 per 100 pounds. These were Panhandle, Texas-raised Herefords, fed and finished in Boone county, Missouri, by R. L. Wilhite. This represents the top of the St. Louis cattle market so far this season.

Don't Have a Blind One "VISIO"

An Absolute Cure for
Moon Blindness
(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Years of Grand Results

Eckerty, Indiana
May 21, 1909.
Dr. B. J. Kendall Co.,
I have used your remedies with grand results for ten years, and would not be without them.
Wm. H Tuckers.

Kendall's Spavin Cure

Keeps legs sound and trim as no other preparation has ever been known to do. The sure, quick remedy for Spavin, Ringbone, Splint, Curb, Swollen Joints and all Lameness. Equally famed as household remedy. At druggists, $1 a bottle. Get free book, "A Treatise on the Horse," or write to—
DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

You Can't Cut Out A BOG SPAVIN, PUFF or THOROUGHPIN, but

ABSORBINE

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. $2.00 per bottle, delivered. Book 4 F free.
ABSORBINE, JR., liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Goitres, Wens, Cysts. Allays pain quickly. Price $1.00 and $2.00 a bottle at druggists or delivered. Will tell you more if you write. Manufactured only by
W.F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Great Draft Horses.

Trumans' Pioneer Stud Farm, Bushnell, Ill., write as follows under date:

"We had a visit this week from our old customer, Mr. Harry Broadbent, of Henry county, Illinois, and we sold him the imported grey Shire colt, Carlton Greyling, that stood well up in his class at the last International. He is three years old, standing on the best of feet and joints and of extraordinary quality. He was assisted in his selection by Dr. White, son of the late Mr. Hugh White, who was one of the leading importers in his day. This is the second imported Shire stallion that we have sold Mr. Broadbent this season, and his last purchase will be shown at the Henry County Fair this fall, all going well."

"Our last importation is doing first-class. We expect to make our usual exhibit of Shire and Percheron horses at the Iowa State Fair the latter part of next month, and shall be very pleased to see all our old customers and friends there."

St. Louis Hog Prices.

On August 1st, at the St. Louis National Stock Yards, a choice load of 196-pound hogs sold at $7.40 per 100 pounds, which was the top of the market, and the bulk of the hogs sold at $7.15 to $7.30. The good hogs that went to the shippers and butchers, that had a little weight to them, brought $7.30 and better, while good lights, less than 160 pounds, sold at $7.00 to $7.30; fair grades, $6.00 to $6.85; best pigs, $5.00 to $6.25; and the poorer grades at $4.75 to $5.50. Roughs sold largely at $6.00 to $6.75. Some of the real rough ones went at $5.50 to $6.00.

Sheep Sales at St. Louis.

At the St. Louis National Stock Yards, August 1st, the best fat lambs went at $6.25 to $6.75 per 100 pounds, with but few going over $6.50, while fair to medium grade lambs sold at $4.75 to $6.00; and the culls sold at $2.00 to $3.75, most of them at $3.00 to $3.50. These cull lambs were very hard to sell, as none of the buyers wanted them at any price. Very few sheep sold for more than $3.50 per 100 pounds, and quite a number of plain, heavy ewes went at $3.25. Some choice breeding ewes brought $3.65 to $4.00. Thin sheep were poor sellers, as there was but little demand for them. Best stocker grades sold at $2.25 to $3.00, and old, common ewes, $1.00 to $2.00. Bucks sold at $2.25 to $2.50 per 100 pounds.

Bring Up That Rich Farm Beneath Your Land!

"The Spalding Deep Tilling Machine makes a perfect seed bed that cannot be procured with any other machine or combination of machines on earth today. I have renewed my farm and have today the best crop of wheat in this neighborhood, and I believe the best crop of wheat ever grown here."

(Signed) P. B. CRANE, Long Lake, Minn.

DEEP TILLAGE is one of the livest subjects of the day with progressive farmers. Since the Spalding Deep Tilling Machine has completely solved the problem, you hear deep tillage everywhere. You will soon *see* it everywhere.

Bring up your brand new farm from the virgin subsoil! Conserve the priceless moisture! You can now *do* it. The old-fashioned expensive methods that didn't do the work, are now a thing of the past. The Spalding Deep Tilling Machine makes deep tilling easy, and brings it within reach of every farmer. It opens up a new treasure of farm profits—for there is such a treasure under every farm. We want you to know all about this remarkable deep tiller—

The Spalding Deep Tilling Machine

It has now been in successful use *for three years* by leading farmers in all parts of the country. We want you to know *how thoroughly* it pulverizes the soil—properly prepares the seed bed *12 to 16 inches* or *more*—doubles and even triples crops in many cases—protects you against drought by conserving the moisture—cuts the roots and covers the weeds and brush so deep they won't come to life again.

L. E. Holden writes: "My experience is that by underdraining and the use of the Spalding Deep Tilling Machine, and by proper selection of seeds and fertilization, *we have increased the products of Good Hold Farm three-fold.*"

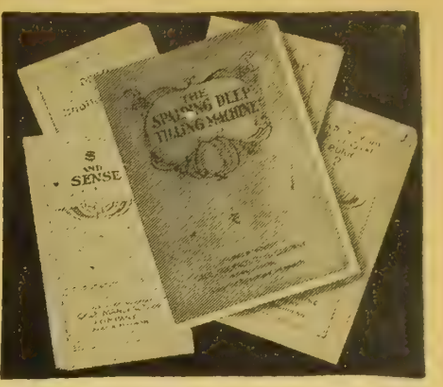
The Spalding Deep Tilling Machine alone pulverizes the soil deep enough to bring up the virgin subsoil with all the big crops and big profits it holds for you. No plow or combination of plowing and subsoiling has ever been able to do this.

Spalding Deep Tilling Machine tilling 13 inches deep and thoroughly pulverizing the soil—bringing up "new farm" and preparing a real seed bed. Note the clean cut, deep furrow without any furrow slice. Send or Free Catalog.

The Spalding Deep Tilling Machine positively pulverizes the soil to a depth of 12 to 16 inches or more, so that it *conserves the moisture for months.* It prevents the ruin of land by erosion. Hundreds of thousands of acres are being saved by the Spalding Deep Tilling Machine because it puts the land in condition to *absorb* and *hold* the moisture and thus stops flooding and the forming of gullies.

The Spalding Deep Tilling Machine saves time. It saves labor. It makes unnecessary a large amount of harrow work, disking, dragging, etc. But best of all, it gives you the *properly* prepared seed bed that raises the bumper crops.

Investigate. Write to us for free books today.



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Just send us your name on the coupon below, or by postal or letter for an illustrated catalog and booklet on Deep Tillage and other literature and testimonials. You can have any or all of these FREE.

1—The Illustrated Spalding Deep Tilling Machine Catalog of 80 pages.
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3—Which Do You Want—Oats or Cockle Burrs?
4—Dollars and Sense.
5—Other Literature—Get your name on our free mailing list today so that we can keep sending you our latest booklet and keep you informed on this vital subject.

Agricultural Expert's Opinion

Long Lake, Minn., June 17, 1911.

Spalding Department, Gale Mfg. Co.

I give you herewith my experience in eradicating quack grass. I took a field that was badly infected with quack grass and plowed it in August, 1910, with a Spalding Deep Tilling Machine. In about two weeks I double-disked it thoroughly. I gave it three such diskings during the fall. This spring I harrowed it and seeded it to wheat. *Not a spear of quack grass can be found on the field today.*

The prospects now are for 30 bushels to the acre. The Spalding Machine will save 50 per cent of the labor in eradicating quack grass. The Spalding Deep Tilling Machine makes a perfect seed bed that cannot be procured with any other machine or combination of machines on earth today.

(Signed) P. B. CRANE.

Spalding Department H 8, GALE MANUFACTURING CO.
(Established 1853) *Makers of Farm Implements* **Albion, Michigan, U. S. A.**

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Established 1853 Albion, Mich.

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(3)

WESTERN

RANGE HORSE SALES.

Horse raisers are advised that sales are being conducted by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.,
As usual, during the season of 1911. The Sixth Sale will be held on

Thursday, August 24,

And every two weeks thereafter until the close of the season. The Seventh Sale will be held on

Thursday, September 7

We will be glad to hear from Ranchmen having Horses for sale, also from buyers who wish to have splendid Horses to finish up for the domestic sale ring.

Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

A Crop Expert on Corn.

Expert Crop Reporter Snow, of Chicago, issued a report on August 1st. In his bulletin he places the condition of the corn on August 1st at 70.1, compared with 82.4 on July 1. The figures indicate a yield of 2,650,000,000 bushels, against 3,125,713,000 last year. The same report makes winter wheat yield 458,000,000 bushels, compared with 464,000,000 a year ago, and spring wheat 215,000,000 bushels, against 231,399,000 a year ago. Oats he gives at 760,000,000, as against 1,126,765,000 bushels in 1910.

Clay, Robinson & Co. at St. Louis.

One of the most remarkable records of modern business achievement is the success of Clay, Robinson & Co. at the St. Louis live stock market. Clay, Robinson & Co. are salesmen and buyers of cattle, hogs and sheep in the interest of their customers. They are well established at ten different markets. This firm entered the St. Louis market a little over two years ago and started at the bottom of the list of commission firms. Since then, although the list is a long one, they have now reached the second place in the volume of business done. The St. Louis market is famous for active, reliable, skillful live stock commission firms, and Clay, Robinson & Co.'s record is all the more remarkable for that reason. See page 13 of this paper.

Vissering, the Breeder.

Mr. J. P. Vissering, lately of Godfrey, Ill., has purchased the fine property corner of Evergreen and College avenues, Upper Alton, Ill. He has lately sold his stock farm, but having raised high-class Aberdeen-Angus cattle and the big-type Poland-China hog for a lifetime, he has put into the hands of (what are known to him to be) careful breeders a number of his best stock to raise on shares for him. Of these he will, in the future, sell the produce, and, being in the business, he has formed what is known as a Live Stock Exchange for all breeds of registered cattle and hogs.

Our St. Louis Mule Market.

Extract from circular letter dated August 1st by Holland, Nugent & Maxwell Bros. at St. Louis National Stock Yards: "Now our mule market is all right on strong work mules. They need not be so awful fat, sugar mules and miners, and top-notch cotton mules. We have heard no complaint from our salesmen on these classes of mules. The in-between, inferior class of mules, under-age and leggy are not wanted at the present time, and should be left in the country."

Trumans' Pioneer Stud Farm have purchased another great Shire mare in England and her dam is the noted mare Field Buttercup. She was purchased from the famous Billingborough Stud Farm and will arrive for the International Live Stock Exposition, where she will help to form an interesting exhibit.

A bill to reduce the price of cotton goods has passed the Senate.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Condemnation of Eggs.

During the middle week in July it was reported that upon the St. Louis market 38,903 dozen eggs were condemned by the State Food Inspector. To form an idea of what this amounts to it is only necessary to say that it represents 45 per cent. of the receipts. It was the hot weather that played havoc with the eggs, and much of the destroyed stock was from the more remote country districts, where poor transportation facilities permitted the eggs to spoil before they reached their destination.

Most of these eggs had been placed on the market by speculators, the farmer had been paid his little old 10 to 12 cents a dozen, and the eggs reached St. Louis two to three weeks after the first egg was collected. In cold weather nearly all these eggs would have arrived safely, fit to be sold to consumers, but during the intense heat the method resulted in disaster.

Farmers in every section have to organize egg-selling clubs, filling up cases and ship the eggs themselves. If the settlement is some distance from a railroad they will have to organize to drive in and put the cases on the cars direct to market. Every egg produced in Missouri ought to be kept in a cool place directly it is gathered and placed on the table of the consumer in less than ten days. The close inspection of eggs offered for sale in the large cities will cause farmers to attend to their own egg shipments.

KEROSENE EMULSION.

How to Make It and How to Use It—Statements of Fact Sustained By Reasons Therefor.

[By S. Arthur Johnson, Colorado Agricultural College, Fort Collins.]

One of the oldest and most serviceable of insecticides is kerosene emulsion. An emulsion, in this case, is a mixture of those proverbially unmixable substances, oil and water. To accomplish this a third substance, called an emulsifier, is needed. For ordinary work as an insecticide soap is used as an emulsifier. In some cases, where a large quantity of the mixture is needed, other emulsifiers are used.

Commonly the emulsion is made in the form of a stock solution, which is afterward diluted to the strength required for the application.

The formula for the stock solution is as follows:

Kerosene	2 gallons.
Soap	¾ pound.
Water	2 gallons.

Thoroughly dissolve the soap in two gallons of boiling water. Remove the water from the stove and while it is still hot add the kerosene. To make the emulsion it is necessary to stir the mixture very thoroughly. If one has a bucket pump, this is easily done by removing the nozzle from the hose and pumping the fluid back upon itself until the whole mass becomes a rich, creamy mixture. The stirring should continue till all the oil is emulsified, which will probably be in from five to ten minutes. The progress of emulsification can be tested by watching to see whether any free oil rises to the surface when the emulsion is allowed to stand for a moment. Touch the edge of a piece of paper lightly to the surface of the liquid. If free oil is there it will quickly run into the paper and its presence may be discovered by the application of a lighted match.

If the oil does not emulsify readily, it may be necessary to put the mixture back on the stove and warm it more. If this is done, great care must be taken that the substance does not boil over. If it does, the kerosene may become ignited and a dangerous fire result.

Both the water and the soap in the above formula are in excess of the quantities which are often given in formulas. The reasons for this are that the excess of water makes the resulting mixture warmer and aids the process of emulsification and the excess of soap tends to overcome the alkali which is often found in the waters of dry countries.

The stock solution will often keep for a considerable period, but it is better to make and use it immediately, because the oil is apt to separate from the water if it stands long. When it is found that the mixture has separated, it may be warmed and reagitated until the emulsion is restored.

Of course, smaller quantities of emulsion may be made by preserving the proper proportions of the ingredients. A cupful may be made in a bowl and stirred with an egg beater.

When the stock solution is made it is ready to be diluted and applied. Pure kerosene is very dangerous to plant life, and emulsions are dangerous in less degree. It is necessary that one should know something about the susceptibility of the plant. For growing plants it is seldom safe to use the emulsion stronger than one part of kerosene to sixteen of water. Many plants will not stand it quite so strong. To make this strength from the above solution, since the stock is half kerosene, one should add one gallon of the stock solution to seven of water. For winter work, when trees are dormant, the emulsion used is much stronger.

Only clear water which is free from much alkali or dirt should be used. Both of these substances have a tendency to make the oil come to the top, so that a part of the application is too strong and the rest too weak.

This is a contact insecticide and may be applied directly to the bodies of the insects one wishes to kill.

The Missouri State Fair is planning to have one of the largest and best poultry shows ever held at any State Fair in the Central West. They are offering $3.00 for first prize, $2.00 for second prize and $1.00 for third prize on all varieties of poultry, and are charging no entry fee whatever, besides offering liberal special prizes. The Missouri State Fair opens September 20th and continues to October 6th. Entries close September 20th, and you should write at once for premium list and entry blanks of the Missouri State Fair. Address, John T. Stinson, Secretary, Sedalia, Mo.

I Guarantee to Cure ECZEMA TO STAY CURED!

DR. J. E. CANNADA
THE DOCTOR WH
TREATS NOTHING
BUT ECZEMA.

It is also called SALT RHEUM, SCALD HEAD, TETTER, ITCH, WEEPING SKIN, MILK CRUST, PRURITUS—these are different names, but all mean one thing—ECZEMA.

I prove every word that I have said—I give to every sufferer

A FREE TRIAL

Just to show you that you need my treatment. It is yours for the asking. If you have been to other Doctors, if you have taken patent medicine, and used lotions and salves till you are disgusted, write to me—I will send you ABSOLUTELY FREE OF CHARGE, A TRIAL TREATMENT. There are no strings to this statement. There is not one cent to pay—not a penny accepted. I know what my trial treatment will do; I know that it will convince you more than anything else on earth that you need my treatment.

Don't Miss This Chance for a Cure

If you are SUFFERING FROM ECZEMA you can only be cured one way—REMOVE THE CAUSE. What is the cause? ACID IN THE BLOOD. How do you remove it? By cleansing the blood of the ACID.

My treatment is soothing—relieves the dreadful itching at once and cures the disease quickly. You don't have to take treatment for months and months. ONLY ONE CASE IN TEN needs the second treatment—ONE IN FIFTY needs the third—think of that!

What Eczema Is

Eczema is a disease of the blood and affects all parts of the body—the face, lips, ears, hands, feet, genital organ, etc.

SYMPTOMS.—Yellowish red eruption; the pimples or patches may swell and the itching is so great the person will scratch the top off, then they bleed and dark scales form; there is an oozing of matter. In some the skin cracks and bleeds. Itching is terrible; a person suffering will scratch till they bleed. Scales form on parts of the body, where the clothing comes in contact.

Ten Years Guarantee

I positively Guarantee that every case cured by me will stay cured 10 YEARS! It must be good or it could not be sold this way.

Strong as Rock of Gibraltar

I am a graduate from two leading medical schools. I am the holder of a GOLD MEDAL taken in Competitive Examination. Does this not show that I am fully qualified? I will send you my book, showing endorsements of business men of all classes. Also testimonials and pictures from cured patients everywhere. Some of them may be YOUR NEIGHBORS.

MY BOOK

Is the most complete book ever sent out. I explain every form of the disease plainly and fully. I show pictures of many severe cases, which are extremely interesting. I send you names of thousands who have been cured and are grateful.

DR. J. E. CANNADAY
969 Park Square,
Sedalia, Mo.

Reliable Beyond Question

This is a statement from the bank of my home town, where I have done business for years.

THE CITIZENS' NATIONAL BANK OF SEDALIA
SEDALIA, MO.

February 11th, 1908.

TO WHOM IT MAY CONCERN:

This certifies that Dr. Cannaday's patients, from all over the United States, have been placing their money in this bank while they tried his treatment on eczema. In all this time we have been called upon but five times to return the patients money.

One died before the treatment was shipped; two did not get the treatment as it was lost in transit; one paid cash for the treatment three days later after getting her money; and one was not satisfied.

Citizens Nat. Bank
R. F. Harris
Asst. Cas.

FREE OFFER—CUT HERE

Dr. J. E. Cannaday,
969 Park Square
Sedalia, - Mo.:

Please send without cost to me prepaid Free trial treatment, also copy of your Free Book.

Name.....
Address.....
.....

Treatment and literature sent in plain wrapper.

50,000 EXTRA MEN NEEDED TO HARVEST WESTERN CANADA'S CROP.

Will Take 160,000 Altogether to Take Care of Yield of Prairie Provinces.

162,000 farm hands will be required this year to harvest the grain crops of Manitoba, Saskatchewan and Alberta. Of this number the local help will provide about 112,000, which will leave about 50,000 extra farm hands. There is, therefore, a great demand for this class of labor in all parts of Western Canada. In order to meet the requirements it has been arranged to grant very low railway rates from all Boundary points reached by Canadian railways.

This will give to intending harvest laborers a splendid opportunity to look over the magnificent wheat fields of Western Canada and the best evidence that can be secured of the splendid character of that country from the farmer's standpoint. There will be at least 200,000,000 bushels of wheat harvested this year and it is expected that the yield will run from 15 to 25 bushels per acre. Many farmers will net, as a result of their labors, as much as $8.00 to $10.00 per acre and many will deposit as profits as much as $8,000 to $10,000.

The wide publicity given to the excellent crop that is being raised in Central Alberta and Southern Alberta, Central Saskatchewan and Southern Saskatchewan, and also in Manitoba, wil increase the price of land in these three provinces from $3.00 to $5.00 per acre, and the man who was fortunate enough to secure lands at from $12.00 to $20.00 per acre will have reason for gratification that he exercised sufficient forethought to invest, while the man who was fortunate enough to secure a homestead of 160 acres free will also have a greater reason to feel pleased.

Notwithstanding the great addition to the acreage this year over last and the large crop that will be ready for harvest, there is no reason to become alarmed that the harvest will not be reaped successfully. There will be a great demand for these low rates during the next couple of months; be sure to make your application to any Canadian Goverment Agent at as early a date as possible. Harvesting will commence about the 25th of July and continue for five or six weeks, when threshing will begin, and there will be plenty of work until November.

Former Chief of the St. Louis Police Force E. P. Creecy owns a Missouri farm on the Gasconade river. He recently suffered a loss estimated at $1,000 when lightning destroyed his barn. The building was fired by the bolt and a large stock of hay and corn were destroyed. The barn was not insured or protected by a lightning rod.

The Ohio State Fair opens at Columbus on August 28th.

SALESMEN WANTED

Trained Salesmen earn from $1,200.00 to $10,000.00 a year and expenses. Hundreds of good positions now open. No experience needed to get one of them. We will assist you to secure a position where you can get Practical Experience as a Salesman and earn a good salary while you are learning. Write today for full particulars, list of good positions we now have open and testimonials from hundreds of men recently placed in good positions.

Address Nearest Office, Dept. 161

National Salesmen's Training Association
Chicago New York Kansas City Seattle New Orleans

Clover Seeding Lost.

The clover and grass seed sown this spring in wheat, rye and other grain has been parched up and killed, either wholly or in part, on thousands of fields in the Central, Western and Northern States. This is a serious situation and calls for prompt attention. If the clover is not replanted it means no clover hay next season, and the planting of some substitute crop for hay next spring at considerably increased expense will probably be necessary. Not only that, but the failure of the clover crop means the loss of the green manuring crop in the rotation and a disarrangement of the whole farm plan of crop rotation. The situation should be met at once. Every piece of new seeding should be examined, and, if it has been burned up, steps taken to replant it at once.

One of the best ways known to get a stand of clover is to disk the stubble field as soon as the grain is off, allowing the disk to run about three inches deep and working the stubble into the soil. The disking and cross disking should be sufficient to clear it of weeds and grass and put the top three inches of soil in fine tilth. Keep the ground cultivated until the first soaking rain, then sow about ten pounds of clover seed mixed with six to eight pounds of timothy per acre and harrow the seed in. A still better way than harrowing is to sow the grass seed with a grain drill, letting the seed run down the grain tubes from the grass seed box and covering the seed from one to one and one-half inches deep.

By sowing clover and grass seed alone in this manner, without a nurse crop, it makes much more rapid and vigorous growth than when sown with grain. By disking the land also a much better seed bed is made than could be obtained by plowing, since when ground is plowed in dry weather it breaks up lumpy and lies up loose and is very difficult to work down into a compact seed bed, such as is essential for the best results with clover and grass seed. In addition, the grain stubble worked into the top soil by disking seems to form a top mulch especially beneficial to clover.

This method of seeding clover is becoming quite general in some of the Middle Eastern States, where farmers over large sections are giving up the practice of spring seeding with grain because of frequent failure to catch, and seeding alone after the grain is cut instead. By this method clover and grass seed may be sown in the Central and Western States as late as September and still make a good stand that will not winter kill; but in the extreme Northern States the seeding should not be made later than August 15th.

To summarize, grass seedings in spring grain have been burned out on thousands of farms. Replant now by disking the stubble about three inches deep and sowing clover and grass seed alone without a nurse crop by August 15th.

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

Extraordinary Announcement: THE BOOK OF LIVE STOCK CHAMPIONS. EDITION OF 1911.

To Contain True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS

Winners in the Annual Live Stock Contests at State and National Fairs and Expositions.

THIS is the Fourth Edition of the most valuable book ever published in the interest of high-class stock raising.

The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Every breed of hogs, sheep and goats will be represented by the best in every breed.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

ISSUED AS A SOUVENIR SUPPLEMENT.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special Inducements to Paid-in-Advance Subscribers---To Old Friends and Patrons.

It is worth something for a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer. After publication the cloth-bound copies will cost Two Dollars a copy without the subscription.

HERE IS A SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1911, immediately after publication.

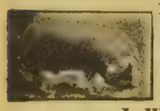
Name.....

Address.....

My occupation is.....

LIVE STOCK BREEDERS' CARDS.

SPLENDID POLAND-CHINA SWINE.



Kirby Stock Farms, Marmaduke, Ark.
Poland-China Headquarters. Pigs, Boars and Bred Gilts. Write for information and prices. I guarantee my representations.
J. W. KIRBY, Manager.

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Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and their breeding is of the best. Write me for catalogue and description. **JOHN McLAUGHLIN,**
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PURE-BRED SHROPSHIRE SHEEP of good quality. First-class. Used to head flock. Good bone and well wooled. Ram now in use was imported from England.

Have some very fine lambs by him that have the size and are the kind to get some good stuff at the right price.
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Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.
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100 Head of Pedigreed **DUROC RED SPRING PIGS** at $8.00 a head.
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Scotch Collie Pups, three months old; tricolor and sable and white; well marked and well bred. Males, $5; Females, $4. Pedigree furnished. **R. FLEMING, Cuba, Kansas.**

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with quality and finish from First-premium Hogs at Illinois and Iowa State Fairs. Fine circular free.
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FIRST-CLASS CHESTER SWINE FOR SALE: 100 August and September Pigs — your choice for $10.00. We ship nothing but choice O. I. C. Pigs. Let us book your order.

ALVEY BROS., Meriden, Kansas.

Tamworths The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more **Tamworths** than any other two breeders in the United States. Descriptive literature free.
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Price List Free.
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Three extra fancy registered Bull Calves for sale, out of three of the best Cows in my herd, and sired by Blue Belle's Golden Roseboy, 85,230, one of the greatest Bulls of the breed and half brother to Noble of Oaklands, just sold for $15,000.00. Write for price, breeding, etc. Satisfaction guaranteed.
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Bred Gilts, also Boars, ready for service; all from mammoth parents. **W. J. White,** R. F. D. 1, Butler, Mo.

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For Sale: Griffith Gaunt, 5,122, foaled 1903, got by Charles Reade, 3,953, dam Riggs' Abdallah. Griffith Gaunt is a magnificently-appearing chestnut sorrel, 15.3 hands, high stepper, speedy, good saddler. Will price reasonably to a quick buyer. Can be seen at Bridgeton, St. Louis county. Address,
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PURE BRED
LARGE YORKSHIRE SWINE.
THE BREAKFAST BACON HOG.

Also produces finest quality of sweet, tender, juicy, fresh pork.

Hardy, Vigorous, Prolific, Kind.

Earliest to mature, and can be marketed in less than six months. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers.
Write for descriptive pamphlet.
T. C. KIMBER, Breeder,
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MILL CREEK STOCK FARM,

The home of the noted Starlight family of Jacks and Jennets for the past thirty-five years, is located seven miles southeast of Nashville, Tenn., on the N. C. & St. L. R. R., at Asylum Station, and has on hand at all times a nice lot of Jacks and Jennets, all of the best blood, from six months to six years old, for sale at reasonable prices. Write for catalogue. Also Jersey Cattle.

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Book of Champions.

We are actively engaged in preparing the new edition of the Book of Live Stock Champions for publication.

We have published several editions of this valuable book and intend to make the new edition far superior to all others.

We already have illustrations of seven hundred different champions, and in each case the picture occupies a half page in the book. We are now gathering the remaining three hundred pictures.

Each illustration is a special demitone engraving from a photograph taken from life. No drawings or fancy pictures appear in the book.

First and second-prize winners are not eligible unless they have also won championship prizes. It is a Book of Live Stock Champions, not simply a book of ordinary prize winners.

Champions of the beef cattle breeds are admitted by their show-ring honors. We have enough pictures of beef cattle champions to make a book by themselves.

Dairy cattle are admitted by show-ring honors, also by officially tested dairy records. We have the finest selection of dairy cattle in the world.

Draft horses are admitted on show-ring records. Trotters and pacers are admitted on track records or as noted sires. We have all the famous horses, going back thirty years.

Thoroughbred horses are admitted on account of track honors or as sire or dam of champions. Saddle horses and ponies are admitted as championship winners.

Jacks and jennets, also mules, are admitted on show-ring or market honors.

Hogs, sheep and Angora goats are admitted as winners of sweepstakes prizes in State, National or International Fairs.

Numbers of famous car-loads of cattle, hogs and sheep which have won show-ring and market honors will be published in the book.

Every live stock champion is entitled to entry providing a first-class photograph can be obtained. We do not intend to disfigure the book with poor pictures. It is better to leave out the poor pictures than to apologize for an inferior book.

We do not charge the owner for publication of his animal, but we do ask his co-operation in furnishing first-class photographs and the records of said animals.

An advertisement of the Book of Live Stock Champions appears on page 19. This class of book should be ordered before publication, so as to receive the copy fresh from the binder. The subscriber who pays in advance will get the cloth-bound edition with gilt title, also The National Farmer and Stock Grower for two years, all for one dollar. After publication the price of this cloth-bound edition will be advanced.

Address all communications concerning the Book of Live Stock Champions to **PHILIP H. HALE, 3550 Vista Ave., St. Louis, Mo.**

Of Interest to Horse Owners.

We want to call the attention of our readers to a little book, "A Treatise on the Horse and His Diseases." Every reader of our paper can own it free of charge, and it is a good reference book to consult when most needed. It is published by the Dr. B. J. Kendall Co., Enosburg Falls, Vermont, the makers of the famous Kendall's Spavin Cure. See page 17.

Blooded Stock Notes.

Mr. W. A. Hinkle, R. F. D. 7, Decatur, Ill., is one of our regular advertising patrons whenever he has Chester White pigs for sale. His stock is fully up to representations and his circular describes his method of raising them. See breeders' cards on this page.

Mr. S. Y. Burks, of Bolivar, Mo., is a splendid breeder of Poland-Chinas and of English Berkshires. His farm is in Polk county, on the Frisco Line, north of Springfield. He has good shipping facilities.

A fine Morgan stallion can be obtained at a reasonable price by addressing Judge W. W. Henderson, Security Building, St. Louis, Mo. The horse is at Bridgeton, St. Louis county, Mo., and in addition to being pure-bred and registered is one of the handsomest horses in the state of Missouri.

Attention is invited to the card of Mr. T. C. Kimber, breeder of pure-bred Large Yorkshire swine, who has a fine orop of pigs for sale on his farm at Pilot Knob, Mo. See his card on this page.

A very good article upon the subject of breeding draft mares will be found on page 29. It is by Mr. W. S. Corsa, of Whitehall, Ill, owner of one of the best live stock breeding establishments in the United States.

READ THIS OFFER!

I want a suitable name for my new magazine—44-page book with Forecasts of weather, short stories, formulas, receipts, etc. **A pair of FINE PEARL OPERA GLASSES and WATCH** will be given the one sending most suitable name. Send 25c. in coin and name you suggest. Offer open until October 31st, 1911.
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We want a good, reliable agent in every county to handle our new Aluminum Kitchenware. None better; costs less; big commission; permanent position; excellent opportunities for advancement. This is an unusual chance for reliable, steady, experienced men or women agents. Reference required. Address, **SALES MANAGER, Suite 26 F, 1810 Wilson Ave., Chicago, Ill.**

AN EFFECTIVE AND ECONOMICAL FRUIT TREE SPRAY

No intelligent orchardist today questions the advisability of spraying his fruit trees as it is a generally accepted fact that in no other way can sound, perfectly formed and developed fruit be assured. The question of selecting the most effective spraying mixture with which to do this important work is, however, often a difficult one to decide. In the opinion of many fruit growers the best and cheapest spray mixture is made by mixing Merry War Lye with water in the proportion of one can to fifteen gallons water. This solution has sufficient strength to kill all insect pests without the slightest injury to foliage or buds. The same solution is fully as effective for destroying borers in fruit trees by washing the trunk thoroughly, applying with a white wash brush. It kills the worms and insects instantly, removes all scale and leaves the tree trunks in a smooth, healthy condition. This mixture has the further advantage of enriching the soil around the roots of trees and shrubs, thus stimulating their growth.

As a sheep dip and remedy for treating foot disease of sheep Merry War Lye has also been found to be remarkably effective, the solution for these purposes being in about the same proportion of one can of "Merry War" to fifteen gallons of water.

Write for particulars to
E. MYERS LYE CO., Dept. 22, St. Louis, Mo.
See Page 6.

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IN AUTO BUSINESS
Big demand for trained men; good pay. Be an auto expert—learn all about automobiles in 6 weeks by
THE "SWEENEY SYSTEM"
all practical work; individual instruction; no books; free tools.
Free catalog telling all about the "Sweeney System" and the opportunities in the automobile business. Experienced chauffeurs, repair men and truck drivers furnished.
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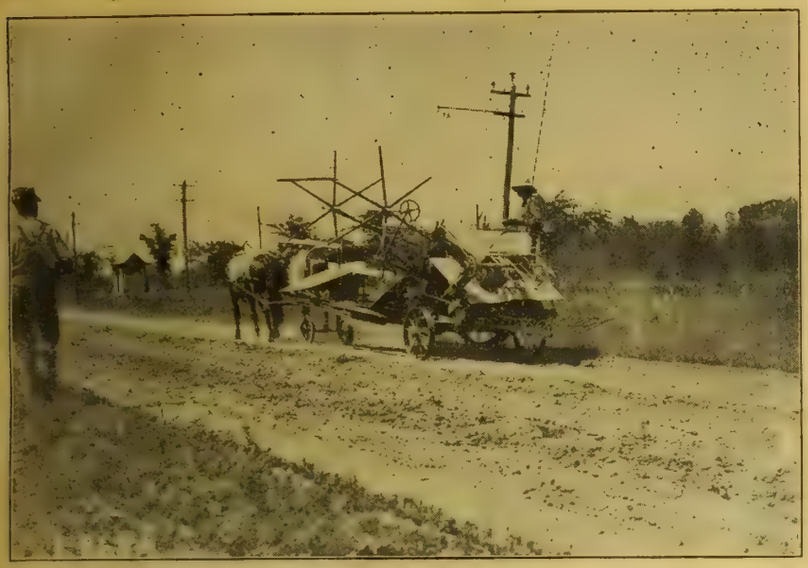

An up-to-date outfit on the road to the harvest field.

FROM REAPING HOOK TO BINDER

A Harvest Carnival With a Display of Ancient and Modern Methods of Gathering the Wheat Crop.

[By Edwin L. Barker, of the I. C. H Service Bureau.]

A great day was Saturday, July 8th. It was a day in which the interests of children, parents, grandparents and great-grandparents were strangely intermingled. It was a day filled with pleasure and historical and educational values—a vivid, striking contrast of the time that was with the time that is. It marked the advance from much labor and little gain to less labor and more gain for the farmer. It is at a Harvest Carnival such as this that we of the present are given a bittersweet taste of the past, and are set to counting our many blessings.

It was fitting that such a carnival should have been staged near DeKalb, in Illinois, for it was here that C. W. Marsh wrought the Marsh Harvester, the link between the self-rake reaper and the modern binder. Mr. Marsh was present, hale and hearty at the age of seventy-seven. The manufacture of the Marsh Harvester caught the interest of William Deering, whose capital and energy later were to assist in the evolution of the Deering machines and a perfect binder twine.

The idea of the carnival belongs to Henry O. Whitmore and T. L. Oakland, two pioneer Illinois farmers who live midway between De Kalb and Sycamore.

The event smacked somewhat of an Old Settlers' Meeting. All visitors under sixty were regarded as children. What does a man of fifty know of the world's progress in the methods of harvesting? Nothing. He is a child—an infant. When one of these youngsters would try his hand at swinging a cradle, the crowd would yell: "Look out! Don't cut your leg off!" And occasionally the warning came just in time.

The oldest and one of the best cradlers has just slipped over into his ninety-second year. If some of his friends had not stopped him, this cradle expert—"Uncle Billy" Allen they called him—would have cradled the entire acre of wheat, that he might put on record every one of his ninety odd years as a year of youth, and also, that though long idle, he had not lost the art of cradling.

Believe me or not, cradling is an art—soon to be numbered among the lost arts. We are not sorry to lose this art, since we have a better way —even "Uncle Billy" said so—but it is good to resurrect it now and then, if for no other reason than to remind us of the words that were truer then than now: "Man shall earn his bread in the sweat of his face."

Many varieties of cradles were brought from their hiding places to be used at the Whitmore and Oakland farms; and their names came with them—"Morgan," "Grapevine" and "Turkeyswing."

First came the reaping hook. After watching it cut a few sheaves of wheat one ceased to wonder that the cradle was once hailed as a great invention. One of McCormick's first reapers, which required a man to walk alongside of it and rake off the grain, could not be obtained. Had one of these reapers been there, it is doubtful if anyone present would have understood the trick of raking. The next reaper, with a seat for the raker, also was absent.

The first machine to enter the field was an old Champion self-rake reaper. Then followed the Marsh Harvester, which carried the grain up to a table, where two men stood and did the binding with wisps of straw caught from the bundles. These men were targets for many comments. Their hands did not work as swifty as in days agone, and frequently the driver had to pull the horses to a halt to give the binders a chance to catch up.

Finally a modern McCormick Binder took up the work. As it quickly cut, bound and tossed the sheaves to the shockers a cheer went up from the crowd, and Old Glory, hanging near, caught the spirit and the sudden stiff breeze and waved in triumph.

The flail was an interesting implement, and what, perhaps, was more interesting, was the different ways different farmers used it. Many who tried and failed complained that something was wrong with the flail. It was too long, or too short, or this, or that, or the other. There was nothing the matter with the men. Oh, no. The singer is never off key or out of time. No, no—it's always the piano or accompanist. To understand just how far progress has traveled on the farm, see a flail and a threshing machine standing side by side.

Farmers from different parts of the state had sent in a lot of old, odd relics of the agricultural past. The collection included rakes made of wood, a pitchfork so small that it might have been a giant's table fork, candle molds, lanterns, a foot warmer such as our forebears carried to church on cold days, and an ancient spinning wheel, with which an old lady spun wool.

Oh, but wait. I had almost forgotten the old dinner horn. Small as it is, it emphasized the fact that each generation is an adept in the arts and practices peculiar to that generation. No more; no less. Not one of the youngish, husky, big-lunged men could get more than a joke of a sound out of the dinner horn. It was not until an old man raised his head and placed the horn to his lips that a great blast went echoing across the distant fields. And then he laughed! "Why, it's easy. The women blew these horns when I was young." Then with a note of reminiscence in his voice: "We used to think it was the sweetest music we ever heard."

All the old things we like to remember as belonging to the harvest time were there—all save the little brown jug and the "Swizzle." Don't you know what "Swizzle" is? Then you're not as old as I thought you were. Why, man, "Swizzle" was the stuff that was in the jug. Now, if you don't know what "Swizzle" is, go ask your grandfather.

It was suggested—and we pass the suggestion along—that other farmers in other sections pull off similar carnivals. They recall pleasant memories to the older folks and whet the appreciation of the younger.

It requires an old, experienced hand to sharpen and swing the cradle.

The Chicago International.

Don't forget that the International Live Stock Exposition will open at Chicago on December 2d and close on December 9th. This is the clearing house of all the great shows.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions**, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once. I would be pleased to send you the names of people who state they have been cured of various Stomach ailments and speaking the highest praise of this medicine. Just fill out the Coupon below—let me send you this wonderful treatment together with highly interesting literature, testimonials, etc. Don't suffer with agonizing pains—don't permit a dangerous surgical operation, which gives only temporary relief, when this medicine will permanently help you.

GEORGE H. MAYR, Mfg. Chemist
Mayr Building, 154-156 Whiting Street, Chicago
References:—Mercantile Agencies or State Bank of Chicago

MAYR'S WONDERFUL REMEDY
FOR STOMACH TROUBLES INDIGESTION GAS ON THE STOMACH AND INTESTINES
THIS REMEDY REMOVES GALL STONES
GEO. H. MAYR Mfg. Chemist Mayr Bldg., Chicago
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Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy

Name .....

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Write Plainly

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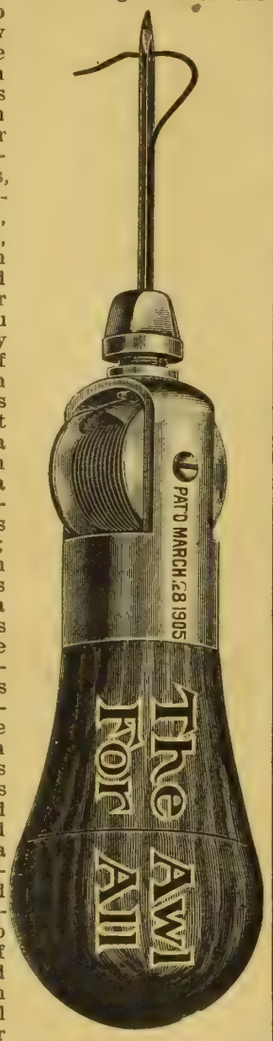
You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to benefit.

Absolutely harmless. Guaranteed by the Pure Food and Drug Act, Serial No. 25793

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.



Anyone who will send One Dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Eating An Apple.

"Do you know what you're eating?" said the doctor to the girl.

"An apple, of course."

"You are eating," said the doctor, "albumen, sugar, gum, malic acid, gallic acid, fiber, water and phosphorus."

"I hope those things are good. They sound alarming."

"Nothing could be better. You ate, I observed, rather too much meat at dinner. The malic acid of apples neutralizes the excess of chalky matter caused by too much meat, and thereby helps to keep you young. Apples are good for your complexion. Their acids drive out the noxious matter which cause skin eruptions. They are good for your brain, which those same noxious matters, if retained, render sluggish. Moreover, the acid of the apples diminish the acidity of the stomach that comes with some forms of indigestion. The phosphorus, of which apples contain a larger percentage than any other fruit or vegetable, renews the essential nervous matter of the brain and spinal column. Oh, the ancients were not wrong when they esteemed the apple the food of the gods—the magic renewer of youth to which the gods resorted when they felt themselves growing old and feeble. I think I'll have an apple," concluded the doctor.—New York Tribune.

Less Concern About Horses and More For the Wife.

"A man's work is from sun to sun, but a woman's work is never done." This is especially true on the farm, where a multitude of duties seem to await the good housewife, duties that are often trying and too often unappreciated by the "men folks."

We have in mind just now the extreme sorrow of the farmer who had just lost his wife and who emphatically stated that he would rather have lost two of his best horses. We doubt not that he might have saved the wife and lost the horses had he reversed their treatment.

Perhaps the majority of men are merely thoughtless in this respect and don't appreciate that the good wife on the farm is overburdened just because she doesn't complain. The less she complains the more concerned "her lord" should be about her welfare. Patience is a virtue peculiar to women and particularly farmer's wives. Why misuse it?

Even the man who has sentiment in his makeup but who has a generally keen business eye often shows mighty poor judgment by wearing out this human machine, which is his greatest asset.

We know and you know of farmers' wives who raise turkeys, chickens and ducks and make dairy butter the year round and who don't have even a bit of money they can call their own. The magnanimity of their husbands is nicely exemplified by the story of the man who sold his wife's ducks and spent the money for material with which she was expected to make him his winter supply of shirts.

Often one of the most irksome duties of the housewife is making dairy butter and preparing it for market. The modern creamery was instituted to relieve the farmer's wife of this burden.—Blue Valley Bulletin.

Steel Roof Protects Buildings From Fire.

Fire protection on the farm has just been exhaustively investigated by one of the largest manufacturers of roofing with results of great importance to every farmer and builder.

The investigation was conducted by the Edwards Mfg. Co., of Cincinnati, manufacturer of the well-known Edwards' "Reo" Steel Shingles.

Many actual instances were given where the spread of fire was prevented by nothing else than the steel shingles on neighboring buildings. Without these shingles the buildings would surely have caught fire from the sparks and flying fragments.

Farmers also bear out the Edwards Mfg. Co.'s strong assurance that "Reo" Steel Shingles are equally efficient protection against lightning. The company guarantees every roof sold against damage by lightning and backs its guaranty by a $10,000.00 bond.

Anyone can lay the Edwards' Reo Steel Shingles with hammer and nails. They come in stamped sheets of Bessemer steel, eight to twelve feet long, width twenty-four inches, either painted or galvanized.

Readers are invited to write for new free catalogue. Send the dimensions of buildings. The address is The Edwards Mfg. Co., 857 Lock street, Cincinnati, Ohio.

A Glass of Liquid Winter
You can take a little trip into the winter anytime you're hot, tired and thirsty. The very next time you're near a place that sells Coca-Cola, go in and spend 5c for this trip ticket into December—a glass or bottle of
Coca-Cola
The most delightfully cooling and refreshing beverage you ever tickled your palate with. Remember this for the hot days this summer, when the roads are dusty and the sun beats down.
Delicious — Refreshing
Thirst-Quenching
5c Everywhere
Send for our interesting booklet, "The Truth About Coca-Cola."
102
Whenever you see an Arrow think of Coca-Cola
THE COCA-COLA COMPANY
Atlanta, Ga.

A Dust Outfit.

For protection against the dust when taking long rides over dusty country roads there is nothing better than a long coat of some light, washable material; linen, crash or pongee serves the purpose admirably. There are reasons why pongee is preferable, as it makes a coat dressy encugh to wear any place and it is so easily washed and ironed. Fifteen yards of twenty-seven-inch material will make a coat about fifty-four inches long in a medium size. It may be unlined except for a small strip of butcher's linen used as a facing down the fronts and widening out across the shoulder so as to be joined in the arm seam. This piece of linen will give just the required amount of body to the coat. Frogs or washable buttons are best to use for the fastening. A further dust protection is a white or light tan chiffon veil about a yard and one-half long. This will cover the hat and can be brought down around the hair, keeping it from blowing and free from dust. Get a good quality of chiffon and it will wash like muslin.—Janet Thomas Van Osdel

The first home-grown cantaloupes from the American Bottoms, west of Edwardsville, Ill., were marketed at St. Louis, July 14th, by Charles Hess, of Poag, one of the large melon growers of the county. The consignment of five baskets of seventy-five melons were purchased by J. E. Tunnell. The wholesale price was a little above five cents each.

The Iowa State Fair opens at Des Moines on August 28th.

Hammond's Handy Atlas of the World.

This great Atlas contains 107 pages, 6x8 inches, is printed in colors and is bound in a durable red-cloth cover. It contains seventy full-page maps of every state and territory, with new railroads and towns. Every country in the world is shown by maps of the latest plates. We use this Atlas as a subscription premium. For fifty (50) cents paid in advance we will send one copy of **Hammond's Handy Atlas** post free by mail and credit one-year's subscription to The National Farmer and Stock Grower. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Our Friends and Enemies, the Weeds.

Under the general name of weeds we classify all the plants of herbaceous growth that we have not yet learned to utilize. Weeds are simply plants of unknown utility. Many of them will in the future be developed and brought into the service of man.

All of our present economic plants were once weeds. That was in the days when men lived by hunting and fishing, and had not yet learned to make use of any of these so-called weeds. But gradually during the long centuries a number of plants that were weeds have been brought into a civilized condition and improved for the use of man. The improvement of such weeds as gave us wheat, flax, oats, rye and rice, was so long ago that it is beyond the written records of men. But some of the other plants have come from weeddom during the recent centuries. Celery, potatoes, tomatoes, are among the rich gifts that have come from the kingdom of weeds since man began to write records of his doings.

What would be the status of man to-day without the prizes we have captured from the weeds? It was said that the introduction of the potato into Europe was a blessing to the masses of the poor who had need of a carbonaceous food that could be cheaply produced. Celery, first eaten by a hungry prisoner, is a recent acquisition from the weeds, but is now found on the tables of kings as well as on the tables of the poor.

And what should we do without lettuce, one of the most recent plants to be subjugated? It has grown more and more in favor, till now thousands of men are growing it, summer and winter, and every home demands it, twelve months in the year.

Weeds are both our enemies and our friends. They cover the ground and keep it moist when it is not in use for crops. This is really a very great service. The moist soil in the shade of the weeds harbors the millions of soil bacteria that are busy elaborating plant food elements so that the new crop may feed with avidity on a generous supply of nutrients. A hard, unprotected soil is rather losing than gaining in fertility, because the sun and the heat are making use of the voluble soil elements.

The roots of weeds frequently plow deep and permeate the soil with innumerable channels. The roots decay and in the channels left vacant the air finds its way downward to greater depths and other services are rendered. A weed-covered field is far better for immediate use than one that has been baking in the sun for weeks because of lack of verdure.

Not long ago a farmer wanted to put in an additional bean crop. He did not wish to take the time to plow up sod, leave it to rot and then plant beans in the usual manner. He had a piece of very rich ground that was covered with weeds. The workers went over it with hoes, skimmed off the weeds at the surface and drilled in the beans without plowing. The ground was friable, because it had been in the shelter of the weeds. The beans are doing well, but near them is a piece of sun-baked soil that was rejected by the farmer when he wanted to plant in this way.

Highway Tree Growing.

At the present time the growing of trees along the highways is left to the individual property owners whose holdings front on the highways.

The right to all of the highways rests in the public, and the public has the right to enter into the planting of trees along highways if it desires to do so. Doubtless the time will come when the public through its properly-elected officials will have a regular method of procedure.

This has been done in some parts of the United States, especially in the large cities. The city of Washington does not leave to the chance of individual taste the matter of highway tree planting. A most active body of men has the matter in charge with the result that Washington is glorious with trees.

We should have our country highways made beautiful with trees, and under the management of the Highway Commissioners. The attempt has been made in some places to turn the roads and streets over to the local Park Boards, but this involves the ownership of franchises and is not the desirable way to arrive at the solution of the tree-planting question.

We should move toward this general and systematic method of tree planting, but in the meantime we must educate as much as possible the general public, who are at present the ones doing this work.

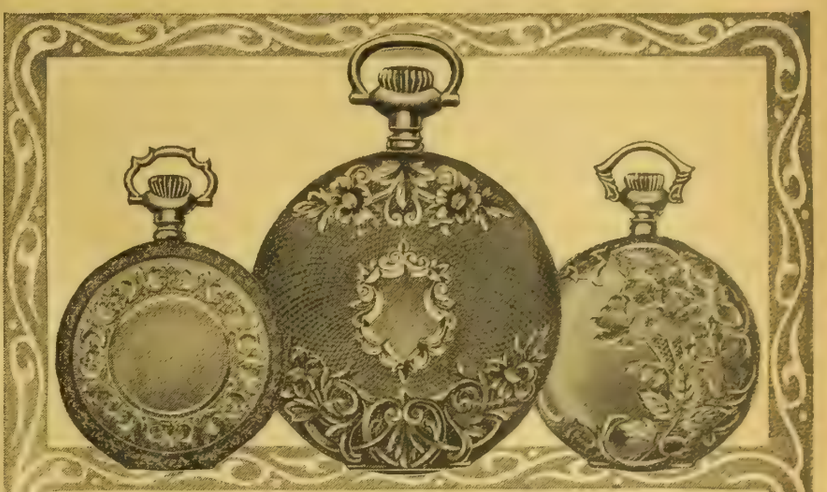
The first caution to be given is not to plant trees too close together. Ordinary trees, such as the oak, the walnut, the maple, should not be closer than 100 feet on the country highway. In the cities the distance is reduced to fifty feet, but in the open country 100 feet is more desirable.

It is hard to resist the temptation to plant close, because for many years the trees are small and the results meager, while if closer planted they will begin to make a showing in a very few years. The common practice is to yield to this temptation and ignore the advice of the landscape gardeners to plant at liberal distances apart. The people that do so are simply sacrificing the future to the present.

Trees planted far apart grow into beautiful shapes and take on increased grandeur as the years go by. Some of them become remarkable for size and beauty. This does not occur when many trees are planted close together. Each checks the growth of the other, and most of them become lop-sided.

The early years of highway tree growing should be sacrificed to the later years, for the later years will constitute a much longer period than the early years. Moreover, the trees that grow by themselves make more rapid growth than those growing close together, and this in large part makes up for the loss of abundant shade trees in the early years. The isolated tree has more sunshine to help it, more moisture at its roots, and more plant food.

The man that grows the isolated tree will rejoice, if he lives long enough, to behold its greatness.



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YOUR representative jeweler will show you a wide range of *styles* in "Crescent" and "Jas. Boss" Gold Filled Watch Cases.

His stock is selected from more than *three thousand* exclusive designs, in all sizes for ladies' and men's watches.

Beautiful engraved patterns—Engine-Turned effects—and exquisitely finished Plain Polished cases.

While you are examining the cases note the *depth of the engraving*. There is your plain proof of the thickness of the gold on the "Crescent" and "Jas. Boss" goods—which means a lifetime of wear and service.

A cheapened gold-filled watch case can never be engraved deeply—because the engraving tool cuts through the thin film of gold and exposes the composition metal underneath.

Yet you will find such trashy cases stamped "guaranteed for 20 years"—and there is no way that you as the purchaser can be protected against these meaningless "guarantees."

Except this—insist on getting a "Crescent" or a "Jas. Boss" case, so that you can be *sure* that the *values* are right.

You will know these cases by the trademarks illustrated on this page. These marks are standard with the fine jewelry trade and have been for fifty years.

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JAS. BOSS
GOLD FILLED
Reg. U.S. Pat. Off.

TRADE MARK.
CRESCENT
GOLD FILLED
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The Keystone Watch Case Company
Established 1853
PHILADELPHIA

Look Out For Argentina.

Two years ago the tariff was taken off hides after the tariff bill had passed, and that same tariff law also reduced the duty on fresh meats from 2 cents a pound to 1½ cents a pound. This decrease in duty was the forerunner of the reduction of all duties on farm products. Look out now for the agitation to admit Argentine beef and mutton into the New York market free of duty. It is coming soon.

Packers at Portland, Ore.

The great meat packing firm of Schwarzschild & Sulsberger, of Chicago, will construct a first-class plant at Portland, Ore., and join Swift & Company in concentrating the Pacific coast live stock business at that city. So far Swift & Company have owned the stock yards there, and now it is reported that Schwarzschild & Sulsberger acquire a 25 per cent. interest in the Union Stock Yards of Portland. There is considerable room for railroad development before there will be a great live stock market, unless the Columbia river trade takes a hand in building up the market.

Too Old or Too Young.

Boss—"Mr. Jones, you have sold more neckties than any clerk I have ever had. How do you do it?"

Clerk—"When a young man selects a tie I say: 'That's too young for you.' When an old man picks one I say: 'That's too old for you.' They both bite."—Exchange.

There are 10,777 farms or ranches in Texas which contain upward of 1,000 acres each.

Cleaning White Goods.

White waists and dresses are so extensively worn that they come in for renovation oftener than any other, and there are few women who cannot learn to launder these garments beautifully if they are willing to take the trouble. If spots of mildew are found on white goods, wet the cloth in soft water and then rub on plenty of soap and salt and hang on the line in the air for a few days. For grass stains, saturate with molasses, rub it in well, then wash in warm water; and to remove the dark-brown stains that are often found on white goods that have been put away for a long time, scrape some yellow laundry soap over the spots, then cover the soap with equal parts of salt and starch and place in the sun.

If a white garment has turned yellow from age or careless laundering, wash it clean, then put in an earthen jar or granite pan and cover with some buttermilk, and no harm is done if it is allowed to remain in the milk for three or four days.

A good bluing for white goods is made by dissolving one ounce of pulverized Prussian blue and half an ounce of oxalic acid in one quart of water, and this will not spot; and white goods should always be hung in the hot sun to dry, as the strong sunlight helps to whiten and bleach them.

When white clothes are put to soak over night in warm, soft water, they will not require so much rubbing, and anything that saves rubbing saves the clothes as well as time and strength.

The best way to clean fine white waists, dainty handkerchiefs, nice collars and jabots is to dissolve enough borax soap chips in hot water to make a nice lather, then put in the articles and cover with warm water, and let them soak for an hour or two, and there is nothing better than these Twenty Mule Team Soap Chips for washing all kinds of white goods. These chips soften the water and the articles are made a beautiful clear white with very little rubbing, and all sheer articles should be cleaned by lifting up and down and pressing and squeezing between the hands; and to give the fine white waists just the right degree of stiffness, wash, rinse and dry them, then dissolve a tablespoonful of borax in a quart of warm water, put the garments through this water, roll up closely and iron dry and it will look as dainty and fresh as a new waist.—M. A. T.

Reporter Almost a Senator.

Harry M. Williams came pretty close to being elected United States Senator from Louisiana, and the other candidates in the race were Edward Douglass White, Don Caffery and Newton C. Blanchard.

This is the way it happened: The Louisiana Legislature was in session in July, 1892. Murphy J. Foster, the present United States Senator, was then Governor, and a bitter fight was being made on the Louisiana State Lottery and Samuel D. McEnery. Henry Williams was covering the Legislature for the New Orleans New Delta, a newspaper that passed out of existence many years ago. In the course of his labors Williams had written an extended marriage notice about a legislator named Boggs. It was Boggs' fourth marriage, and Williams had handled it in a way that pleased the victim.

The day came when complimentary votes were being cast for favorite sons who wanted to go to the Senate and had no show of winning.

Roll call started. Boggs' name was reached.

"Here is where I can do the right thing," Boggs reasoned, and he shouted: "I vote for Harry M. Williams."

In addition he got busy with his fellow-members and buttonholed them right and left.

"Vote for Williams," he pleaded, rushing into every corner of the assembly room. And nearly everybody did.

The roll clerk had reached the letter R, or maybe it was S. Then the leaders were thrown into a panic.

"Good Lord," they said. "Here they are electing a Senator that we never dreamed of." So they rushed to everybody whose names began with R, S, T, U, V, W, and so forth, and spiked Williams' chances. He missed being elected by seven votes.

Missing election in this high office, Williams went chasing off in one of the parishes where a mob was bent on lynching a prisoner, and there he came near enjoying the distinction of being lynched for saving the prisoner from the mob.

Kosciusko's Horse.

There is a story told of a precise old gentleman, who, having purchased a pony for driving, was annoyed by the animal stopping at every public house which he passed in his drives. The pony gave a sure indication of the habits of its former owner. The horse of Kosciusko, the celebrated Polish General, appears to have had a different training.

When the Polish leader was living in exile in Switzerland, he wished to send a few bottles of choice wine to a clergyman who dwelt at Solothurn, and, having reason to think that his own servant would pilfer some of it, if he were sent with it, he intrusted it to a young man named Jelteur, lending him his own horse on which to perform the journey.

Young Jelteur set out with the basket of bottles, and was cantering along the road, when a poor man approached, and, pulling off his hat, asked for alms. The horse immediately came to a full stop, and refused to move for either coaxing or threats. This was awkward for the honest Jelteur, who had no money, and the horse seemed to be waiting for something; but a bright idea struck him; he plunged his hand into his empty pocket, and, pretending to take out some money, made a motion as if putting it in the poor man's hat, which he had no sooner done than the animal trotted on again. After going on for some distance, another beggar made his appearance and pulled off his hat, and the horse again stood still; but this time Jelteur was prepared for the occasion, and, pretending to put money in the man's hat, the animal went on his way quite satisfied; but it may well be doubted if the beggars were as well satisfied with this form of charity as the horse was!

The wine was duly delivered to the clergyman, and Jelteur, having encountered during the journey several mendicants, all of whom he induced the horse to pass by, appearing to give them something, returned to Kosciusko and told him he would never ride his horse again unless he also lent him his purse.

"Why so?" asked Kosciusko. And then the young man, much to the General's amusement, narrated the incidents of the journey, and how he was obliged to pretend to give something to the poor beggars in order to satisfy the horse.—Exchange.

His Thoughtful Wife.

"I hate to boast," said a Cleveland lawyer, "but my wife is one of the most economical women in the world. The other day she told me she needed a new suit. I said she ought to have it, by all means, but asked her not to spend a big bunch of money without letting me know about it. Well, the next day she said: "The tailor said he couldn't make that suit for less than $150. I thought it was too much, but told him to go ahead.'

" 'Well, I suppose it is all right,' I said, 'but why didn't you consult me first?'

" 'Why, dearie, I didn't want to spend car fare for two visits.'

"I tell you, it's these little economies that count, eh?"—Cleveland Press.

Bad Combination.

Rambo—"I have a pair of glasses at home that make me see double."

Baldwin—"Yes; I've seen you using them. One is a beer mug and the other is a whisky tumbler."—Chicago Tribune.

AMERICAN BEAUTY ROSE PICTURE FREE.

This illustration very indefinitely represents a most beautiful and delightful premium picture—a reproduction of a masterpiece. This magnificent picture is in the richest of color. It is 16x20 inches. It is finished equal to an oil painting. It will adorn and beautify any room in which it may be placed. If it is neatly framed it will be "a thing of beauty and a joy forever." Without framing it will last for several years. The illustration gives no idea of the size and beauty of the picture. We are using the AMERICAN BEAUTY ROSE PICTURE for the purpose of introducing The National Farmer and Stock Grower into new homes. Anyone who will send us Twenty-five Cents for a six-months' subscription to The National Farmer and Stock Grower can select the AMERICAN BEAUTY ROSE PICTURE as a free supplement. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

SisterWoman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send you, your daughter, your sister, your mother, or any ailing friend, a full 50-cent box of Balm of Figs Compound absolutely free. It is a remedy for the treatment of woman's ailments, and I want to tell you all about it—just how to use it yourself—right at home without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—let me prove it to you, and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so quickly and surely cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with any form of female weakness or disease so common to women.

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I will send it to you absolutely free, to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to prove my faith by sending out these 50-cent boxes free. So, dear reader, irrespective of your past experience, write to me at once—today—and I will send you the treatment entirely free by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the very best test of anything is a personal trial of it, and I know a 50-cent box of Balm of Figs Comcound will convince you of its merits. Nothing is so convincing as the actual test of the article itself. Will you give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a 50-cent box of this remedy absolutely free. Address,

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Is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for twenty-five cents to pay for one-year's subscription to the Universal Magazine we will send a splendid prize packet of **FIFTY ELEGANT ASSORTED POST CARDS**, or a packet of **FIFTY MASTER PAINTING POST CARDS**, or a packet of **FIFTY ROUND THE WORLD POST CARDS**. Make your selection of Post Cards. The paper is worth the money. The cards are worth twice the money. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.

Lovely Spray Designs.

No. 593.—Design for embroidering sprays of maiden-hair fern. The price of the pattern is 10 cents.

Four Yards of Edging.

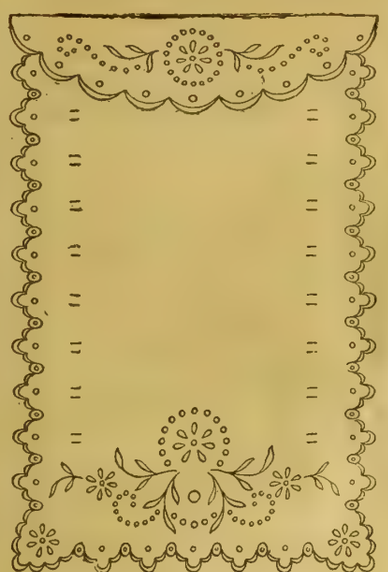
No. 590.—Design for a scalloped edge or border. The scallops are one and one-fourth inches in width, three-fourths of an inch in depth. Four yards and four corners are given. The price of the pattern is 10 cents.

Collar and Cuff Set.

No. 594.—Design for braiding a sailor collar and rolled-over cuffs. The price of the pattern is 10 cents.

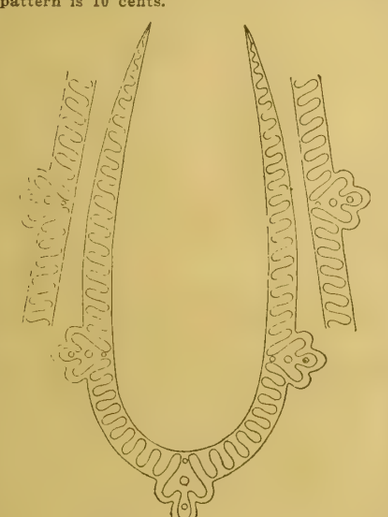
For a French Blouse.

No. 589.—Design for embroidering a blouse with French knots or beads. Transfer patterns for the neck edge and sleeves are given. The price of the pattern is 10 cents.



For the Infant's Carriage.

No. 591.—Design for embroidering an infant's carriage cover. The price of the pattern is 10 cents.



Overblouse With Back.

No. 592.—Design for braiding an overblouse with back in surplice style. Especially adapted to May Manton Pattern No. 6691. Transfer patterns for neck and back edges and for the sleeves are given. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Garrison of One.

A French grenadier, in a war with the Austrians, was put in charge of a small fort commanding a narrow gorge, up which only two of the enemy could climb at a time.

When the defenders of the fort heard that the enemy were near, being few in number, they deserted, and left the brave grenadier.

But he felt that he could not give up the place without a struggle, so he barred the doors, raised the drawbridge and loaded all the muskets left behind by his comrades.

Early in the morning, with great labor, the enemy brought up a gun from the valley, and laid it on the fort.

But the grenadier made such good use of his loaded muskets that the men in charge of the gun could not hold their position, and were compelled to retire, and he kept them at bay all day long.

At evening the herald came again to demand the surrender of the fort, or the garrison should be starved out.

The grenadier asked for a night for consideration, and in the morning expressed the willingness of the garrison to surrender if they might "go out with all the honors of war."

This, after some demur, was agreed to, and presently the Austrian army below saw a single soldier descending the height with a whole sheaf of muskets on his shoulder, with which he marched through their lines, and then threw them down.

"Where is the garrison?" asked the Austrian commander, astonished.

"I am the garrison," replied the brave man; and they were so delighted with his plucky resistance that the troops saluted him and called him the "First Grenadier of France."—Exchange.

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Buys this Machine

30 days free trial

We will sell you a high-grade, drop-head, Sew Easy Sewing Machine for $1.00 a month. We guarantee each machine for 25 years. We ship direct from the factory. We do not sell to stores and we have no agents. We can save you some money. You get the machine at once and use it while you are paying for it and it only costs you about 3 cents a day. We have many special features in our machine such as short needles which don't break easily. Our shuttles hold half again as much thread as the old spring tension shuttle. We can't tell all the good points in this advertisement, and we couldn't afford to send you a machine on the small dollar a month plan unless we gave big value and low prices. We want you to write us today, saying: "Please send me circulars and full particulars about your 'dollar a month' Sewing Machine offer." Write Today. Address

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Pete's Wrong Impression.

Mayor Gaynor, of New York, was talking about a famous robbery case wherein a criminal had been convicted by means of the Bertillon system of finger-prints alone.

"It reminds me," said the Mayor, "of a story about a parson. This parson had a fine orchard, and one summer, just when the Bertillon system first came out, the orchard was robbed. The only clew left was the robber's finger-print on an overripe peach. The parson had a photographic enlargement of the finger-print made. Then, with this enlargement under his arm, he accosted in the Main street the man whom he suspected of the theft.

"'Pete,' he said, "somebody robbed my orchard last night.'

"Pete took his pipe from his mouth. He gulped nervously. 'Is that so, sir?' he said.

"'Yes, Pete, that's so,' said the parson; 'but the thief left his mark behind, and I shall easily trace him.'

"'Yes, sir?' said Pete, huskily, and he cleared his throat.

"'Yes. Do you see this, Pete?' And the preacher held before the man's eyes the huge enlargement of the finger-print.

"Pete, beholding the photograph, made a gesture of despair.

"'I see there hain't no use denyin' wot I done,' he said. 'Ye got the bulge on me, parson. I pinched yer fruit, and no mistake. But I certainly would like to know, though, where ye got that there impression of my corduroy pants!'"—Philadelphia Bulletin.

Practical Arithmetic.

Mental arithmetic on a melting day—and while the cool river gleamed tantalizingly from the school room window! No wonder that small minds grew confused under the strain, and small calculators calculated with even smaller success.

"Now, boys," said the jovial dominie, who was himself aching for a swim, "here's your last problem for to-day. See if any of you can get it right: Suppose I have a piece of beefsteak."

The boys supposed it obediently.

"And suppose I cut it into sixteen parts. What would you call those pieces?"

"Sixteenths," piped a dozen voices.

"Right!" exclaimed the dominie. "And suppose each of these pieces were cut again into four pieces, what would they be?"

A dead, awful silence reigned, while the small brains worked desperately. Suddenly a hand was held up and one of the lightning calculators cried:

"Hash!"

Appropriate Styles.

"That elocutionist believes in dressing the part for any recitation."

"How do you mean?"

"Why, when she read the story about the sailors deserted on the lonely island, she wore a costume of maroon, and at her lecture on Celtic wit her dress was trimmed with Irish point."—Exchange.

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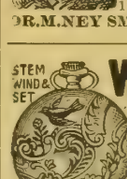

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HAIR GROWN ON BALD HEADS.

A Maine man who was bald eighteen years has been surprised and delighted by the very speedy growth of new hair all over the large bald spot. A man living at Falls Creek who had tried every remedy that he could buy to stop dandruff and falling hair, has at last found the right method. These two cases are examples of legions which prove the efficacy of the new Koskott Method. This is something different from the usual rank and file of hair preparations and is succeeding in a great many cases after all others have failed. A very interesting book has been published. It clearly explains the cause of dandruff, loss of hair, grayness, etc., and how these disorders of the scalp and hair may be overcome by a perfectly safe, inexpensive home treatment. Those who are bald, or who know they are becoming so, can take fresh courage. To obtain the book without any cost, it is only necessary to write to Koskott Laboratory, 1269 Broadway, 515 B, New York, N. Y., requesting that their treatment shall be sent postpaid, free, as here mentioned.

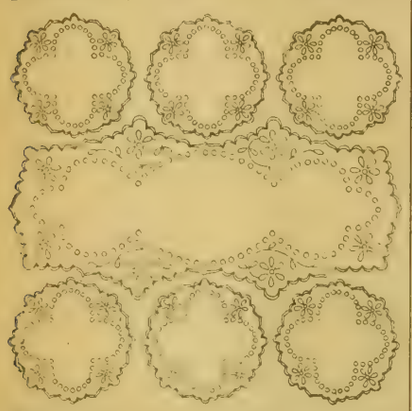
UNIVERASL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated below shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us Thirty Cents and we will send you this dainty set for a short time only, absolutely safe delivery guaranteed, and the Universal



Magazine for one year. The Universal Magazine is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns, and has a number of original household articles. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Rest Through Reading.

Fortunate is the mother who has a good voice for singing. Doubly so if to this she can add the variation of good reading occasionally, for in this she may herself gain new thoughts and inspirations. There are few who cannot, if they will, cultivate the voice sufficiently to sing the lullaby; still fewer who cannot, if they so determine, spend a quiet hour daily with the gems of the best writers.

Take, for instance, "In Wink-away Land," by Eugene Field, written about little ones by one who loved them. For the twilight hours the story of Lady Button-Eyes soothes to sleep. The opening stanza is as follows:

"When the busy day is done
And my weary little one
Rocketh gently to and fro;
When the night winds softly blow
And the cricklets in the glen
Chirp and chirp and chirp again;
When upon the haunted green
Fairies dance around their queen—
Then from yonder misty skies
Cometh Lady Button-Eyes."

If there are crickets about your own hearth, show one to the child and teach it how they sing.

There are few selections which the child will comprehend in their entirety; few juvenile ones which will not be appreciated in part. We all recall how the Mother Goose rhymes entertained, though they were often destitute of real ideas. The rhyme and rhythm of the real poet will leave a permanent impress for good upon the child mind, while to the mother they will bring new hopes, new joys. The rest hour will be made one for the enlargement of the soul.—Bessie L. Putnam.

The House Fern.

A few hints about caring for the house fern may be acceptable to the many persons who love the beautiful plants but have been unsuccessful in the growing of them. The Boston and Pierson ferns are the ones with which we have had a successful experience. We thought we were keeping them very well watered when we gave them a cup of water a day. This is enough for the daily portion we learned from a florist, provided we give our plants once a week a thorough wetting by holding them under a running stream of water and letting the water soak the soil from top to bottom and then drain off before the plant is returned to the jardiniere. Let this operation really be a bath for the plant; see that the leaves are well sprayed with the water, so that all dust is removed. This opens the breathing pores of the plant and as well removes any parasites that may be inclined to seek a livelihood therefrom. Another help is to set the fern out in showers. The fresh rain water does wonders in the way of keeping the plant in thrifty condition. After very warm days, try setting the ferns out during the night to catch the dew. This will keep the leaves from becoming yellow.

The fern should be kept in a wide pot well filled with earth, which should be renewed about once a year. If a small stone or a piece of brick is placed in the jardiniere and the flower pot set upon this, good drainage will be given the soil in the pot. This little device also allows the sunlight to reach the base of the leaves, as it raises the flower pot up so that its top is on a level with or a trifle higher than the top of the jardiniere. Many persons have a mistaken idea about the amount of sunlight that the fern needs and keep their plants in a north window. A florist tells us that the Boston Sword and the Pierson ferns should be placed in the sunniest window in the house during the winter; while in the summer, when the heat is intense, they should be placed in a well-lighted but not too sunny window.—Janet Thomas Van Osdel.

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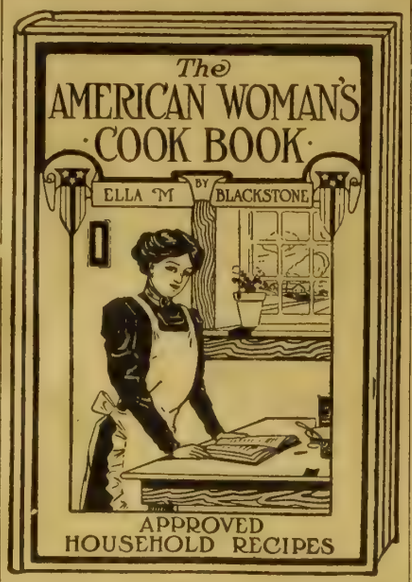
The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.

The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.

The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index,



which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar, and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Farmer, opening Calculator—Amounts to $17.24; had on 48 bushels and 57 hundredths. (Page 13.)
G. D.—Well, I declare! Whose lightning Calculator is that?
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Got His Answer.

Mrs. Nagleigh—"I suppose you are satisfied now that you made a mistake when you married me?"

Nagleigh—"I made a mistake all right, but I'm not satisfied."—Boston Transcript.

WEATHER FORECASTS

For the Month of September, 1911, by the Famous Prognosticator, Prof. W. Wadsworth Marsh.

[Copyrighted, 1910, by W. W. Marsh.]

September will bring changeable temperatures, cool to warm waves, early frost and damaging, cyclonic winds, at times heavy rain storms.

Hurricane winds over the Great Lakes, Atlantic Ocean, Gulf of Mexico and the coast, the Ohio Valley getting its share of the heavy rains and damaging winds.

Between 1st and 3d.—Storm, rain followed by cool wave north of Lake Superior region, with frost around and north of Lake Superior.

Changeable temperatures, storms, rain, hail and wind over the Ohio Valley and Tennessee, followed by light frost. Cyclonic wind, hail and rain over Ohio, Indiana, Kentucky, West Virginia, Pennsylvania and water sheds of the Ohio, followed by cool wave and light frost.

Storm, heavy rain, hail and high cyclonic wind at Pittsburg, Pa., and along the Ohio river and tributaries, followed by cool wave and light frost.

Storm, high cyclonic wind and quite heavy rainfall from Hinton, Va., to Nashville, Tenn., followed by cool wave.

Storm, quite heavy rain, warm to cool, with high winds over the Kanawha Valley.

General storm and changeable temperatures, wind and rain, followed by cool wave and frost, from the lakes to Texas, and rain and wind followed by cool wave and frost, central in the immediate Northwest, the storm, rain and frost belt extending from the North Atlantic coast over the Ohio Valley and then westward to Colorado and New Mexico, and rain followed by cool wave and frost from Lake Erie across the Ohio Valley to Texas.

Killing frost following the rain storm in many places in the West and Northwest.

High gales along the island coast and Northern New Brunswick.

Changeable temperatures, rain and wind storm covering the Upper Mississippi and Missouri Valleys, followed by cool wave and frost. This storm will cross these valleys, and the cool wave and frost following the

storm will cause some damage to late corn.

Storm Over the South.

High, cyclonic wind and heavy rainfall over the Gulf of Mexico and along the entire Gulf coast, covering the entire Gulf States. This storm will be quite severe along the coast of Florida and at Mobile and that section of Alabama. A cool wave with prospect of light frost will follow the storm. These same conditions will exist over the Carolinas and Virginias and their coasts.

Storm, rain and wind, changeable temperatures over the lake region; quite severe gales over Lakes Erie and Michigan.

Rain and wind followed by sudden drop in temperatures over Illinois, Michigan, Wisconsin, Minnesota, heavy frost following the storm at Milwaukee, St. Paul, Duluth,Chicago, Buffalo, Sault Ste. Marie, Marquette, and frost following the storm at Cleveland, Detroit, Grand Haven, Grand Rapids and over Northern and Northwestern Ohio.

Violent winds, rain storms at Charleston, W. Va., Charlotte, and that section of West Virginia.

High gale and quite severe storm along the North Atlantic coast and ocean and changeable temperatures.

Storm, rain and wind followed by cool wave and frost covering the New England and Atlantic States and cities of the East.

Storm, rain, followed by sudden drop in temperatures, cool wave and heavy frost over the Dakotas, Montana, Wyoming, and killing frost and snow in sections of Colorado.

Rain, followed by cool wave and frost, along the Rocky Mountain slope.

Rain, followed by cool wave, at Eastport, Me., Father Point, Que., Montreal, Que., Northfield, Vt. Rain at Yuma, Ariz., Tonopah and Winnemucca, Nev., Tatoosh, Wash., Portland, Ore., Phoenix, Ariz., Red Bluff, Cal., Seattle, Sacramento, San Francisco, Los Angeles, San Luis Obispo, Nome, Alaska, Honolulu, H. I.

Rain, followed by cool wave, at LaSalle, Ill., Calgary, Alberta, White River, Ont., Moorhead, Minn., Williston, N. D., Devil's Lake, N. D., Qu Appelle, Sask., Spokane, Wash.

4th to 6th.—Between these dates generally fair weather will prevail in most sections of the country.

Quite heavy frost, causing some damage to truck, corn and tobacco crops in Michigan and Wisconsin.

Frost in Minnesota and throughout the Northwestern States, causing some damage to corn crops and damaging flax crops north of Central Iowa. Regular cool, fall weather will prevail throughout the Northwest. Frost is likely through Kentucky. Tobacco should be protected.

General, cool, autumn weather, with frost in Iowa, Missouri, Kansas, Nebraska, Dakotas, Illinois, Northern Indiana, Northern and Northwestern Ohio and lake region, over New England and Northern and Western Pennsylvania, Northern New York and sections of the East and along the Rocky Mountain slope.

7th to 9th.—A general storm of wind and rain will cross the country, affecting every state in the Union.

11th to 17th.—The most violent storms of the season will prevail between these dates.

The Atlantic Ocean, Great Lakes and Gulf of Mexico will experience heavy, damaging gales and much rainfall.

Tropical storms, hurricanes and heavy rains will cause much damage along the entire Gulf coast and along the entire Atlantic coast, from New Orleans to Maine.

Hurricane winds and heavy rains, causing damage to property, washouts, etc., covering the states of Mississippi, Georgia, Alabama, Arkansas, Illinois, Louisiana, Florida, Texas, Carolinas, Virginias, Tennessee, Ohio Valley, Ohio, Indiana, Kentucky, West Virginia, Pennsylvania, Alleghany region, and over the tributaries of the Ohio, water sheds of the Ohio; heavy rainfall throughout the states mentioned, causing swelling streams, and the cyclonic winds causing property loss; frost 18th and 19th, except the South, the Virginias and Carolinas.

Thunder storms in Nevada and California, Sacramento and San Francisco. Rain at Spokane and Walla Walla, Wash.

Storm, cyclonic winds and quite heavy rains covering the entire East, affecting the cities of Boston, New York, N. Y., Baltimore, Philadelphia and Scranton, Pa., Washington, D. C., and the New England States and coasts; heavy rains and wind over New Jersey and coast, and heavy gales, heavy rains over the North Atlantic coast, damaging along the Nova Scotia and Newfoundland coasts.

High gales over Lakes Erie, Superior, Ontario and Michigan and region. Cyclonic storms and heavy rainfall at Milwaukee, St. Paul, Duluth, Chicago, Sault Ste. Marie, Buffalo, Marquette, Toledo, Detroit, Grand Haven and Grand Rapids, covering greater portion of Michigan, Wisconsin, Illinois and Minnesota, followed by frost on the 18th, 19th and 20th.

Cyclonic winds and heavy rainfall in Kansas, Missouri, Nebraska, Iowa, and covering the Upper Mississippi and Missouri Valleys, and from St. Louis to St. Paul, Minn., and over the Missouri Valley, from the Dakotas to Arkansas, followed by frost on the 18th, 19th and 20th.

Severe storms, heavy rain in the extreme Southwest, beyond the Rio Grande river, with heavy rains in the country between the Neuces and Rio Grande rivers, and near San Antonio, Tex., causing damage to property.

Storms, rain and wind over the Northwest, followed by frost on the 18th and 19th.

Storms, rain and wind from Iowa to the Atlantic coast and from Boston to the Carolinas.

Storm, rain and wind over the Dakotas, Montana and Wyoming, followed by colder weather and heavy frost, probably snow, on the 18th and 19th.

Rain, quite heavy along the Rocky Mountain slope at Helena and Havre, Mont., Santa Fe, Aline, El Paso, Huron, S. D., Cheyenne, Denver, North Platte, Pueblo, Rapid City, Lander, and storm, wind and quite heavy rain followed by frost over greater sections of the slope, 19th and 20th.

Storms over the West, rain and wind from Minnesota to Texas, followed by frost, on the 18th and 19th.

Rain at Amarillo, Tex., Red Bluff, Cal., Lewiston, Idaho, Baker City, Ore., Pocatello, Idaho, Spokane, Wash., Bentonville, Ark., Boise, Idaho, Reno, Nev., Salt Lake City, Utah, Northhead, Wash., Seattle, Wash., Roseburg, Ore., Tonopah, Nev., Del Rio, Tex.; rain at Modena, Utah, North Platte, Qu Appelle, Bismarck, Williston, N. D., Kalispelle, Mont., Yellowstone Park, followed by frost on the 18th and 19th.

Hurricane over the West Indies; quite severe at Turks Island.

Hurricane, severe storm at Lisbon, along the Portuguese coast.

Hurricane over the Bahama Islands, Kingston, and the islands of Bermuda. Rain at Nome, Alaska, and Honolulu, H. I.

20th to 25th. — Between these dates equinoctial storms. More severe storms will occur both in the United States and foreign countries and coasts. Hurricane winds and tropical storms, heavy rainfall with high winds, will again damage the South, covering the entire Gulf coast and states. All sections of the South being seriously affected by storms, wind, rain and water, much damage along the entire Gulf coast and cities, with violent storms on the Gulf of Mexico; much damage done by wind and water at Mobile, Ala., and the Louisiana and Mississippi Gulf coast. These storms of heavy rain and wind will move along the Atlantic coast from the Gulf of Mexico to Maine, covering the North Atlantic coast and the East, affecting the states of New York, Maryland, New Jersey, New England, with high gales and rough seas on the Atlantic; the storm severe on the coasts of Nova Scotia and Newfoundland, and damaging wind and rains in the cities of New York, Washington, D. C., Philadelphia and Scranton, Pa., and the East.

Storms, heavy rains and high winds over Western Kentucky and over the country east of the Mississippi river, extending southward to the Gulf of Mexico; the winds high and rains quite heavy, overspreading the Ohio Valley and river districts and mountain regions, the Upper Mississippi and Lower Missouri Valleys.

Wind and rain storm from the Atlantic slope as far west as the Rocky Mountains, with rain over the North Pacific States.

Storm, rain and wind covering Ohio, Indiana, Kentucky, Illinois, Michigan, Wisconsin, Minnesota, Dakotas, Wyoming, the entire lake region, with high gales on the Great Lakes.

Heavy rain and wind storms in Kansas, Nebraska, and heavy rains in Eastern Nebraska. Storms across Manitoba.

Rain and wind storms over Iowa and Missouri, the storm area covering a belt extending from Lake Superior southward to the Lower Rio Grande Valley.

Storms, rain and wind over the Middle Mississippi Valley, extending eastward across Tennessee, the Carolinas, Virginias and coasts.

Rain at Denver, Colo., Flagstaff, Father Point, Que., LaSalle, Pueblo, Colo., Tatoosh, Wash., Elkins, W.Va., Spokane, Wash., Lewiston, Idaho, Montreal, Que., Seattle, Wash., Yellowstone Park, Northhead, Wash., Portland, Ore., Pocatello, Idaho.

Storm at Devil's Lake, N. D.; rain at Durango, Cal., Madison, Wis., Minnesota, Manitoba, Roswell, N. M., Williston, N. D., Winnipeg, Bentonville, Ark., Miles City, Mont., White River, Ont.

26th and 27th.—Generally fair, and frosty weather may be expected.

28th to 30th. — Between these dates cool wave.

Storm over South Dakota and the entire region, between the Mississippi river and the Rocky Mountains, the temperature near freezing, with frost and snow over the Rocky Mountain region.

Rain and wind followed by frost over the Middle Atlantic and New England States and along the New England coast.

Storm over the Lake Superior region, covering greater portion of that region, followed by heavy frost.

Rain in the Upper Mississippi and Missouri Valleys, followed by frost.

Frosty weather following the rain over the Alleghany region.

Rain followed by heavy, killing frost over the Northern Rocky Mountain slope as far eastward as Minnesota and Iowa.

Gale over Lake Michigan and rain followed by heavy, killing frost through the lake region and the Northwest.

Rain followed by frost over the Ohio Valley and sections of Tennessee, Iowa, Missouri, Nebraska, Kansas; and rain followed by heavy frost over Wisconsin, Michigan, Illinois, Minnesota; and rain along the North Atlantic coast, frost following the rain over the East, the North Atlantic and New England States. Rain over the Carolinas and Virginias.

Frost following the rain over Ohio, Indiana, Kentucky and Pennsylvania, the frost quite heavy in western and northern sections of these states.

Frost and snow over Colorado, Wyoming and Montana.

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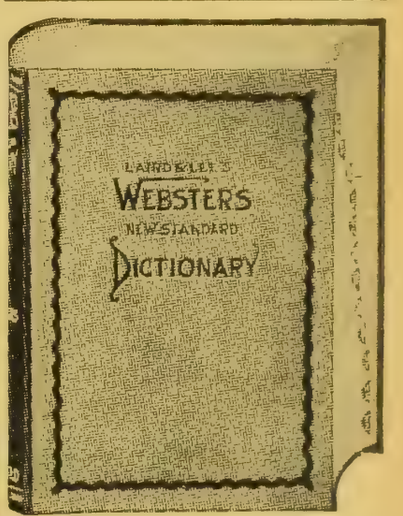

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PRETTY MODELS.

No. 6909.—One-piece Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7086.—One-piece Waist. 34 to 42 bust, with high or V-shaped neck, with or without sailor collar and undersleeves, with straight back edges, with or without gussets under the arms.

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No. 7083.—Circular Skirt With Adjustable Train. 22 to 32 waist, with separate train and panel, with or without seam at center front, train to be cut on square, round or pointed outline.

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PRACTICAL MODELS.

No. 7071.—Kimono With Yoke For Misses and Small Women. Fourteen, sixteen and eighteen years. Perforated for sacquet length.

No. 7032.—Peasant Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without chemisette.

No. 6816.—Five-gored Skirt With Circular Flounce For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7091.—House Gown or Wrapper. 34 to 44 bust.

No. 7074.—Child's Dress. Four, six and eight years. With round or high neck, short or three-quarter sleeves.

No. 7084.—Child's Coat With Cape. Two, four and six years.

The price of each pattern is 10 cents.

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No. 7061.—Yoke Blouse, 34 to 40 bust, with sleeves sewed to the armholes, with or without collar and undersleeves.

No. 7010.—Four-gored Skirt, 22 to 30 waist, with side gores in two sections, with or without trimming on front and back gores, with high or natural waist line.

No. 7085.—Girl's Square-yoke Night Gown. Two to twelve years.

No. 7078.—Ragland Coat. 34 to 44 bust, with collar that can be worn open or closed.

No. 7069.—Child's Yoke Dress. One, two and four years, with square or high neck, short or long sleeves.

No. 6936.—Three or Two-piece Skirt With Simulated Tunic. 22 to 32 waist. Perforated for deep band or for two materials, with high or natural waist line.

The price of each pattern is 10 cents.

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No. 7090.—Short, Semi-fitted Coat. 34 to 44 bust, with collar that can be made square or round at the back.

No. 7089.—Fancy Blouse. 34 to 44 bust, with or without fancy collar, with back that can be made plain or with yoke effect.

No. 7060.—Plain Peasant Waist. 34 to 44 bust, with underarm gores extended to form gussets, with high or square neck, or with chemisette effect, with three-quarter sleeves gathered into cuffs or plain short sleeves.

No. 6898.—Four-piece Skirt. 22 to 32 waist.

No. 7094.—Four-gored Skirt. 22 to 34 waist, with high or natural waist line.

No. 7072.—Six-gored Skirt. 22 to 32 waist, with or without trimming band that can be made with diagonal or straight edges, with high or natural waist line.

The price of each pattern is 10 cents.

DAINTY AFTERNOON ATTIRE.

No. 7077.—One-piece Blouse With Pointed Collar, Cuffs and Belt. 34 to 42 bust, with gussets under the arms, with or without lining.

No. 7092.—Peasant Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without stock collar and undersleeves.

No. 7087.—Long Coat. 34 to 44 bust, with square or round collar, with or without pockets. Perforated for three-quarter length.

No. 7076.—Three-piece Skirt. 22 to 32 waist, with high or natural waist line, with or without trimming band.

No. 7093.—Six-gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With front gore made with scalloped or plain edge, with high or natural waist line.

The price of each pattern is 10 cents.

DAINTY UNDERWEAR.

No. 7068.—Corset Cover For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7073.—Infant's Plain Slip, With Body and Sleeves in One. One size. With long or short sleeves.

No. 7080.—Square-yoke Night Gown For Misses and Small Women. Fourteen, sixteen and eighteen years. With high or low neck, long or short sleeves.

No. 7066.—Girl's Closed Drawers. Six to twelve years.

No. 6873.—Combination Corset Cover and Closed Drawers. 34 to 44 bust, closed at front or back.

The price of each pattern is 10 cents.

Please be sure to give the size of pattern ordered and write your own name and address plainly, that no mistake can be made to cause delay.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Woman Who Gives.

The happiest woman I know is the Woman Who Gives. She has been giving all of her life and she will continue to do so as long as she lives, for giving is her life. She began her business career when she was fifteen years of age at a salary of one dollar a week. Fifty cents of this she gave to her mother, ten cents she set aside for "tenth money" to be used for church work, two dimes she dropped into her dime bank as savings against a rainy day (which more often proved to be some one else's rainy day rather than her own) and the remaining twenty cents she used to buy for herself the necessaries in the way of clothing. Now her salary is about $2,000 and she is still dividing it systematically and giving. But she gives more than money. She gives herself with her money. She is one of the busiest women in her town, but she is never too busy to visit the sick or the old or the poor. She doesn't make these visits in a long-faced, pious manner either. No, indeed! She comes to the needy ones all good cheer and smiles and interest. Before these needy ones realize it they are telling all of their little affairs and are pouring out their hearts because they know she wants to hear. Many a pretty gown and pleasure trip has this girl denied herself that she might help her mother to buy the home this mother has always longed for. And such a happy mother as she is in the pretty home. But this mother does not know that her daughter refused to marry the man she loves because she felt that her mother could not spare the help she was able to give. She will probably be married some day, but not until the mother is otherwise cared for.

This girl's position is a public one and brings her in contact with all classes of people, from the wealthiest to the very humblest. If there comes a time when she must show a preference in dealing with people, the favored ones are always the poor or the old, much to the chagrin of tht wealthy ones who are accustomed to having every whim humored immediately upon its expression. Some of the gifts brought her by grateful ones might be laughable were they not so pathetic.

This woman is no longer in the first bloom of young womanhood, but she looks young and she is as happy as a woman can be. She has a keen sense of humor and gets great pleasure out of little things. She makes the most of her minutes, and they are so charged with duties and pleasures that she is never unhappy, never blue and never sick.—Janet Thomas Van Osdel.

Breeding Draft Horses by the Corn-belt Farmer.

[Address by W. S. Corsa, of Gregory Farm, Whitehall, Ill., at Farmers' Institute, Champaign, Ill.]

King Richard offered his kingdom for a horse. Prof. Center only offers ten minutes. We bow to Prof. Center and will attempt to touch a few of the high spots in "The Breeding of Draft Horses by the Corn-belt Farmer" in the time allotted.

Tht draft horse is the logical horse for corn-belt conditions. The proper tilling of the soil and the scarcity of farm labor require power for the large and larger machinery devised to perform the most work at the least expense for manual labor per acre of ground or bushel of grain. This evolution of agricultural machinery to the large model has been rapid and wide-spreading until in the West powerful tractors are in common use. There the climate and soil and extent of ground to be covered point to the use of such massive machinery; but in the corn belt, upon the majority of farms, and in the general run of seasons, the draft horse will prove the most economical source of power in producing our crops for some time to come.

In the corn belt we don't breed draft horses to cultivate fruit, nor to raise cotton, but wheat, corn, oats, clover, alfalfa, the very best feeds to develop the draft horse to his best estate. It is a weakness of human nature to feed more liberally when you raise the feed than when it is brought in over the railroad. Draft horses, for their proper development, require generous feeding. So that nowhere else in all the country are the natural conditions for developing the draft horse so favorable as in the corn belt.

The custom and training of the corn-belt farmer is to handle stock in bunches. The kindly disposition of the drafter, his quiet, friendly manner, his peaceable ways with those of his kind, as well as all other kind and mankind, enable him to fit in most adaptably with the prevailing methods and equipment on a corn-belt stock farm. As with cattle, you can double the average bunch of draft horses, and practically the only expense you have doubled is the expense of feed. Here is an economic feature which has considerable bearing on the successful contraction or expansion of such an enterprise. At home we have a two-cent parrot in a $20 cage, but a bunch of somewhat valuable draft mares went all winter and never saw the inside of a barn. An hour's chill would do up the parrot, but whoever heard of a draft horse, that had plenty to eat, freezing to death in the corn belt, if on a day like this, one cannot imagine anything ever freezing? Woodland blue grass pasture and grain twice a day, and to-day twenty-one colts saved out of twenty-two foaled, a result due in no small measure to abundant out-of-door life and plenty of feed.

We overlook our hand when we fail to remember that the horse is an out-of-doors animal, that the corn belt furnishes a well-nigh perennial and salubrious out-of-doors for the drafter at a minimum expense per head for equipment.

There has been, and is, much argument as to whether there exists such an animal as a "dual-purpose" animal. Permit me to lead forward a corn-belt draft mare and mark her for Exhibit "A." She produces the crop which sells for cash, and a colt which from weaning time on may be transmuted into more coin than the average individual offspring of any farm animal at the same age. Jane produced $1,400 worth of colts and Daisy $900 worth and performed their full share of labor on the crops. Later, branded by wire and marked with age, they sold for approximately their original cost. The depreciation in the power plant of the corn-belt farmer is at a minimum when the units are drafters, and when these units are draft mares it is the only power I know of that renews itself while producing profitable labor. Many corn-belt farmers have their own good grade draft mares, Jane and Daisy, and these mares have been busy.

The census bulletin shows that in 1900 Illinois had horses to the value of $69,600,000, while in 1910 our horses were worth $163,000,000. Part of this gain can be attributed to the increase in value, but not all. There has been a large increase in the number of horses, and it is safe to say that the increase has been largely of the draft breeds. In this same year, 1910, the Illinois Stallion Registration Board issued up to October 1 9,370 licenses. Of this number 3,397 were for pure-bred draft stallions—all breeds—an average of about thirty-three pure-bred draft stallions to each county of this, the greatest draft horse state in the Union—a mighty little to leaven $163,000,000 of dough.

Reports from neighboring states tell a similar story. In spite of the automobile and auto truck, the growth of population has brought about a greater demand for horses for farm and city work.

The corn-belt farmer wants to awaken to the use of only pure-bred draft stallions and to the necessity of increasing the number of such stallions in every community, to the exclusion of the mongrel and the scrub

"Grading up," as Doctor Alexander so well states, "means using a pure-bred stallion for the first cross and continuously crossing the resultant female progeny with pure-bred stallions of the breed first used until all impure blood has been practically bred out." And that "as soon as possible in every community unsound, unsuitable, undersized breeding animals should be discarded, sound, high-class mares substituted and only pure-bred stallions patronized."

But the call of the times is to the pure-bred as never before. The expense of maintenance is the same; the labor of the pure-bred is equal or superior to the grade. Lineage is no license to loaf in either man or beast, and the profit and pleasure of breeding pure-breds is incomparably greater. The pure-bred drafter on the corn-belt farms spells better farming, better fencing, practical elimination of the barb wire and the barbarian scrub, and the maintenance of our heritage unimpaired as the seed-bed of the draft horse industry.

Other lands are casting eyes toward the United States for breeding stock of the beef breeds of cattle. Breeders of dairy cattle are at this very time anticipating the production in America of the choicest specimens of their favorite breeds. Already we have distanced foreign lands in the production of ideal types of swine. Is it possible, that, having drawn to this country for years the highest type and best individuals of draft horses, that the day will not come when the draft horse in the splendor of his massive form, graceful and symmetrical outline, will not be sought for in our own country by our own breeders and the breeders of foreign countries? It would be an indictment of the intelligence and perseverance of our people to deny it, and when that day arrives the drafter of our ideals and our dreams will be found on the land of the corn-belt farmer.

Bargains in Feeding Sheep and Lambs.

Not in years have either feeding sheep or lambs, or breeding ewes, been available at such low prices as now. Lambs and yearlings are going around $1.25 per 100 pounds lower than a year ago. Now is a good time to buy. Best range feeding lambs are going around $5.00 to $5.25. Desirable range feeding yearlings went at $4.00, with yearling ewes at $3.60. Strictly good range feeding wethers were selling at $3.25 to $3.50. Choice native breeding ewes are obtainable at $4.00 to $4.25. Goodly runs of Western range sheep and lambs are in sight for the coming weeks. If you have the feed, you cannot make a better investment than to stock up with the animals with golden hoofs. As we have the best buyers to be had on all of the leading markets, you are assured of prompt and money-saving service if you send your order to Clay, Robinson & Co., Live Stock Commission, well established at ten live stock markets: Chicago, Kansas City, South St. Joseph, East St. Louis, Fort Worth, South Omaha, Sioux City, South St. Paul, East Buffalo and Denver.

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Wet Going.

Albert Hubbard advocates good roads wittily.

"In France," he said, "the remotest mountain villages are connected with Paris by white, firm roads, equal to those of our parks and race courses. But here—especially here in Oregon!

"I motored yesterday afternoon out from Portland to Estacada and Molalla, returning by way of Clackamas. The roads were awful.

"'What awful roads you've got here,' I said to a Molalla farmer.

"'Wall, yes,' the farmer agreed. 'A mule was drowned yesterday in the road by my orchard.'"—Washington Star.

From August 8th to 12th, at Pleasant Hill, Ohio, a convention of horsemen will be held by Prof. Jesse Beery, the famous horse trainer.

ASK FOR

SIMPSON EDDYSTONE TRADE MARK REG. U.S. PAT. OFF.

PRINTS

Thrifty women are not "penny wise and pound foolish" in buying cotton dress-goods. They select

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Show this advertisement to your dealer when you order, and don't accept substitutes. If not in your dealer's stock write us his name and address. We'll help him supply you.

The Eddystone Mfg. Co., Philad'a

Founded 1842 by Wm. Simpson Sr.

SELECTED POETRY.

THE SERVANTS OF THE KING.

One day I wandered out upon the road
That spans the mad world, near my calm abode,
Seeking companions in the restless throng,
That staggered on beneath its varied load.

I bore no burden save the rhymester's pack
That lay as light as wings upon my back;
My goal was life, my only task to sing
And speed the sun around the zodiac.

I hailed a haggard fellow with a pile
Of printed stuff—the world's ephemeral file—
Calling: "Come, listen to a troubadour!"
He said: "I may have time—after a while."

There paused another in a gorgeous dress,
Laden with gems, but pale with weariness.
"Pause, friend," I said, "and listen to the wind."
"Pause?" he replied, "and lose all I possess?"

Then came a man with bricks upon his head,
Pursuing blindly his elusive bread.
I called: "Come, listen to a song of life!"
"What is a song? And what is life?" he said.

I cried: "What seek ye all—what wondrous thing,
That ye have souls neither to laugh nor sing,
Nor hearts to love, nor time to think or dream?"
They said: "We do not know; we serve the king."

"Who is the king to whom your lives are sold?
Whence came his power?" I questioned young and old,
Seeking for knowledge; and I only heard:
"The king is nameless; but his power is gold."

I cried: "Your king is mad! Why, if he knew
The difference between the false and true—
Between life's kernel and its worthless chaff—
Would he not find some nobler use for you?"

They paused, they stared, they sighed; then one by one
Resumed the weary race they had begun,
And I? I walked beside them down the road—
And went on singing till the day was done!
—Elsa Harker, in Metropolitan Magazine.

ARROYO AL'S COW PONY.

I took a trip this summer to the market with some steers,
And I struck an Eastern city where they sell you tubs of beers;
I was feelin' pretty yowlish and I couldn't say my name,
When I wound up, somehow 'nuther, at a high-toned polo game.

There was sunburned doods cavortin' on some ponies in a lot,
And they whacked a little spheeroid till it traveled like a shot;
I couldn't savvy, nohow, and I vowed that I was thru,
When I spied a feller ridin' on a pony that I knew.

It was that here buckskin broncho that I rode for Circle Bar,
He was clipped and oiled and powdered, but I knew each old-time scar;
I had lost him when Bear Hawkins played an extra ace and jack,
And I'd allus had a longin' fer to git that pony back.

Well, he sorter stopped and snorted when I yelled an old-time "Yip!"
And he bucked until his rider hit the ground upon his hip;
And he came a-runnin' to me, and I jumped upon his back,
And he pitched for sheer enjoyment when I hit his flank a whack.

Well, I rode across the open and I stopped down on the run,
And picked up the polo mallet (fer the player he was done),
And I hit that ball a crack, sir, and it sailed plum o'er the fence,
And the crowd just howled with pleasure, for they thought the sport immense.

Well, it cost me just six hundred fer to get my little bronk,
And to have that player patched up, from his heels to injured conk;
But I got my old cow pony—and jest hear this one thing more:
Don't whisper "polo" to him, or he'll buck like Satan, shore!
—Toronto World.

OVER THE BATTLE FIELD.

How quietly they sleep,
Lulled by the music of the everlasting years,
And suns that go their way by night,
They have no need,
They have no tears,
The flowers that watch and take their silent flight
Bear no glad message from this world of ours;
The winds and the bugle of the mountain peak,
The laughter of the clustered stars which honor them to-day,
They heed them not.
Defeat or victory are all the same to them;
Truth or iniquity may reign with us, and what care they?
They slumber in love's holy sepulcher of rest;
The pomp and majesty of war,
The agony of blood,
Are powerless to prevail;
Life is a dreamless dream, and death and life as one,
All, all is but as peace to them,
So deep, so stately their repose
In that far-reaching, wide eternity, whence they are gone;
How quietly they sleep.
The glory of the earth flares not along their sky;
The nightingales may weave and sing and sing and weave,
They never know;
The mystery of silence lies east and west and north and south,
And all around, in their immortal world:
How quietly they sleep.
—Herbert Randall, in Boston Transcript.

MARY.

When Mary spanks th' butter in the' spring-house by th' crick,
She looks almighty lovely—twic't as purty an' as slick
As them gals daown t' th' city with their funny struttin' walk;
An' I hang eround an' putter, jest t' hear Miss Mary talk.

She has eyes that haunt a feller in th' middle o' the night;
Eyes that sort a' makes th' vi'lets hide their petals out o' sight.
Wisht that I could git up courage jest t' ask her fer a wife.
Fer with Mary spankin' butter—well I guess that would be life!

Mary's arms are round an' rosy an' her cheeks is blushin' red;
Jest t' gaze upon her featu's sort a goes right t' yer head!
Then she spats her butter, mad-like, sez: "Git out, you lazy thing."
Keeps on spattin' an' a hummin' like th' water in th' spring.

Then I sneak away a-laughin', jest t' hide th' love I feel;
Go out yonder t' th' orchard with my senses in a reel!
When I think o' Mary spankin' of her butter by the spring,
Seems like heaven is some higher, an' th' stars, an' everything!
—From "Down Country Lanes," by Byron Williams.

A COQUETTE.

I am never in doubt of her goodness,
I am always afraid of her mood,
I am never quite sure of her temper,
For willfulness runs in her blood.
She is sweet with the sweetness of spring-time—
A tear and a smile in an hour—
Yet I ask not release from her slightest caprice,
My love with a face of a flower.

My love with the grace of a lily
That sways on its slender fair stem,
My love with the bloom of the rosebud,
White pearls in my life's diadem!
You may call her coquette if it please you,
Enchanting, if shy, or if bold,
Is my darling, my winsome wee lassie,
Whose birthdays are three, when all told.
—Margaret Sangster.

THE WASHERWOMAN'S SONG.

In a very humble cot,
In a rather quiet spot,
In the suds and in the soap,
Worked a woman full of hope;
Working, singing, all alone,
In a sort of undertone:
"With the Savior for a friend,
He will keep you to the end."

Sometimes happening along,
I had heard the semi-song,
And I often used to smile,
More in sympathy than guile;
But I never said a word
In regard to what I heard,
As she sang about her friend
Who would keep her to the end.

Not in sorrow nor in glee
Working all day long was she,
As her children, three or four,
Played around her on the floor;
But in monotones the song
She was humming all day long:
"With the Savior for a friend,
He will keep me to the end."

It's a song I do not sing,
For I scarce believe a thing
Of the stories that are told
Of the miracles of old;
But I know that her belief
Is the anodyne of grief,
And will always be a friend
That will keep her to the end.

Just a trifle lonesome she,
Just as poor as poor could be,
But her spirits always rose
Like the bubbles in the clothes,
And, though widowed and alone,
Cheered her with the monotone,
Of a Savior and a friend
Who would keep her to the end.

I have seen her rub and scrub
On the washboard in the tub,
While the baby, sopped in suds,
Rolled and tumbled in the duds,
Or was paddling in the pools,
With old scissors stuck in spools;
She still humming of her friend
Who would keep her to the end.

Human hopes and human creeds
Have their root in human needs;
And I should not wish to strip
From that washerwoman's lip
Any song that she can sing,
Any hope that songs can bring;
For the woman has a friend
Who will keep her to the end.
—Eugene Ware (Ironquill.)

THE MOST BEAUTIFUL THING.

The Lord sent down to this world one day
An angel to bear to heaven away
The earth's most beautiful thing.
The angel came to a beauty rose,
"'Tis the fairest thing," he cried, "that grows,
To my Lord the flower I'll bring."

He plucked the rose with tender hold,
Dearer to him than mines of gold,
To lay at his Master's feet.
On him, ere yet his upward flight,
A baby smiled, his eager sight
Saw naught more fair or sweet.

Beside the rose the smile he placed,
'Twere fairer than the flower it graced,
So full of trusting love;
But now he saw a glowing ray,
A mother's love shone o'er his way,
All other light above.

I will take them all to my Master's bower,
The love, the smile and the beautiful flower,
"My Lord will choose," he said.
Ere the angel entered the shining door,
He looked at the rose, 'twas fair no more,
The beautiful flower was dead.

He looked for the baby's smile, it was gone,
But the mother's love shone steadily on,
A gem of priceless worth.
Then the angel bore through the golden street,
The mother's love to his dear Lord's feet,
The most beautiful thing on earth.
—Ellen Newcomb.

COMPENSATION.

Good health may compensate for wealth,
If riches one may not acquire
Except at sacrifice of all
That's holiest of man's desire.

And brains may compensate for brawn,
The scholar playing loftier game
Than he whose muscles are his pride,
And skill his only claim to fame.

Who hath not beauty still may have
Brave talents that may compensate
In part, at least, for what is missed
In meting out the gifts of Fate.

But one thing can not be exchanged,
But stands all other things above.
Nor honor, riches, wealth nor fame,
There's naught can compensate for love.
—Frank Fair.

DAD'S DAY.

Why do all the daily papers
Printed since the world began,
Call the bridegroom at a wedding
Happy Man?
Anyone with any sense who
Some experience has had
Knows the really happy fellow
Is her Dad.
—Syracuse Journal.

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This outfit is just the thing for beginners. It consists of six cut stencils on special oil board, six cups

of water colors (something new, that will not spread, but dries instantly), two bristle stencil brushes, four thumb tacks, also full and explicit directions for mixing colors and using stencils.

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THE FORTY-ACRE FARM.

I'm thinking, wife, of neighbor Jones, that man with stalwart arm;
He lives in peace and plenty, on a forty-acre farm,
When men are all around us, with hearts and hands a-sore,
Who own two hundred acres, and still are wanting more.

No weeds are in the corn fields, no thistles in the oats,
His horses show good keeping, by their fine and glossy coats;
The cows within the meadow, beneath the bleachen shade,
Learn all their gentle manner from a gentle milking maid.

Within the field on Saturday, he leaves no cradled grain,
To be gathered on the morrow, for fear of coming rain.
He keeps the Sabbath holy, his children learn his ways;
He fills his barns with plenty, at the close of harvest days.

He never has a lawsuit to take him to the town,
For the very simple reason that he has no fences down.
The bar room in the village for him has ne'er a charm:
I can always find my neighbor on his forty-acre farm.

His acres are so very few, he plows them very deep;
'Tis his own hand that turns the sod, 'tis his own hand that reaps;
He has a place for everything, and things are in their place;
The sunshine smiles upon him, contentment in his face.

May we not learn a lesson, wife, from prudent neighbor Jones,
And not, for what we haven't got, give vent to sighs and groans?
The rich ain't always happy, nor free from life's alarm,
But blest be those who live content, tho' small may be their farm.
—Unknown Author.

OUR BANNER.

When our flag, all a-ripple, leaps upon the breeze,
Its beauty enhances the green of the trees;
And we ask in our hearts: What skies ever knew
An emblem more fair than the red, white and blue
Of our banner?

Though our flag has become an old sight to our eyes,
Like sunrise, like sunset, it reddens our skies;
Yet how seldom the rays of the sun filter through
To our hearts, and how seldom the red, white and blue
Of our banner!

But on days when old memories waken our hearts,
And the past to the present its glory imparts,
The feelings that stir us proclaim us still true
To the meaning that hides in the red, white and blue
Of our banner.

Oh, where, and by whom, is our flag valued best?
Ask the homesick American, exiled, oppressed,
When, far from his country, there breaks on his view,
Like a friend among strangers, the red, white and blue
Of our banner.

Nay, ask of our soldier or sailor who lies
With his face to the foe under hot, tropic skies,
What is it that maketh his heart beat tattoo,
When he sees, fluttering high, the red, white and blue
Of our banner!

So here's to the sons of our country who fought
And died for their flag—to the great deeds they wrought;
Let our hearts, reaching up to them, give them their due,
As we see in new glamour the red, white and blue
Of our banner.
—Hanford Chase Judson.

FABLE OF THE FROGS.

Two gay young frogs, from inland bogs,
Had spent the night in drinking,
As morning broke and they awoke,
While yet their eyes were blinking,
A farmer's pail came to the swale
And caught them quick as winking.

Ere they could gather scattered senses
Or breathe a prayer for past offenses,
The granger grave—that guileless man—
Had dumped them in the milkman's can;
The can filled up, the cover down,
They soon were started off for town.

The luckless frogs began to quake
And sober up on cold milk shake;
They quickly find their breath will stop
Unless they swim upon the top;
They swim for life, they kick and swim
Until their weary eyes grow dim.

Their muscles ache, their breath grows short
And, gasping, speaks one weary sport:
"Say, dear old boy, it's pretty tough
To die so young, but I've enough
Of kick for life; no more I'll try it—
I was not raised on a milk diet."

"Tut, tut, my lad," the other cries,
"A frog's not dead until he dies;
Let's keep on kicking—that's my plan,
We yet may see outside this can."
"No use, no use," faint heart replied,
Turned up his toes and gently died.

The braver frog, undaunted still,
Kept kicking with a right good will,
Until with joy too great to utter
He found he churned a lump of butter,
And, climbing on that lump of grease,
He floated round with greatest ease.

MORAL.

When things go wrong—don't scowl and frown;
Don't get discouraged and sit down;
But struggle on—no murmur utter,
A few more kicks may bring the butter.
—Unknown author, in Jersey Bulletin.

WHERE?

There was Jimmie with his blarney and his rank old pipe,
There was Johnny, Tom and Barney of the same stanch stripe,
There was Bill, who tried to rumble in a deep bass tone
Till the landlord used to grumble and the gang would groan;
O, the pounds of good Virginia that we used to burn
(If the habit wasn't "in yuh," why, you had to learn;)
What a crew of "fellows royal" in a feast or row,
Bully boys and truly loyal—
Where's the old gang now?

She was mighty sweet and rosy in a good old way
When you used to snuggle cozy in the big farm sleigh,
And you kept on thinking of her in that light blue dress
And you wondered—timid lover—if she might say: "Yes;"
O, her heart was warm and tender and her lips were sweet,
And her eyes were full of splendor when you used to meet,
Can't you recollect the glory flooding face and brow
As you told the ancient story—
Where's the old girl now?

Well, the old gang's widely scatered, far and near they're whirled,
And the old romance is shattered, it's a queer world;
For the old love there's a newer; makes your senses hum,
As the old gang's getting fewer, why the new friends come;
When the old home is decaying you can build one anew,
Where the children can be playing like we used to do,
And the years they rush and hurry, no one knows just how,
So what's the use to worry.
Where's the old times now?
—Barton Braley, in Puck.

THE MULE SKINNERS.

In readin' the story of early days, it's a cause of much personal pain
At the way the author men leave out us in charge of the wagon train;
Granted the rest of 'em worked and fit in the best way that they could do—
If it wasn't for us that skinned the mules, how would the bunch have come through?

We have frosted ourselves on the prairie sweeps, a-bringin' the Sioux to book,
And the sojer men never had no kick that the front rank had been forsook;
They cussed warm holes in the blizzard's teeth when waitin' fer grub and tents,
But the comforts of home we ailus brung, though at times at our expense.

We have sweated and swore in the desert land, where the white sand glares like snow,
A-rompin' around, forty rods from hell, playin' tag with Geronimo;
We larruped the Jacks when the bullets flew, and then, when 'twas getting too hot,
We used for our breastworks mules, dead mules, and we give 'em shot fer shot.

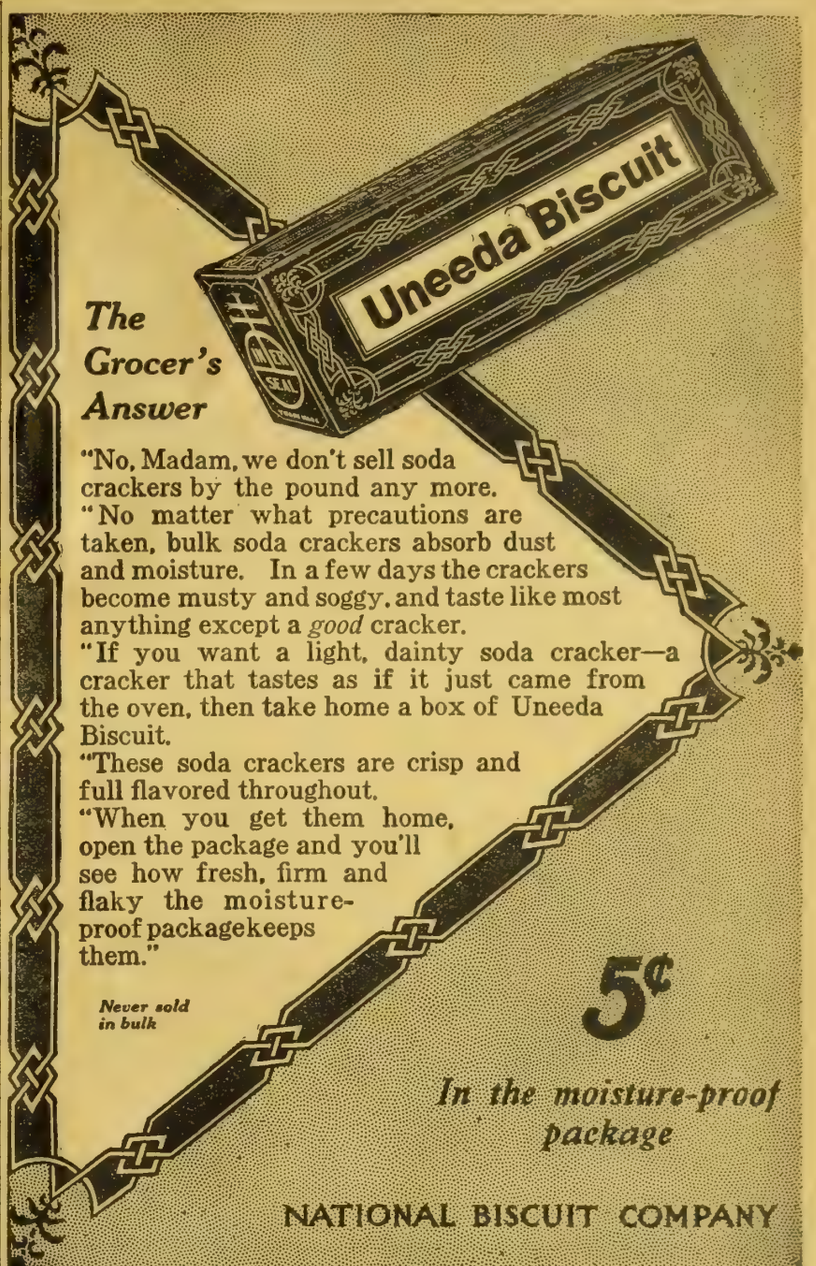
We never was rigged up purty, of course, and we didn't talk too perlite,
But we brung up the joltin' wagon train to the trail end of every fight;
We made a trail through the hostile lands, and our whip was the victory's key,
So why in the name of all that's fair, can't we figger in history?
—Denver Republican.

THE DEAREST PLACE.

"I know the dearest little place,
All sunny fair,
And there's no other spot I fain
Would go, but there!

Oh, is it sea, or hill, or stream,
Or desert wide?"
You ask: "And will its day be sweet
And calm beside?"

And then I laugh. "I do not know,
Nor do I care,
The dearest spot, an' you come, too,
Is—anywhere!"
—Claire Wallace Flynn, in Ainslee's.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The Grocer's Answer
"No, Madam, we don't sell soda crackers by the pound any more.
"No matter what precautions are taken, bulk soda crackers absorb dust and moisture. In a few days the crackers become musty and soggy, and taste like most anything except a good cracker.
"If you want a light, dainty soda cracker—a cracker that tastes as if it just came from the oven, then take home a box of Uneeda Biscuit.
"These soda crackers are crisp and full flavored throughout.
"When you get them home, open the package and you'll see how fresh, firm and flaky the moisture-proof packagekeeps them."
Never sold in bulk
5¢
In the moisture-proof package
NATIONAL BISCUIT COMPANY

A STREET.

A street is but a thoroughfare
With houses rising here and there,
And creaking signs and swaying doors
And jumbled rows of shops and stores.
A street is but a way that goes
Where no one cares and no one knows,
And where folk hurry, straight or bowed,
Old, young, commingled in the crowd.

A street is but a narrow place
Where we meet strangers face to face,
Where people babble of the news,
What time each his hope pursues;
One street—another—all the same
Save for the width or kind or name.
A million streets there are and more
That lie between the house and store.

Yet did we know the folk we see,
How different each street would be!
One hurries by and hums a song,
One shuffles past with curses strong;
One strolls all leisurely of gait,
As though he bade the world to wait;
Another rushes, with a grim,
Tense fear upon the face of him.

And women, too—one old and weak,
One bold, and one all shy and meek,
And one whose face with rapture beams
Because she walks amid her dreams;
And little children laugh and call,
Their play-songs echo over all—
There goes a bridal coach, and there
A hearse creeps with some one's despair.

Why, bless us, it is but a street
That mutters of the tramping feet;
A place, a way, a common path—
And yet it tells of joy and wrath
And failure, and of happiness,
Of woe, and of some one's success.
Ah, did we know of all we see,
How different each street might be!
—Chicago Post.

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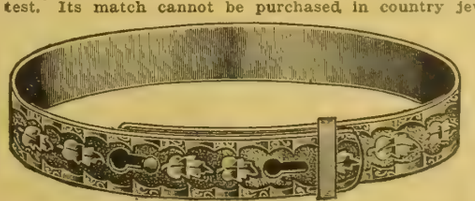
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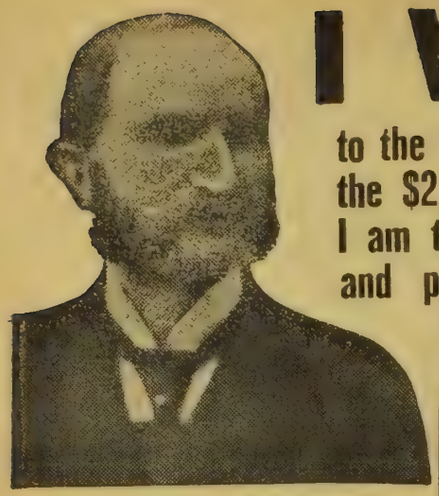
to the first person proving these letters are not absolutely genuine. I have deposited the $2,000 in the MERCHANTS STATE BANK of Wichita, Kansas, for that purpose. I am the originator and only living man in the world practicing my strange and peculiar method of healing. I have thousands of patients in the United States---patients in every State in the Union, and many foreign countries. Read their letters and form your own opinion.---*PROF. SAMUELS.*



PROF. SAMUELS,
Scientist and Originator of Samuels' Systematic Treatment.

LUNG TROUBLE.
Newton, Kas., March 12, 1910.

I feel it is my duty to tell you what wonderful good Prof. Samuels' treatment has done for me. I had suffered with lung trouble for eight years, and had hemorrhages almost every day. I took the treatment faithfully for one year, and gave it a thorough trial, and have never had a hemorrhage since taking it. I began to gain after the first month, and am now in better health than for years. Any help or reference I can give to those wishing to know of this strange treatment I will gladly give. Yours faithfully,
MRS. C. C. McDANIEL.
662½ Main Street.

NEURALGIA AND STOMACH TROUBLE.
Oswego, Kas., October 24, 1909.

Prof. Samuels.
Dear Sir:—I received your letter quite a few days ago, but have put off answering it. I certainly am very thankful to you for the good and great benefit I have derived from the use of the treatment prescribed by you.
What I suffered before I wrote you in regard to your method of treatment is beyond me to describe. The comfort I have now in living and being able to go about and enjoy my food and drink as others do, is simply wonderful.
I lost 16 pounds of flesh from early spring until after I had taken your treatment, probably about a little over three weeks; then I commenced to gain, and now have regained 8 pounds of the 16. On the whole, I consider myself as wonderfully blessed and extend to you my sincere thanks. Very gratefully and respectfully,
MRS. C. E. COLEMAN.
Oswego, Kas., Box 403.

DEAFNESS.
Baynesville, Kas., July 15, 1909.

Prof. Samuels.
Dear Sir:—Will write you about my child. She is getting along fine. She seems to hear as good as she ever did, but she is still using the medicine for a complete cure. How much longer do you think she will need to use the medicine? She hears all right now, but if you think she should still use the medicine, please send the same, as you have been. Yours respectfully,
W. H. SCHULTE.

PARALYSIS AND GENERAL TROUBLE.
Opelousas, La., June 21, 1910.

Prof. H. Samuels.
Dear Sir:—I have received and began taking your treatment on the 9th inst., and I am proud to say that I received beneficial results in twenty-four hours after the first dose. My eyesight has improved a hundred per cent.; my pains in all my limbs have been greatly relieved. In fact, all my ills are relieved; I feel altogether much better.
I desire to thank you heartily for the relief you have procured me, and hope and trust it will continue for the better, until a permanent cure is effected.
You will find enclosed names of persons affected with chronic diseases. I have also given your name and address to several other parties, whom you must have heard from by this time.
Thanking you again, I am, Yours gratefully, (Signed) D. F. DUPRE.
Opelousas, La., R. No. 2.

STOMACH.
Chicago, Ill., Sept. 22, 1910.

Prof. Samuels.
Dear Sir:—Have now been using last month's treatment. I am feeling fine, so I do not think I need use any more medicine just now. My stomach trouble, as well as other ailments, are all gone, so I am at present enjoying the best of health.
My heartiest thanks to you for your wonderful medicine. Respectfully yours,
(Signed) CHARLES PETERSON.
No. 5414 Fifth Ave., Chicago, Ill.

KIDNEYS.
Chelan, Wash., Sept. 19, 1910.

Prof. Samuels.
Dear Sir:—I have been away from home for some time, and, as the letter was not sent to me, I did not receive it until a short time ago I am very sorry, and had I been at home you would have have heard from me sooner.
I am entirely cured, and do not need any more of your treatments.
Thanking you very much for your kindness, and wishing you success, believe me, I am, Yours very truly,
(Signed) MRS. D. L. CLEMER.

CATARRH OF STOMACH.
Shamrock, Tex., March 23, 1910.

Prof. H. Samuels:—Enclosed find money for a month's treatment, which I think will be all I will need, as I am as well as I ever was and in one more month I think I will be cured. I am, Yours truly,
(Signed) MRS. T. H. SPOON.

BLIND AND DEAF.
Llamo, Tex., May 18, 1910.

Dear Sir:—I think my husband, Mr. Kuffman, is improving fast, as he can now see out of his blind eye and his hearing is improved. You will find inclosed money for another month's treatment. You will please send it in my name, Mrs. E. P. Kuffman, and oblige,
(Signed) MRS. E. P. KUFFMAN.

LIVER AND STOMACH TROUBLE.
Monett, Mo., Oct. 31, 1910.

Prof. H. Samuels.
Dear Friend:—Four weeks ago yesterday I received your medicine, and commenced treatment by directions, and have found myself benefited very much, and I have one-half bottle yet. I will not need any more at present, as I will wait a few days and see if it is going to hold my health good. If not, will send for more, as it is surely the finest treatment that the human family has ever taken. Respectfully yours,
(Signed) JOHN B. WITHERS.

KIDNEY AND STOMACH TROUBLE.
Bruce, S. D., Oct. 23, 1910.

Prof. Samuels.
Dear Sir:—I received your letter quite a few days ago, but have put off answering it. I certainly am very thankful to you for the good and great benefit I have derived from the use of the treatment prescribed by you. What I suffered before I commenced to take your method of treatment is beyond me to describe. The comfort I have now in living and being able to go about and enjoy my food and drink as others do is simply wonderful. I extend to you my sincere thanks. Very gratefully and respectfully,
MRS. WILLAN HOFFMAN.
Bruce, S. Dak., R. No. 2.

EYE AND GENERAL TROUBLE.
Willmarth, Fla., Sept. 15, 1910.

Prof. H. Samuels:—I can't fully explain to you how much good your treatment has done me.
I am doing well now, and not in a position to take treatment longer, although I expected to take treatment three months if I could have done it. I am willing to tell anyone that if they take the treatment according to directions it will do all you claim for it. BETTY GRANT.

GAINS RAPIDLY.
Jacksonville, Ill., Oct. 10, 1910.

Prof. H. Samuels.
Dear Sir:—Received treatment all O. K. Am still gaining in weight. Have gained 40 pounds since taking your treatment, and feel better than I have for over two years. Sincerely yours, MRS. R. M. FULLER.

ASTHMA.
Augusta, Kas., Nov. 7, 1909.

Prof. Samuels.
Dear Sir:—Some time last December we brought to you our son, Dandridge Lyon, who was then and had been for some time suffering from a severe case of asthma. After your first treatment he had one slight attack. Your medicine soon relieved him, and since then he has never been troubled with asthma.
He looks much better, and now feels that he is entirely cured. It was the best investment that I ever made. Yours very truly, W. W. LYON AND WIFE.

BRIGHT'S DISEASE.
Remus, Mich., Sept. 25, 1910.

Prof. H. Samuels.
Dear Sir:—I wish to write you these few lines today for the express purpose of thanking you for your very successful treatment of my wife's sickness, namely Bright's disease. We consider her entirely cured of this dread malady, and can say to any person or persons desiring to benefit themselves in anything of this kind, they would do well to consult you; and we are ready and willing at any time to testify to your ability to do what you claim to do.
So with heartfelt thanks for the great good you have done, I will close by writing myself, Your obedient servant,
(Signed) P. F. BRADLEY.
Remus, Mich., R. No. 4, Box 63.

TUBERCULOSIS AND TEREGIUM.
Maryville, Mo., June 10, 1910.

Dear Sir:—Find enclosed money, for which please send me another month's treatment of your wonderful remedy, for I certainly think it a godsend to suffering humanity. I have gained fifteen pounds in two months, and feel better than I have for two years. The teregium on my eye is disappearing, and I can read large print, such as the headlines of a paper, after being practically blind in it for five years. Yours truly, L. M. HELMS.
Maryville, Mo., Route 3, Box 44.

EYE TROUBLE.
Waynoka, Okla.

Prof. Samuels.
Dear Sir:—I am glad to tell you that my eyes are as good as they ever were, and as I do not need your medicine any more you do not need to send it. Hoping you may help others as you have helped me, I remain, LUCIE ULMER.

STOMACH AND KIDNEY TROUBLE.
Smallet, Mo., March 3, 1910.

Prof. H. Samuels.
Kind Sir:—I received your letter a few days ago, in which you ask how I was progressing. I wish to say that I am at present feeling fine in every way, and have been improving in health wonderfully since taking the treatment, of which I commenced on the 3d of March, and just before taking your eye treatment I assure you I was a miserable wreck. Could hardly stir about. Of course I am not entirely well, but at present I feel better than I ever did in my whole life. I could really write several pages in describing my improvement, but I assure you will make a full report at the time I am cured, and will let you know more of my improvement in about two or three weeks. Very truly yours,
PERRY A. McGUIRE.
Smallet, Mo.

ASTHMA.
Burlington Jct., Mo., Oct. 10, 1910.

Prof. H. Samuels.
Dear Sir:—I have been an invalid for twenty-eight years with Asthma or some trouble similar, wherein my breathing was affected. I have tried every remedy known to the M. D.'s, but failed to get only temporary relief from them.
I began treatment with you the latter part of March, and I believe I am cured by your treatment in the last seven months. Respectfully, (Signed) MRS. S. A. SHIEL.
Burlington Junction, Mo.

DEAFNESS CURED.
Connorsville, Ind., Feb. 2, 1911.

Prof. Samuels.
Dear Sir:—From neglect I have not written you, which should have been done some weeks ago, to let you know after waiting so long since having taken the treatment for my failing eyesight, wish to say I can hear as well as I ever did, and the pain in my head is all gone; also the buzzing noise. I can see fine. Of course, I have to use glasses to read or work in, but do not need them for anything else.
Too much cannot be said in favor of your wonderful cure. I heartily recommend you and your treatment to any and all who are afflicted as I have been. Think! I am a man seventy-seven years old, and am very well, indeed. May God continue to bless your way of treating diseases through the eye, is the wish of one who cannot say enough for it. Very truly your friend, (Signed) ISAAC HAPNER.
No.213 W.19th St.,Connorsville,Ind.

MY METHOD OF TREATMENT

The method of treatment which I have originated is a strange and peculiar method, differing from anything else used by any living man in the treatment of diseases. I do not use drastic drugs and medicines that doctors depend upon.

Men who are familiar with the chemistry of the human body understand that only the chemical elements used in the creation of the body are required to restore it to health when once its functional power becomes impaired. Nature does not require a mass of drugs dumped into the stomach, which merely represent an accumulation of foreign substances which must eventually be eliminated from the system. When Mother Nature created mankind she used no mercury, no strychnine, no quinine, no digitalis, no morphine or other poisonous chemicals such as the doctors delight to prescribe for you, and she needs none of them to accomplish any restorative work that may be necessary in your behalf.

My results are obtained by dropping a colorless liquid which I prepare into the eye. Strange as it may seem, so-called incurable cases of **Consumption, Bright's Disease, Dropsy, Epileptic Fits, Nervous Prostration, Heart Disease, Asthma, Hay Fever, Blindness, Deafness, Liver Trouble, Kidney Trouble, Stomach Trouble and Catarrh** are treated in this apparently miraculous way. My system is based absolutely on scientific principles. The eye is the window of the soul. I have evolved a system of treating other bodily ills based upon the relation of the eye to the system as a whole. This may seem strange, but my thousands of patients testify to the value of my treatment.

If you are sick or ailing you will find something in my Message of Facts, which I am sending free to everyone, that will greatly interest you. I explain my method of healing and give you absolute proof of its value. If you are tired of taking strong drugs into the stomach, if you have gotten to the point where you believe there is no hope, if you have tried all kinds of treatment your doctor could suggest without its benefiting you, write me today for my Message of Facts. It tells you something about the peculiar blood which I prepare and of a more scientific and more natural method of treatment. Send me the coupon properly filled out or send me your name and address on a postcard and my "Message of Facts" will be sent you by return mail free.

PROF. SAMUELS, 110 SAMUELS BLDG., WICHITA, KANSAS.

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If you are sick my **"Message of Facts"** will tell you some things about the diseases of the human body and the logical method of treatment which will be new and interesting to you. Fill out the coupon and mail to me today, and my **"Message of Facts"** will be mailed to you postpaid, without any obligation of any kind upon your part. Write today — this hour — as this advertisement may not appear again.

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Please send me free your "Message of Facts" and full particulars.

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National FARMER

Vol. XXVI. St. Louis, Mo., September, 1911. No. 3.

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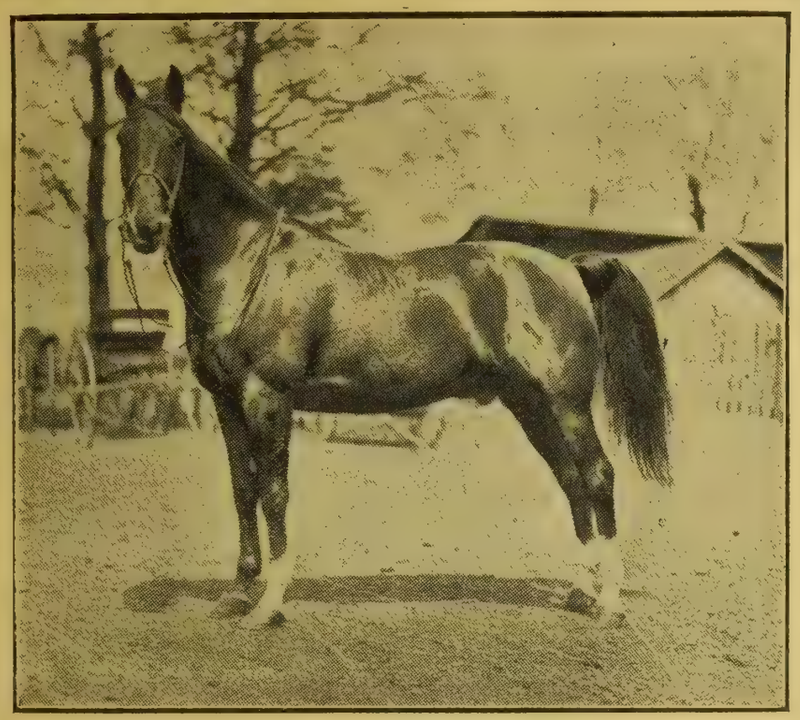

JACK O' DIAMONDS—Chestnut gelding, five-gaited show-ring saddler, recently sold at the age of nine years by B. R. Middleton, of Mexico, Mo., to George Snyder at Allentown, Pa., for $900. The photograph was taken at Mexico, Mo., this year. In his prime as a show-ring performer, JACK O' DIAMONDS was the property of Mr. Thomas Dunn, of St. Louis, Mo.

Hide Quotations at St. Louis.

At St. Louis, September 1st, 1911: Wet-salted—Round, 11½c.; No. 1, 12c.; No. 2, 11c.; bull hides, 10c.; glue stock, 6c. a pound. Dry stock—Dry flint, 19½c.; dry salted, 16½c.; dry flint, bull, 14c.; culls, 13c.; uncured, 1c. per pound less; part cured, ½c. per pound less; No. 1 horse hides, $3.25 each; No. 2 do., $1.00 less; glue and ponies, $1.25 to $1.75; hog hides, 25 to 40c. each—glue, half price.

Highest Cattle of the Year.

At Chicago, August 28th, Clay, Robinson & Co. sold thirty-one head of Red Polled and Aberdeen-Angus beef steers, 1,579 pounds average, at $8.20 per 100 pounds. This consignment was fed by J. Kennedy, of Pearl, Ill., and bought by Schwarzschild & Sulsberger. The price obtained was the highest of the year.

Argentine Meats Free of Duty.

In the closing hours of the extra session of Congress Hon. James L. Curley, of Massachusetts, introduced a resolution requesting the President to negotiate for the admission of meats free of duty from Argentine.

Wholesale Market For Nuts.

At St. Louis, September 1st, 1911, old pecans were quoted at 8c. per pound; new Western pecans, 8 to 9c.; new Texas pecans, 9 to 10c.; new black walnuts, $1.25 per bushel; new hickory nuts, $1.50 to $1.75 per bushel—shellbarks, $1.75 to $2.00; hazelnuts, 6c. per pound.

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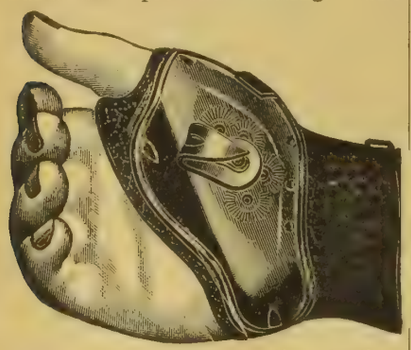

strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Southern Pine Beetle.

Specific advice and recommendations on some of the most economical and effectual methods of protecting living pine trees from the depredations of the Southern pine beetle can be had by addressing the United States Department of Agriculture, Bureau of Entomology, at Washington, D. C., or the Forest Field Station 7, Spartanburg, S. C.

This insect destroyed a large percentage of the pine of Virginia and West Virginia in 1890 to 1893, and is now causing the death of patches of timber in the South Atlantic and Gulf States, from Virginia to Texas. It is the most destructive insect enemy of the living pine of the Southern States, and all farmers, forest owners, lumbermen and mill owners should collectively and individually actively enter into a campaign against it.

Its destructive work is indicated by the fading greenish brown and reddish brown foliage of patches of dying young or old trees, and careful examination should show galleries in the bark of the middle and upper portion of the trunk of dying trees and marks on the surface of the wood, which positively identify this insect as the cause of the trouble.

It is recommended by the Department that the infected bark of the dying trees be burned during the months of November, December, February, March and April.

Easily-made Desserts.

When tired of the ordinary fruit desserts, try a fruit pudding, which may be varied to suit the material at hand, though originally calling for berries.

One cup sugar, two cups flour, a tablespoonful of butter or lard, one-half teaspoonful soda, one egg, one teacupful of raspberries, water to make a stiff batter; if the berries are juicy, it will probably take one-half teacupful. Steam an hour and a half and serve hot or cold, with cream or a dressing made by stewing one pint of the berries. Sweeten to taste, add water to cover, and when they are cooked soft, thicken by stirring in one tablespoonful of flour with water enough to prevent its cooking lumpy.

Blackberries, cherries, peaches; in fact, almost any tart fruit, fresh or canned, may be substituted, the more juicy kinds requiring less water. A teacupful of apple sauce or stewed rhubarb can be used in the same way. If more convenient, the pudding can be baked instead of steamed, this taking much less time.

When cream is lacking, a fair substitute is made by mashing two or three very ripe bananas with the whites of two eggs beaten to a stiff froth. Sweeten to taste and serve at once with peaches or cake. By watching the fruit stands on Saturday afternoon one can usually get the fruit for this purpose very cheap, as it will not keep over Sunday and the dealer will close out at a bargain.

Soda crackers placed in the oven until crisp, buttered and covered with grated cheese, form a most agreeable relish. For this use save all the bits of cheese that have become broken, grate or grind through the food chopper.—Bessie L. Putnam.

The Number of Farms.

According to the United States Census there are 6,340,120 farms in the United States, an increase of 11 per cent. over the number previously reported, and the farms average about 138 acres. For purpose of comparison we show the number of farms enumerated each census year:

Census.	Farms.
1850	1,449,073
1860	2,044,077
1870	2,659,985
1880	4,008,907
1890	4,564,641
1900	5,739,657
1910	6,340,120

Plowing Under Peas and Buckwheat.

A Pike county, Illinois, correspondent asks: "Is buckwheat as good as cowpeas to plow under for wheat?"

I have never plowed under buckwheat preparatory to seeding wheat, and cannot state positive results; but from the nature of the two plants I would expect much better yield from the ground where cowpeas had been turned under. Peas should be plowed under rather early, say when the crop is about three-fourths grown, and should not be turned under too deep. If the growth is very heavy, a revolving coulter will put the vines under without much trouble. Cowpeas have become the main stand-by of wheat growers in Southern Illinois. No other crop brings to these lands just the material needed for wheat, and no other fertilizing crop is grown so cheaply or easily.—L. C. Brown.

One Cause of Clover Failure.

A neighbor calls my attention to a piece of ground seeded last spring to clover with barley.

The grain crop was taken off early enough to give the clover a splendid start, and there has been sufficient rainfall to keep the clover growing. But the clover is dying, and there is scarcely enough left now to bother with. Here is the trouble, and I believe the same trouble exists on thousands of Illinois farms. This ground is hard. Within one week after a heavy rain I noticed cracks in several places. There is no humus in that ground, and of course it cannot hold water. Too much hay and straw have been baled up and sold off that farm, and I have never known of a green crop being plowed under. Ground in that condition will not produce clover. The thing to do is to get some humus in that ground, and that must be done by applying manure, or by plowing under some green crop that will grow.—L. C. Brown.

Wheat or Straw?

On some of the best wheat land the crop runs to straw. This is because there are not enough available mineral foods to balance the manure or clover.

A field test on such land showed that Potash increased the grain from 20 bushels on unfertilized soil to 31 bushels where

POTASH

was used, and to 37 bushels where Potash and phosphate were used. Both were profitable. Supplement the humus of such land with 200 lbs. acid phosphate and 30 lbs. Muriate of Potash or 125 lbs. Kainit per acre. **Potash Pays.**

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RIGHT PROPORTION OF HEAD TO STRAW

CROP RUNS TO STRAW

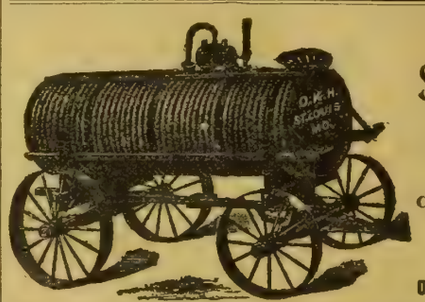
Thin-hull Oats.

A correspondent from Missouri asks if I can recommend some variety of oat that has thin hulls.

It is claimed that some varieties of oats have thinner hulls than others; still I have observed for many years that plumpness of berry and character of hull depend largely upon the season and region. It is a fact, which careful observers have noted, that oats grown in the southern part of the oat belt have a greater per cent. of hull than the same variety grown farther north, and for this reason southern-grown oats are usually much lighter. The small-berry sorts, such as Eherson and Sixty-day, are more apt to preserve the thin-hull characteristic, because they mature from two to three weeks ahead of the big late sorts and are not so much affected by hot weather. Another thing I have frequently observed is, rankness is conducive to coarseness, and when oats are grown on ground rich in nitrogen the straw is apt to be of poor texture and the hull is coarse and heavy.

I have been importing different varieties of seed oats from Canada for several years, trying to find a variety in which this characteristic of hull would be constant, but so far I have not been successful; neither have I been successful in retaining the short, plump berry, so characteristic of northern-grown oats.—L. C. Brown.

"Success in farming consists in making every minute, every cent and every seed count."—David Rankin.



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For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Combinations in Hog Feeds.

The kind of feed a man must provide for his hogs must depend on the kind of feed he has most at his command. Thus, east of the Rocky Mountains there is a great abundance of feed of the starch-forming varieties; while west of the Rockies there is a superabundance of foods rich in protein. East of the Rockies the problem is to get foods rich in protein, while west of the mountains the problem is to get food rich in starch.

This is because foods must be well-balanced to be economical. Too much of one kind or the other brings waste and poor results, because the digestive organs of the animals will digest only a certain proportion of each element. Often, too, the feeding of an unbalanced ration leads to indispositions of various kinds.

Roughly speaking, animals must have about five times as much starchy food as of food rich in muscle-building material. The human appetite illustrates the same need. We cook potatoes to eat with lean meat, and the potatoes consumed are much larger in bulk than the meat, as everyone knows. The lean meat furnishes the protein and the potatoes the starchy matter. At the same meal we also eat white bread which is largely starch, and that must be added to the potatoes in considering the question of balancing the ration. Our appetites do this naturally. If we eat all potatoes we have a craving for the meat, and if we eat all meat we have a craving for the potatoes

The foods of the lower animals must be combined in the same way. But as the lower animals cannot determine their own feed, we must do that for them. Hogs, perhaps more than any other animals, are dependent on the skill of man in compounding his rations.

Some years ago the writer was at a Farmers' Institute, at which one of the speakers was an expert on combinations of things to make up a suitable ration for the hog. It was in the corn belt of the Prairie States, where corn and corn products were to be had in abundance. On a chart the expert displayed his combination, the most important of all being, for that region, corn and alfalfa.

There is a practical difficulty about this combination. It is that corn does not naturally grow well where alfalfa thrives, and where alfalfa is to be found corn is not generally abundant. So the effort is being made to grow alfalfa in the corn belt and corn in the alfalfa regions. Both things are being done, but the task is not an easy one. However, the effort is along right lines, for these two feeds make an excellent combination. The corn is so rich in starchy matter (called scientifically carbohydrates) that men make starch from it; and the alfalfa is so rich in muscle-forming elements (protein) that ground alfalfa is considered the equal of bran.

East of the Rockies the problem in hog feeding is how to grow nitrogen-rich forage plants for hogs, and the effort must be continued. Alfalfa is the best, and the next is clover and the other legumes, for alfalfa, clover and cowpeas are all pod-bearing plants, and pod-bearing plants are rich in nitrogen, which makes the base of protein.

So in preparing hog feeds, we have to consider two general classes of foods. **On the one hand the foods having a large amount of protein** (a combination with nitrogen) which are: Wheat bran, oil meal, peas, beans, alfalfa, clover, vetch and skim milk, with some others. Of the opposite class we have wheat flour, corn, and all foods rich in sugar and starch. Sugar beets are therefore a part of the latter group. Potatoes form a very important group of the starchy food class and should be extensively used where protein foods are abundant.

Alfalfa Chop in England.

The supply of alfalfa chop to the Liverpool market is usually received from South America. The importation at this time from the various countries in South America is prohibited on account of the alleged prevalence of foot-and-mouth disease in that part of the world.

Neither alfalfa nor alfalfa chop is imported from the United States. Alfalfa and alfalfa chop are used only as cattle feed, and their use is limited by the fact that they are used only as cattle feed in the city, the farmers in the country having their own pasture land for summer grazing, and in the winter hay and produce of their own growing.

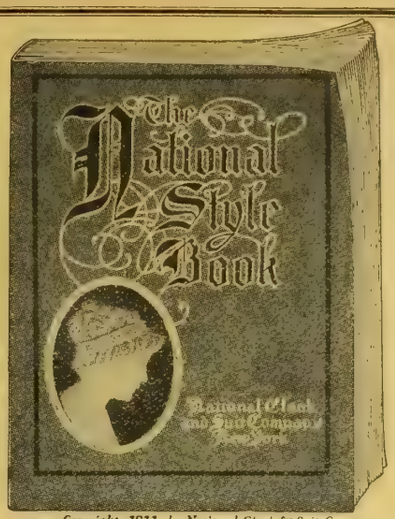
The wholesale price of alfalfa chop varies from $20.67 to $21.89 per ton of 2,240 pounds for good green quality. Those interested in the sale here state that there is no demand for poor qualities; that alfalfa of a dry character and brown in color should not be shipped, and suggest that a trial shipment of not more than fifty tons be made to test the market.

A list of alfalfa and hay dealers in Liverpool may be had from the Bureau of Manufactures of the Department of Commerce and Labor, Washington, D. C.—From Consul-General Horace Lee Washington, Liverpool.

Cowpeas vs. Vetch.

A Morgan county, Indiana, correspondent asks this question: "I have a piece of rather thin, sandy land. Which would be best to sow upon it, cowpeas or vetch?"

I take it that this correspondent wants to sow the crop this fall. If that is correct, there is only one safe thing to do—sow vetch. If the question had been asked earlier in the season I would have advised sowing cowpeas, because peas are much cheaper seed, and the cost of vetch seed is the hindrance to its general use. Vetch sown this fall may be plowed under next spring for corn, and it will fill the ground with the finest kind of crop material. If the crop is not to be plowed under, then I should seed the vetch late with winter wheat and allow it to mature, or cut the crop for hay when the wheat is in the dough. When the crop is grown for seed it is essential that it be grown with some grain crop that matures about the same time as the vetch; and whether grown for hay or seed, vetch should be sown with some kind of grain, something for the vines to cling to. If it is to be plowed under, the tangled mass of vines do not matter, for they can be cut and turned under. —L. C. Brown.



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"I have a rat-proof corn crib that is neither elevated nor has it flaring sides. I converted an ordinary building erected for another purpose into a corn crib by removing the siding from the sides and nailing on slats in the usual manner. I covered the sides with a galvanized woven wire having a half-inch mesh, commonly known as pigeon wire. The floor in the building was poor. This I covered completely with the pigeon wire, laying a new floor of a cheap grade of one and one-fourth-inch spruce flooring on the top of the wire. To give the corn all the air possible, I keep all the windows open, and these I have also covered with the wire. The building has now been used three years for the storage of corn in this manner, and although my premises are infested with rats, not one has found an entrance to the corn. As the building was in need of a new floor, the only additional expense was the cost of the wire, about $15, which was fully paid for in one-year's protection. I raise the twelve-row Dutton corn, and it preserves perfectly in this crib." — J. H. L., Chatham Center, N. Y., in Rural New Yorker.

Exercise For the Sow.

"Plenty of exercise is important for the pregnant sow; it should be insisted upon and provided in the way the breeder finds best adapted to his situation. A large pasture is not always available, but the breeder may secure results by arranging the house at one end of the hog lot and the feeding floor at the other end, or by giving the sows water in such a way that to procure it they will be compelled to walk some distance a number of times each day."—From Coburn's "Swine in America."

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World's Wheat Crop For 1911.

Complete details of the Brownhall estimate of the world's wheat crop, as compared with last year, are as follows:

Russia, 525,600,000 bushels, against 696,800,000; other European, 1,316,400,000 bushels; increase, $1,233,040,000.

North America, 848,000,000 bushels, against 845,000,000. Countries other than North America, 729,600,000 bushels, against 658,000,000.

World's total, 3,419,600,000 bushels, against 3,438,840,000 last year.

The Wheat Market Situation.

On August 31st, 1911, at Chicago, on the general market, wheat for September 30th delivery was quoted at 89 cents a bushel. That was the closing figure, and it was ⅞ of a cent lower than thirty days ago. As we approach settling day for any month the wheat is traded in the strain of trading is enormous. The September option on August 31st was ¾ cent lower than a year ago.

On August 31st, 1911, the December wheat option was quoted at 94¼ cents, against $1.03¾ last year, showing a loss of 9½ cents, as compared with the market of a year ago.

On August 31st, 1911, the May wheat option of May, 1912, was quoted at the close at $1.00¼ a bushel, against $1.09⅞ a year ago.

Barring the possible admission of Canadian wheat free of duty, the statistical and general market condition for wheat is now stronger than a year ago, but the market is lower, because the local supplies are expected to be swelled by Canadian consignments; hence a market approximating 5 to 10 cents lower instead of a market about 5 cents higher. There is no sentiment in business and should be none in a market review, which is here written without prejudice.

To Buy Groceries Right.

On page 11 will be found an advertisement of Montgomery Ward & Co., relating to their pure-food grocery catalogue. This firm is well and favorably known as a strictly reliable house, and hundreds of thousands of farmers will testify to this from having bought of them for many years. To get this catalogue, all you have to do is to write a postal card, saying: "Please send us your grocery catalogue as advertised in The National Farmer and Stock Grower." Address, Montgomery Ward & Co., Chicago Avenue Bridge, Chicago, Ill., or to Montgomery Ward & Co., Nineteenth and Campbell streets, Kansas City, Mo. The service is equally as good from either establishemnt.

The Oats Market Situation.

Considering the few oats the farmers of the country will have for sale this winter, the market looks tame, although it is higher.

At St. Louis, August 31st, 1911, cash oats sold at 43½c. a bushel; a year ago at 34½ cents. Last February cash oats sold at 30 cents a bushel. The short crop is helping the market, but that is no consolation for the owner of the crop that failed.

On August 31st the Chicago market quoted oats for September delivery at 43¼ cents per bushel, December 46 cents, and next May 48⅞ cents a bushel.

Do not quarrel with these figures. They are bought and paid for by men who are engaged in the business. Grain crops are traded in for future deliveries. Men have contracted to deliver No. 2 oats next May at 48⅞ cents a bushel; others have agreed to pay the price, and each of them have put up forfeit to bind the bargain.

Such transactions as we have mentioned are just as necessary for the commerce of the world as the railroads that haul the grain to the seaboard and the ships that carry it across the ocean. Nearly every cargo of grain is sold before shipment, which is of itself a "future" transaction.

Opportunities to Save Money.

On page 11 will be found the advertisement of Montgomery Ward & Co., of Chicago, the original mail order house, and one that in every department is ahead of the times. There are two establishments—one at Chicago and the other at Kansas City. Note the coupon on page 11 and mark the item you are interested in and send it to the nearest address.

The Corn Market Situation.

The strong position of corn can be attributed to decreased production. The farmer will receive almost as much money for the crop of 1911 as he did for the enormous crop of 1910. On August 31st, 1910, the September quotation closed at 59 cents, and this year, on corresponding date, the September quotation was 65¼ cents. So much for a decrease of 500,000 bushels. It has caused an advance of 6¼ cents a bushel that can be proven.

The Board of Trade expects corn to sell around 63 cents in December and 65 cents next May. This looks like a fair corn prospect, and we are not inclined to look for higher figures for the reason that much of the corn-buying territory has corn this year.

Cash Grain at St. Louis.

The following represent the actual transactions at St. Louis on August 31st, 1911:

Wheat in bulk on track, sold by sample: No. 2 red sold at 88 to 89½c.; a fancy car at 90c.; No. 3 red sold at 87 to 87½c.; poor less; No. 4 red sold at 83 to 84½c.; No. 2 hard sold at 91½ to 92c.; Turkey, 98½c. to $1.00, nominal; No. 3 hard sold at 90c.; No. 4 hard sold at 86c.

Corn on track: No. 2 corn, 63¼c.; No. 3 corn, 62¾c.; No. 4 corn, 62c., nominal; No. 2 yellow, 63½ to 64c.; No. 3 yellow, 63c. bid; No. 4 yellow, 62c., nominal; No. 2 white, 64c., sel.; No. 3 white, 63½c., sel.; No. 4 white, 62c., nominal.

Oats on track: No. 2 white, 45c.; standard, 43¾ to 45c.; No. 3 white, 44½ to 45c., nominal; No. 4 white, 42½ to 43½c., nominal; No. 2 oats, 43½c., nominal; No. 3 oats, 42½c., nominal; No. 4 oats, 42c., nominal.

The Market For Peaches.

At St. Louis, on the first day of September, fair offerings were coming in, including car-loads from Michigan, and consigned lots from near-by Illinois and Missouri points, but wagon receipts of home-grown were smaller and of only ordinary quality. Michigan bushel baskets Crawfords at $1.00 to $1.25; near-by growth Illinois and Missouri at $1.00 to $1.25 for bushel baskets, and 25 to 50 cents for half-bushel baskets—lot White Heath (small) sold at 25 to 35 cents per half-bushel basket, and lot melon baskets at 30 cents. Home-grown (wagon receipts) red and white varieties at 25 to 50 cents per half-bushel basket for ordinary to fair to 75 cents for best offerings, and White Heath clings at $1.50 per bushel.

At St. Louis, on August 31st, a few mixed Alabama cattle sold at $2.85 per 100 pounds and weighed 654 pounds.

Mitchell AUTOMOBILES

Runabout, fully equipped, $1200
No cars run more easily.
No cars run more smoothly.
No cars are more easily controlled.

30 h. p. 4 Cyl. **$1200**

No cars with working parts more accessible
No 30 or 50 h. p. cars are more powerful.
There *are no cars more* dependable.

5 Pass., fully equipped, $1500
$1500

30 h.p. 4 Cyl.

Remember the 5 Cardinal Points: Silence, Power, Safety, Strength and Dependability, and *then* add the 6th, the new Mitchell make-good Policy, which means that if anything in your car proves defective it will be made good to you without question or argument, and *without charge*

7 Pass., fully equipped, $2250.
$2250

50 h.p. 6 Cyl.

If *you* are in the market for a car, your money in a Mitchell is the best investment you can make. See us before buying.

Weber Imp. and Auto Co.,
1900 Locust st., St. Louis.

Four blocks directly north of Union Depot
P. S.—Agents wanted in unoccupied territory.

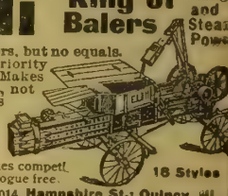
THE LARGEST AND BEST LINE OF

WELL DRILLING MACHINERY in America. We have been making it for over 20 years. Do not buy until you see our New Illustrated Catalogue No. 44. Send for it now. It is FREE.

Austin Manufacturing Co., Chicago.

The "Eli" King of Balers Horse and Steam Power.

A train of followers, but no equals.
Proves its superiority wherever it goes. Makes tight shapely bales, not loose bundles, works fast, avoids accidents and endures. Little draft, tremendous power. The machine that makes competitors tremble. Eli catalogue free.



16 Styles

Collins Plow Co., 2014 Hampshire St., Quincy, Ill.

ONCE IN A LIFE TIME

is often enough to do some things. It's often enough to buy a wagon if you buy the right kind. The

ELECTRIC HANDY WAGON

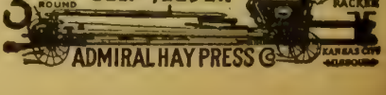
lasts that long under ordinary conditions. First, the life of a wagon depends upon the wheels. This one is equipped with our **Electric Steel Wheels,** with straight or stagger spokes and wide tires. Wheels any height from 24 to 60 in. It lasts because tires can't get loose, no re-setting, hubs can't crack or spokes become loose, felloes can't rot, swell or dry out. Angle steel hounds.

THOUSANDS NOW IN DAILY USE

Don't buy a wagon until you get our free book, "Wheel Sense."
ELECTRIC WHEEL CO., Box 40 Quincy, Ill.

ADMIRAL 2-MAN PRESS

3 FEEDS TO THE ROUND **SELF FEEDER** CONDENSING RACKER



ADMIRAL HAY PRESS CO. KANSAS CITY, MISSOURI

Red Clover.

Uncle Sam is again giving us a valuable line of information. It is Bulletin No. 455, issued by the United States Department of Agriculture, and the title of it is "Red Clover." It is a pamphlet of forty-eight pages by Professors J. M. Westgate and F. H. Hillman, both attached to the Bureau of Plant Industry of the Department of Agriculture.

It is not our intention to republish the bulletin. We wish our readers to send for and study the text and the illustrations. The bulletin begins as follows:

"Red clover must justly be styled the corner stone of agriculture in the North Central and Eastern States. Either alone or in mixtures with grasses for hay or pasture it generally constitutes from one-eighth to one-third of the total area of cultivated land on most successful farms throughout this area, and is an important crop, far beyond these boundaries. For centuries it has constituted one of the important factors in maintaining a permanent system of agriculture in the Old World. In this country for a century and a half it has assumed a more and more important role in conserving the natural resources of the soil, thereby tending to maintain the profitable yields of the staple agricultural products.

"Red clover is utilized both as a hay and as a pasture crop and often as a soiling crop. It is sometimes used as a green-manure crop to be plowed under if the ground is poor in humus. Even where it is cut for hay and only the roots and stubble turned under it has a marked influence in increasing the yields of succeeding crops. It makes an ideal hay for cattle, and in the clover sections should constitute from one-half to two-thirds of the roughage ration of milch cows. Sheep and young stock of all kinds make excellent gains on either the pasture or the hay. In addition to its usefulness as a food for animals it has a most important effect upon the land in maintaining the supply of nitrogen in the soil. By means of the nitrogen-fixing organism on its roots the red clover plant is able to gather large quantities of nitrogen from the air and leave it in the soil in a form which can readily be utilized by growing crops. It not infrequently happens that the yield of a grain crop can be doubled by the growing and plowing under of a crop of clover."

There is a map, showing where red clover is grown successfully, pictures of red clover fields, seed testers and germinators, clover hullers at work, harvesting by grain header, etc. The bulletin concludes by saying:

"The production of clover is the foundation of agriculture in the Eastern and North Central States, as upon its successful growth depends to a large extent the maintenance of the nitrogen content of the soils in the principal crop-producing sections. Clover must not be looked upon as a cure-all for farm troubles. Its roots do add large quantities of the very valuable nitrogen and humus to the soil, but aside from bringing up a limited supply of phosphoric acid and potash from the lower layers of the soil it does not add the other important fertilizer elements to the soil upon which it grows; upon many soils these elements (particularly phosphoric acid) must be added the same as though no clover was being grown upon them. So long as the soil is fairly well supplied with humus and is not too greatly depleted of the ordinary fertilizer elements there is usually no difficulty in obtaining successful stands of clover by the ordinary methods of seeding; but when continued cropping reduces the humus content of the soil to a point below that required for successful clover production it becomes necessary to adopt radical means to restore the ground to its proper condition. It has been repeatedly shown that the failure of the clover in a section is but a prophecy of the early failure of other leading crops in that particular section. The substitution of alsike for ordinary red clover will enable clover to be continued in the rotation on some soils which no longer grow the ordinary red clover. The lack of humus in the soil is the most potent factor in the failure of red clover in these sections, but other factors, such as too acid a soil and the presence of fungous diseases or insect enemies, must also be overcome. Liming and proper drainage will overcome the soil acidity. The insects and fungous diseases may be held in check by clipping or cutting at the proper time and by furnishing the proper soil conditions to produce a crop so vigorous that it will succeed in spite of the enemies which prove troublesome to less vigorous stands."

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

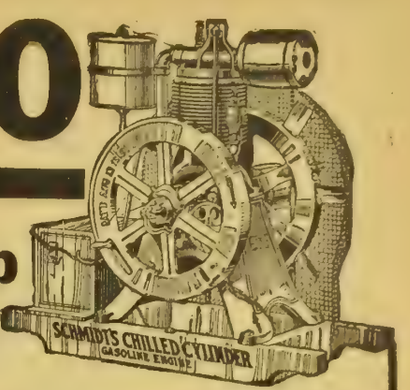
The Apple Market at St. Louis.

This is the market report for September 1st at St. Louis. With 2,500 barrels received to-day by boat of poor to only fair fruit, together with warmer weather, this market again dropped into a demoralized condition. It was hard work, indeed, to sell apples at all, even though the average run of receipts were offered down to $1.00 and $1.50 per barrel; in fact, only part of the offerings sold up to the close. Choice to fancy varieties of high color and properly packed salable and sustained in price; but these constitute only a small portion of the receipts just now. The offerings are nearly all of common to fair qualities, and these are hard to sell, even at inside quotations, at 90 cents to $1.00 for small and inferior, to $1.25 for good and $1.50 for choice—fancy large of high color and well packed at $2.00 to $2.25. Home-grown boxed mixed varieties sell at 30 to 40 cents per bushel box loose, and bulk wagon-loads Jonathan at $1.75 to $2.50 per barrel measure. Sales: Rail receipts—Fifteen barrels Blush at $1.50. River receipts—Fifty-six barrels Pewaukee and like varieties at $1.00; 100 barrels in lots at 90 cents to $1.40; 200 barrels in lots at $1.00 for common to $1.25 for Northern Spy and $1.50 for choice Shackleford. Crab apples—Near-by at 50 to 60 cents per half-bushel basket; Michigan at $4.00 to $4.50 per barrel, and $1.25 to $1.40 per bushel basket.

Our readers are requested to write to the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo., for estimates on all papers they wish to subscribe for. We can save all a little money.

"Cheerfulness is an offshoot of goodness and wisdom."—Bovee.

$7.50



And You Keep This Great Engine

Yes, sir, that's right—you keep this engine for $7.50, a wonderful gasoline engine offer, an offer without a parallel. We ship you Schmidt's Chilled Cylinder Gasoline Engine on your simple request without an order or any promise from you. You use the engine 10 entire days, use it all you want to. Then if you don't want it, send it back at our expense. If you do wish to keep it, pay us **only $7.50 and the rest in the easiest monthly payments. We send you the engine free,** to prove that it is the greatest **air cooled** 3 horse power engine on earth. It is the only engine with the marvelous, powerful **chilled cylinder.** The only engine for farm use with a **spark retarder.** The new type gasoline engine that has revolutionized the gasoline engine industry. The only engine good enough to send out on **actual free trial** without a cent down in any way.

Ten Days' Trial FREE

This is the first genuine free trial ever offered on gasoline engines for farm and shop use. We want you to see that women and children can run this engine. Use the engine to run any machinery you have—the pump—separator—washing machine—corn sheller—grinder—anything. Engine is ready to run when you get it. We will send you prepaid our sensational offer and our very useful book "How to Use Power" free.

Long Time to Pay

If you like this engine after trying it out for ten whole days you can keep it and take long time to pay for it on **easy monthly payments,** or after using it free for ten days, just send it back at our expense.

Makes Woman's Work Light and Easy

5 Years Guarantee Schmidt's Chilled Cylinder Gasoline Engine is absolutely guaranteed for 5 years in every piece and part. The biggest bank in Iowa backs our $1,000 challenge offer.

How to Use Power To all who will write promptly we will send our useful book "How to Use Power" free. Send us your name and address today.

Schmidt Bros. Co. Engine Works, Dept. 313 X, Davenport, Iowa

DAIRY SHORT COURSE OF INSTRUCTION. This picture needs explanation. It is entitled "A LIFT TO THE DAIRY BUSINESS." The Louden Machinery Company manufacture hay tools, barn-door hangers, feed and litter carriers and all kinds of hardware for dairy barn equipment. Having large numbers of salesmen introducing their goods throughout the country, the President of the company hit upon the plan of instructing the salesmen in the fine points of the dairy business in order to increase their usefulness and selling ability, and the picture was taken at the School of Instruction, which lasted four days in the month of August at Fairfield, Iowa. The catalogues issued by this company are just as useful to dairy farmers as the Short Course of Dairy Instruction was to the salesmen, all tending to the importance of using labor-saving apparatus on the dairy farm. In writing for these valuable free catalogues, address Louden Machinery Company, 651 Broadway, Fairfield, Iowa.

Estimate of the Oats Crop.

On August 21st Mr. B. W. Snow completed returns which indicate the average yield of oats per acre, crop of 1911, to be 23 bushels. Upon the basis of the acreage found by government agents this accounts for a crop of 812,000,000 bushels, against the official estimate of 1,127,000,000 bushels last year, and is slightly less than was indicated by the condition report of August 1st. In the important states the average yield is reported as follows: Ohio,29 bushels; Michigan, 27; Indiana, 22; Illinois, 26; Wisconsin, 27; Minnesota, 22; Iowa, 27; Nebraska, 12; North Dakota, 21; and South Dakota, 6. The quality in Iowa, Wisconsin and Minnesota has been damaged by rain while in shock. This showing of a total 315,000,000 bushels less than last year is on the basis of the full 35,000,000 acres reported as seeded. A very material part of this acreage was not harvested, and the final revision of acreage will further increase the crop shortage of the year, according to Mr. Snow, who is considered high authority.

THREE-YEAR SUBSCRIPTIONS.

Orders For The National Farmer and Stock Grower Solicited.

Kindly Sign the Blank Form Below and Become a Regular Subscriber.

We desire to invite attention to our three-year subscription proposition. We hope to obtain one hundred thousand additional subscriptions during the present year to continue for three years. It is practically a trial subscription and payable at the end of the first year. The subscription can be stopped at any time by paying for the period the paper is taken. This method of taking subscriptions is the invention of Uncle Piper, our subscription editor, who has guaranteed that every one of them will be paid when they are due. The subscription price of this paper is $1.00 for three years, and the bill for the subscription is sent to the subscriber at the end of the first year. When the bill goes out Uncle Piper slips in a list of handy premiums for the subscriber to select one from, providing he pays the bill promptly, and the general result is that the bill is soon paid. When it comes to getting subscriptions from intelligent, high-class farmers, Uncle Piper is at the head of the class.

Uncle Piper.

SUBSCRIPTION BLANK.

To the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — You are hereby authorized to enter my name as a subscriber to The National Farmer and Stock Grower for three years. At the end of the first year I will pay One Dollar for the three-year period. This order is given with the understanding that I am at liberty to stop the paper at any time by paying the subscription to that date.

Name.....

P. O. Box.....R. F. D.....

Postoffice.....

Missouri Sheep Record.

In the sheep statistics of Missouri there is ample room for thought and study because the Missouri sheep record of the past ten years is a remarkable one. The state of Missouri has now about 2,100,000 sheep and lambs, and 44,010 Missouri farms are engaged in sheep husbandry.

The sheep census of the United States demonstrated that in ten years the number of farms reporting sheep and lambs was reduced from 763,518 in the year 1900 to 608,363 in the year 1910, a decrease of 155,155 farms raising sheep. This is the statement for the whole United States.

The census figures show that the number of sheep and lambs in the United States were 61,503,713 head in the year 1900, the census being taken on June 1st after lambing, and in the year 1910 the number was decreased to a total of 51,638,590, the census being taken April 15th, during lambing. Thus the figures show an apparent loss of 9,865,123 sheep in ten years, whereas had the census been taken on even dates a credit of ten million lambs would have been added to the census of 1910.

Taking the figures as they are reported by the Bureau of the Census, we find the North Atlantic States decreased 48,907 sheep-raising farms, the South Atlantic States lost 30,146 sheep-raising farms, the South Central Division of States lost 44,440 sheep farms, the North Central Division of States lost 32,240, and the Western Division, including the ranch states, increased the small total of 578 farms and ranches raising sheep to offset the great losses.

The state of Maine lost 7,301 farms reporting sheep, New York state decreased 15,795 sheep farms, Pennsylvania lost 18,631 sheep farms, Virginia lost 3,245 sheep farms, North Carolina dropped out sheep from 14,244 farms, Kentucky lost sheep from 5,128 farms, Tennessee gave up sheep on 7,927 farms, and of course many other states did the same.

In the meantime, the state of Missouri increased the sheep-raising farms 5,997 in number, increased the number of sheep 720,825 head, and increased the lambing 270,312 head, in addition to 300,000 more lambs not credited by the census because they were dropped after the census of 1910 was taken. The record of Missouri far surpasses any other state in the matter of increase in sheep and lambs during the period from the year 1900 to the year 1910.

The grand showing on the part of the state of Missouri in regard to sheep and lambs was brought about by concert of action by and between the Immigration Department of the Missouri Pacific and Iron Mountain Routes, the Immigration Departments of the Rock Island-Frisco Systems, aided and supported by the work of the live stock editor of The National Farmer and Stock Grower. It is not often in this world that the records prove the results of efforts so conclusively. About six to seven years ago the St. Louis butchers and packers could not find enough sheep and lambs on the St. Louis market to satisfy local requirements, when the editor of The National Farmer and Stock Grower set to work to improve the situation. In addition to advising his own subscribers to engage in sheep raising he enlisted the railroad immigration agents into the work, showing them the advantages of the St. Louis market. They answered: "We are bringing in fruit growers and vegetable gardeners, dairymen and general farmers, and we will pay extra attention to farmers who will raise sheep." Just as farmers were giving up sheep raising in nearly all the old farming states, the states tributary to the St. Louis market made great gains in this branch of industry, with Missouri in the lead.

Sheep raising was abandoned on 9,855 farms in the state of Indiana, but sheep raising was commenced upon 5,997 farms in Missouri. The old sheep-raising state of Ohio gave up sheep raising on 2,113 farms, but 842 new sheep farms were started in Illinois. The state of Michigan cut sheep from 8,474 farms that formerly raised them, but the state of Kansas put sheep on 1,048 farms that had not raised sheep before. It will be seen from this statement that the bright spot on the map of the United States, so far as the sheep industry is concerned, centers upon the St. Louis live stock market and the state of Missouri, and this condition was largely brought about by a co-operative movement between a leading farm and stock paper and the immigration departments of two first-class railroad systems.

Proof That Merry War Lye Cures Sick Hogs

This advertisement is different, as you will see presently. We have been telling millions of farmers about "MERRY WAR" LYE. Now we are going to let some of these same farmers do the talking. They have tried "MERRY WAR"—and they know. Listen!

"It Cured Our Hogs"

Mrs. T. Akins, Hoxie, Ark., writes: "MERRY WAR LYE is all the LYE that we use. Before we began using it we had a lot of hogs with Cholera. We used MERRY WAR LYE and it cured our hogs."

"Cures Cough and Thumps"

Mr. A. W. Davis, Hamlin, Iowa, writes: "MERRY WAR LYE is the stuff to cure cough and thumps and put hogs in a thrifty condition and I will never be without it while I raise hogs."

"It Is a Sure Worm Killer"

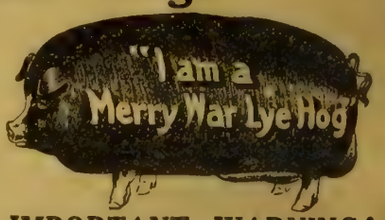
Mr. B. S. Row, Gracemont, Okla.: "I have fed it to my hogs and have had good results. It is a sure worm killer."

"Best Hog Medicine I Ever Used"

Mrs. Elvis Potter, Junction, Ill.: "Have been using a great deal of MERRY WAR LYE. Find it the best medicine for hogs I have ever used."

"Best and Cheapest Hog Remedy"

Adam Schultz, McLouth, Kans.: "I consider MERRY WAR LYE the best hog remedy I have ever used, and the cheapest. It has made a marked improvement in my herd."



IMPORTANT WARNING!

Don't infer that ordinary or regular, lye can be used as a hog remedy.

MERRY WAR LYE is prepared ESPECIALLY as a hog remedy and it is the only lye that is guaranteed to be absolutely safe to feed to hogs. It is the greatest hog fattener and conditioner in the world.

Feed "Merry War" Every Day

MERRY WAR LYE comes in cans with the convenient turning top covers. Make it a part of the daily ration, and keep your drove in prime condition.

Save These Directions

Follow these directions carefully: Mix one tablespoonful MERRY WAR LYE with slop for 10 hogs, or ½ can with barrel of swill. Stir well and feed night and morning. If your hogs are on a dry feed ration, mix ½ can MERRY WAR LYE to each barrel drinking water.

At All Leading Dealers

Most dealers handle MERRY WAR LYE. If yours can't supply you, write us, stating your dealers' names, and we will see that you are supplied and will also send you, free, a valuable booklet on, "HOW TO GET THE BIGGEST PROFITS FROM HOG RAISING." Remember, there is no "substitute" for MERRY WAR LYE

MERRY WAR POWDERED LYE comes in 10c cans, full cases of 4 dozen cans for $4.80, at Grocers' or Druggists' and Feed Dealers'. There are no substitutes.

E. Myers Lye Co., Dept. 22 St. Louis, Mo.

To Start With Pigs.

"If the beginner will start with not more than two or three sows, in pig when purchased, he can acquire much valuable experience with even so small a number, while his risks will not be great. The next year he may add to the number of sows, secure a suitable boar, and by slow but careful increase in the number of sows bred each year, if good management and freedom from disease prevail, should soon find himself with a profitable herd." — From Coburn's "Swine in America."

Sowing Barley in the Fall.

A Vigo county, Indiana, correspondent asks: "Will it do to sow barley in Southern Indiana for green feed? Will my variety be all right to sow?" Barley will make good early spring pasture, and the only question is whether it will winter kill. In the extreme southern part of Indiana or Illinois I should risk any of the ordinary spring sorts. It is used for just this purpose in Kentucky, and it is liked much better than rye, but is not so hardy. It would be better if home-grown winter seed could be secured. This would be more likely to endure winter conditions. For spring pasture it should be sown in September. —L. C. Brown.

Only Sure Place.

"Want to go to the ball game tomorrow?"

"No; I'd rather go to the matinee. I'm sure of a happy ending there."—Pittsburg Post.

CURES Distemper, Pink Eye, Epizootic, Coughs, Colds, and all Nose and Throat Diseases. One dose acts as a preventive. One bottle a Guaranteed Cure. Safe for Mares, Colts, and all others. $1.00 bottle holds three 50-cent bottles. Send postal for **FREE** Horse Booklet. Sold by all druggists, or prepaid from

BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

Veteran Alfalfa Patch.

Douglas county, Colorado, was one of the original dry-farming sections of the state. George A. Kelly has on his place near Franktown a patch of alfalfa that was planted twenty-six years ago. It still produces two to tree tons a year, although Mr. Kelly has never paid any attention to it except to go out and cut it. Specimens from this old timer will be shown at the Dry-farming Exposition at Colorado Springs, October 16th to 20th.

Feeding of Young Farm Animals.

Many farm animals are lost before they reach their growth, and the methods of feeding are largely responsible for it. The digestive organs in young animals are as tender as the rest of their bodies and can be easily overtaxed and given tasks to perform that they cannot accomplish.

The inexperienced feeder kills many a promising animal. The feeding of growing animals is a science that has to be learned, partly by experience.

Too rich foods cannot be fed with safety. An experienced dairyman told the writer that for several years he lost the calves of his best cow, because her milk was unusually rich. After he discovered the cause of the loss, he gave the calves of that cow milk from cows that gave only medium-quality milk, and thenceforth saved his calves.

Scours in calves are often caused by overfeeding the calves, and often, too, on cold milk. The stomachs of most calves are unable to utilize a great mass of cold milk. It is common on some farms to cool the milk with ice, skim the ice-cold product and feed the ice-cold skim milk to the calves. Calves come down with scours and consequently die, and the feeders wonder what has caused the loss of the animals. Had the milk been heated to a temperature near eighty degrees and fed a few quarts at a time, the scours would not have occurred. When calves run with their mothers they get milk at about ninety-six degrees, and that is the temperature best adapted to the digestive processes.

Large quantities of food should not be given at one time. The young animal is always hungry, in a normal condition, and will gorge itself to a point where the digestive ferments cannot perform the work they are created to do. If the food is not digested it must go through the digestive tracts undigested and be the object of intestinal fermentations of various kinds. Other bacteria than the digestive ferments find opportunity to develop and deleterious products are created. Some of these result in gases that sometimes become abundant enough to kill the animal by the mere power of dilation. The only bovine the writer ever saw killed by red clover was a young calf that went out into the clover-filled pasture with the cows one dewy morning. The animals ate the clover, but only the young calf was affected. She was found in time to get her back into the barn yard before she dropped down, but she died in spite of the efforts to relieve her, having in a short time bloated to double her size.

Such incidents are common with all our varieties of animals. Even many chickens are annually killed by being fed improper food. Beef scraps, beef meal and blood meal are excellent things to feed chickens if they are mixed with other things and fed in very limited quantities. The too abundant nitrogen in these foods is destructive of the immature organs. Such things should be mixed with less nutritious foods. One part of beef meal to five parts of ground grain seems to be safe, but in the case of blood meal the proportion of blood meal should not be more than one part in ten of the mixture.

The same principles hold with all our farm animals. Too much volume and too much richness must be avoided. Feed little and often and see that the temperature is normal. There should be a temperance in feeding as in other things.

The Plastered Silo.

Circular No. 48, issued by the Agricultural Experiment Station at Columbia, Mo., is devoted to "the plastered or Gurled silo." It is by Prof. H. E. McNatt, and copies can be obtained by writing for them.

The Gurled silo is built much like a frame house, except that it is round in form, with a lining of boards running lengthwise around it, somewhat like the hoops of a barrel, which give it strength to resist the immense pressure of the silage. Its cement-plastered wall protects the wood framework from decay.

Some of the strong points in favor of this style of silo are: 1. Can be built entirely from ordinary lumber. 2. Requires no highly-skilled labor for its construction. 3. Preserves the silage as well as any type of silo in use. 4. Is strong and durable when properly made.

In this article we are not going into the particulars of construction. It is unnecessary to do so. Those who are interested can obtain a copy, thereby obtaining the full directions and measurements for construction with illustrations showing the work in process of development.

When to Plow Under Crimson Clover.

A Marion county, Illinois, correspondent writes: "At what stage is it best to turn under crimson clover?"

The best time to turn under clover depends upon the use one wishes to make of the ground. Moreover, the thing to do is to get as much clover growth as possible before plowing it under. It has been found that an acre of good crimson clover contains around $23 worth of nitrogen when it was six inches high; nearly $38 worth when it was twelve inches high, and almost $44 worth when it was fully matured. From these figures it will be seen that crimson clover pays well for its seed at any stage of growth it is used. As we come to know more of the benefits of this clover I am sure it will be more generally sown in Southern Illinois. —L. C. Brown.

Humus and Commercial Fertilizers.

A Starke county, Indiana, correspondent states that he cannot get any results from commercial fertilizer, but on some neighboring farms it pays well.

This correspondent does not state the character of his ground, but I surmise that the trouble is due to lack of humus. It is a well-known fact that commercial fertilizers, especially potash, will give much better results if the ground is well supplied with humus. In Starke there are light soils and many fields are deficient in humus. On this character of soil we cannot expect profitable returns from commercial fertilizers. In the same county there are rich muck soils, fairly gorged with humus, and here we may expect good returns from the use of potash. —L. C. Brown.

Hay Crop For Next Season.

A Wayne county, Illinois, correspondent asks: "What crop can be sown this fall for a hay crop next season? My hay land has gone back and my seeding of last spring is only a part of a stand, and I am thinking of plowing it up."

Every effort should now be made to get pastures and meadows established again. The condition of grass lands is critical, and unusual sources must be drawn upon to furnish feed until meadows can be reseeded. Don't plow up even a partial stand. The thing to do is to nurse it along. A few loads of well-rotted manure scattered thinly over this ground will start things. Then put on the spike-tooth harrow and do a good job. When all of this is done, then sow ten pounds per acre of good timothy on the thinner places. Under normal conditions this will give a fair hay crop next season.—L. C. Brown.

"Always give of the best that is in you. Feel responsibility towards yourself and your work. Never be content with a compromise with work. Give an employer the best that you have in you to give."—Belvedere Brooks.

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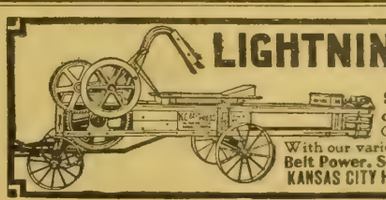

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Published Monthly
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Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and on all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and state and he pays indirect taxation for the support of the federal government. We believe that the advantage of the markets of the United States belongs to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the government receives support that is necessary and the farmer has a very moderate degree of what is called protection. In times of scarcity foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

The Chicago International..

We are in receipt of the premium list, or, as it is called, the "preliminary classification" of the International Live Stock Exposition, to be held at Union Stock Yards, Chicago, December 2d to 9th, 1911.

This is the recognized clearing house of the Live Stock Expositions of the United States, and it brings together all the animals that are worthy to compete for high honors in the collective exhibits which arrive from all the State Fairs. The contest is a struggle for championships by champions, and it is intensely interesting to all breeders and raisers of cattle, hogs, sheep and horses.

This is the right time to send to Mr. B. H. Heide, General Superintendent, for a copy of the "preliminary classification," which gives a list of classes, prizes and all necessary information. His address is Union Stock Yards, Chicago.

A Valuable Paper.

The subscription price of The National Farmer and Stock Grower is only 50 cents a year. We hope our friends and patrons will consider it to be worth the money. It is not easy to get a farmer to write a letter and go to the postoffice and get a money order to send to a publisher, but more have done so during the past year than in any other year since we began publishing the paper, and we are correspondingly thankful.

The business of collecting information for farmers is not easy. Information has to be hunted in all kinds of places; it has to be sifted, for the reason that much of it is not new or substantial, and it is often found to be the same old monotony without news or other interesting features. We generally get a paper together, and sometimes we are proud of it and sometimes not. The "sometimes not" papers cost us just as much as the better papers. We wish that our paper should be read from beginning to end. It contains simple, bright, clear-cut statements, is not abusive of anyone and does not look on the dark side if there is a bright side, and, above all, it is always studying the interest of the farmer politically and from the standpoint of economy of production and always encouraging independence in thought and action. We hope our readers will think this over and try to find an excuse to send in a dollar for one of our subscription combinations.

The next movement will be to impose additional taxes upon the people of the United States to offset the income that is lost by admitting Canadian productions free of duty.

Canadian Apples For United States.

Even in the off year of 1910 we exported 48,000 barrels of apples to the United States. The duty paid on these was 75 cents per barrel. In a normal year, and with no duty in the way, as provided for under reciprocity, much larger shipments would be made and with greater profit to Canadian producers. — From Toronto Weekly Sun.

Sensational Potato Market.

At St. Louis the daily papers work up a sensation about the high price of potatoes. The wholesale trade, September 1st, was as follows: Home-grown Early Ohios sold from farmers' wagons at 75c. to $1.00 per bushel; receipts from the North and East were heavy again and buyers were unwilling to give the prices asked; Minnesota Ohios were worth $1.15 to $1.20 per bushel, delivered; Jersey Giants, $1.30 to $1.35; Wisconsin Long White, $1.20; California and Jersey, $1.30 to $1.45 per bushel.

The Wool Market.

At St. Louis, opening of September market, tub-washed wool was selling at 18 to 31 cents a pound; the best Missouri, Illinois and Northern Arkansas wools were selling at 14 to 21½ cents, and lesser grades at 14 to 20 cents; Northern and Western bright medium were quoted at 20 to 20½ cents, and other grades at 11 to 19 cents; Texas wools at same range as Western.

More Canadian Potatoes.

Nearly 700,000 bushels of Canadian potatoes were sold in the United States in 1910, notwithstanding the fact that a duty of 25 cents per bushel had to be paid on crossing the border. The figures are an indication of the extent to which trade will be developed under the conditions that will be established by reciprocity.—Toronto Weekly Sun.

At St. Louis popcorn is being sold in wholesale lots at $1.25 to $1.75 per 100 pounds on the cob.

THE BOOK OF LIVE STOCK CHAMPIONS.

We are actively engaged in preparing the new edition of the Book of Live Stock Champions for publication.

We have published several editions of this valuable book and intend to make the new edition far superior to all others.

We already have illustrations of seven hundred different champions, and in each case the picture occupies a half page in the book. We are now gathering the remaining three hundred pictures.

Each illustration is a special demitone engraving from a photograph taken from life. No drawings or fancy pictures appear in the book.

First and second-prize winners are not eligible unless they have also won championship prizes. It is a Book of Live Stock Champions, not simply a book of ordinary prize winners.

Champions of the beef cattle breeds are admitted by their showring honors. We have enough pictures of beef cattle champions to make a book by themselves.

Dairy cattle are admitted by showring honors, also by officially tested dairy records. We have the finest selection of dairy cattle in the world.

Draft horses are admitted on show-ring honors. Trotters and pacers are admitted on track records or as noted sires. We have all the famous horses, going back thirty years.

Thoroughbred horses are admitted on account of track honors or as sire or dam of champions. Saddle horses and ponies are admitted as championship winners.

Jacks and jennets, also mules, are admitted on show-ring or market honors.

Hogs, sheep and Angora goats are admitted as winners of sweepstakes prizes at State, National or International Fairs.

Numbers of famous car-loads of cattle, horses and sheep which have won show-ring and market honors will be published in the book.

Every live stock champion is entitled to entry providing a first-class photograph can be obtained. We do not intend to disfigure the book with poor pictures. It is better to leave out the poor pictures than to apologize for an inferior book.

We do not charge the owner for publication of his animal, but we do ask his co-operation in furnishing first-class photographs and the records of said animals.

It is worth something to a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at One Dolar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer. After publication the cloth-bound copies will cost Two Dollars a copy without the subscription.

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Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1911, immediately after publication.

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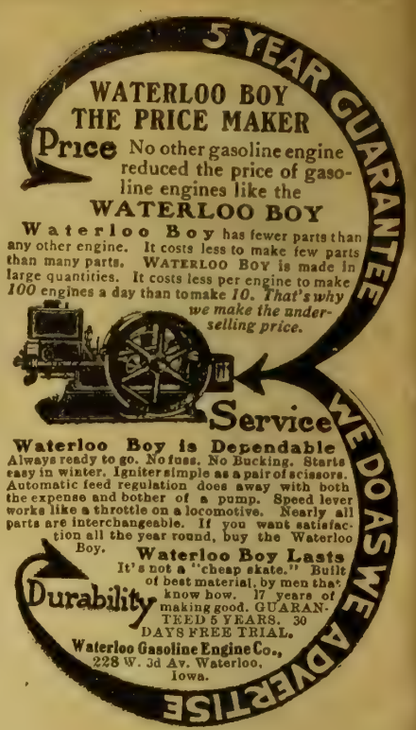
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Horse Secrets Disclosed.

This is a valuable book. It tells how to feed and fatten your stock in the cheapest, quickest way; how to rear an orphan foal by hand; the secret of silage feeding; how to break a horse of bad habits, and scores of other money-making, money-saving secrets.

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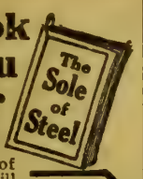

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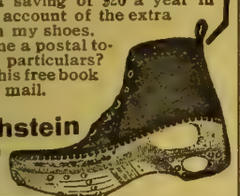

The milk producers who are shipping to the Chicago market expect to get 16½ cents a gallon from October 1st, 1911, to April 30th, 1912.

It seems strange that in the vicinity of Troy, N. Y., it was necessary to dip blankets in milk in order to keep down a fire that had started. There was no water to be had, and horse blankets were dipped in milk and spread over roofs that were in danger of catching fire from sparks. We now expect to hear that Holstein milk is the best for putting out fires.

The Dairy Institute.

The American Dairy Institute will be held in Chicago during the second week of the National Dairy Show. Illinois is further honored by reason of the election of Hon. A. P. Grout, of Winchester, Trustee of the University of Illinois, as President. The Secretary is Mr. A. J. Glover, of Fort Atkinson, Wis.; and the Treasurer Mr. Geo. Sisson, of Pottsdam, New York. There are forty-seven Vice-Presidents, who are also the Secretaries of the various State Dairy Associations, and will appoint, as delegates to the Institute, a representative dairyman from each county in their respective states. The delegates will therefore number considerably over 2,000.

The American Dairy Institute will be very much like the ordinary Farmers' Institute, only the subjects for discussion will be limited to dairy propositions, and the questions dealt with will be predetermined and along the broadest and most intensely practical lines. For instance, the fundamentals of dairying will be taken up this year, viz.: Healthy cows, tuberculosis, alfalfa, the silo and soil conservation, the latter being claimed as the general and most beneficial result of dairy farming. The best authorities on these five topics will address the Institute, after which will ensue general discussions "from the floor," like an open Parliament.

The sessions of the American Dairy Institute will be held in the auditorium at the International Amphitheater.

McKinney Traction Cultivator.

We understand from Mr. W. R. Hightower, Secretary of the McKinney Traction Cultivator Company, that they are permanently located in their manufacturing plant, corner of Main and St. George streets, St.Louis, Mo. Their factory is a two-story building, 102x148, and situated on the tracks of the Iron Mountain Railroad. This company manufacture a riding machine which provides for plowing, seeding and cultivating, and is propelled by a gasoline power.

GET A ROAD DRAG READY.

Do Not Let the Road Get Bad Again, Says D. Ward King.

Keep the road good. The protracted drouth has permitted the ordinary roads to wear smooth and hard. Not for many years has so large a mileage of wagon roads been so unusually fine. Of course, the dragged roads were smooth without wear, and where they have been dragged for a series of years they are noticeably less dusty than undragged roads of the same soil. In fact, even the roads that have been dragged only a year or two show a marked decrease in dust.

Now that the roads are so generally good it would be almost criminal to let them go back to their old state, soft, rutty, rough, mud-hole state, when so little effort is required to keep them in fine condition. Get a split-log-drag ready and accept the first rain as an invitation to smooth the road and push a little dirt to the middle.

The breaking of a long drouth is usually a gradual process. I mean that moderate rains come at first, and that the parched earth drinks the moisture so greedily there is not much mud or washing of the soil. A choice opportunity is thus provided for bringing a neglected road into proper shape by doing a little frequently.

So get a road drag ready.

Use the drag when the soil is "moist but not sticky."

Go—after every shower; be greedy to grasp every chance to drag the road when the surface is softened. Do this and the road will remain good all winter. But the work must be continuous; if you fail once, then the rain water will lodge in the road after the next shower. And water remaining on the road means soft spots and mud-holes.

Build a light drag; build it according to directions, which may be had for the asking from the Office of Public Roads at Washington. It is all very simple.

Get a drag ready now. Do not let the GOOD road backslide.—D. Ward King, Maitland, Mo.

Separators Replace Skimming Stations.

Farm separators have worked a change in Wisconsin dairying during the past five years. In a recent bulletin, No. 210, of the Wisconsin Experiment Station, written by Professor C. E. Lee and Professor H. C. Taylor, they show that there are not so many skimming stations as five years ago. They state that this change has been brought about by the introduction of hand cream separators on the farm. In 1905 there were 260 skimming stations, while in 1910 there were only 88, a reduction of 172.

The closing of the skimming station is a natural result in territories where the system of factory operation has changed from receiving whole milk to that of farm-skimmed cream, because these stations are operated by a central plant which draws its milk supply from a territory that is too large or located too far away to permit the hauling of all the milk to the central creamery. Before the day of the hand separator, the skimming station was the means of increasing the size of the creameries. The separating of cream on the farm now serves the same purpose, and many skimming stations have been abandoned.—Press Bulletin Wisconsin Agricultural College.

Home Mixing of Fertilizers.

By writing to the German Kali Works, Continental Building, Baltimore, Md., any farmer can obtain a booklet entitled "Home Mixing of Fertilizers and How to Do It." This is a very interesting publication, and every one of our readers can learn something from it. The whole story is told so clearly that it does not require an interpreter. The book includes a table giving the composition of all farm manures and commercial fertilizers, with formulas adapted to all crops and the amount of fertilizer ingredients taken from the soil by all farm crops. Send for it without delay. See advertisement on page 2.

His Father Was in Right.

In one of the public schools a young woman teacher was trying to impress upon the pupils the lesson of patriotism and veneration for the achievements of the fathers of the country. She spoke of the Revolution and the great struggle of the Civil War. One little fellow put up his hand.

"At my house," stammered the boy when he got permission to speak, "we have a hat that my uncles wore at Gettysburg."

"That's very nice," said the teacher; "perhaps some of you other children have some relics at home of that great struggle?"

Another hand was raised, bashfully.

"Well, dear?" said the teacher.

"We have a sword that was in the Revolution. It belongs to my pa, and some day he says it will belong to me."

In the corner of the room a diminutive, freckled youngster had been waving his hand violently for five minutes. He got permission to speak.

"We hain't got no hats with holes in them that was in the Civil War," he ventured, "nor we ain't got no swords that was in the Revolution. But, say, teacher, my dad he has a union suit."—Philadelphia Times.

Golden Arrow Seed Catalogue.

The A. W. Schisler Grain Company, St. Louis, Mo., will send a catalogue of vegetable, flower, field and garden seeds to any of our readers who will write for it. It is called the Golden Arrow Seed Catalogue and is named after their Golden Arrow Seed Corn, which is a very prolific yielder and the cleanest and brightest yellow corn on the market. Quotations will be furnished on any and all seeds in season in any quantity. Address, A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo.

The Advantage to Canada.

Our exports of animals and their products to the United States in 1910 were three and one-quarter millions more than for the year before. Much of that increase was due to the alteration in the American duty on cream, from 5 cents per pound to 5 cents per gallon. Under complete free trade in farm products there will be an expansion that will make the old reciprocity days seem like a one-tent circus by comparison.—From Weekly Sun, Toronto, Canada.

The Twice-a-Week GLOBE-DEMOCRAT

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Republican newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

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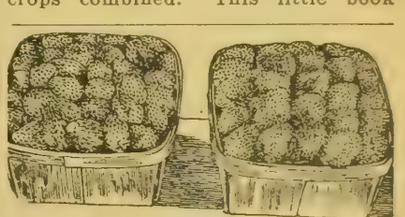
The Strawberry Culturist.

This is a handy little jewel of a book. It is by Andrew S. Fuller, one of the greatest horticulturists. It contains all the necessary information to enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book



contains that which a beginner should have to start on and an expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The National Farmer and Stock Grower for one year for Sixty Cents. This is a splendid opportunity to get a good book for the cost of postage. An average crop of strawberries is 1,701 quarts to the acre. Address, THE HALE PUBLISHING CO,, 3550 Vista Ave., St. Louis, Mo.

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Contest of Guernsey Cattle.

An extremely interesting thing is to take place at the National Dairy Show in Chicago this year, a contest between the breeders of the United States and the cattle experts of England as to which country has the best judges of dairy cattle. This international rivalry has never been settled.

About a month ago an intimation reached Chicago from a few representative, and, incidentally, titled breeders of England, that they were ready to try conclusions with their American brothers, it being suggested that the matter be settled in the ring of the National Dairy Show in Chicago next October. This was promptly agreed to by the officials of the Exposition, who realized that this would be the greatest case tried in their "Court of Last Appeal" for the world's leading breeders.

To show how important the Englishmen regarded the matter, and to illustrate the thorough way in which they went about it, there was a committee of five members of the English Guernsey Cattle Club, including its President, Sir Henry Lennard, and these men selected Mr. David Michie, who judged seven of the nine great English shows this year, and Mr. W. Male, an expert, who has attended the last fifty Royal Shows, to visit the leading herds and pick out absolutely the very best that England affords and send them to Chicago.

The English herd has been selected as follows:

Four from the herd of Sir Everard Hambro, Governor of the Bank of England; four from Sir Joseph Techbourn's herd (one a winner at this year's Royal;) two from Sir Henry Lennard's herd; one from Lord Falmouth's herd, and two from Canon Farror's herd. This is unquestionably the greatest lot of Guernseys ever assembled. No one breeder in England could begin to match it, and it is going to take a mighty effort and careful thought in selection upon the part of American breeders to win in this company.

News of this international competition has spread among the American breeders, and there is the same determination to win as is in evidence here when we built our cup defenders for the international yacht races.

Sir Henry Lennard with his cows, like Sir Thomas Lipton with his boats, will come over to see the blue ribbons tied. He will be the guest of the National Dairy Show Association during his stay in Chicago.

Dairy and Creamery Notes.

A chemical that prevents milk from souring is not always a help to milk. A recent investigation of boric acid for keeping milk sweet showed that the ten grains used would merely keep the milk from souring for some time, but at the same time permitted the putrefactive germs to develop very rapidly. Lactic acid ferments produce a healthful product and keep in check the putrefaction of the milk. One investigator says it would take 400 grains of boric acid to sterilize a single pint of milk. Of course, no such amount would be used, and the use of any such acid in milk should be discouraged, even if it did not injure the health of the consumer.

There is no gain in increasing the size of the dairy cow, as that increases the cost of maintenance. In selecting dairy calves, choose those that bid fair to make an ordinary-sized cow rather than a large cow. On some farms the managers are, by selection, increasing the milk yield and at the same time decreasing the size of the cows.

Gradually the regulation of the milk traffic is becoming a fact in all our large cities. The regulations are quite generally extending to the farms outside the city limits, as it has been found possible to prevent the bringing into cities of milk that has not been produced under sanitary conditions. This is working an immediate good to the inhabitants of the cities and will ultimately prove beneficial to those producing the milk.

Many a farmer is debating whether to make butter on the farm or sell the milk to companies that supply the cities. As a farm proposition, the farm buttermaking is best, as that prevents any of the fertility going off in the form of milk. Butter contains no important amount of fertility and its production does not exhaust the farm. The skim milk is left on the farm for feeding stock. It is the more valuable, as it can be combined with foods rich in starch, like potatoes and corn, and make them the more valuable for feeding.

More attention needs to be given to the pastures in which the dairy cows pass the summer. They have been too long regarded as wild land, merely used for pasture, because unsuited for anything else Therefore they have been neither fertilized or drained and often produce only such grasses and plants as have forced their way in. We often see such pastures overrun with wild plants and shrubs, such as the low-growing juniper, hardhack and various forms of herbaceous growth that do nothing except keep out other plants. Some of the grasses growing are wiry and little nutritious. Every pasture for dairy cows should be gradually brought under a high state of productivity, even if it has to be cultivated piecemeal for a few years.

As fall comes on, do not permit the pastures to be too closely grazed. It is better to feed the cows some corn or sorghum forage than to have them eat the grass down to the roots. Sod so closely grazed becomes thin, and the root systems are lessened. Keep the sod as thick as possible, and in that way get the most possible out of the pasture.

Reinforced Concrete Silo.

Prof. F. H. Demaree, of the Agricultural Experiment Station, Columbia, Mo., is the author of Circular No. 49, devoted to the description of and the directions how to construct a reinforced concrete silo.

If we attempted to reprint this circular, illustrations and all, it would require too much space and not serve the purpose nearly so well as the circular will do, and any of our readers can obtain a copy by writing for it. Experiment Stations are for the purpose of acquiring and disseminating knowledge of this kind, and in this instance it is very good work. The circular has chapters devoted to dimensions of silos; making the forms; building the foundation; erecting the walls; mixing the concrete; material for the concrete; a sample roof, etc. The construction of any kind of a silo ought to be carefully studied out before engaging in it, and the possession of this circular will be a great help.

The Accommodating Chicken.

Senator Martine, of New Jersey, was relating in Washington memories of his farm life.

"What quaint minds," he said, "have those New Jersey colored folk who work New Jersey's farms! I remember an old uncle who once paused in a job of potato hoeing to sing in my ears the praise of chicken.

" 'Chickens,' he said, 'is so accommodatin'. Dey's so accommodatin', suh. Yo' can eat 'em befo' dey's bawn, an' yo' can eat 'em ahftah dey's dead.' "

FOR YOU—THE BEST CROP INSURANCE IS AN IHC MANURE SPREADER

TO secure the best results, manure must be spread with a machine, because fork-spreading wastes manure, wastes time, wastes energy, and wastes opportunities for increasing the income which a farm is capable of yielding.

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Before they bought I H C manure spreaders, they found that they were simple in design—unusual in strength—and remarkably efficient.

They found the power transmitting mechanism the most durable used on any machine, because the beater gear was held in a single casting which prevented the gears from springing out of alignment and cutting the teeth. They found that the long, square, chisel pointed teeth insured positive pulverizing of all manure; that the teeth were long enough to tear the manure to pieces before it wedged against the bars; that the teeth did not rim the bars; that the beater was large enough in diameter so it did not wind. They found that the rollers which supported the apron were large, that the apron moved easily; and that self-aligning roller bearings on the main drive axle not only reduced the draft but prevented the axle from binding, and cutting the axle brackets, a fault not uncommon to spreaders.

IHC Service Bureau

The purpose of this Bureau is to furnish farmers with information on better farming. If you have any worthy question concerning soils, crops, pests, fertilizer, etc., write to the I H C Service Bureau, and learn what our experts and others have found out concerning these subjects.

Kemp 20th Century Corn King Cloverleaf

You have choice of these three styles. Each style is made in several sizes to meet every condition.

Don't plant another crop before you see the I H C local dealer. Let him tell you all the facts. Let him point out the many advantages of an I H C spreader. Pick out the one that suits you best. Get catalogues from him, or, if you prefer, write direct for any information you desire.

International Harvester Company of America
(Incorporated)
Chicago USA

Dry-land Wheat.

J. M. Bradshaw, of Peyton, El Paso county, Colo., has threshed an average of twenty bushels of wheat per acre from 100 acres, patches in which ran as high as fifty-seven bushels. On the Bradshaw land only four inches of moisture fell from the time this wheat was planted, September 2, 1910, to the day it was cut, July 15, 1911, and there is not a live stream in twenty-five miles. This land was summer tilled, that is, carefully cultivated, and the weeds kept down the summer before it was planted. Some of the Bradshaw wheat will be exhibited at the Dry Farming Congress, Colorado Springs, Colo., October 16th to 20th.

He Was Qualified.

"You're rather a young man to be left in charge of a drug shop," said the fussy old gentleman. "Have you any diploma?"

'Why—er—no, sir," replied the shopman, "but we have a preparation of our own that's just as good."—Sketch.

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Hairy Vetch.

The Purdue University Agricultural Experiment Station has been growing vetch for several years, and since many inquiries have been made concerning vetch, this brief statement is made concerning the plant.

Hairy vetch is a legume belonging to the same family of plants as the clovers, soy beans and cowpeas. It is also known by the names of winter vetch and sand vetch. The plant has beautiful purple blossoms gathered in a cluster, compound leaves with six or eight leaflets, and weak stems. The roots are fibrous and rather coarse. The plant has a tendency to grow throughout the summer, having ripe seed and blossoms on the stem at the same time. The plant seems to be adapted to all types of soil, preferably the clay loam, well drained.

Land for vetch should be plowed and prepared the same as for sowing wheat. Thorough disking may also make a good seed-bed, depending upon conditions. Vetch may also be sown in standing corn. The sowing is best done with a drill, sowing from forty to sixty pounds of seed per acre. The month of August is preferable for sowing, although early September sowing may also be satisfactory. After sowing, the crop will need no further attention. The plant starts growing early in the spring and makes rapid growth, and is ready to pasture or turn under by the middle of April, at which time the growth should be as much as twelve inches to eighteen inches in length.

Hairy vetch is probably better for green manuring than for any other purpose, although some farmers have had good results from pasturing it with hogs and cattle. However, some farmers have found that their animals do not relish the plant as a pasture. If rye is sown with the vetch it tends to hold the vetch up, and the crop may be cut for green feed at about the time the rye is beginning to head. It makes very good feed for dairy cattle.

In 1910 the Station obtained from a mixture of rye and vetch, green weight of six tons per acre, equivalent to about two and three-fourths tons of dry hay. In 1911 the yield was eight and one-fourth tons of green weight, equivalent to about three and one-half tons of cured hay. Vetch sowed alone this year made a green weight of nine and three-fourths tons per acre.

The vetch plant, like other legumes, has an abundance of nodules on its roots when the ground is well inoculated. In some cases the plant produces nodules the first time sown. In other cases the nodules do not appear and inoculation sems to be necessary. It seems wise to sow a small area for one or two years until inoculation is obtained and then use this soil to inoculate larger areas. The plant is so little grown that inoculated soil is not easily obtained, and in most cases it is probably not needed.

The Experiment Station in its work has noted two things concerning hairy vetch which seem to be against it. One is that it has a tendency to winter kill, some winters killing badly, other winters not very much. There is also a tendency for the plant to escape from cultivation and become a weed. As a weed it will do no harm except as it may appear in wheat fields where it will grow and mature with the wheat, and the seed being threshed cannot be easily separated from the wheat.

The Experiment Station believes that the crop merits further consideration by the farmers in the state and suggests that the beginner operate on a small scale until he is convinced that it is something that he wants.—M. L. Fisher, of Purdue University Agricultural Experiment Station.

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Economize on your grocery bills, but do it in the right way. Here is a chance to get just the same amount of food—or more, and just the same quality of food—or better, for less money than you have been paying. Our grocery department is complete in every particular. In every article we give full weight and full value. We make many articles ourselves so that we can be certain they will be pure. The prices we ask are really 50 per cent lower than those you have been paying the local dealer.

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Feed cookers, tank heaters, incubators and brooders and winter farm necessities we can sell you at a great saving. Select the books you want from the list. Send us the numbers of them.

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11 Grocery List	29 Circular and Drag Saws
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We know that our prices are lower than you would pay elsewhere for the same excellent quality of clothes we sell because we buy the clothes in great quantities. We get right down to the rock bottom prices at which clothes can be bought. Then we ask but a slight advance over these in the prices we ask you to pay.

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We know that we have the best cream separator on the market because ours was made especially for us. It combines all the good features of every cream separator and has many additional ones. It is because we are so sure of every detail of its construction, so sure of its lasting efficiency and durability, that we are able to guarantee it for a life-time. Buy your cream separator from the maker at one profit. We tell you all about our cream separator in the special catalogue (Book No. 21).

Men's Fur Coats and Heavy Winter Clothing Special

JUST OFF THE PRESS—Fur Coats for $13.65 and up. Fur gloves and caps, heavy mackinaw and sheepskin lined coats. This catalogue of special interest to all men who have to go out in cold weather. Our fur coat sales are about the largest of any house in America. This catalogue prices dog coats at $15.95 and up, raccoon at $48.50 and up, muskrat lined at $48.50 and up, lamb at $25.75 and up, coats for doctors, automobilists, lumbermen, farmers and liverymen. Also containing complete line of heavy underwear and outer clothing. Ask for book No. 18. You will find it interesting.

MONTGOMERY WARD & CO.

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Suggestions For Separator Users.

Prof. A. L. Haecker, famous dairy expert, gives the following suggestion for the users of cream separators:

1. Locate the separator on a solid foundation in a place free from dust.
2. For the best results, separate the milk as soon after milking as possible.
3. Cool the cream after it has been separated and feed the milk while it is warm.
4. Never put warm cream into old cream until the new has been cooled and stirred.
5. Cold milk will not separate as completely as warm milk.
6. Turn separator with a steady and uniform speed and flush down with skim milk or water at end of separation.
7. Wash all parts of separator at end of separation and scald, leaving in the open air to dry.

Price of New York Milk.

A shrinkage of slightly over 10 per cent. in the milk supply of New York City during the third week in August, coupled with a somewhat improved demand, made a shortage which seemed to warrant a little higher price. At a special meeting of the Milk Exchange it was decided to advance the rate to 3¼ cents net for all milk shipped in the 26-cent freight zone, making the cost delivered in this city $1.61 per can of forty quarts.—New York Produce Review and American Creamery.

Stepping Stones to Success.

Here are the seven stepping stones to dairy success: "1. Weed out the poor cows by means of the scales and Babcock test. 2. Feed the good cows a balanced ration. 3. Grow alfalfa and provide an abundance of silage. 4. Head the herd with the best sire obtainable. 5. Raise the heifer calves from the best cows. 6. Continue to weed, feed and breed. 7. Feed the mind of the man behind the cow."—Farm Magazine.

Some of the Congressmen who voted against the farmer ought to be left home next election day.

FARM AND RANCH LANDS.

ARKANSAS. — INVESTIGATE Bradley county, Arkansas; splendid agricultural, fruit lands; easy to cultivate; $10 to $20 acre; realize $25, $200 acre; free range, green vegetables each month; nice climate; a land of plenty; write us. **Norris & McKenney,** Hermitage, Ark.

ARKANSAS.—For Sale by Owner: 168 acres in heart of fruit belt of Arkansas. Under fence. 40 acres nine-year-old apple trees, best varieties. 35 acres woodland. 12 acres pasture. Rest in cultivation. Good four-room house; necessary outhouses. **J. N. Greene,** R. F. D. 1, Summers, Ark.

FREE Literature will be sent to anyone interested in the wonderful Sacramento Valley, the richest valley in the world. Unlimited opportunities. Thousands of acres available at right prices. The place for the man wanting a home in the finest climate on earth. No lands for sale; organized to give reliable information. Sacramento Valley Development Ass'n. SACRAMENTO. **California**

MAGNIFICENT FARM.

ILLINOIS.—A productive Illinois farm, 162 acres, near Crab Orchard, Williamson county, Illinois. Rolling land; every acre cleared and tillable; good, productive land. Good six-room house; large granite barn; granaries, etc. We can make especially attractive price on this farm. Easy terms. Write for full information. **Alfred Ricketts Realty Co.,** Leathe Building, St. Louis, Mo.

NEW MEXICO.—For Sale: 320 acres of good land; 200 acres broken; 40 acres alfalfa; good artesian well, big reservoir; $35 per acre, half cash, balance long time. This tract will advance in a few years to $100.00 per acre. **Independent Land Co.,** Dayton, N. M.

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

To Buy, Sell or Exchange Property address **Northwestern Business Agency, Minneapolis, Minn.**

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneaoplis, Minn.**

MISSISSIPPI.—Eight hundred acres of land in Mississippi for sale for $5,000. Payments half cash and balance reasonable time at 6 per cent. This land is situated in Tishomingo county, and consists of a square section, 640 acres, and 160 acres adjoining, being 800 acres in a solid body. The land commences a little over a mile east of the station of Holcut, on the Birmingham Branch of the Illinois Central Railway, about twenty miles south of Corinth. This land was cut over a long time ago; is as good soil as any in Northern Mississippi. It consists of ridges, hills and valleys, and every inch is available when cleared for cultivation. Wells can be dug anywhere. This land is in a good farm settlement and will make a fortune for any first-class farmer who can handle it himself, or it will support forty families of vegetable growers. Address the owner, **Philip H. Hale,** 3550 Vista Ave., St. Louis, Mo.

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Low Rates will be given On All Canadian Roads

Excursions are run daily and full particulars will be given on application to the following authorized Canadian Government Agent. The rates are made to apply to all who wish to take advantage of them for the purpose of inspecting the grain fields of Western Canada, and the wonderful opportunities there offered for those who wish to invest, and also those who wish to take up actual farm life. Apply at once to

CANADIAN GOVERNMENT AGENT,
125 W. 9th Street, - Kansas City, Mo.
C. J. BROUGHTON,
412 Merchants Loan & Trust Bldg., Chicago, Ill.

Dried Fruit at St. Louis.

There is a good market, ready sale and relatively high prices for merchantable stock; but it is useless and unprofitable to send in damp or wet, sour, dark, poorly pared or cored, etc.; dealers have resolved not to buy this stuff, as it is a violation of the pure-food laws. Quote: Evaporated ring apples at 8 to 9c. for poor to fair and 10c. for choice—fancy dry white more; chops at 1½ to 2c., and peelings, 2 to 2½c.; sun-dried apples at 6c.; sun-dried peaches at 6 to 6½c.; pears from 8c. for fancy evaporated peeled down to 2c. for inferior chopped. Some rather poor evaporated rings sold below 9c.; sun-dried apples firm; choice bright quarters salable at 6½c. All these figures are subject to change day by day.

Live Stock on the Street.

The following prices were paid on Third street, St. Louis, for calves and lambs shipped in by express, the quotations being dated September 1st: Light-weight (110 to 140 pounds) calves at 7½c. per pound; 150 to 165 pounds at 6½ to 7c.; and 170 pounds and over at 6c. per pound; rough, coarse and heretics at 4 to 5c. per pound. Sheep at 2 to 3c. per pound.; bucks at 2 to 2½c. Spring lambs of good weight and fat at 4½ to 5½c. per pound—inferior, thin, etc., 2 to 3c. per pound. Roasting pigs at $1.00 to $1.75 per head, 15 to 30 pounds.

Officers of the Apple Growers' Congress.

The meeting at St. Louis in August ended after an election of officers that resulted as follows: President, J. W. Stanton, Richview, Ill.; Vice-President, Louis Erb. Cedar Gap, Mo.; Secretary, T. C. Wilson, Columbia, Mo.; Treasurer, Wesley Greene, Des Moines, Ia.; Statistician, L. A. Goodman, Kansas City, Mo. These officers, together with the following, constitute the Executive Board: J. Mack Tanner, Springfield, Ill.; R. A. Simpson, Vincennes, Ind.; W. T. Flournoy, Marionville, Mo.; and U. T. Cox, Proctorville, O.

The place for the next convention will be decided later by the Executive Board.

John H. Osborne Dead.

From Auburn, N. Y., on August 16th, it was reported that John H. Osborne, last of the direct founders of the Osborne Works, International Harvester Company, had died in his 80th year.

Since the Harvester Company acquired the Osborne Works he has lived in retirement. He was a collector of etchings and engravings, but a fire that destroyed his home in 1904 wiped out the most valuable of what at one time had been pronounced the best private collection in this country.

Won Two Sets of Prizes.

Mr. James T. Boyd, of Rardin, Ill., won two second prizes at the Coles County Fair of 1911. These prizes were won with corn which he grew from seed furnished as a subscription premium by The National Farmer and Stock Grower. We furnished him one pound of white corn grown by L. B. Clore, of Indiana, and one pound of yellow corn grown by D. L. Pascal, of Iowa. He won two sets of prizes. One set was paid by the County Fair, and the other set paid by The National Farmer and Stock Grower.

Hay Sales at St. Louis.

The following hay report is based upon last sales made in the month of August. Sales on St. Louis Side: Part car no-grade old at $8.00; one car heavy clover-mixed at $12.50; one do. at $13; one car clover-mixed at $15.50, delivered to East Side; two cars No. 1 do. at $17; three do. at $17.50; one light clover-mixed at $18.50; two do. at $19. Timothy—One car common at $11; two cars threshed also at $11; one car scant No. 2 at $15; one car and part car do. at $16; part car No. 2 at $16.50; part car do. at $17; two cars do. at $18; one scant No. 1 at $18.50; one No. 1 at $19.50, delivered; one do. at $19.50, delivered; one do. at $20, delivered; one do. at $20.50; one do. at $21. Clover—Two cars No. 2 at $12.50; two do. at $13; three No. 1 at $15, two delivered; one do. at $16. Prairie—One car Arkansas at $8.50; one car No. 3 at $10; one car do. at $10.50; part car No. 3 at $11.50; one car do. at 12; one do. at $12.50; six No. 1 at $13, four delivered; six do. at $13.50; three do. at $14; two choice on p. t. Alfalfa—One car No. 2 at $15, r. c.; one scant No. 1 at $15.75.

On East Side: One car part common clover and part poor threshed timothy at $9.00 round; one car clover-mixed at $15.50, delivered to St. Louis. Timothy — Two cars threshed at $11; one car No. 4 at $14, delivered to St. Louis; three cars No. 3 at $16.50; one car good do. at $13, delivered to St. Louis; one car No. 1 at $19.

United States Market For Hay.

Eighty-six thousand tons of Canadian hay were sold in the United States last year. The American customs tax on this hay was $344,000. Under reciprocity this tax will be abolished.—Toronto (Canadian) Sun.

Cantaloupe Prices at St. Louis.

September 1st, 1911: Colorado Rocky Fords in jobbing way at $2.00 for standard, $1.50 for pony and $2.25 for jumbo crates, delivered; Missouri (express receipts) standard crates at $1.00 to $1.25, and flat crates at 60 to 70c.; home-grown wagon receipts Hackensacks and Gems at 25 to 50c. per bushel, according to quality.

Butter and Cheese at St. Louis.

On September 1st, in the wholesale trade of St. Louis: Creamery—Extra, 25c.; firsts, 21c.; seconds, 19c.; ladle-packed, 20c.; country make, in pails, at 16c. for average—inferior less. Cheese — On orders, per pound: Northern—Twins, 13¼c.; Singles, 13½c.; Longhorns, 14½c.; Daisies, 14¼c.; Young America, 15c.; Limburger, 13½c.. Swiss—No. 1 at 18c.; No. 2 at 11 to 13c.; broken, inferior or cracked at 6 to 7c. Brick, 14c.; No. 2, 9 to 11c.; off grades, 4 to 5c.

The Center of Population.

On August 31st, 1911, Director of the Census Durand announced the center of population of the United States to be in the western part of the city of Bloomington, Monroe county, Indiana. The migration of the center of population is explained by Director Durand as follows:

"The great increase in the population of New York, Pennsylvania and certain other states north of the thirty-ninth parallel has balanced the increase in Texas, Oklahoma, Indian Territory and Southern California. The greater advance toward the West is due to a large extent to the increase in population of the Pacific Coast States, their distance from the center giving them much greater weight than the populous states east of the center.

"For instance, San Francisco, Seattle, Portland and Sacramento, with a population of 906,016, have as great an influence on the center of population as Philadelphia, Boston and Baltimore, with a population of 2,778,078."

The total Western movement of the center of population since 1790 is 558 miles.

This year's Missouri State Fair will open at Sedalia on Saturday, September 30th, and continue until Friday, October 6th. Mr. J. T. Stinson, Sedalia, Mo., is Secretary. This great show improves every year.

The first Elgin butter quotation of September is 26 cents, against 31 cents a year ago.

THE LAND INTEREST.

Norris & McKenney, of Hermitage, Ark., are advertising valuable lands cheap in the fruit belt of Arkansas. Hermitage is in Bradley county, Southeast Arkansas, on the Rock Island Road, and accessible by other routes to first-class markets.

Last spring a Texas man bought a Pecos Valley orchard in New Mexico at a cost of $20,000; he took possession at the right time, and, the season being good, he sold the fruit on the trees for $22,500.00 cash. These things are possible in the artesian well and irrigation belt of the Southwest. Mr. J. T. Gillett, manager of the Independent Land Company at Dayton, N. M., on the Pecos Valley Railroad, north of Carlsbad, has several fine opportunities in sight, one of which is advertised on page 12 of this paper.

ALFALFA,

Shield Brand, 99½ Per Cent. Pure.

TIMOTHY, CLOVER, RED TOP,
BLUE GRASS, WINTER VETCH.

SHIELD BRAND PASTURE,

HARDY, PERMANENT
GRASS MIXTURE.

SEED WHEAT and RYE,

TURNIP SEED,
VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

Send For Golden Arrow Seed Catalogue.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

RESULTS: That is what you plant nursery stock for, isn't it? We propagate only off stock **known** to be the **genuine sort,** and of **individual merit.** Our free 48-page catalog describes our methods of doing business, has a chapter on spraying and other valuable information. **Send for it to-day.**

Hopedale Nurseries, Drawer S, Hopedale, Ill.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, **Profitable Dairying,** as a premium. Address,

HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

SPRAGUE'S Fly Bouncer

drives away flies, mosquitos and insects. No pest can live where this magic liquid is used. Heavy lasting, harmless, healing. Cows feed quietly all day and give one-third more milk. SPECIAL OFFER. If your dealer does not handle Fly Bouncer send $1 for a large sample and special sprayer. Particulars free. Write today.

W.B. McCloud & Co., 327 W. Kinzie St. Chicago

Buy Automobile Tires

Plain or Bailey Treads, for Clincher, Quick Detachable, or Dunlop Rims (Quick Service), from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

New Summary of Game Laws.

A comprehensive summary of the new game laws of the United States and Canada, including those enacted during the present year, is set forth in Farmers' Bulletin 470, United States Department of Agriculture, soon to be issued by Secretary Wilson. The bulletin brings the data relating to game up to date, and shows, by states, the new as well as the old laws, changes and modifications of all laws relating to shipment, sales, limits and licenses.

It is stated that while the 1911 laws exceeded in volume those of any previous year, that was due to changes in the warden service, control of license funds and to the curtailment of the bag limit rather than to modifying of seasons. Notable modifications in the warden system were made in Delaware, New York, North Dakota, Oregon and Wyoming. Other states also passed laws increasing the warden force. Montana created three; North Dakota two game preserves, while Idaho and Washington added one each to their preserves. Massachusetts and Oregon made permanent arrangements for the creating of future preserves. California, Maine, Massachusetts, Michigan, Missouri, New Jersey and Wisconsin passed laws permitting the possession and disposal of game reared in private preserves. North Carolina joined the lists of states prohibiting the exportation of live quail for restocking purposes. New York adopted legislation closing its markets to all but a few foreign species and game raised in captivity.

A novel feature of new legislation was the prohibiting of the belling of dogs or use of other noise-producing devices in wild-fowl shooting in Delaware and the prohibiting by North Dakota of the use of automobiles in duck hunting.

The deer season was shortened from eleven to six days in Colorado, and from 109 to 62 in California, but was lengthened in Michigan, South Carolina, Vermont and Wyoming. Cottontail and bush rabbits were placed on the game list and provided with a season in California. Wild ducks were added to the lists in Delaware and South Carolina. Delaware placed woodcock on the game list; Kansas, squirrels and snipe; Maine, eider ducks; Nebraska, kill-deers and doves; and New Jersey, Hungarian partridges. Much-needed protection was given gray and black squirrels by Kansas; wild ducks by Massachusetts; wood-ducks by Maine and Vermont; and doves and swans by North Dakota.

Rhode Island shortened its shore-bird season, opening October 15th instead of July 15th. Tennessee prohibited the sale of quail and robins. North Carolina revoked the authority of the Audubon Society to issue permits for the exportation of quail. Arkansas, Alabama, California, Colorado, Connecticut, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, West Virginia and Wisconsin, all made changes in these laws. The total number of new game laws passed in 1911 was about 250. The way to obtain a copy of Farmers' Bulletin No. 470 is to write to the Secretary of Agriculture, Washington, D. C., and ask for a copy. It will be sent free by mail.

Keep this paper and refer to the weather forecasts on page 26.

IF YOU HAVE

Cattle, Hogs or Sheep

TO MARKET

Or Are Thinking of Buying Feeders

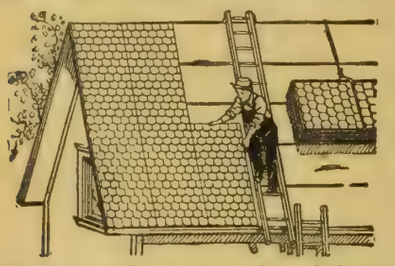
REMEMBER, THAT UPON YOUR CHOICE OF A COMMISSION FIRM MAY LARGELY DEPEND YOUR PROFITS. WE INVITE YOUR CONSIGNMENTS, WHETHER LARGE OR SMALL. WHETHER YOU ARE A FEEDER WHO SHIPS ONLY AN OCCASIONAL CARLOAD, OR A REGULAR SHIPPER, YOU MAY REST ASSURED OF FIRST-CLASS SERVICE AND HIGHEST MARKET VALUE. OUR FEEDER-BUYING SERVICE IS UNEXCELLED. SEND US YOUR ORDERS FOR ANYTHING YOU WANT IN THE LINE OF FEEDING CATTLE OR SHEEP AND SAVE MONEY AND WORRY.

CLAY, ROBINSON & CO.

LIVE STOCK COMMISSION

East St. Louis, East Buffalo, Chicago, Denver, Kansas City, Sioux City, South St Joseph, South St. Paul, Fort Worth, South Omaha

Free Roof Insurance Against Lightning



Edwards Interlocking "Reo" Steel Shingles

Write today for our Big Free Catalog No. 957, which gives full details about Edwards Interlocking "Reo" Steel Shingles and other metal roofing and materials made by us. It tells you all about the Ten Thousand Dollar Guaranty Bond, which insures every Edwards "Reo" Steel Shingle Roof against destruction by lightning for all time.

Edwards "Reo" Steel Shingles are made of high-grade Bessemer Steel in sheets 5 to 12 feet long and 24 inches wide. Either painted or galvanized steel and all ready to put on. You can easily put them on yourself. Only hammer and nails required.

We have a Special Cash Money-Making Proposition for the man who writes for it, in each community. If any of your buildings need roofing, you are the man.

Send dimensions of your buildings and we will quote you cost of an Edwards Roof—freight prepaid. Write for offer—NOW.

The Edwards Mfg. Co., 907-957 Lock St., Cincinnati, O.
Largest Manufacturers of Steel Roofing Material in the World (50)

The Plantation Mule.

An old colored man had a mule that would not move for him. He pulled and dragged the mule until he was exhausted, and finally he sat down and said: "Well, ole fellow, you's got de best ob me." There was a drug store across the street and a thought struck the old negro.He went across and said: "Has yo' got anything dat will make dat mule ob mine go?" "I don't know; I can try." He came out and pinched a little medicine into the mule's side. The mule commenced to wiggle around, and finally off he started over the side of the hill at a good pace. Sambo watched him for a moment or two and then he ran into the drug store, saying: "Mister, how much yo' charge for dat med'cine?" "Ten cents." "Has yo' any mo'?" "Yes." "Den jes put twenty cents' wuf inter me so I kin ketch dat mule."—Inglenook.

Utility and Waste of Fertility.

Since the human race came on the earth the waste of fertilizing materials has been enormous. Only a few nations, like the Chinese, seem to have awakened to the realization of the advantage of utilizing the waste materials of all kinds for retaining the fertility of their fields.

The more modern the city the more certainly are the excreta wasted. In the cities it is common for the people that keep horses to ask someone to come and take away the manure, as they have no use for it. But in addition, there are other notable wastes. Take, for instance, the wash water and the sink water, which in some cases goes into catch basins and thence into sewers and sometimes directly into the sewers. The amount of potassium contained in this water is something beyond calculation. Every person in the nation uses soap, and all soap contains potash. When it is dissolved in water it is ready to be seized upon by the roots of plants.

A few weeks ago a gentleman given to investigating things had his catch basin cleaned out and the water and sludge put into a big, shallow cavity in the garden. Before, this sludge had been buried out of sight in a deep hole, the people having the impression that the material was detrimental as a fertilizer and might kill the plants.

As a trial, cucumbers were planted around the sides of this shallow space filled with sludge, and at the same time cucumbers were planted under normal conditions in another part of the garden.

In a little while something appeared on the site of the sludge hole, but the leaves were so large that the owner concluded it must be a squash or a pumpkin, but the form of the leaf was like that of the leaf of a cucumber vine.

Soon blossoms appeared and then the fruit, which proved to be cucumbers. Good-sized cucumbers were being eaten from this patch around the sludge hole before any had formed on the vines growing under normal conditions.

The sludge in the catch basin came entirely from the wash water that came from the washing of clothes and from the washing of dishes. It was rich in several fertilizing elements, especially potash.

Yet everywhere in thickly-settled communities this great item of fertility goes to waste. A hundred million people in this country are daily helping to swell the great river of wash water running to waste. In addition to that is the sewage, rich in all kinds of fertilizing material.

Victor Hugo, in Les Miserables, wrote a chapter on sewage waste and linked it with the poverty of the European nations. His conclusions have never been denied. The principles of it hold good in every nation where civilization reigns. The problem of utilizing such wastes is one that civilization has not yet solved.

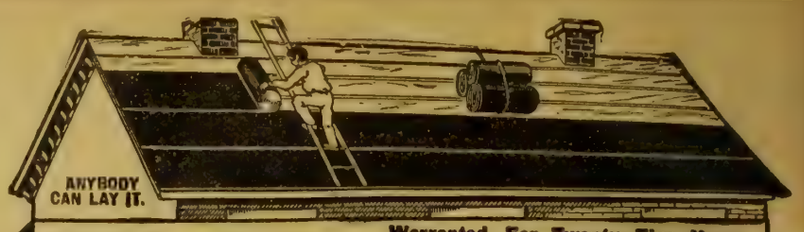
Sewage systems are being put in on the farms, and they should be so constructed that all fertility may be saved.

Questions About Fall Plowing.

A correspondent asks if it is a good thing to harrow fall plowing, and whether it is best to plow for wheat. I would not harrow fall plowing where the ground is intended for crop next spring. The soil will be left in much better condition for winter without harrowing or discing. It will not become so compact, and it makes a better seedbed for spring seeding. Much fall wheat is now sown on stubble ground. If this ground is tolerably clean, discing may answer every purpose, and really make a better seedbed than could be had from plowing. However, if plowing is necessary to get the ground in good condition, I would not plow over five inches deep. The important thing is to have a fine surface with a firm sub-surface.—L. C. Brown.

Postals For Advertisements.

My neighbor was showing me several interesting booklets and a couple of samples of goods in which she was interested. I made the remark that she kept abreast of the times, at least in the line of new devices and new manufactures. "I do it in this way," she replied. "I keep on hand a few postals, and as I go through my new magazines I glance over every advertisement. Many of the advertisers offer samples of the goods they manufacture or pamphlets and books of various natures—all to be had for the asking. When I come across something in which I am interested I write a card at once and in a few days am the recipient of the goods offered. In this way I have come in touch with many things of real merit that otherwise I might never have known anything about. I know that advertising pays, though in saying that I am not thinking of the advertiser but of myself who has been getting the benefit of the splendid offers made through these papers."—Janet Thomas Van Osdel.



Rubber Roofing

Warranted For Twenty-Five Years.
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 673, East St. Louis, Ills.

Egg-laying Information.

In the matter of egg-laying information the United States is far behind Australia. In the United States we are just beginning the A, B, C of egg-laying contests, and Australia can furnish much of the information we are going to acquire, having already conducted seven annual contests on the same grounds. Australia has conducted contests showing two-year egg-laying results by the same hens, and in a general way has answered more economic questions regarding egg laying than all the sources of information combined. Average eggs per hen per year, first contest, 130; average eggs per hen per year, seven contests, 162; average eggs per hen per year, last contest, 180. Highest average per hen of any contest, 180. Two-year records: First year—Eggs per hen per year, 180; second year, same hens, 124. Another contest: Average eggs per hen, first year, 179; second year, same hens, 127. Profit over feed cost the first year was two dollars to one in second year. White Leghorns cleaned up all other varieties in egg laying.

Fifty Dollars For a Gallon of Apples.

The Missouri State Board of Horticulture at Columbia, Mo., is offering a cash prize of $50.00 to the boy that will select and send in the best half peck of apples of any variety. The money will be given to pay the expenses of attending one term of the Short Course in the College of Agriculture at Columbia this fall. From the gallon of apples sent the committee in charge will pick out the best five specimens, enough to make up one plate.

The contest is open to all boys in Missouri between the ages of sixteen and twenty years who have never attended an Agricultural College or been connected with an Experiment Station. The apples may be taken from any orchard, but a paper must be written, setting forth why he chose the variety he did, and what treatment the trees have received in the way of cultivation, spraying, pruning, etc. Two neighbors must bear witness that the fruit was actually selected by the boy that sends it in.

The apples must be sent by prepaid express to Professor J. C. Whitten, Professor of Horticulture, Columbia, Mo., not later than October 15th. The prize will be awarded before the 20th. Fruit will be kept in cold storage, free, and later exhibited at Fruit Shows and Expositions which may be held by the Board of Horticulture. Each plate will be exhibited under the name and address of the owner, and all except the plate that won the scholarship will be eligible to any prize that may be offered. By this plan everyone is practically assured of winning a cash prize, even though he failed to land the scholarship.

The $50.00 prize will be sufficient to pay all necessary expenses of attending the first term of the Short Course, which opens November 1st and continues for eight weeks.

For full information about the Short Winter Course write to the College of Agriculture, Columbia,Mo.

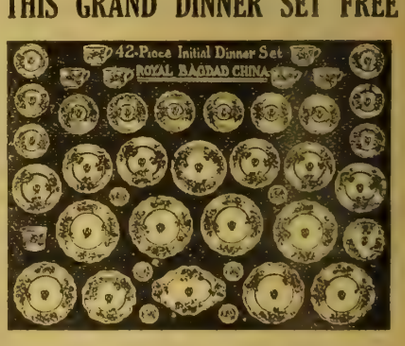
Fairs and Expositions.

In the year 1910 the Illinois State Fair cleared $30,000 as the profit of the Fair. It has since been expended for permanent improvements.

The recent Illinois Legislature gave the Board of Agriculture $125,000 for a sheep and swine pavilion, $75,000 for a mammoth horse barn and $15,000 for additional toilet facilities. The Illinois State Fair now represents an outlay of $1,105,803.00.

Every publication has a class number. See pages 18 and 19.

THIS GRAND DINNER SET FREE



I want to place a set of this high class Royal Bagdad china ware in every farm home in the country, and that too, without cost of a single penny to the recipient. This beautiful set comprises 42 pieces made up as follows: 6 cups 6 saucers, 6 dinner plates, 6 butter dishes 6 dessert dishes, 6 pie plates, 6 cake plates, 1 salad dish, 1 bread plate, 1 vegetable plate, 1 meat platter and 1 open sugar bowl. It is handsomely decorated in old rose and gold with your initial in gold on the large pieces of the set.

Drop me a card to-day, stating that you want a 42 piece dinner set, that is all you have to do at present. Upon receipt of your card I will send you at once 16 beautiful pictures, size 15 x 18 inches, lithographed in 12 harmonious colors, which I want you to distribute free to 16 of your friends and neighbors, who will give you an order for a years' subscription to my handsome monthly magazine, printed in colors and running monthly from 32 to 68 pages. Every one who sees a copy of this magazine will readily subscribe and especially so if they receive free one of these splendid pictures.

I am offering you an opportunity to get a beautiful set of dishes free, take advantage of it by writing for full particulars to-day. Address

J. R. WOLTZ, Publisher
Dept. D, 1322 So. Wabash Ave., Chicago, Ill.

Too Many or Too Few Trees.

The trees on a farm may be a good or an evil according to their kind, number and use. In the early days of the country war was made on trees because the trees were quite generally in possession of the land, and they had to be dispossessed before field and garden crops could be grown.

So, for centuries, the man that cut down a tree was considered a benefactor. But after awhile the people awoke to the fact that too many trees had been cut down. Then the movement gained headway for the reforesting of the land, and during the past forty years tree plantings have been so extensively made that on some farms they have become a detriment in certain places on the farm.

One man that has a poultry establishment was in the habit of growing rape in his poultry yards and considered it a great source of economical food for his flocks. But in the same poultry yard were permitted to grow two elm trees and a number of oaks. During recent years the development of these trees has been so great that no rape will grow in the poultry yard, and the fowls will have to get along without their rape pasture, much to the detriment of the fowls and the owner's pocketbook. Probably had he foreseen the effect of the trees he would not have permitted them to grow in the yard. But now they are so well established he has not the heart to cut them down, though they have no value except for looks. The same trees have so shaded part of the garden that it has become unproductive, as the sun reaches it only at high noon.

Many gardens are being rendered unproductive for the same reason—the growing of trees near them. A garden space must be clear enough of trees so that the sun of the whole day will be upon it from early morning till late afternoon. We cannot surround a garden with a wall of tall trees and get satisfactory results from the garden. This was a fact that the early settlers found out to their cost, but of which late generations have lost sight.

Recently the writer was in the vicinity of a newly-established park. A near-by resident was grumbling because the Park Commissioners had dug up a large number of trees. He very much objected to the removal of the trees, but was later consoled when he understood that they had been removed to let the slanting rays of the sun fall on a pond of beautiful and rare lilies that were the delight of the neighborhood. The lilies did not thrive while the trees intercepted so much of the light of the sun in the early forenoon and late afternoon.

Many gardens are partial failures for the same reason, and their owners do not mistrust it. The same is true in the gardens in the cities, where the plants get little sunlight on account of the high buildings all around them.

Trees are good things to have about, but there is such a thing as having too many of them in certain spots.

The Sanitary Privy.

Of great importance to human life is good health, which cannot be preserved if the sanitary conditions in and about living quarters are bad. Among the worst conditions to be found about any home is a soil that has become polluted. The Secretary of Agriculture has published a bulletin which treats of such soil pollution and certain simple plans for avoiding it.

Soil pollution by human excreta endangers the health of a family. It is possible by the expenditure of a few dollars for a sanitary privy to prevent this soil pollution, enabling the family to live, year after year, on the same premises, without endangering the members' health.

A number of widely-prevalent diseases have been spread by means of polluted soils, simply because the facts have not been widely known, and it is to bring needed information on this subject to the dwellers on all farms and residents of every village without a proper sewerage system, that Farmers' Bulletin 463 has been issued, and is now ready for distribution to anyone who makes application to either the Secretary of Agriculture, a Senator or Representative in Congress.

Full information, with illustrations, estimates of cost, and plans for constructing the sanitary outhouses, is contained in the pamphlet. Directions are given as to how to keep a privy sanitary and how to properly dispose of night soil.

In the United States about 400,000 persons suffer from and about 35,000 die from typhoid each year; over 2,000,000 persons have hookworm disease. Thousands of these deaths and many thousands of these cases of disease might be prevented by the use of sanitary privies.

Although there may be no soil pollution upon one's own premises, his children may be exposed to all the dangers at the schools which they attend, and the entire family may be so exposed when they attend church, unless these schools and churches are provided with these sanitary conveniences. Lack of sanitary privies on neighbors' farms may also be responsible for cases of typhoid and infections on farms which are provided with proper outhouses, because disease germs may be carried for considerable distances by flies, by animals, by the feet of persons, by wagon wheels and by drainage from one farm to another.

In view of these well-established facts, it is evident that among the highest duties that rest upon a farmer or dweller in a country village, is not only to have a sanitary privy on his own premises, but to insist that the pollution of soil be prevented throughout the entire neighborhood.

Be sure to write to the Hon. Secretary of Agriculture, Washington, D. C., and ask for Farmers' Bulletin No. 463.

Indicated Crop Yield.

The total production of the principal crops of the United States for 1911, as indicated by their condition on August 1st, reported by the United States Department of Agriculture, is as follows:

Crop.	1910.	1911.
Corn	3,125,968,000	2,620,221,400
Winter wheat	464,044,000	455,149,000
Spring wheat	231,399,000	209,645,700
All wheat	695,443,000	664,794,700
Oats	1,126,765,000	817,800,000
Barley	162,227,000	139,352,400
(a) Rye	33,039,000	30,677,000
Potatoes	338,811,000	249,893,000
Buckwheat	17,239,000	14,498,000
Tobacco	984,439,000	600,588,000
Flax (seed)	14,116,000	22,899,000
Rice	24,510,000	23,076,000
Hay	60,978,000	49,129,000

(a) Preliminary estimate of Crop Reporting Board. Corn, wheat, oats, barley, rye, potatoes, buckwheat and flax (seed) estimated in bushels; tobacco and rice in pounds; hay in tons.

How She Knew.

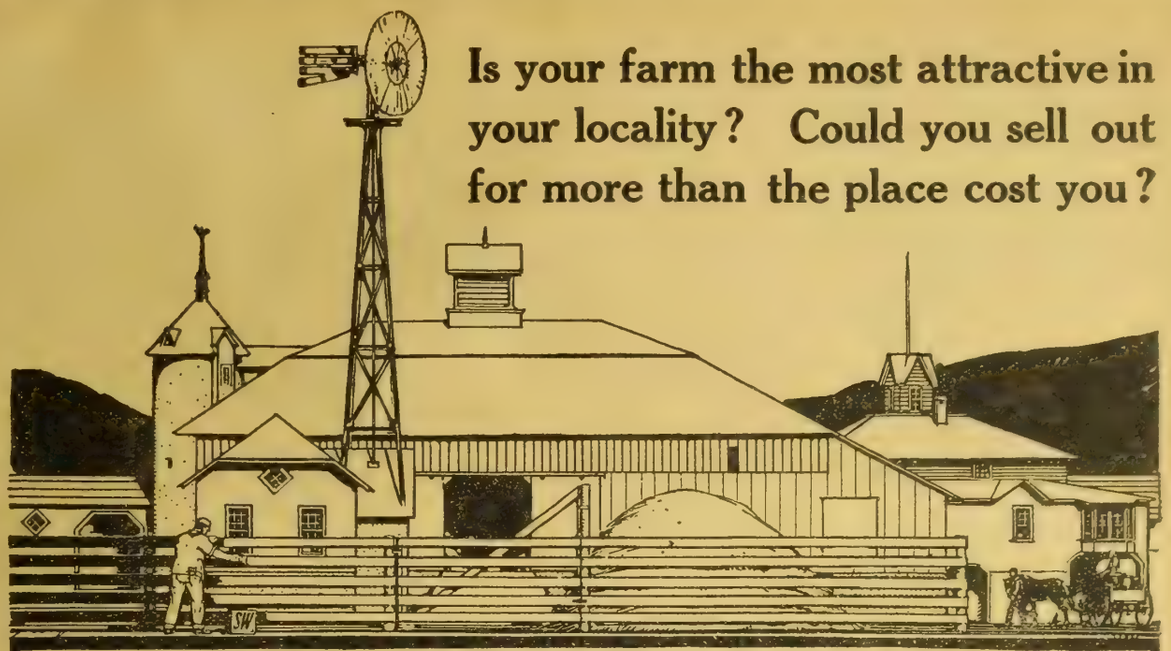
He—"You refuse me, then. Oh, well, there are others!'"

She—"I know there are. I accepted one of them this afternoon."—Boston Transcript.

Ice.

Ella—"Do I make myself plain?"

Stella—"Somebody has, if you haven't."—Judge.



Is your farm the most attractive in your locality? Could you sell out for more than the place cost you?

Sherwin-Williams Paint (Prepared) (S W P)
for buildings outside and inside—covers most, wears longest, looks best.

Sherwin-Williams Commonwealth Barn Red
made especially for painting barns, corn cribs, roofs, fences, etc.

Sherwin-Williams Inside Floor Paint
dries over night, wears well, stands scrubbing and foot wear.

Sherwin-Williams Wagon and Implement Paint
made especially for farm wagons, implements, tools, machinery, etc.

Sherwin-Williams Roof and Bridge Paint
for painting roofs, outbuildings, bridges, etc. Comes in four colors.

NOTHING runs down a farm so rapidly as the lack of paint. The longer your buildings are allowed to go without paint, the more paint it takes and the more time to apply it. Keep things painted and use good paint.

One name in the paint field stands for quality—The Sherwin-Williams Company—paint makers from start to finish.

You can get every kind of paint or varnish from a Sherwin-Williams dealer near you. You can get direct from us a most informing book, telling just what paint to buy for each particular surface and just how to apply it. This book is free, and it should be in the hands of every farmer. Write for it today.

Sherwin-Williams Buggy Paint
for painting and varnishing at one operation, buggies, automobiles, sleighs and other surfaces where a high gloss finish is desired.

Sherwin-Williams Paris Green
kills the bugs and does not blight the foliage. Send for booklet.

Sherwin-Williams New Process Arsenate of Lead
kills leaf-eating insects, grubs and moths. Send for booklet.

Sherwin-Williams Lime Sulfur
for the destruction of San Jose Scale and other sucking insects. Send for booklet.

Write today for these free books:
"Paints and Varnishes for the Farm"
"S-W Brighten-Up Booklet"
"Booklet on Insecticides."

COVER THE EARTH

SHERWIN-WILLIAMS PAINTS & VARNISHES

COVER THE EARTH

Sold by dealers everywhere. Ask for color cards. Address all inquiries to
The Sherwin-Williams Co., 689 Canal Road, N.W., Cleveland, O. In Canada, to 639 Centre St., Montreal.

Evans-Montague Commission Company

THE MEASURE OF SUCCESS
attained by a
SHIPPER OF LIVE STOCK
depends largely upon
THE COMMISSION HOUSE
to which he consigns his
CATTLE, HOGS AND SHEEP.

If you wish to receive
TRUSTWORTHY AND RELIABLE SERVICE,
and have your consignments
SOLD BY CAPABLE AND CONSCIENTIOUS SALESMEN,
you cannot do better
THAN PATRONIZE OUR HOUSE.

The Shippers' Interests
ARE OUR INTERESTS,
and our rapidly-increasing business
IS THE STRONGEST TESTIMONIAL
of our ability
TO PLEASE OUR CUSTOMERS.

Evans-Montague Commission Company

P. O. Box 68,
NATIONAL STOCK YARDS, ILL.

Sherwin-Williams Paints.

On page 15 will be found the advertisement of Sherwin-Williams Paints and Varnishes. They issue a booklet entitled "Paints and Varnishes for the farm." This booklet is a wonder; it gives instructions that you need in the business of painting implements, houses, vehicles, fences and outbuildings. In addition to helping you to use the right paints in an economical manner they will see that you are directed to the dealer who will furnish their guaranteed paints, and that is worth something, for country stores are full of trash in the disguise of paint that will not preserve the surface for thirty days after it is brushed on. The same firm furnish Paris green, arsenate of lead and lime-sulphur to kill insects in orchards, etc. Write for the paint book, anyway, and address Sherwin-Williams Company, 689 Canal Road, N. W., Cleveland, Ohio.

The American Royal Show.

Remember that this great show takes place October 9th to 14th at the Kansas City Stock Yards. It is always attended largely upon its merits, and this year the exhibits will be up to the usual standards and with improvements of greater interest.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid)

is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other. Doesn't imitate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes and tells you how to treat them. Covers over 200 veterinary subjects. 192 pages, 69 illustrations. Write for a free copy. (5)

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

English Prices For Hackneys.

Prices recently paid for Hackney breeding stock in England indicate unmistakably an abiding faith in the future of the high-stepping harness horse. At a sale held by R. P. Evans, a few weeks ago, thirty-four head, among which were old mares and sucking foals, brought $20,300, an average of $1,572. The average for and fillies the returns were $12,575, an average $1,572. The average for five head—two of them yearlings—by Polonius, was $1,043. Beckingham Lady Grace, a five-year-old daughter of Beckingham Squire, topped the sale at $8,000, though $4,750 was bid for the stallion Evanthus, on which a reserve price of $5,000 had been put. Broadhatch Sunflower, a yearling filly by Polonius, brought $1,300.

Dried Fruit at New York.

Evaporated apples continue quiet on the spot, with inferior grades quoted at 10¼ to 10½ cents in bags, and 10¾ to 11 cents in boxes. Prunes are steady on reports of firmer markets on the coast. Quotation ranges from 9 to 16¾ cents, f. o. b. Californias up to 30-40s, and nominal for Oregons. Apricots are dull and barely steady; choice, 15 to 15½ cents; extra choice, 16 to 16½ cents; fancy, 17 to 18 cents Peaches are dull and featureless; choice, 11 to 11½ cents; extra choice, 12 to 12¼ cents; fancy, 12½ cents. Raisins are quiet, with an easier undertone on evidences of more selling pressure from the West. Loose Muscatels are quoted at 6¼ to 7 cents; choice to fancy seeded, 8 to 9½ cents; seedless, 5¾ to 7 cents; London layers, $1.40 to $1.45. The above were the quotations at New York, September 1st.

Top Prices For Sheep.

At Chicago, during the week ending August 19th, the firm of Clay, Robinson & Co. secured a clean sweep on top prices for sheep. The sales follow: $7.25 per 100 pounds was obtained for Idaho lambs belonging to T. H. Gooding and Sewell Bros.; $5.50 was secured for Indiana yearling wethers belonging to Smith Trotter; they sold Idaho yearling wethers at $5.40 per 100 pounds for F. R. Gooding; $4.00 was landed for Oregon wethers for O. Moody and the Westfall Commission Company; Idaho ewes were sold at $3.50 for Sewell Bros. and F. R. Gooding, and Oregon ewes for F. Cummings. All these prices were the highest of the week.

The August Buermann Mfg. Co., of Newark, N. J., are manufacturers of saddlery hardware, and make a number of bits and spurs, including the famous Daisy Concha Bit, which is advertised in this issue. See page 17.

Pleased With Her Praise.

One of the most charming bits of repartee we ever were fortunate enough to listen to was at a big wedding on East Seventy-sixth street, last Monday night.

"What charming teeth Miss Dibbleton has!" a lady exclaimed. "I never saw anything so beautiful!"

"Oh, thank you so much for saying that!" exclaimed the young lady's escort, fervently and sincerely.

"Oh, pardon me—are you her husband?"

"No, my dear lady—I am only her dentist!"—Cleveland Plain Dealer.

Grass Heifers at $5.50.

On September 1st, at the St. Louis National Stock Yards, J. W. Burchfield, a live stock operator of Webster county, Missoui, was represented on the market with two cars of cattle. Among his sales were eleven heifers, averaging 709 pounds, that sold at $5.50 per 100 pounds. This price is about the highest on Southwest Missouri grass heifers this year and indicates that quality counts even on grass cattle.

POLAND-CHINA BOAR—MASTER KEEP ON, NO. 157,271. One of the herd boars at Kirby Stock Farms, Marmaduke, Ark. MASTER KEEP ON is by Master Meddler, by Meddler, 2d, the greatest sire of State Fair prize winners, at four years old, the hog world has ever known, and his sire, Meddler, junior champion at St. Louis World's Fair. The dam of MASTER KEEP ON is Keep Me, by the mighty Keep On, who was champion at Chicago International and the greatest brood sow sire that ever lived. In describing MASTER KEEP ON Mr. J. W. Kirby says: "As a breeder MASTER KEEP ON is simply a winner. He puts the finish on his pigs along with all the size possible and at the same time they carry with them that Keep On vim that is so necessary in the making of a good hog. We have bred and established a great herd of Poland-China sows that are noted throughout the South for the high quality of their pigs, and we are proud to note the improvement in our herd for the past few years." For prices on pigs address J. W. Kirby, Manager, Marmaduke, Ark.

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

HOLLAND, NUGENT & MAXWELL BROTHERS,
P. O., National Stock Yards, Ill.

Every farmer should make an effort to attend his own State Fair. It is always the foundation of a pleasant and profitable recollection, no matter what it costs.

St. Louis Live Stock Receipts.

At the St. Louis National Stock Yards, live stock recipts for eight months ending August, 1911, were 632,549 cattle, 1,974,556 hogs, 746,982 sheep and 115,430 horses and mules. Compared with the corresponding period last year, there is an increase of 568,857 hogs, 242,437 sheep and 44,211 horses and mules. The cattle receipts decreased 67,220 head.

Don't Have a Blind One "VISIO"

An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis

Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Before After

ABSORBINE

Cures Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Bolls, Sores, Wire Cuts, Bruises, Swellings, Lameness, and allays Pain quickly without Blistering, removing the hair, or laying the horse up. Pleasant to use. $2.00 per bottle, delivered. Describe your case for special instructions and Book 5 E free.

ABSORBINE, JR., liniment for mankind. For Strains, Painful, Knotted, Swollen Veins, Milk Leg, Gout. Price $1.00 per bottle at dealers or delivered.

W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.

KENDALL'S SPAVIN CURE

The one remedy you can always depend on to cure Spavin, Curb, Splint, Ringbone or any lameness. Thousands have proved it invaluable. Get a bottle from your druggist. Price per bottle $1. 6 for $5. "Treatise on the Horse" Free at druggist or from Dr. B. J. KENDALL CO., Enosburg Falls, Vt., U. S. A.

WESTERN
RANGE HORSE SALES.

Horse raisers are advised that sales are being conducted by

Campbell & Reid and Western Sale Stables Co.,
NATIONAL STOCK YARDS, ILL.,
As usual, during the season of 1911. The Eighth Sale will be held on

Thursday, Sept. 7th,

And every two weeks thereafter until the close of the season. The Ninth Sale will be held on

Thursday, Sept. 21st.

We will be glad to hear from Ranchmen having Horses for sale, also from buyers who wish to have splendid Horses to finish up for the domestic sale ring.

Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

The School of Horsemanship.

A remarkable example of the influence of advertising and of the possibilities offered to those who live on the free rural delivery routes was brought to notice by the event of the Second Annual Exhibition of the Beery School of Horsemanship held at Pleasant Hill, Ohio, August 6-12.

Over 5,000 people were in attendance. Fully 1,000 of these were students. These students,drawn, some of them, by the memories of last year's event, others by the desire to see the King of Horse Trainers put his theories into practice as taught them by his mail course, came practically from every state in the Union.

The little town of Pleasant Hill is located twenty-two miles out from Dayton, on the Dayton, Covington and Piqua Railroad. Some of the students were farmers, some of them riders, some were professional horse trainers, some were bronco busters from the ranches of the West. But all came with the one big purpose in view, which was to study the horse, to become acquainted with its various types and to learn how to master him and see him conquered at his worst in a safe, sane and humane manner by a master hand.

To furnish sufficient variety of subjects for this purpose, the exhibition was liberally patronized. These advertisements offered free handling for all such vicious and unruly horses as were entered. The result was a remarkable collection of animals. There were horses that were a menace to human life, who kicked, balked, bit and shied. In fact, the worse a horse was the more he was wanted, and the resulting aggregation of horse flesh did justice to the requirements of the occasion.

During the five days of the exhibition every performance had a thrill. The biggest thrill of all came when Prof. Beery subdued and drove the Wells' Outlaw. This Outlaw is a powerful stallion with a terrible record back of him. He is charged with killing three men, has severely wounded others, and came very near killing his present owner, Mr. Edward Wells, who, ever since his trying experience, has confined this wild and vicious animal in a strong box stall, making no further attempt to curb his viciousness.

This Outlaw was successfully handled and subdued by Prof. Beery in place of the ferocious Hinsdale, the man killer, that, after having been shipped 1,000 miles to Pleasant Hill, broke a blood vessel in a vicious plunge as he was being unloaded, and died in sight of the exhibition grounds.

Clay, Robinson & Co. at St. Louis.

A good way to make an acquaintance with a live stock commission firm is to write for market information, and the way to get it in the most satisfactory manner is to state what you are preparing to ship on the market, giving the number, breeding, age, average weight, quality, etc., and the probable time of shipment. Clay, Robinson & Co., live stock commission agents at St. Louis, make many friends by their advice to shippers. They came to St. Louis a few years ago and now in volume of business have passed all competitors except one or two. Any time you need market information in regard to stockers and feeders, hogs, sheep, calves and beef cattle, address Clay, Robinson & Co., National Stock Yards, Ill.

Horse and Mule Information.

Messrs. Holland, Nugent & Maxwell Bros. are the leading horse and mule commission salesmen at the largest horse and mule market in the world. Their auction days are Monday and Tuesday of each week. In their last circular Mr. T. H. Holland said: "I don't see any reason why we should not have a good trade right along. There is a good cotton crop and selling at good prices. The Southern people seem to have money to buy good mules. Eastern demand for big horses is as good as it has been any time this year. We have plenty of orders to fill and we have had plenty of buyers every week from the East as well as from the South. We are in position to take good care of our customers, if they will buy good, useful horses, something that we can safely put in to fill orders; but the common, plain stuff you will have to take your chances on." Horse and mule dealers who can put up car-load lots for sale at a first-class market will do well to communicate with Holland, Nugent & Maxwell Bros., National Stock Yards, Ill., and receive their weekly "Advice to Shippers."

The Price of Market Horses.

Horses are bought to be sold again, and all dealers are slow to quote prices. But horses are sold at auction and dealers can get a range of values by looking on. Plug horses and culls continue to sell at $15 to $45. At St. Louis the light horses are all called "Southern." Ten years ago they were selling at $40 to $85, with the tops at $90 to $100. At this time plain Southern horses are quoted at $50 to $75, and the better class at $80 to $125; then the stylish Southern horses bring from $130 to $165, these being better horses than used to go South years ago. Driving horses, so classed, sell at $150 to $225, when you reach meritorious animals here and there that will bring $230 to $275. The Eastern chunks are quoted in the market at $140 to $185, but when style and quality and weight come in the ordinary quotations are left behind. Draft horses are selling generally at $165 to $235, and here and there a matched team of full draft weight will bring $500 to $600.

Western Range Horses and Mules.

The sales of Western range horses and mules by Campbell & Reid and Western Sale Stables Company continue to be remarkably successful. At the last sale in August about 1,100 head were sold quickly at good prices. They were the pick of the Western country. Included in the sale were sixteen horses at $121 per head, twenty-six mares at $126, nineteen geldings at $100, nineteen mules at $151, twenty-one geldings at $75, a mixed lot of fourteen head at $59.50, ten inferior mares, etc., $25, twenty-five mares at $62.50, and a long string of other bunches. The September sales on the 7th and 21st will bring in draft geldings weighing 1,400 pounds, mares weighing 1,300 to 1,500 pounds, heavy draught two-year-olds and yearlings, pasture-raised, and gentle and unbraded, also loads of mules, from yearlings to four-year-olds, and several loads of good mares with mule colts.

For further particulars address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Mule Quotations at St. Louis.

A market that keeps on hand five or six thousand mules every day in the year must quote prices by the car-load. At the St. Louis National Stock Yards, 14-hand mules vary in price from $75 to $145; 14½ hands, $92.50 to $157.50; 15 hands, $117.50 to $192.50; 15½ hands, $135 to $225; and 16 hands or better, $150 to $275. Horse and mule receipts at the St. Louis National Stock Yards average about 15,000 a month.

A First-class Commission House.

In consigning live stock for sale at the St. Louis National Stock Yards, remember the Evans-Montague Live Stock Commission Company. It is a successful firm, highly competent and persevering in the interest of their customers. The Evans-Montague Commission Company solicit consignments of cattle, hogs and sheep for sale on the market, and desire stockmen to take notice that the company has special buyers who select and buy stock and feeding cattle for their customers. S. T. (Tom) Boothe, who has been on the market for fifteen years, is native cattle salesman. Colonel James H. Campbell is with this house as Vice-President, in charge of the Southern cattle department. His presence adds strength to the organization. The firm is equally well equipped to sell hogs and sheep. Stockmen requiring market information should address Evans-Montague Commission Company, Box 68, National Stock Yards, Ill.

Hog Prices at St. Louis.

At St. Louis, on August 31st, the best hogs, averaging 220 and 230 pounds, were sold at $7.55 per 100 pounds. The best hogs averaging 164 and 189 pounds sold at $7.60 per 100 pounds, and the best pigs, 150 to 159 pounds, sold at $7.50 per 100 pounds. The bulk of all the hogs sold at $7.30 to $7.50 per 100 pounds.

Too Little Ton.

Smiley—"That iceman down the street will have to change his name if he wishes to do any business."

Wiley—"Why? What's his mane?"

Smiley—"Littleton. Some people might not notice it, but I am afraid most folks would shy at a name like that on an ice-dealer's sign."—Chicago Record-Herald.

Wanted 50,000 MEN TO BUY The Patent "Daisy" Silver Concha Bit

Made of the Best Hand-Forged Steel. The handsomest all-around Cowboy Bit ever made. Each Bit bears a guarantee tag. Introductory price, $5.00. Sent prepaid on receipt of price.
AGENTS WANTED.
AUGUST BUERMANN MFG. CO.,
NEWARK, N. J.

Matador Star Cattle.

On Monday, August 28, at Chicago, Clay, Robinson & Co. sold twenty-six car-loads of beef steers for the Matador Land and Cattle Company. They were from the Cheyenne River Reservation, in South Dakota. There were 509 head in the shipment and they made a general average weight of 1,200 pounds, and sold at $6.35, $6.45 and $6.50, netting straight $70 per head. "I am certainly well pleased with the prices received for my cattle on Monday," remarked Murdo Mackenzie, General Manager of the Matador Company, with headquarters at Trinidad, Colo. "The prices were considerably higher than the Pacific coast buyers offered me before shipping to Chicago." Included in the above shipment was a Matador steer of 1,500 pounds weight, which sold at $7.25 per 100 pounds, grossing $115.27. This price was the highest of the season so far.

TOWER'S FISH BRAND REFLEX SLICKER

WEATHERS THE ROUGHEST WEATHER

On ordinary slickers, water finds its way in at the front. On the REFLEX Slicker our REFLEX edge (pat'd) guides every drop of water to the bottom of coat where it drops off

KEEPS YOU ABSOLUTELY DRY
$3.00 EVERYWHERE
SATISFACTION GUARANTEED
Ask your dealer to show you the REFLEX
A. J. TOWER CO., BOSTON
TOWER-CANADIAN LTD., TORONTO
G511

Native Beef Steer Prices.

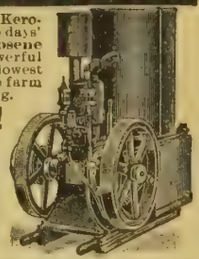
At the St. Louis National Stock Yards, choice to prime steers, 1,300 to 1,500 pounds, are quotable at $7.50 to $8.00 per 100 pounds. Good steers at $7.00 to $7.50, and fair to medium steers at $6.00 to $6.75. Light-weight steers, having quality and being strictly fat, sell close up to the heavier cattle and sometimes better.

Fine Live Stock Book Free!

Dr. David Roberts' Practical Home Veterinarian, 184 large pages, illustrated, is now Free to Live Stock Owners.
Gives symptoms, diseases and treatments for all live stock and poultry, the result of Dr. Roberts' life experience as veterinarian and live stock specialist. Apply at your drug store and get a copy free. If not there, send 10c in stamps for postage and we will send direct.
DR. DAVID ROBERTS VETERINARY COMPANY
90 Grand Avenue, Waukesha, Wis.

Use KEROSENE Engine FREE!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves **kerosene** cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing.



Gasoline Going Up!

Automobile owners are burning up so much gasoline that the world's supply is running short. Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline. No waste, no evaporation, no explosion from coal oil.

Amazing "DETROIT"

The "DETROIT" is the **only** engine that handles **coal oil** successfully, uses alcohol, gasoline and benzine, too. Starts without cranking. Basic patent—only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Complete engine tested just before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric-lighting plant. **Prices (stripped), $29.50 up.** Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate amazing, money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, we will allow you **Special Extra-Low Introductory** price. Write!

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Egg-laying Contest.

A world-wide egg-laying contest has been inaugurated by the North American, a newspaper published at Philadelphia, Pa., and the contest will be conducted at the Storrs Agricultural Experiment Station, not a great distance from Hartford, Conn. Why the North American went out of the densely-populated district surrounding Philadelphia to find a location for an egg-laying contest is not yet explained. The competition will start November 1st. Each entry is to consist of six pure-bred females, either hens or pullets; no males to be included. Five layers shall constitute a competing pen, the extra female being held in reserve as a substitute in case of death or incurable malady. The contest will last over a year, and the entries will be limited to 100 pens. All the fowls must be shipped to the contest grounds express prepaid. The express station is Eagleville, on the Central Vermont Railway, and is reached by the American Express.

Fowls will be received at any time from October 2d to October 25th. It is advised that shipment be made as early as possible after October 1st, in order that fowls may become acclimated previous to the date of opening.

The right is reserved to return fowls if they are deemed unsuitable for the purpose of the competition, and every specimen sent must be full-sized, healthy and vigorous. The right, of course, is reserved to refuse any and all entries.

An entrance fee of $25 is required in each case, $10 to accompany application and balance not later than October 1st. In the event of failure of entrants to make second payment, the first payment shall be forfeited.

All eggs produced will be retained for the purposes of this competition.

Should any surplus over and above the economical operation of the competition appear, such surplus will be equally divided between the several owners of pens.

All fowls entered must be of some recognized breed or variety. Mongrel or cross-bred fowls will not be accepted.

Any fowl suffering from an infectious or contagious disease of any kind, or which may not meet the requirements, as viewed by the committee, will be rejected and excluded from this competition.

The committee reserves the right to clip or cut the feathers of one wing on any fowl that may be inclined to fly out of the inclosures.

The competition to be decided by the total number of eggs laid by each pen.

No competitor shall be permitted to withdraw any of the fowls during the period of competition, unless permission is granted by full vote of the committee.

Chickens only will be eligible to this competition, and only such chickens as produce marketable eggs; ornamental chickens, including all bantams, are, therefore, ineligible.

Entries will be received from any point of the world.

The competition will be governed by the following Advisory Board:

Prof. F. H. Stoneburn, Storrs Agricultural College, Storrs, Conn.

Prof, Thomas F. McGrew, International Correspondence Schools, Scranton, Pa.

Prof. Homer Jackson, State College, Pa.

Dr. A. A. Brigham, South Dakota School of Agriculture, Brookings, South Dakota.

Dr. Prince T. Woods, Managing Editor American Poultry Journal, Chicago, Ill.

Dr. Nathan W. Sanborn, Editor American Poultry Advocate, Syracuse, N. Y.

Prof. F. C. Elford, McDonald College, Canada.

George A. McDevitt, The North American, Philadelphia, Pa.

F. V. L. Turner, The North American, Philadelphia, Pa.

The houses erected for the competition will be fitted with trap nests, five nests in each pen. This arrangement will guard against any failure to keep an accurate record of each hen, and will also provide against any tendency on the part of a hen to lay in the litter for lack of nest capacity.

There will probably be circulars issued, giving further particulars, and in the meantime a letter to any member of the Advisory Board will probably bring an answer. In the meantime other contests will be heard from.

To Increase the Product.

In a recent conversation in regard to the food supply of the United States and the necessity of increasing it to keep pace with the increase of population, Willet M.Hayes, Assistant Secretary of Agriculture, said:

"Already we have taken this matter up very seriously, and some remarkable results have been achieved. Indeed, the wealth of the world and the pleasure of living have been greatly augmented by the scientific improvement of plants and animals, though as yet only a start has been made toward accomplishing all that is possible in this direction.

"It is a question, primarily, of making an acre of land produce a maximum of output. Such output may take the form of grain or vegetables, or the acre may support animals or fowls that yield a larger amount of food for man. * * *

"The average hen lays 125 eggs in a twelve-month. It is too few. We want a hen that can be counted on to lay 200 eggs per annum, and we shall get her before very long. The Department of Agriculture is pursuing experiments which have for their object the production not only of a greater number of eggs per hen, but of larger and heavier eggs, of uniform color—this last being an important matter from a market point of view.

"Already there appears an occasional pullet which lays 240 or even 254 eggs a year, illustrating possibilities in this line. We want breeds of chickens which will do nearly, if not quite, as well. In 7,000 years, during which the fowl has been domesticated, the size of its eggs has been multiplied by four, through the simple process of picking out the biggest ones for hatching. We are going ahead with the same idea, systematically applied. But, not content with this, we are trying to improve the chicken itself as a market bird by increasing the weight of the flesh on its breast and thighs. The chickens of the future will have bigger drumsticks and more white meat than those of to-day."

Missouri Egg Laying.

We have previously mentioned the Missouri National Egg-laying Contest. It will be conducted at the Missouri State Poultry Experiment Station, in South Central Missouri, which is located at Mountain Grove. The contest will be under the direct charge of T. E. Quisenberry, Director of the Station, and the Missouri State Poultry Board, ably assisted by the Executive Board, consisting of Prof. F. S Jacoby, of the Kansas Agricultural College; Prof. W. A. Lippincott, of the Iowa Agricultural College; Prof. A. G. Phillips, of Purdue University, Indiana; Prof. D. O. Barto, of the Illinois Agricultural College; Prof. Jas. G. Halpin, of the Wisconsin Agricultural College; N. E. Chapman, of the Minnesota State Board of Agriculture; and R. C. Lawry, of the Yester-laid Egg Farm, Pacific, Mo. These men are among the leading poultry experts of this country, and they will have direct charge of the details, records, management, etc. Absolute fairness, impartial judgment and correct records are assured. The best birds will win.

The birds will be shipped to Mountain Grove in September and October, and the contest will begin November 1st and continue for one year.

As peviously stated, this contest is arousing much interest in all parts of the country.

There is a possibility that the same females competing in the first year of the contest may be continued for another year, thus determining their value as egg producers during their second year, as compared to the first. If this is done it will put this competition on the same status as the Australian contest, to which we have to look at present for data of this description.

Poultry Notes.

Rev. Edgar Warren, authority on poultry, says: "It is better to maintain health in the poultry yard than to have to expel disease."

Co-operation by farmers in egg selling is the first step towards getting away from the high cost of marketing. The unit of an egg shipment is a case of thirty dozen. It is not a difficult shipment to make up in any community.

In the course of a year there will be five hundred egg-laying contests in the United States of America.

Proof.

"Sir," said the astonished landlady to a traveler, who had sent his cup forward for the seventh time, "you must be very fond of coffee."

"Yes, madam, I am," he replied, "or I should never have drunk as much water to get a little."—Elmwood Courier.

THE BEST MAGAZINES

Also Farm Papers, Periodical Publications, All Offered at Club Rates by Club Numbers.

SUBSCRIPTION DEPARTMENT.

The publishers of The National Farmer and Stock Grower will receive and forward subscriptions to any publication in the United States. We take pleasure in doing so, thereby keeping our patrons in touch with the best literature. Our prices are absolutely the lowest. We do not solicit single subscriptions. We prefer our patrons to take advantage of the club rates as shown by class numbers.

Make Up Your Own Clubs.

All clubs are made up with class numbers. That is the simplest method of subscribing for publications. You obtain the lowest rate that is possible. The most wasteful method of buying papers is to buy them one at a time. For instance, the Saturday Evening Post is 5 cents a copy 52 times a year; which amounts to $2.60, and the subscription rate is $1.50, a saving of $1.10, or 22 copies out of 52. This agency is unable to make any reduction on the Saturday Evening Post, yet we use it as an example of economy in subscription work.

Class Numbers of Publications.

In looking over the class numbers of publications, please remember that from these numbers you obtain the clubbing price. Orders for single publications have nothing to do with class numbers. When you club several publications together you obtain the class rate. All you have to do is to add the class numbers of the papers you desire to subscribe for together, multiply by 5 cents and remit the amount.

CLUBBING EXAMPLE.

Class Number.		Regular (For One Year.) Price.
20	Metropolitan	$1.50
16	Delineator	1.00
22	World To-Day	1.50
58		$2.90, instead of $4.00

The class number total, 58, multiplied by 5 cents, is $2.90, and the regular price of the three papers is $4.00. The class price makes a saving of $1.10. Try your hand at it.

AGRICULTURAL PAPERS.

Class Number.			Full Price.	Our Price.
18	American	Agriculturist..W.	$1.00	$1.00
17	American	Bee Journal...M.	1.00	1.00
16	American	Cultivator.....W.	1.00	80
7	American	Farmer.....M.	40	35
19	American	Thresherman...M.	1.00	85
23	Breeders'	Gazette.....W.	1.75	1.75

(THE BREEDERS' GAZETTE is also called the American Stock Farm. It is a great publication, sometimes the first-named of all weekly farm papers. Being in Class 23, it is very cheap in club combinations.)

15	Colman's Rural World...W.	1.00	75
16	Connecticut Farmer.....W.	1.00	85
23	Country Gentleman.....W.	1.50	1.50

Class Number.			Full Price.	Our Price.
65	Country Life in America	S.M.	$4.00	$4.00
6	Farm and Home	S.M.	50	50

(FARM AND HOME is a remarkable semi-monthly publication at a low price, but it is very instructive and valuable. We recommend that it be included in every club.)

17	Farm and Ranch	W.	1.00	1.00
9	Farm and Fireside	S.M.	50	50
9	Farm Home	M.	50	45
17	Farm Journal, five years	M.	1.00	90
5	Farm News	M.	25	25
5	Farm Progress	S.M.	25	25
20	Farmers' Home Journal	W.	1.00	1.00
18	Farmers' Review	W.	1.00	90
9	Farmer's Voice	S.M.	50	45
15	Fruit Grower (St. Joe)	M.	1.00	75
7	Fruitman and Gardener	M.	50	40
22	Garden Magazine	M.	1.50	1.50
8	Green's Fruit Grower	M.	50	40
18	Hoard's Dairyman	W.	1.00	90
8	Home and Farm	S.M.	50	45

(HOME AND FARM, of Louisville, Ky., is published semi-monthly, and is a standard publication for Southern farmers. Added to any clubbing list it will cost but little and will surely please the subscriber.)

12	Indiana Farmer	W.	60	50
17	Inland Farmer	W.	1.00	85
16	Iowa Homestead	W.	1.00	85
15	Irrigation Age	M.	1.00	90
8	Journal of Agriculture	W.	50	45
15	Kansas Farmer	W.	1.00	85
30	Kentucky Stock Farm	W.	2.00	2.00
8	Kimball's Dairy Farmer	S.M.	50	40
18	Michigan Farmer	W.	1.00	90
8	Mo. and Kansas Farmer	M.	50	50
5	National Farmer and Stock Grower	M.	50	40

(THE NATIONAL FARMER AND STOCK GROWER is a splendid monthly publication, four columns to the page, 32 pages. It can be used at small expense to the advantage of all who are engaged in farming and stock raising. It is equally valuable in any state.)

18	New England Homestead	W.	1.00	1.00
13	Ohio Farmer	W.	75	75
7	Oklahoma Farm Journal	S.M.	50	40
18	Orange Judd Farmer	W.	1.00	1.00
35	Pacific Rural Press	W.	2.00	1.80
17	Practical Farmer	W.	1.00	90
36	Rocky Mountain Husbandman	W.	2.00	2.00
16	Rural Californian	M.	1.00	90
8	Rural Farmer	M.	50	50
7	Rural Life	M.	50	40
20	Rural New Yorker	W.	1.00	1.00
16	Southern Cultivator	S.M.	1.00	85
9	Southern Planter	M.	50	50
9	Southern Ruralist	S.M.	50	50
50	Suburban Life	M.	3.00	3.00
17	Tribune Farmer (N. Y.)	W.	1.00	1.00
18	TwentiethCenturyFarmer	W.	1.00	1.00
18	Wallace's Farmer	W.	1.00	1.00
13	Wisconsin Agriculturist	W.	75	75
15	Western Farmer	W.	1.00	90

ENGINEERING and MECHANICAL.

33	Am. Carpenter & Builder	M.	$2.00	$1.75
34	Am. Engineer & R.R. Jour.	M.	2.00	1.75
20	American Machinist	M.	1.00	1.00
77	American Machinist	W.	4.00	3.85
17	Blacksmith & Wheelw't.	M.	1.00	1.00
19	Building Age	M.	1.00	1.00
28	Cement Age	M.	1.50	1.40
37	Clay Worker	M.	2.00	1.85
28	Electric Journal	M.	1.50	1.40
57	Electric Railway Journal	W.	3.00	3.00
20	Electrical Age	M.	1.00	1.00
24	Electrician and Mechanic	M.	1.50	1.50
19	Engineering Review	M.	1.00	95
16	Gas Engine Magazine	M.	1.00	85
16	Gas Power	M.	1.00	80
34	Horseless Age	W.	2.00	1.75
14	Industrial Magazine	M.	1.00	85
37	Metal Worker	W.	2.00	2.00
16	Modern Electrics	M.	1.00	90
15	Modern Machinery	M.	1.00	90
9	Modern Methods	M.	50	50
22	Photo Era	M.	1.50	1.50
15	Popular Electricity	M.	1.00	1.00
28	Popular Mechanics	M.	1.50	1.50
68	Popular Science Magazine	M.	3.00	2.90
16	Practical Engineer	M.	1.00	1.00
45	Scientific American (new)	W.	3.00	2.75

(THE SCIENTIFIC AMERICAN has been for many years the foremost engineering and mechanical educator in the United States. In Class 45, in clubs of not less than three publications, it is brought within the bargain list.)

15	Stenographer	M.	1.00	90
22	Technical World Magazine	M.	1.50	1.50
52	Telephony	W.	3.00	3.00
18	Wood Worker	M.	1.50	90

FRUIT, NUTS and VEGETABLES.

8	American Fruit and Nut Journal	M.	$0.50	$0.50
37	California Fruit Grower	W.	2.00	1.85
15	Fruit Grower (St. Joe)	M.	1.00	75
18	Fruitman's Guide	M.	1.00	90
18	Fruit Trade Journal	W.	1.00	90
7	Fruitman and Gardener	M.	50	40
8	Green's Fruit Grower	M.	50	40
8	Nut Grower	M.	50	50
18	Orchard and Farm (Cal.)	M.	1.00	1.00
18	Pacific Fruit World	W.	1.00	1.00

JUVENILE PUBLICATIONS.

17	American Boy	M.	$1.00	$1.00
15	Boys' Magazine	M.	1.00	1.00
35	Boys' Own Paper	M.	1.80	1.80
9	Boys' World	M.	50	50
27	Cassell's Little Folks	M.	1.50	1.50
17	Children's Magazine	M.	1.00	1.00
26	Children's Star	M.	1.50	1.35
9	Girls' Companion	M.	50	50
34	Girls' Own Paper	M.	1.80	1.80
17	Little Folks	M.	1.00	1.00

Class Number.			Full Price.	Our Price.
35	St. Nicholas (new only)	M.	$3.00	$2.85
10	Young Idea	M.	50	50
35	Youth's Companion	W.	1.75	1.75

LIVE STOCK PUBLICATIONS.

17	American Bee Journal	M.	$1.00	$1.00
36	American Horse Breeder	W.	2.00	2.00
19	American Sheep Breeder	M.	1.00	1.00
18	American Swineherd	M.	50	40
50	Bit and Spur	M.	3.00	2.75
23	Breeders' Gazette	W.	1.75	1.75
17	Gleanings in BeeCulture	S.M.	1.00	90
18	Hoard's Dairyman	W.	1.00	90
18	Horse Gazette	W.	1.00	90
47	Horse Review	W.	2.50	2.35
35	Horse World	W.	2.00	1.75
35	Horseman and Spirit	W.	2.00	1.75

(THE HORSEMAN AND SPIRIT OF THE TIMES is issued weekly. The annual stallion number is almost worth the price of the year's subscription.)

30	Kentucky Stock Farm	W.	2.00	2.00
8	Kimball's Dairy Farmer	S.M.	50	40
15	Live Stock Journal	W.	1.00	90
5	National Farmer and Stock Grower	M.	50	40
85	Rider and Driver	W.	5.00	4.50
16	Spirit of the West	W.	1.00	80
35	Saddle and Horse Show Chronicle	W.	2.00	1.90
68	Sports of the Times	W.	4.00	3.50
37	Thoroughbred Record	W.	2.00	1.90
34	Western Horseman	W.	2.00	1.75

MONTHLY MAGAZINES.

27	Adventure	M.	1.50	1.40
22	Ainslee's Magazine	M.	1.80	1.50
22	American Magazine	M.	1.50	1.50
20	American Suburbs	M.	1.50	1.50
20	Argosy	M.	1.00	1.00
77	Atlantic Monthly	M.	4.00	4.00
16	Black Cat	M.	1.00	90
27	Blue Book	M.	1.50	1.50
48	Bookman	M.	2.50	2.50
20	Cavalier	M.	1.00	1.00
77	Century Magazine	M.	4.00	3.85
20	Columbian Magazine	M.	1.50	1.25
16	Cooking Club Magazine	M.	1.00	90
17	Cosmopolitan	M.	1.00	1.00
45	Current Literature	M.	3.00	2.50
22	Everybody's Magazine	M.	1.50	1.50
45	Forum	M.	2.50	2.50
35	Fra Magazine	M.	2.00	2.00
22	Hampton's Magazine	M.	1.50	1.50
20	Harper's Bazaar	M.	1.25	1.25

(HARPER'S BAZAAR is a stand-by. It solves every programme in life for the American woman. It is the chosen magazine of the best and most thoughtful class of women in this country.)

70	Harper's Magazine	M.	4.00	4.00
17	Human Life	M.	1.00	1.00
16	Judge's Library	M.	1.00	1.00
8	The Ladies' World	M.	50	50

(THE LADIES' WORLD, published at 50 cents a year, is a miracle of beauty, elegance and utility. It is ornamental, instructive, with colored covers.

35	Lippincott's Magazine	M.	2.50	2.25
22	McClure's Magazine	M.	1.50	1.25
20	Metropolitan Magazine	M.	1.50	1.25
20	Munsey's Magazine	M.	1.00	1.00
22	National Magazine	M.	1.50	1.25
28	New England Magazine	M.	1.50	1.50
70	North American Review	M.	4.00	4.00
28	Out West Magazine	M.	1.50	1.50
25	Overland Monthly	M.	1.50	1.25
20	Pacific Monthly	M.	1.50	1.25
22	Pearson's Magazine	M.	1.50	1.25
17	Philistine	M.	1.00	90
18	Pickings From Puck	M.	1.00	1.00
16	Pictorial Review	M.	1.00	90
16	Progress Magazine	M.	1.00	90
16	Railroad Men's Magazine	M.	1.00	90
27	Red Book	M.	1.50	1.40
40	Review of Reviews	M.	3.00	3.00

(REVIEW OF REVIEWS keeps the busy man and woman fully informed on the work of the world and condenses the matter into readable shape. It is a time-saver and probably the most valuable of all publications classed as magazines. We have it in Class 40, but it cannot be included in any class where the class total is less than 60.)

20	Scrap Book	M.	1.00	1.00
57	Scribner's Monthly	M.	3.00	3.00
25	Short Stories	M.	1.50	1.35
16	Sis Hopkins' Magazine	M.	1.00	90
40	Smart Set	M.	3.00	2.50
22	Smith's Magazine	M.	1.50	1.40
28	Strand Magazine	M.	1.50	1.50
19	Success Magazine	M.	1.00	1.00
22	Sunset Magazine	M.	1.50	1.25
22	Taylor-TrotwoodMagazine	M.	1.50	1.25
22	Technical World	M.	1.50	1.25
22	Travel Magazine	M.	1.50	1.25
15	Uncle Remus' Magazine	M.	1.00	90

(UNCLE REMUS' MAGAZINE is a delightful publication, especially for the South. It has some of the most attractive stories and instructive articles in print. In Class No. 15 is a low-price magazine, but that does not detract from the high quality of the publication.)

15	Vegetarian Magazine	M.	1.00	85
15	Watson's Magazine	M.	1.00	80
34	Wide World Magazine	M.	1.20	1.20
22	World To-day	M.	1.50	1.40
40	World's Work	M.	3.00	2.50
22	Young's Magazine	M.	1.50	1.35

MUSIC and DRAMATICAL.

65	Bill Board	W.	$4.00	$3.75
18	Choir Herald	M.	90	90
18	Choir Leader	M.	90	90
69	Dramatic Mirror	W.	4.00	3.50

Class Number.			Full Price.	Our Price.
69	Dramatic News	W.	$4.00	$3.50
22	Etude	W.	1.50	1.50

(THE ETUDE, for music lovers, contains each month twelve pieces of new music, with instructions and interesting reading for pianists, violinists, organists, children and clubs.)

18	Metronome	M.	1.00	90
32	Music Trade Review	M.	2.00	1.60
34	Musical America	W.	2.00	1.75
90	Musical Courier	W.	5.00	5.00
17	Musical Observer	M.	1.00	1.00
22	Musician	M.	1.50	1.50
65	New York Clipper	W.	4.00	3.50
29	Organist	B.M.	1.50	1.50
67	Standard and Vanity Fair	W.	4.00	3.40
60	Theatre Magazine	M.	3.50	3.25
24	Violinist	M.	1.50	1.35
9	Violin World	M.	50	45

POULTRY and PET STOCK PAPERS

8	American Poultry Advocate	M.	$0.50	$0.45
7	American Poultry Journal	M.	50	45
17	Cat Journal	M.	1.00	85
18	Dogdom	M.	1.00	90
8	Dog Fancier	M.	50	40
9	Farm Poultry	S.M.	50	45
8	Inland Poultry Journal	M.	50	45
9	Pet Stock Magazine	M.	50	45
16	Poultry	M.	1.00	90
8	Poultry Keeper	M.	50	45
8	Poultry Success	M.	50	45
8	Poultry World	M.	50	45
7	American Poultry Journal	M.	50	40

(THE AMERICAN POULTRY JOURNAL is a wonderful monthly publication. It is here for club raisers in Class 7. There is no equal to it in all the poultry books that are advertised at fancy prices.)

7	Standard, The	M.	50	40

SPORTING and RECREATION.

16	Amateur Sportsman	M.	$1.00	$0.90
86	American Field	W.	4.00	4.00
45	Am. Homes and Gardens	M.	3.00	2.75
35	American Sportsman	W.	2.00	1.75
50	Automobile	W.	3.00	2.75
35	Automobile Topics	W.	2.00	2.00
25	Baseball Magazine	M.	1.50	1.35
50	Bit and Spur	M.	3.00	3.00
65	Clipper, New York	W.	4.00	3.50
65	Country Life in America	S.M.	4.00	4.00

(COUNTRY LIFE IN AMERICA is issued twice a month and is the most beautiful and costly periodical issued in the United States. It appeals to every artistic instinct without detracting in the least from the productive possibilities of every acre of ground.)

30	Field and Fancy	W.	2.00	1.60
22	Field and Stream	W.	1.50	1.50
16	Fly	M.	1.00	1.00
45	Forest and Stream	W.	3.00	3.00
35	Golf	M.	2.00	1.75
35	Horseman and Spirit	M.	2.00	1.75
45	House and Garden	M.	3.00	3.00
19	Hunter, Trader, Trapper	M.	1.00	1.00
18	Journal of Outdoor Life	M.	1.00	90
47	Motor Age	W.	3.50	2.75
34	Motor Boat	S.M.	2.00	1.75
16	Motor Boating	M.	1.00	1.00
15	Motor Field	M.	1.00	90
15	Motor Print	M.	1.00	90
34	Motor World	W.	2.00	1.75
18	National Sportsman	M.	1.00	1.00
27	Outdoor Life	M.	1.50	1.35
27	Outers' Book	M.	1.50	1.35
47	Outing Magazine	M.	3.00	3.00
25	Physical Culture	M.	1.50	1.50
35	Recreation	M.	3.00	2.00
85	Rider and Driver	W.	5.00	4.50
60	Rudder	M.	3.00	3.00
22	Shields' Magazine	M.	1.50	1.35
38	Sporting Life	W.	2.00	2.00
34	Sporting News	W.	2.00	1.75
26	Sports Afield	M.	1.50	1.50
50	Suburban Life	M.	3.00	3.00
33	Trotter and Pacer	M.	2.00	1.75
28	Yachting	M.	2.00	2.00

WOMEN'S PUBLICATIONS.

18	American Motherhood	M.	$1.00	$1.00
15	Baby	M.	1.00	1.00
17	Boston Cooking School	M.	1.00	1.00
16	Cooking Club Magazine	M.	1.00	1.00
16	Delineator	M.	1.00	1.00

(THE DELINEATOR is a great, popular favorite. In Class 16 it is very moderate in cost and yet is the equal of any woman's publication. We take a great many subscriptions for THE DELINEATOR.)

12	Decorator	M.	75	75
17	Dressmaking At Home	M.	1.00	1.00
9	Everyday Housekeeping	M.	50	50
20	Good Housekeeping	M.	1.25	1.25
20	Harper's Bazaar	M.	1.25	1.25
16	Health	M.	1.00	1.00
12	Home Needlework	B.M.	75	75
45	House Beautiful	M.	3.00	3.00
16	Household Companion	M.	1.00	85
16	Housekeeper	M.	1.00	1.00
30	Ladies' Home Journal	M.	1.50	1.50
9	Ladies' World	M.	50	50
9	McCall's Magazine	M.	50	50
12	Modern Priscilla	M.	75	75

(MODERN PRISCILLA is high-grade in every respect. Devoted to art needlework, painting, brass work, pyrography, basketry, stenciling, etc. It is valuable and cheap.)

10	Mothers' Magazine	M.	50	50
9	New Idea Magazine	M.	50	50
17	Table Talk	M.	1.00	1.00
32	Toilettes	M.	2.00	1.60
70	Vogue	S.M.	4.00	4.00
15	Woman Beautiful	M.	1.00	80
22	Woman's Home Companion	M.	1.50	1.50

Class Number.			Full Price.	Our Price.
18	Woman's Nat. Daily, 6 Issues		$1.00	$1.00
76	Woman's Work	M.	1.00	1.00
75	Young Ladies' Journal	M.	4.00	3.75

WEEKLY NEWSPAPERS.

20	Arkansas Gazette	W.	$1.00	$1.00
17	Atlanta Constitution	T.W.	1.00	90
17	Atlanta Journal	S.W.	1.00	90
20	Baltimore American	S.W.	1.00	1.00
30	Boston Transcript	W.	1.50	1.50
19	Buffalo Courier	W.	1.00	1.00
18	Charleston News & C.	S.W.	1.00	90
8	Chattanooga News	W.	50	50
18	Chicago Evening Post	W.	1.00	1.00
15	Chicago Inter-Ocean	W.	1.00	80
17	Chicago Ledger	W.	1.00	1.00
30	Chicago Saturday Times	W.	2.00	1.60
15	Cincinnati Enquirer	W.	1.00	1.00
99	Collier's Weekly	W.	5.50	5.50
18	Dallas (Texas) News	S.W.	1.00	1.00
10	Denver Post	W.	50	50
19	Denver Republican	W.	1.00	1.00
19	Denver Times	W.	1.00	1.00
19	Detroit Courier	W.	1.00	90
18	Detroit Journal	S.W.	1.00	90
19	Duluth Herald	W.	1.00	1.00
45	Family Story Paper	W.	3.00	2.25
18	Fort Worth Record	S.W.	1.00	1.00
70	Harper's Weekly	W.	4.00	4.00
19	Houston Post	S.W.	1.00	1.00
35	Independent	W.	3.00	3.00
15	Jeffersonian (Watson's)	W.	1.00	1.00
90	Judge	W.	5.00	5.00
5	Kansas City Journal	W.	25	25
4	Kansas City Star	W.	25	25

(THE KANSAS CITY WEEKLY STAR is a splendid newspaper, fully equal to any of the higher-priced weekly publications. Added to any club it will produce a weekly visit to any home that will be worth double what it costs.)

80	Leslie's Weekly	W.	5.00	5.00
80	Library Journal	W.	4.00	4.00
90	Life (with picture)	W.	5.00	4.50
55	Literary Digest (new)	W.	3.00	3.00
18	Los Angeles Express	W.	1.00	1.00
17	Louisville Courier-Journal	W.	1.00	1.00

(THE LOUISVILLE COURIER-JOURNAL is a valuable publication for the homes in the Southern States. In addition to giving all the news, there are home departments and current literature.)

10	Memphis Com. Appeal	W.	50	50
9	Montgomery Advertiser	W.	50	50
10	Nashville American	W.	50	50
58	Nation	W.	3.00	3.00
18	New Orleans Picayune	S.W.	1.00	1.00
18	New York Tribune	W.	1.00	90
18	New York World	T.W.	1.00	90
9	Oklahoman	W.	50	50
10	Omaho World-Herald	S.W.	50	50
60	Outlook	W.	3.00	3.00
19	Pathfinder	W.	1.00	1.00
15	Pittsburg Dispatch	W.	1.00	1.00
19	Pittsburg Post	W.	1.00	1.00
90	Puck	W.	5.00	4.50
18	Richmond Times-Dispatch	W.	1.00	1.00
15	St. LouisGlobe-Democrat	S.W.	1.00	80
10	St. Louis Republic	S.W.	50	50
18	San Antonio Express	S.W.	1.00	90
18	San Francisco Call	W.	1.00	90
27	San Francisco Examiner	S.W.	1.50	1.50
30	Saturday Evening Post	W.	1.50	1.50
15	Sioux City Tribune	S.W.	1.00	90
20	Tacoma Ledger	W.	1.00	1.00
15	The Commoner	W.	1.00	90

(THE COMMONER, edited by William Jennings Bryan, is here in Class 15 and helps to make a very attractive club upon an economical basis.)

15	Toledo Blade	W.	1.00	80
19	World's Chronicle	W.	1.50	1.50

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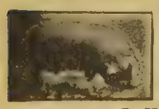

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D. F. BEAUCHAMP, Meredosia, Ill.

ELMER GIMLIN, Taylorville, Ill., White Wyandotte Specialist. Exclusive business. Duston strain. Stock, $2 each; 15 eggs, $1; $3 per 50; $5 per 100. Catalogue free.

PURE-BRED SHROPSHIRE SHEEP of good quality. First-class. Used to head flock. Good bone and well wooled. Ram now in use was imported from England.

Have some very fine lambs by him that have the size and are the kind to get some good stuff at the right price.

C. J. SMITH & SONS, Route 4, Greenville, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

PURE-BRED REGISTERED ANGORA GOATS

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at four State Fairs in 1909. Only made two exhibits in 1910, winning thirty-eight ribbons. Imported stock owned by me were winners at Royal show, London, England, 1907. Mature Sow will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds.

CHAS. FORD, Mortonsville, Woodford County, Kentucky.

DUROC-JERSEY SWINE. Have some good Fall Pigs of either sex. Prices reasonable. Sired by Wonder H., 84,797, and Belleville Col., 95,535. Address, **H. H. HOFMANN, Route 1, Belleville, Ill.**

100 Head of Pedigreed **DUROC RED SPRING PIGS** at $8.00 a head.

CHAS. DORR, Osage City, Kansas.

SCOTCH COLLIE PUPS.

Scotch Collie Pups, three months old; tricolor and sable and white; well marked and well bred. Males, $5; Females, $4. Pedigree furnished. **R. FLEMING, Cuba, Kansas.**

TOP CHESTER WHITE AND O. I. C. HOGS

with quality and finish from First-premium Hogs at Illinois and Iowa State Fairs. Fine circular free.

W. A. HINKLE, R. R. 7, - Decatur, Ill.

FIRST-CLASS CHESTER SWINE FOR SALE: 100 August and September Pigs — your choice for $10.00. We ship nothing but choice O. I. C. Pigs. Let us book your order.

ALVEY BROS., Meriden, Kansas.

Tamworths The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.

W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.

FOX HOUNDS.

BEST KENTUCKY STRAINS.

Price List Free.

J. D. STODGHILL, SHELBYVILLE, KY.

SUNSET JERSEY CATTLE HERD.

Three extra fancy registered Bull Calves for sale, out of three of the best Cows in my herd, and sired by Blue Belle's Golden Roseboy, 85,230, one of the greatest Bulls of the breed and half brother to Noble of Oaklands, just sold for $15,000.00. Write for price, breeding, etc. Satisfaction guaranteed.

ALBERT S. ENNIS, 712-21 Central National Bank Bldg., St. Louis.

HOGS! HOGS! For Sale: REGISTERED Poland-Chinas and English Berkshires. The best of breeding. For prices see and write

S. Y. BURKS, Bolivar, Mo.

WINWOOD HERD

PURE-BRED

LARGE YORKSHIRE SWINE.

THE BREAKFAST-BACON HOG.

Also produces finest quality of sweet, tender, juicy, fresh pork.

Hardy, Vigorous, Prolific, Kind.

Earliest to mature, and can be marketed in less than six months. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers.

Write for descriptive pamphlet.

T. C. KIMBER, Breeder, P. O., Pilot Knob, Mo.

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered, high-class and Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

Iowa-fed Wyoming Cattle.

On Wednesday, August 9th, at Chicago, a notable cattle sale was made by Clay, Robinson & Co.. The load consisted of seventeen Hereford steers, 1,454 pounds average, at $7.65 per 100 pounds. Up to then the price was the highest on the open market since November, 1910. They were fed and marketed by H. A. Leaders, of Minden, Ia. They were bought through the advice of Clay, Robinson & Co. as feeders. Fed about six months, they put on an average gain of around 480 pounds. Speaking of the sale, Mr. Leaders said: "The price was surely a great one, and I cannot express in words my appreciation of your good work with my first shipment to you." Mr. Leaders stated that he started these cattle on ground and ear corn, and timothy and clover hay, being kept on this feed for about two months. The corn ration was gradually changed from ear to shelled. They were fed corn on grass only about one month, then put in a dry feed lot. The ration consisted of shelled corn, alfalfa-molasses feed, with oil meal and nuts as a conditioner toward the latter part of the feeding period.

Struck by Lightning.

On page 30 there appears the advertisement of the Franklin Lightning Rod, which has stood the test for sixty-two years. This is a standard rod, and by addressing the inventor and manufacturers you can keep away from worthless imitations. Struck by lightning is now the common heading in country newspapers, a calamity which can be prevented if ordinary precautions are taken.

Hog Comparisons.

Combined receipts of hogs at eleven markets, the last week of August, totaled 318,000, or 44,000 less than the previous week, 20,000 more than the same week last year, and 2,000 more than the corresponding week two years ago. Grand average of corresponding weeks of the last eleven years, which ranged at 267,000 to 387,000, was 336,000, or 18,000 more than the present week. Total for 1911 to date, 16,359,999, or 3,644,000 more than the same time in 1910, and 791,000 more than like period in 1909, but 2,108,000 less than corresponding time in 1908. The four-year average figured 15,777,000, or 582,000 less than this year.

Don't Have Hog Diseases.

The government specialists and experimenters are still working on the cure of hog diseases, whereas the great thing for a farmer to do is to prevent them. To prevent hog diseases, a little inexpensive "Merry War Lye" will come pretty near filling the bill. Many of the best hog feeders do not use anything else. Read the testimonials on page 6 and write to E. Myers Lye Co., Dept 22, St. Louis, Mo., for a copy of the booklet "How to get the biggest profits from hog raising."

Cattle Being Exported.

From Chicago exporters sent abroad 1,273 cattle the last week in August, against 795 the week before, 948 a year ago, and 1,576 two years ago. Morris took 589; Swift, 324; S. & S., 314; and J. Shamberg, 46.

The Oklahoma State Fair opens September 26th and continues until October 7th. A total of $19,154 has been offered in premiums for cattle, horses, sheep, swine and poultry, to say nothing of $20,000 additional in the speed department.

Never Fail.

"Do you think women would improve politics?"

"Well," replied Mr. Growcher, "after listening to the conversation on the front porch, I'll say this for them: If they ever start an investigation they'll find out something." —Philadelphia Times.

Watch For Canadian Lambs.

Eighty-eight thousand Canadian lambs were sold in the United States last year and paid a duty of 75 cents per head on entering the American market. Sixteen thousand five hundred Canadian sheep were sold in the same market and these paid a tax of $1.50 per head. Just watch for the expansion of this trade when reciprocity sweeps present barriers away. —Toronto (Canadian) Sun.

"Labor to keep alive in your breast that little spark of celestial fire—conscience." — George Washington.

COUGHS

Are caused by germs in the throat or bronchial tubes. And the proper way to end it is to directly destroy those germs. Cough cures which by opiates merely drug the throat nerves have little curative effect. Frazier's Distemper Cure is absolutely pure and contains no narcotic drugs. "Frazier's" cures coughs among horses and colts because it kills germs. Its effects are so certain and so immediate that we guarantee it to give satisfaction or refund the money. Send for free booklet. $1.00 bottle holds three 50-cent bottles. Sold by druggists or prepaid from Binkley Medical Company, Dept. H, Nappanee, Ind.

WE SELL YOU AT WHOLESALE
Agents' Price One
AMERICAN
Motorcycle or Bicycle
We give 30 Days' Free Trial and Prepay the Freight. Write for our introducing offer and catalog and say whether you want Motorcycle or Bicycle. Do it now.
American Motor Cycle Co. F 319 American Bldg., Chicago

SUBSCRIPTION PREMIUM — A POCKET COMPASS.

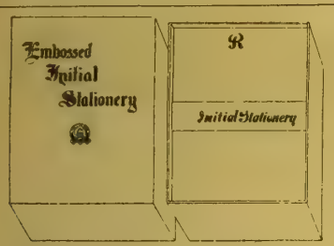
This is a true 1¾-inch Pocket Compass purchased from a reliable house. It is a fancy, nickel-plated, open-face, watch-shape Compass, with a silvered dial, and it weighs less than one ounce. Every farmer or ranchman should have one in his pocket. Send us One Dollar and we will send you The National Farmer and Stock Grower for one year, and we will also send you this Pocket Compass by mail postpaid. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

TAPE LINE — A SPLENDID SUBSCRIPTION PREMIUM.

This is a five-foot Tape Line in a nickel-plated German silver case, with smooth joint; a pocket piece. The tape is enameled linen, spring and stop wind; width of tape ¼ inch, graduated in inches and eighths on one side. The diameter of the case is 1¾ inches. Every farmer needs one and it will last for years. Send us Sixty Cents and we will mail you The National Farmer and Stock Grower for one year, and we will also forward, postage paid, one of these fine Tape Lines. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Universal Magazine Initial Stationery.

One of the most refined and elegant subscription premiums ever offered. A box of elegant white, cloth-finish embossed initial stationery sent free, postpaid, and safe delivery guaranteed. This is a splendid subscription premium offer in connection with the interesting publication entitled the Universal Magazine. The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the Universal Magazine for two years, and they can select their own initial for the stationery, and we will send it as a free premium postpaid. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Embossed Initial Stationery.

INTERNATIONAL HARVESTER CO. REPLIES.

The Facts Set Forth Regarding the Attack of the Unsigned and Misleading Townsend Report.

During the last month there have been widely-circulated certain statements regarding the International Harvester Company, all of which have their origin in a report made more than five years ago by Assistant District Attorney Townsend, after a brief and partial investigation.

The International Harvester Company has presented to the Stanley Committee, at Washington, a complete and vigorous answer, in which it is pointed out that the arguments and conclusions of the so-called "Townsend Report" are based upon clearly erroneous statements of well-known facts.

The "Townsend Report" claims that a monopoly in harvesting machinery has been created because the International owns the patents on all the best types of knotters.

The truth, as claimed by the International Harvester Company, is, that that there has been no patent whatever on the essential parts of any type of knotter since 1896, when the Appleby patent expired. Neither are there now any patents upon any essential part of the grain binder. The many basic patents had all expired in 1896, and there have been no substantial patented improvements since 1891—twenty years ago—while the life of a patent, as is well known, is only seventeen years. That there are no such patents is known to every manufacturer of harvesters, and is now emphasized by the fact that other manufacturers, including the Minnesota State Prison, have recently closely imitated the International models. The harvester business is therefore based upon manufacturing at least cost and selling at reasonable prices.

The Townsend Report charges that of all of the different types of harvesters purchased by the International, all except three—the "Deering," "McCormick" and Osborne"—have been abandoned, and that repairs are not furnished for any others. This statement is notoriously and absolutely untrue. Repairs for the "Minnie," "Buckeye" and "Keystone," although not manufactured for nearly ten years, have always been and are still furnished by the International. Although the Report states that the "Champion," "Plano" and "Milwaukee" binders and mowers have ceased to be manufactured, the truth is that they have been since 1902 continuously manufactured, and are still manufactured by the International and are generally sold throughout the United States. This is well known to the farmers and dealers of the country, and especially to us, who have advertised these repairs for former agents of the Buckeye Company.

The Report's charge of a "binder twine trust" is without any foundation whatsoever. The International is not only in constant and vigorous competition with the Plymouth Cordage Company and a half dozen or more other smaller twine manufacturers, but also with **seven state penitentiary twine mills.**

Since the International was organized, binder twine prices have steadily fallen, and the decrease between 1902 and 1911 amounts to 40 per cent.

The charge that the International has suppressed competition in harvesters, is likewise untrue. It has had continuously, and still has, the vigourous competition of the Johnston, Walter A. Wood, Acme and Adriance-Platt Companies in the binder trade, and several other in the mower trade. Recently two large manufacturers have entered the trade, while the Minnesota Prison factory compels free labor and private capital to compete with prison labor and public funds in the manufacture of harvesters and twine.

The Townsend Report repeats the story that binders are sold at a cheaper price abroad than at home. The United States Government's investigation, in 1909, proved that while the American farmer pays approximately $125.00 for a six-foot binder, in France this same machine costs $173.70; in Germany, $203.00; in Sweden, $160.80; and in Great Britain, $135.16.

In spite of the fact that materials had increased in cost more than 30 per cent., and wages more than 17 per cent., the International did not increase its price of binders until three years ago. And then an increase of only 7 per cent. was made. This, however, owing to some reductions in material, has been largely wiped out by an announced reduction of 5 per cent. for 1912, although the cost of labor has advanced more than 26 per cent.

The income of the International Harvester Company is about 8 per cent. upon the actual capital stock, and the company does business in one name with one trade-mark and without any disguises. No matter how large the business done by the company may be, it is entitled to be judged upon facts which are capable of proof by investigation.

SUBSCRIPTION METHODS.

What Class Numbers Will Do For the Subscriber.

Class numbers will save you money providing you understand them. In accepting subscriptions for newspapers and magazines the publishers usually receive single subscriptions at the full regular price, but they allow certain reductions providing clubs are made up. We make up a club every business day in the year and forward it to the Publishers' Clearing House, thereby securing the lowest rates. To understand the club class number system, you may take an example of three papers—Review of Reviews, $3.00 a year; Good Housekeeping, $1.25 a year; The Etude (musical paper), $1.50 a year—total, $5.75. Now we get Review of Reviews class number 40; Good Housekeeping class number, 20; The Etude class number, 22. Total class numbers, 82, multiplied by 5 cents, $4.10. Saving by class number club rates, $1.65. Every unit in a class number counts for 5 cents. On pages 18 and 19 we have listed every paper for which our patrons subscribed last year. The most expensive manner of buying publications is by single copies at the regular rate. The best way is to add up class numbers and remit the total amount, thereby getting the benefit of club rates.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the Intestinal tract with **mucoid and catarrhal accretions,** backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once. I would be pleased to send you the names of people who state they have been cured of various Stomach ailments and speaking the highest praise of this medicine. Just fill out the Coupon below—let me send you this wonderful treatment together with highly interesting literature, testimonials, etc. Don't suffer with agonizing pains—don't permit a dangerous surgical operation, which gives only temporary relief, when this medicine will permanently help you.

GEORGE H. MAYR, Mfg. Chemist
Mayr Building, 154-156 Whiting Street, Chicago
References:—Mercantile Agencies or State Bank of Chicago

***** Sign and Mail This Coupon To-day *****

Geo. H. Mayr, Mfg. Chemist, Mayr Bldg., 154-156 Whiting St., Chicago

Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy

Name.....

Address.....

City and State.....
Write Plainly

Express Office..... 76

You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to benefit.

Absolutely harmless. Guaranteed by the Pure Food and Drug Act, Serial No. 25793

A Delightful Noon-day Lunch.

One of the most palatable, and at the same time most healthful, noon-day lunches that can be eaten by anyone consists of Graham Crackers and milk.

The Graham Crackers baked by the National Biscuit Company have a delicious nut-like flavor entirely different from the old-fashioned Graham Crackers made in the crude old way.

All the natural sweetness and goodness of the wheat is preserved in the Graham Crackers baked by the National Biscuit Company, by modern and perfected scientific processes, which makes them particularly beneficial to the digestion as well as so pleasant in taste.

Graham Crackers and milk will be found to make a delightful delicacy, light, but sustaining, causing no heaviness or sleepiness, as rich and heavy foods do.

These Graham Crackers come in moisture- and dust-proof packages—thus retaining all their flavor, crispness and freshness—and are easily recognized by the well-known In-er-Seal Trade-Mark.

The Twice-a-Week ST. LOUIS REPUBLIC

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Democratic newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

The American Poultry Journal

Published at Chicago. The oldest, largest and best Poultry Journal in America. Beautifully illustrated. Issued on the first of each month.

Subscription Club.

SEND US ONE DOLLAR

and we will mail to your address

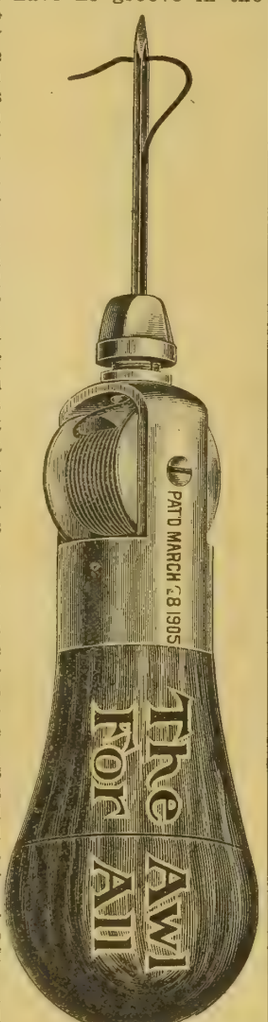
THE ST. LOUIS REPUBLIC TWICE-A-WEEK EDITION for one year.
THE NATIONAL FARMER AND STOCK GROWER for one year.
THE AMERICAN POULTRY JOURNAL for one year.

Address,
THE HALE PUBLISHING CO.,
3550 Vista Ave., - St. Louis, Mo.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screwdriver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.



Anyone who will send One Dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The Farmer's Wife.

Much has been said in recent years throughout the press about the farmer's wife, the prevailing sentiment being that she is much abused. Yet there are accounts which differ radically, statements almost diametrically opposite. Some maintain that she is worked constantly, milking cows and doing various other outdoor duties, while others are equally sure that her lot is of the very pleasantest, with all the conveniences and many of the luxuries of life.

Both are true, yet in different localities. With such a wide range of country, climate, productions and personal abilities and tastes, the picture of one farm wife must be wholly unlike that of many of her sisters. Even though the aspirations and energy are omnipresent, though each member of the family is considerate of her, life will vary greatly. This can be seen even in a single neighborhood.

Yet on the whole the condition of the farm wife is a vast improvement over that of a generation ago. There are labor-saving utensils, some of which are now within her reach, and these are helping her to obtain others. There is a good market for her poultry and dairy products, if not at her own door, she can make it in a neighboring city. The summer visitor finds value in the apples that once decayed in her yard because the pigs could not manage so many. Even the wayside weeds have in many places a commercial value for decorative purposes.

She is becoming more intelligent through contact with the best reading matter. She is finding that constant drudgery is not the mission of any woman; that it is hers to read the daily paper, to keep in touch with what the world is doing. For this reason she is younger than her mother was at the same age. She is growing more and more alert in finding out new and better ways of doing things; she is more self-reliant, more resourceful, and her life is more enjoyable.—Bessie L. Putnam.

Filling the Lunch Basket.

Once more the season rolls around when the school lunch basket is to be filled, and various are the components which find their way into it. Some seem to feel that an elaborate spread is a necessity, and unless pie, cake and cookies are ready for every day the duty of the cook is not fulfilled.

A simple lunch is much better for the child, though it should be nourishing. For the main part of the meal there is nothing so nice as the sandwich, and this may be varied every day in the week. Meats at this season are not always available, nor are they necessary. If pressed chicken or sliced ham is convenient once a week, most children will enjoy it. But there are plenty of other fillings to render the danger of monotony nil.

Peanut butter is now cheaper than dairy butter, and contains quite as much nutrition. Cut the slices of bread thin, and if the peanut butter is too dry to spread easily, even before the slice is cut from the loaf, moisten with cream or a little butter.

With all other fillings most children prefer to have the bread first buttered and then the other dressing spread on evenly. Lettuce leaves laid between slices of buttered bread, with or without a thin slice of cheese or a hard-boiled egg minced fine, with a touch of mayonnaise, are relished by many. Cottage cheese is delicious, and baked beans add to the variety, so that the menu for no two days need be exactly alike. When the nut season opens, run hickory or butternuts through the food chopper, using the finest cutter for nut butter and a coarser one if the product is to be put into bread or cake. Potato salad is a nourishing dish easily prepared. A baked sweet potato split in halves and buttered is one of the left-overs which almost any child will appreciate.

The Great MAJESTIC
Malleable and Charcoal Iron RANGE
Why It Should Be In Your Kitchen

Before deciding upon a range, the wise woman will examine closely into the superior points of merit of the *Great Majestic*—the range with a reputation, built on honor—of the best materials. Read some of them:

Outwears Three Ordinary Ranges

It is the only range made entirely of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break, and while the first cost of a *Great Majestic* may be more than others, *it outwears 3 ordinary ranges.*

Perfect Baker—Fuel Saver

The *Majestic* is put together with rivets (not bolts and stove putty) making it absolutely air tight, like an engine boiler. The joints and seams will remain air tight forever as neither expansion, nor contraction can affect or open them.

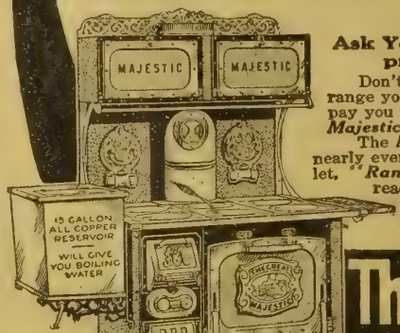
The oven is lined with guaranteed *pure asbestos board,* ¼ inch thick, covered with an iron grate—put there to stay—*you can see it.* No heat escapes, or cold air gets into the oven, thus with but half the fuel used in other ranges, you get an absolutely even, dependable baking heat.

All Copper Movable Reservoir

Heated like a tea kettle through copper pocket (stamped from one piece of copper) setting against left hand lining of fire box. Boils 15 gallons of water in a few moments and, by turning lever, the frame—and reservoir—moves away from fire. This feature is patented—found only on the *Majestic.*

Other Exclusive Features

All doors drop down and form perfect and rigid shelves. No springs anywhere to get out of fix. *Malleable oven racks* slide out automatically, holding anything they contain. *Open end ash pan*—no more shoveling ashes out of ash pit. *Ventilated ash pit* prevents floor from burning. *Ash cup* catches ashes that would otherwise fall on the floor. It's the best range at any price, and should be in YOUR kitchen.



Ask Your Dealer About The Greatest Improvement Ever Put In A Range

Don't buy any range "unsight, unseen"—what ever range you buy get it from a local dealer—and it will pay you to drive many miles to closely examine the *Majestic* before investing your money in any range. The *Majestic* is for sale by the best dealers in nearly every county in 40 states. Write for our booklet, *"Range Comparison."* Every farmer's wife should read it before buying any other range.

Majestic Mfg. Co., Dept. 131 St. Louis

Made In Four Other Patterns

The Range With A Reputation

The child who likes milk is fortunate if it can be supplied in plenty, a small bottle being the most convenient method of carrying it. It is wise to keep two bottles for this purpose, alternating daily, and thus rendering the process of sterilization complete, as it may not be in the rush morning and night if the same bottle is used. If the water at the school house is of a questionable nature, the thirst will be quenched with less if a bit of lemon juice without sugar is added; this also tends to counteract any tendency to malaria. Insist upon the individual drinking cup. A small tin cup will answer the purpose nicely. Mark it and insist that it be not loaned. There are too many diseases contracted by the public drinking cup, and public sentiment on this topic should be fully awakened.

For dessert a bit of fruit in its season is always pleasing, and much less work than the old-time pie. Aim to have something new occasionally. Oranges are cheap at some seasons, and it has been thoroughly demonstrated that they are cheaper and better than physic. Apples, raw or baked, pears, peaches, plums, are a few of the suggestions on the average farm. A small melon is also a safe dessert if eaten with salt, despite the columns of stuff dished up by the joke man. Rice pudding, baked custard, cereals well cooked and served with fruit, crackers or cookies, and canned fruit, are a few of the changes that may be rung. Keep one of the glass cans with tight-fitting cover, such as canned pickles come in, for carrying canned fruit and other desserts.

Plain cake or cookies may be used occasionally. A banana sliced and eaten with cream and sugar is another nourishing dessert that is easily prepared and not expensive. Of course, individual taste and the material at hand should enter largely into the question, but in the average farm home there may be variety, and that of a most nourishing sort, without great sacrifice of time or labor.—Bessie L. Putnam.

Got That Far.

She was very literary, and he was not.

He had spent a harrowing evening discussing authors of whom he knew nothing, and their books, of which he knew less.

Presently the maiden asked archly:

"Of course, you've read 'Romeo and Juliet?'

He floundered helplessly for a moment and then, having a brilliant thought, blurted out, happily:

"I've—I've read Romeo!"—Philadelphia Times.

Wise Johnny.

Teacher—"Now, Johnny, suppose I should borrow $100 from your father and should pay him $10 a month for ten months, how much would I then owe him?"

Johnny—"About $3.00 interest."—Boston Transcript.

Before and After.

He—"Were you ever in love before you met me?"

She—"Yes, but not since."—Boston Transcript.

Peculiarities of Pecan Growing.

If there is anything in the horticultural line more freakish than the pecan, I have yet to learn what it is. From the very time the seed is planted to the period of fruiting variations are going on all the time. The environments under which the trees are growing also have considerable influence in aiding improvement or deterioration. The principal change, however, takes place when the nuts are in the embryo stage of growth, for it is then that the future character of the tree is fixed, caused from cross-fertilization of the pollen from surrounding trees. This is what prevents us from getting choice seed nuts from planting, for nature knows only to reproduce.

In my seedling orchard of 1,000 trees (all from the one mother tree, San Saba, which is still growing healthy and vigorous in the midst of them) much is to be learned, for not one is a counterpart of the mother tree, although all are growing approximately under the same conditions. Some of these trees show distinctly her peculiarity of foliage, but the nuts proved to be entirely different, and when we find a tree whose nuts resemble nearest the mother type the foliage is not at all alike.

In fruiting qualities these seedling trees grade from almost barren to my Texas Prolific, the most precocious of anything yet found. The bark of some is thick and scaly, while on others it is thin and smooth. Then there are early and late bloomers; in fact, the deviation from the original is remarkable in many ways.

Now, can there be more proof that the pollen is the important factor? It becomes evident then that if we are to have our notions gratified, we must have a hand in the work; so with these facts in view, the pecan breeders of to-day are able to work with a greater degree of certainty than ever before.—By E. E. Risien, in Nut Grower.

Comfort and Looks.

A crowing, chubby little baby, clad as scantily as he can be and have any clothes on at all, and a crying, overdressed youngster of the same age are pictured on a poster prepared by City Health Commissioner George B. Young, of Chicago. The poster is entitled "Comfort and Looks." His object in preparing this is to bring home the truth forcibly to all classes of people, and especially to the class of mothers who cannot or do not read. He is preaching a gospel of perfect cleanliness, simple dressing, plain, wholesome eating and fresh air in unlimited quantities day and night. If the mothers of to-day put into practice the truths Mr. Young has so simply and forcibly illustrated, not only will the comfort of the babies of to-day be insured, but a solid basis of good health will be a certainty and the men and women of the future will have sound, strong bodies and clear, active brains. For in everything that we do to-day we build for to-morrow.

Emphasis is placed upon fresh air in abundance for the baby when he is awake and also when he is asleep. In warm weather he should live outdoors, waking and sleeping. He should have plenty of water to drink, but it should never be ice cold. He should have his daily bath, and in extremely warm weather a bath both morning and evening is suggested, the only precaution necessary being that it should not be given immediately after feeding. Simple clothing for hot weather is described as consisting of a clean cotton diaper, a gauze shirt and a cotton slip. Shoes and stockings, fancy beruffled skirts, stiffly-starched dresses, warm, tight-fitting bonnets with choking strings, are some of the fussy things to be avoided. Not bad advice, is it, mothers?—Janet Thomas Van Osdel.

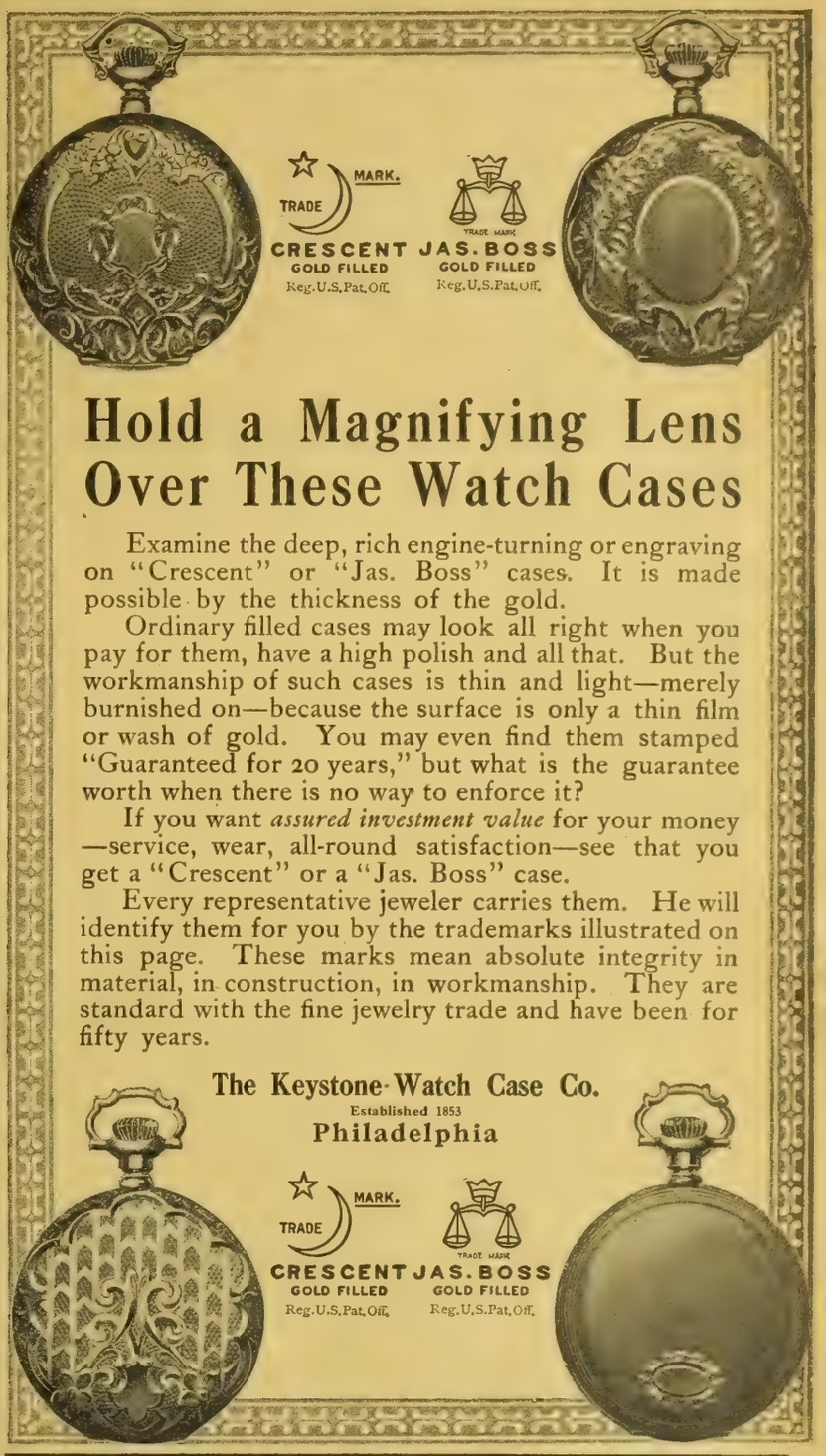
The "Two-faced" Woman.

She is a tall, dignified young woman of rather a striking appearance, and she makes friends readily. She is obliging to the extent of depriving herself in order to accommodate others. She has a fair education, is a good conversationalist, is a born mimic and quite witty. The natural conclusion would be the such a person must be a favorite and have hosts of friends. To a certain extent Miss T. F. is a favorite because she makes things lively wherever she goes. She makes a good first impression and new acquaintances are quite ready to be charmed with her and hope to see much of her. But there comes a day, and it is never very long in coming, when these new acquaintances and would-be friends are shocked to hear Miss T. F. tearing to pieces with her sharp tongue the very people with whom she has been most intimate. Not the least omission or the slightest commission escapes her; every tiny mannerism is called attention to by her; even the houses her friends live in, the food they eat, the clothes they wear come under discussion. And it does not take an extraordinarily bright person to realize that, since everyone else comes under the lash of that nimble tongue, there is not the least possibility that he alone will escape it. Consequently this young woman who possesses so many charms whereby she might please and which might win for her permanent friends among worth-while people is rather dreaded by people as soon as they come to know her. A second invitation to the best homes is seldom received by her.

One day, when she was bewailing the fact that she could not hold friends, a woman who was trying to be a real friend to her said: "Bess, you make friends readily and are altogether charming upon first acquaintance, but you do not wear well because your sharp tongue picks everyone to pieces and people learn to dread you. Mrs. Smith well knows if you talk about Mrs. Brown and Mrs. Jones and all the rest the minute their backs are turned, that you will talk about her, too, the first chance you get. Consequently she prefers that you know just as little about her as possible. Can you blame her? Why, even I know that you will talk about me to other people, for the habit is now so firmly fixed that you couldn't stop it at once if you would."

Miss T. F. turned pale with anger. People so dreaded her tongue that no one had dared speak to her in that manner for years. But she never stayed angry for very long at a time, and after a few moments of reflection she grasped her friend's hand and said: "I know that I have been two-faced, but I never realized quite how bad it was. Thank you. From now on I 'see no evil, hear no evil, speak no evil.' "

The woman had the hardest fight of her life before her. Again and again she found herself relapsing into the old habit, but she fought on. To-day the little unruly member is pretty well under her control, but there are dozens of people in her native town who still fight shy of her because they cannot know that a reformation has been effected.—Janet Thomas Van Osdel.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The Illinois State Fair of 1911 will open on Friday, September 29th, at Spingfield, and continue to and include Saturday, October 7th. The Secretary, Mr. J. K. Dickerson, has been very largely instrumental in keeping the Fair to the front.

Our Subscription Department.

This office will quote subscription prices upon any regular publication issued in the United States. We do business direct with the New York Publishers' Clearing House, and all our orders are filled on the day of arrival. All who wish to subscribe for periodicals, magazines or class publications should send their orders direct to the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo. See page 8.

A Home-made Skin Whitener.

The woman who is exposed to the sun and wind a great deal will find cucumber juice a very good skin whitener. It can be prepared at home during the cucumber season and bottled for use until another cucumber season arrives. The following recipe is a good one: Wash medium-sized cucumbers and cut them into small pieces, skin and all. Allow a tablespoonful of water to each cucumber, bring to a boil and cook slowly for five minutes. Bottle while boiling hot and seal tightly in bottles or fruit jars. Use this as a face wash before retiring, then rub a little cold cream into the skin. After a few momens wipe off the cream, using an upward motion in the wiping, as this tends to stimulate the circulation in the blood vessels of the face. This treatment keeps the skin white and clean; it opens the pores and prevents the formation of blackheads. — Janet Thomas Van Osdel.

Cheese is getting to be as much a factory product as shoes or stockings.

OFTEN IMITATED—NEVER DUPLICATED

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Two Silk Dresses Instead of ONE

Every time you decide to have a new Silk Dress you can have TWO instead of ONE — if you make it of Suesine Silk.

This is how you do it. Suesine Silk costs **but** 39c. a yard—or **less** than **half** the price **of** good China Silk. So for the price of a single dress of China Silk you can get **two of Suesine Silk.** Years ago when Suesine was first introduced, women of taste and discrimination bought Suesine Silk for a single dress, because they liked its value.

Today they are buying Suesine Silk again and again —not alone for one dress but for many—because they have proved for themselves by their months of trial that Suesine Silk is the **best** silk VALUE they can buy.

Go to your Dealer today and ask for Suesine Silk. See that the words

SUESINE SILK

are on every yard. Beware of accepting substitutes.

These substitutes are finished with glue, to make them glossy, and are weighted with tin and iron dust to give them "body." They look beautiful at first. A few months' wear will prove them worthless. Insist upon the genuine Suesine Silk with the name stamped along the edge.

We will send you absolutely free, forty-two samples of Suesine Silk —more than 255 square inches altogether.

We ask only, that, when writing for these free samples, you will mention the name of your regular dry goods dealer, and say whether he sells Suesine Silk or not. Please be sure to give that information in writing to us.

No matter where you live, it is easy to get genuine Suesine Silk

We do not sell Suesine Silk except through regular retail merchants. But if we cannot send you the name and address of a dealer in your vicinity who has Suesine Silk, we will see that your order is filled at the same price, and just as conveniently, by a reliable retail house, if you enclose color sample and price. 39c. per yard.

The price of Suesine Silk in CANADA is 50c. a yard.

Bedford Mills Desk 6

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The High-school Boys and Girls.

In very many homes all over the country are bright boys and girls who will this fall turn their backs on the rural schools to take up new and advanced work in high schools. They are looking forward with mingled delight and fear, for it is to be the entering of a new world to all of them. It is enough to make older people envy them as they eagerly discuss the possibilities of the coming term, for the enthusiasm of youth is a fine thing to possess. It nearly always happens that the country scholars in the town schools far outstrip the city boys and girls, but there are many good reasons for this. In the first place, the country children have had the best chances in regard to health; secondly, they are better fitted for hard work by the soil on the farm, and last, but not least, it is a case of the survival of the fittest. Only the best and brightest country children find their way to the high schools.

If the children are looking forward to the new life with mingled dread and anticipation, the fathers and mothers are also concerned with problems connected with the fitting. There are many things to be settled, many plans to be made and much speculation to be indulged in. No matter how ambitious parents are for their children, they always look forward to any change in the home life with uncertain feelings, and in many homes this is the first important change that has ever overtaken the family.

First of all, the question of where the boys and girls shall stay must be settled. If the home is within driving distance of a good high school, by all means provide the students with a safe horse, and let them come home every night until bitter weather sets in. The home nest is the safest even for trustworthy boys and girls, and for children inclined to be lively and fun-loving it is the only really safe place. Usually boys and girls are from thirteen to sixteen—a dangerous age —when they leave the country for the city schools, so it is well to safeguard them as far as possible.

But if coming home every night is out of the question, the next best thing is to place them in a relative's care or with some responsible person. Of course, they should not be kept like infants, but should know that certain restrictions would be imposed, just as if they were at home. A great many people consider the question of expense first of all, but that should come after the character of the home in which they are to be placed is settled. A refined, motherly woman can do a great deal with boys and girls away from home for the first time, and it is well to investigate before engaging board for the young students. In every town there are women who must eke out scanty incomes by taking a boarder or two, and many times country parents have made satisfactory arrangements by furnishing lard, flour, wood and such products in exchange for a home for the high-school students during the school term.

Clothes,. too, play an important part in the new life. By all means dress the boys and girls modestly and as well as you can afford, so they will not be handicapped by being awkward and out of place. It is just as easy to select a pretty brown dress, with hat and jacket to match, if brown is becoming to the young girl who is to enter high school, as it is to buy haphazard and send a self-conscious, shrinking girl away in a green dress, blue jacket and hat trimmed in red. Buy intelligently and stick to simple things. One well-made, pretty school dress is worth half a dozen flimsy silk waists and bright skirts. The boys should also be provided with neat suits. It is all very well to say a good student is above such considerations. Every person feels better and behaves better to be neatly and becomingly dressed, and children are especially sensitive about what they wear.

Not the least consideration is the kind of ideals you send with the boys and girls as they start in their new world. I have known parents to admonish their sons and daughters about their conduct toward "those stuck-up city people," and so prejudice them all the days of their lives. There are country boys and girls in every high school who are always "looking for trouble," simply because their parents have taught them that city people make fun of those in the country. Every word, every look, every sign and every laugh is directed at them, they think, and they are truly miserable unless common sense teaches them to overcome that feeling. There are city people with limited brain capacity who do make fun of country people, but they are not as numerous as some folks would have us think. Teach the boys and girls that truth, friendliness, honesty and common sense will win everywhere, and then let them make their own way unhampered by a lot of unfair ideas.—Mrs. Mary E. Underwood.

BEAUTIFUL PICTURE, ENTITLED "FAITHFUL FRIEND."

In cold, black ink it is impossible to describe the beauty of the picture entitled "FAITHFUL FRIEND." It is 21 inches wide and 28 inches high. It is a lithograph reprint in four colors of a famous oil painting. It is upon extra thick paper, almost as durable as canvas.

We are using "FAITHFUL FRIEND" as a souvenir premium for anyone who will send Twenty-five Cents to pay for six-months' subscription to The National Farmer and Stock Grower. This is our first offer of the subscription campaign, and it is likely to be the very best. Send Twenty-five Cents to the HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo., and we will send you The National Farmer and Stock Grower for six months and the picture "FAITHFUL FRIEND," safe delivery guaranteed.

A Poor Proposition.

Frank A. Munsey, the well-known publisher, is noted among his friends as a close reasoner.

A New York reporter submitted recently to Mr. Munsey a proposal for a new magazine on novel lines. Mr. Munsey proved in a closely-reasoned argument that this magazine would fail. Then, in conclusion, he said:

"Or, if the magazine did pay, it would pay so little that its publishers would be like an editor in the neighborhood of my native Mercer.

"Near Mercer, Maine, lived an editor who once printed in his weekly paper this editorial announcement:

" 'In view of the fact that we are unable to pay the road tax of $8.00 assessed against us, we have been sentenced to a period of confinement by the authorities. Consequently there will be no issue of this paper for the next month; but, as the state will have to board us, we figure that we shall come out some $15 ahead.' "—Washington Post.

The Canadian Farmer's Gain.

"One farmer, with 100 acres of land, tells me that free access to the American market would increase the value of his products by $500 a year. A milkman near Harrow says that he stands to gain, by reciprocity, $500 in milk alone."—A. H. Clarke, Canadian ex-M. P., at Erie Grange Picnic, reported by the Toronto Weekly Sun.

"Without tact you can learn nothing. Tact teaches you when to be silent. Inquirers who are always inquiring never learn anything."—Disraeli.

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To advertise our business, make new friends and introduce our great catalogue of Elgin Watches we will send this elegant watch to any address by mail post paid for **ONLY 95 CENTS.** Regular gentleman's size, open face, full nickel silver plated plain polished case, Arabic dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. In addition to the watch, and without any extra charge whatever we send five Midse. Certificates worth one dollar each when used as part payment on purchases from our catalogue. Send this advertisement to us with your name & address and 95c, and watch & certificates will be sent by return mail postpaid. Satisfaction guaranteed

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I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today.

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Box 27 Watertown, N. Y.

Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

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Menace of the Box Hive.

A swarm of bees issues from a hive in the apiary, and no frame hive being handy, the bees are hived in a box or keg. Or perhaps a stray swarm is found clustered on a bush or limb of a tree. The bees are captured in a box and taken home, and because of pressure of other business are left in the box, which they soon fill with comb, brood and honey. Doubtless some bees are kept in box hives because the owners think movable-frame hives are too expensive, judging that it is economy to use cheap boxes. These are the way the box hives come to be.

Box-hive bee keeping is profitless to the owner, as the honey has to be cut from the brood nest where it is mixed with pollen, young brood, soiled combs, etc. Box hives are a menace to all the bees in the community, as they cannot be inspected for disease without tearing the box and combs apart to examine the brood. If it is necessary to capture swarms in boxes in order to bring them home, they should be transferred to a movable-frame hive within a day or two. The frames must also contain a sheet or strip of comb foundation to insure the building of the combs straight in the frames. A frame hive in which the bees have built the combs crosswise of the hive is the worst kind of a box hive, for the hive is so securely nailed that opening is almost impossible.

As a measure for the eradication of American foul brood all colonies located in hives, boxes, kegs, gums or skeps the combs of which are not movable, must be transferred to movable-comb hives by July 1, 1912.

Box hives are the most fruitful sources of contagion to all bees in the community, and for the protection of the industry this notice with ample time in which to transfer the bees is given.—Wesley Foster, of Colorado, State Inspector of Bees.

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THE UNIVERSAL AMERICAN FLAG.

Every family should have an American flag from patriotic motives, and the good and lasting flags that are of extra material and fast colors are hard to get. We have a flag of nice, soft cloth, fast colors, 2½x4 feet, a splendid flag. We are assured by the manufacturers that it is the best flag made, and it surely is one that any of our readers will be glad to own. We have adopted the Universal American Flag as a subscription premium. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send the Universal American Flag postpaid as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

How Waggener Got Even.

One time Balie P. Waggener started for Denver in a private car over the Missouri Pacific. He was accompanied by a young lawyer connected with the Missouri Pacific law firm at Denver.

The first night out the young man borrowed $15 of Balie. Later on he got a check cashed at a railway station. Soon after that the train came to a halt out on the prairie. The porter rushed back to the private car and told the occupants that train robbers were going through the train. The young Denver lawyer handed Balie the $15 that he borrowed of him. A moment later the train robbers relieved Balie of the $15 and all the rest of his money.

Balie was quite sore on that Denver young man. He declared it was a scurvy trick to play on him. Yet Balie finally got even. He put in an expense bill to the Missouri Pacific for the trip in which he included this item:

"Held up by train robbers, $160. I was unable to secure a receipt for this expenditure."—Kansas City Journal.

Jack and the Cornstalk.

William Allen White, the Kansas writer, at a picnic in Emporia, was praising the fertility of his native state.

"It was a Kansas boy, you know," said Dr. White, "who tried to climb a cornstalk the other day to see how the corn was getting on. Unfortunately the stalk is growing faster than the boy can climb, and he is now out of sight.

"A lot of neighbors with axes have been trying to cut the stalk down, but it grows as fast they can't strike it twice in the same place.

"It was feared for a while that the boy would starve to death, but I am happy to say that over the private wire in my office we have got news to the effect that the little chap has already thrown down five bushels of cobs, whence one may infer that his diet, though monotonous, is adequate."—Los Angeles Times.

For Father.

"Would you mind tooting your factory whistle a little?"

"What for?"

"For my father over yonder in the park. He's a trifle deaf and he hasn't heard a robin this summer."—Kansas City Journal.

That Eternal Question.

Willie—"Pa!"

Pa—"Yes."

Willie—"Teacher says we're here to help others."

Pa—"Of course we are."

Willie—"Well, what are the others here for?"—Chicago News.

$1.00 a month
Buys this Machine
30 days free trial

We will sell you a high-grade, drop-head, Sew Easy Sewing Machine for $1.00 a month. We guarantee each machine for 25 years. We ship direct from the factory. We do not sell to stores and we have no agents. We can save you some money. You get the machine at once and use it while you are paying for it and it only costs you about 3 cents a day. We have many special features in our machine such as short needles which don't break easily. Our shuttles hold half again as much thread as the old spring tension shuttle. We can't tell all the good points in this advertisement, and we couldn't afford to send you a machine on the small dollar a month plan unless we gave big value and low prices. We want you to write us today, saying: "Please send me circulars and full particulars about your 'dollar a month' Sewing Machine offer." Write Today. Address

SHEFFIELD MFG. CO., Dept. 142 1421 Olive Street, St. Louis, Mo.

To Bring Them Up Well.

Nurse Girl—"Oh, ma'am, what shall I do? The twins have fallen down the well!"

Fond Parent—"Dear me! how annoying! Just go into the library and get the last number of The Modern Mother's Magazine; it contains an article on 'How to Bring Up Children.'"—Town Topics.

NITRATE OF SODA OF CHILE.

The Cheapest Nitrogen (Ammoniate) in the World.

It is of special interest to note the prevailing prices of the materials supplying nitrogen, commonly designated "Ammoniates" in the wholesale fertilizer market, and the very low cost of nitrate of soda is especially noteworthy.

All the sources of nitrogen except nitrate of soda are commanding unusually high prices. In the principal North American markets the leading materials which are used by fertilizer manufacturers have been for several months and are now quoted as follows:

Dried blood—$3.00 to $3.05 per unit.
Tankage—$2.70 per unit.
Sulphate of ammonia—$2.50 to $2.52½ per unit.
Nitrate of soda—$2.23.
A saving of from 11 per cent. to 27 per cent. by using nitrate of soda!

But when it is considered that nitrate of soda is completely and immediately available and that none of the others possess both these qualities, it is readily seen that nitrate of soda would cost the user still less. The following table, based upon the present quotations, and also upon relative availability, shows how very much less:

Dried blood (only 73 per cent. available), $4.11 to $4.18 per available unit.
Tankage (only 62 per cent. available), $4.35 per available unit.
Sulphate of ammonia (only 90 per cent. available), $2.77½ to $2.80½ per available unit.
Nitrate of soda (100 per cent. available), $2.23.
A saving of from 19½ per cent. to 48½ per cent. by using nitrate of soda!

Since the above quotations are for the leading materials used in making all so-called "complete" fertilizers, why not buy your ingredients separately and mix your fertilizer yourself? You will then know that you have secured the cheapest and best form of nitrogen, and satisfactory forms of the other elements.

The strong and deleterious acidity of sulphate of ammonia, which has of late been used so much by certain fertilizer manufacturers as a source of ammoniates, is an additional reason for avoiding the use of so-called "complete" goods, and buying nitrate of soda.

If the manufacturer has to pay so much for his ammoniates and uses those of acid character merely because he thinks the mechanical condition of his mixtures may be better, how can he sell you at right prices?

CHILEAN NITRATE PROPAGANDA
NITRATE OF SODA,
WILLIAM S. MYERS, D. Sc., F. C. S.,
Director, 17 Madison Ave., New York.

Spring Styles.

"Have you any ancestors, Mrs. Kelly?" asked Mrs. O'Brien.

"And phwat's ancistors?"

"Why, people you sphrung from."

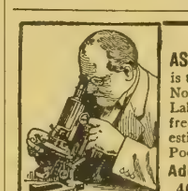
"Listen to me, Mrs. O'Brien," said Mrs. Kelly impressively. "Oi come from the rale sthock av Donahues that sphring from nobody. They sphring at thim."—Catholic Tribune.

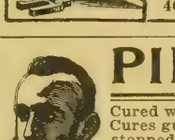
At the Illinois State Fair last year cash premiums for dairy cattle amounted to $7,128 and $5,995 for beef cattle.

5 Fine POST CARDS FREE

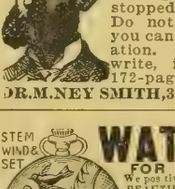
Send only 2c. stamp and receive 5 colored Gold and Embossed Cards FREE, to introduce post card offer. **Capital Card Co., Dept. 230, Topeka, Kan.**

TAPE-WORM Expelled alive in 60 minutes with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE. **DR. M. NEY SMITH, Specialist, Office, 302 N. 12th St., - ST. LOUIS, MO.**





FAULTY METABOLISM AS A COMMON CAUSE OF DISEASE, is the subject discussed in Bulletin No. 1 of the Shafer Pathological Laboratory. The Bulletin is sent free on request and will prove interesting to everyone in Pain and Poor Health. **Address: John F. Shafer, M. D. 406 Penn Ave., Pittsburg, Pa.**



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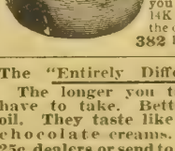
We positively give FREE a STEM WIND STEM SET, BEAUTIFULLY ENGRAVED, Plate WATCH, equal in appearance to Solid Gold Watch. American made, guaranteed 5 years, and a beautiful Ring, for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch, Ring and Chain. **WELLS MFG. CO., DEPT. 986, CHICAGO.**

BOYS VIOLIN FREE! We give this fine, sweet-toned violin, good white horse hair bow and box of resin for selling only dozen MOTTO PICTURES at 10c each. We trust you. Send for pictures today—When sold, send us $2 and Violin and Complete Outfit will be sent you promptly. Satisfaction guaranteed. **ALTON WATCH & MDSE. CO., Dept. 1408 Chicago, Ill.**



GOLD WEDDING RING FREE Send for 12 packages of our beautiful high grade gold embossed post cards to distribute at 10c pkg. Return us the $1.20 when collected and we will send you by return mail this very fine 14K gold filled heavy band ring not the cheap kind. Address, R. F. ROSS & CO., **382 Household Bldg., Topeka, Kans.**

The "Entirely Different" Candy Laxative. The longer you take them, the less you have to take. Better than salts or castor oil. They taste like chocolate creams. 25c. dealers, or send to **PARAGONS** Paragon Chemical Co., G 5, Galesburg, Ill.

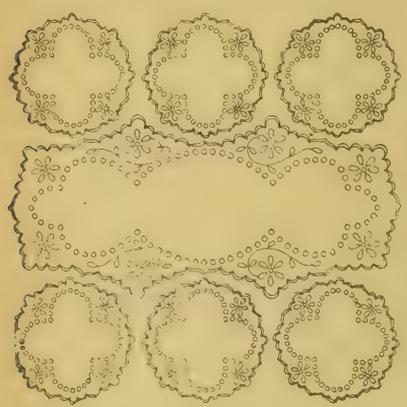
UNIVERSAL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated below shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us Thirty Cents and we will send you this dainty set for a short



time only, absolutely safe delivery guaranteed, and the Universal Magazine for one year. The Universal Magazine is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns, and has a number of original household articles. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis Mo.**

About Practical Range Economy.

In these days when everyone is feeling the high cost of food, it is remarkable how many sensible, practical, economical housewives fail to practice economy in the right spots.

For instance: So many housewives continue month after month, year after year, trying to get good results out of the old cook stove or range—one that uses up twice as much fuel as is necessary to attain the best results—and then imagine they are practicing economy merely because they save, for the moment, the price of a new range.

Is that real, practical economy or good management?

It don't take much figuring to work out the correct answer—to demonstrate fully that it is a false standard of economy that permits the burning up of the price of a new range every little while in wasted fuel burned in an old, worn-out cook stove or range that was put together with stove bolts and putty and from which the putty has dried up and crumbled away, leaving open seams all over it through which one can insert a table knife anywhere.

In addition to this waste, there is a constant waste of high-priced food which hasn't had a square deal from the old, worn-out stove in a long time.

The practice of real range economy begins with a visit to the nearest local dealer and a careful investigation of the superior merits of the Great MAJESTIC Malleable and Charcoal Iron Range—it is indeed a "Range with a Reputation"—it is a perfect baker at all times.

The body of the Great MAJESTIC is made of Charcoal Iron, which gives it wearing qualities that will outlast three ordinary ranges. All top doors and frames are made of Malleable Iron—they won't break, crack or rust. Malleable Iron is absolutely necessary for perfectly air-tight joints, and on the MAJESTIC Range all joints are riveted perfectly air-tight—no heat escapes—no cold air can enter—it is also completely lined with pure asbestos—thus the oven can be heated quickly with about half the fuel used in the ordinary range.

The Great MAJESTIC has a 15-gallon all-copper reservoir which touches the fire, giving boiling hot water in a very few minutes.

The Great MAJESTIC contains the greatest improvement ever put into a range, making it 300 per cent. stronger where most ranges are weakest.

The Great and Grand MAJESTIC is justly called "The Range with a Reputation," because it has a reputation of a reliable manufacturer behind it and because there are hundreds of thousands MAJESTIC Ranges in use all over the country, each one of which is giving perfect satisfaction; some have been in constant use for more than 25 years and still give excellent results.

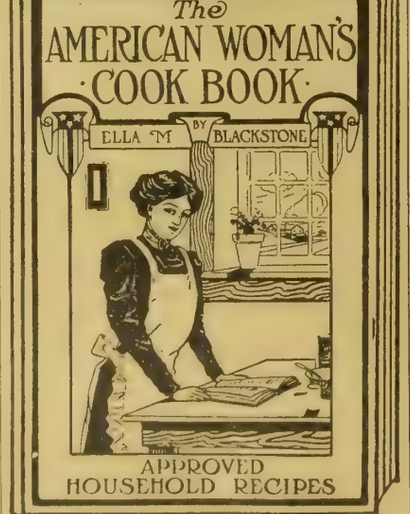
MAJESTIC Ranges are for sale in nearly every county in 40 states. If your dealer doesn't handle them you will do well to write the Majestic Manufacturing Company of St. Louis, Missouri, for their interesting booklet, "The Story of Majestic Glory;" it is well worth reading. At the same time they will tell you where you can see and examine the MAJESTIC and settle the range question. Address, Majestic Range Company, Dept. 131, St. Louis, Mo.

THE BEST COOK BOOK.

The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.

The American Woman's Cook



Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.

The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar, and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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You Can Get Your Own Clothes At Inside Price to advertise us. Write today and receive exclusive territory. If not interested show it to your friends as this is too good a thing to miss. The biggest chance to make money.

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We use the Union Label on all our garments.

WEATHER FORECASTS

For the Month of October, 1911, by the Famous Prognosticator, Prof. W. Wadsworth Marsh.

[Copyright, 1911, by W. W. Marsh.]

We publish the weather predictions by Prof. Marsh one month in advance. This is the September edition of The National Farmer and Stock Grower, and the following are the predictions for the month of October. The success of Prof. Marsh is phenomenal. He locates the weather and stands by his forecasts day by day.

Forecasts For October 1st to 3d.

Between these dates tropical storm, hurricane winds in the Bahama Islands, and heavy seas and high winds off the Virginia, Carolina and Maryland coasts overspreading these states. Snow and rain in Montana, Idaho, Wyoming and Northern Colorado, Havre and Helena, Mont., Lander, Wyo., Pocatello, Idaho. Rain at Albany, N. Y. Eastport, Me., Grand Rapids, Miles City, Mont., Northfield, Vt., Reno, Nev., Salt Lake, Utah; and storm at Father Point, Que. Snow and freezing temperature in the Northern Rocky Mountain States. Elsewhere generally fair weather may be expected.

October 4th to 8th.

Between these dates cool wave will cross the country. Storm on the waters, Atlantic Ocean, Gulf of Mexico and the Great Lakes, the cool wave, bleak winds, rain, probably turning to sleet or snow, overspreading the Eastern States, New England and coasts and the cities of the East, followed by fair weather and frost.

Cool wave, storms, bleak winds overspreading the entire Ohio Valley, and in the states of Ohio, Indiana, Kentucky, West Virginia, Pennsylvania, Illinois, and the Alleghany Mountain region. Sleet and snow are probably following the rain in Northern Ohio, Northern Indiana, Northern Illinois and Western Pennsylvania, followed by frost.

Rain and snow, followed by heavy frost, over Manitoba, and storm, bleak winds, probably snow or sleet, followed by heavy frost, from Manitoba to Texas and over the Upper Mississippi and Lower Missouri Valleys, and rain, bleak winds, followed by heavy frost, in Arkansas, Oklahoma, Tennessee, and frost following the rain in the western part of North Carolina.

Cool wave with rain overspreading the Gulf States, followed by frost, damaging cotton and tobacco in Georgia, the Carolinas, Tennessee, Mississippi, Northern Alabama, Arkansas and states east of the Mississippi river, unless protected.

Cold wave covering the lake region with rain, sleet and snow at Buffalo, Sault Ste. Marie, Marquette, Parry Sound, Milwaukee, Cleveland, Detroit, Chicago, Grand Haven, Grand Rapids, St. Paul, Duluth, and covering the states of Wisconsin, Minnesota and Michigan, followed by killing frost.

Killing frost following rain in the Mississippi Valley north of Memphis, and heavy frost in Northwestern Arkansas, and cool wave from the Mississippi river to the Appalachian Mountains.

Cold wave, snow over Lake Superior region, covering a large area. Cold wave, snow and frost following the rain in Southern Michigan, Nebraska, Iowa, Missouri and Dakotas, and cold wave with snow storm in Wyoming, Montana, Colorado. Protect the stock over the ranges. Damage will be done to grapes and fruit in various points in the Mississippi Valley by heavy frost, causing gales and snow in its wake. the storm moving in a direction toward the Gulf of St. Lawrence.

Storm, cold wave throughout the West and Northwest. Unsettled weather in the Pacific States. Rain at Sacramento, San Francisco, San Luis Obispo and Red Bluff, Calif., Tatoosh, Tonopah and Roseburg, Nev. Rain and snow at Salt Lake, Utah, Pocatello, Idaho, Havre and Helena, Mont., Father Point, Que., Northfield, Mont., Montreal, Que., Prince Albert, Cheyenne, Durango, Colo., Devils Lake and Bismarck, N. D., Lander, Wyo., Victoria, B. C., Yellowstone Park, and rain at El Paso, Tex., Winnemucca, Nev., and Boise, Idaho.

October 10th to 15th.

Between these dates rise in temperature with high winds and quite heavy rains from Canada southward over the eastern slope of the Rocky Mountains, with general rain over the Western Plateau.

Rain storm, high wind over the Ohio Valley and Tennessee, covering the entire states of Ohio, Indiana, Kentucky, Pennsylvania and the mountain region of the Alleghanies,

covering the water sheds of the Ohio and its tributaries.

Storm, wind and rain throughout most Central and Eastern States, and rain with high winds from New Mexico to the lake region, with high gales over Lakes Erie and Michigan, overspreading the entire lake region, causing damage to shipping and vessels, affecting the cities of Buffalo, Milwaukee, Sault Ste. Marie, Duluth, St. Paul, Detroit, Marquette, and the greater portion of Michigan, Minnesota and Wisconsin.

A storm belt of rain and wind extending from the lower lakes southwest to Texas, covering the states of Indiana, Illinois, Missouri and portions of the Southwest, and rainfall quite heavy and high, covering the entire Missouri and Upper Mississippi Valley. Rain storm at St. Louis and covering greater portions of Iowa, Missouri, Nebraska, and from Missouri and Kansas southward. This storm will affect Concordia, Des Moines, Keokuk, Peoria, Springfield, Mo., Valentine, Neb., Springfield, Ill. The rain quite heavy and wind high from Missouri to Texas.

Rain turning to snow in the extreme Northwest.

Storm on the Gulf of Mexico, high winds and heavy rain affecting the entire Gulf coast and the cities of the South.

Rain over the Virginias, overspreading their coasts and cities, and rain and wind storm on the Atlantic, along the entire Atlantic coast, covering the Eastern and New England States and their cities.

Stormy, rainy weather, with damaging winds in the Pacific coast region from the state of Washington to Southern California.

Storm over the extreme Northwestern States, the rain turning to snow, followed by clearing weather with heavy frost.

Storm at Arkansas and Amarillo, Tex. Rain at Charles City, Ia., Modena, Utah, and storm, rain and wind at Santa Fe, Northhead, Wash., North Platte, Neb., and Oklahoma, Okla., storm covering the greater portion of the West and Northwest, followed by heavy frost.

October 15th and 16th.

Generally fair weather in most sections of the country, with frost.

October 17th to 23d.

Between these dates the same conditions will prevail, with storms on the waters, the Atlantic Ocean, Gulf of Mexico and Great Lakes, the lake region and the coasts, the storms being quite severe and damaging in the states west of the Mississippi river and over the country from Minnesota to Maine and from the Mississippi river to the Atlantic Ocean, and from the Rocky Mountains southward to the Panhandle of Texas, and from the upper lakes southward to Oklahoma. These storms will consist of quite heavy rains and high winds, rising streams over the states of Iowa, Missouri, Kansas, Nebraska and Illinois, and very severe with cyclonic winds, causing much damage over the entire Gulf States and coasts, with quite heavy rain and wind overspreading the Ohio Valley and Tennessee, Ohio, Kentucky, Pennsylvania, Western Pennsylvania water sheds of the Ohio and Alleghany mountain region and hurricane along the Florida coast.

Storms overspreading the Eastern and New England States and coast, affecting the cities of the East.

Destructive storms throughout the state of Virginia. Rain along the entire Rocky Mountain slope. Storm, heavy rain at Minnedosa, Manitoba.

Rain at San Francisco, Eureka, Calif., Kallispell, Mont., Lewiston, Idaho, Roseburg and Portland, Ore., Spokane, Tacoma, Tatoosh, Walla Walla and Seattle, Wash.

October 24th to 26th.

Generally fair weather with frost.

October 27th to 31st.

Between these dates change to cooler weather will occur, with storm over the Southwest, and rainy weather followed by frost all along the South Atlantic States as far north as Virginia, and storm over Manitoba and New Mexico, and cool wave and rain followed by frost over the entire country between the Mississippi river and the Rockies.

Cool wave with rain to snow storm along the eastern slope of the Rocky Mountains, from the state of Wyoming to New Mexico, covering Wyoming, Manitoba and Colorado, with blizzard in Northern New Mexico, accompanied by high wind, damaging property and causing suffering to stock, the storm over Colorado extending to the Western Slope, damaging apple orchards, the snowfall quite heavy in Northern Colorado.

Damaging wind storm with snow over Utah, affecting Salt Lake and Ogden, Lander, Wyo., Santa Fe, North Platte and Pueblo. Snow storm and freezing temperature throughout New Mexico, Northern Arizona, Northern Texas, extending through the Rocky Mountains.

Snow storm and gale over Lake Superior region and on Lake Superior, causing navigation to be dangerous. Cool wave, rain to sleet and snow covering the states of Minnesota, Michigan and Wisconsin and their cities. Storm over Quebec, Canada.

Storm overspreading the entire Ohio Valley and Tennessee, Illinois, and the Alleghany Mountain region, with the rain turning to snow over the Alleghany regions, covering Western Pennsylvania and water sheds of the Ohio river. The rain will turn to snow over northern sections of Ohio, Indiana, Kentucky and Illinois. Rain, followed by cool wave and freezing temperature, covering the Upper Mississippi and Missouri Valleys, the rain turning to snow in sections of Kansas, Missouri, Nebraska, Iowa and the West and Northwest, heavy frost following the snow.

Storm, followed by cool wave, and in some sections snow, overspreading the Eastern and New England States and along the North Atlantic coast and on the ocean. This storm will affect the cities of Philadelphia, Scranton, Washington, D. C., Baltimore. Cool wave, rain, wind and snow over Manitoba, extending over the upper lakes.

Storm over the South, covering the entire Gulf States and coasts and cities. Rain and wind affecting the Carolinas and Virginias.

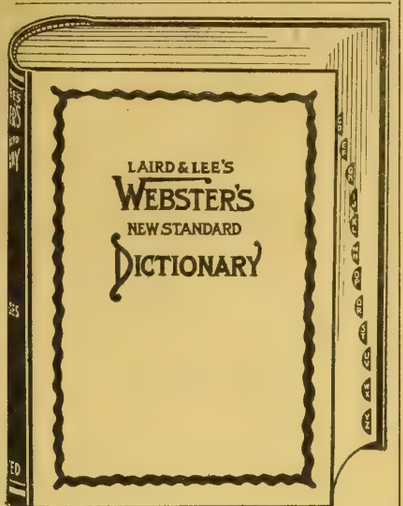
Rain at Portland, Ore., Tacoma, Red Bluff, Calif., Sacramento, San Francisco, and rain over the states of Washington, Oregon and Idaho.
PROF. W. WADSWORTH MARSH.

The Standard Watch Case.

In buying a watch, be sure to obtain the Keystone Watch Case. In order to understand this subject, see page 23. It is easy to obtain the benefit of the guarantee, for the reason that it is engraved inside every case. If you will take the trouble to examine the case you will then know exactly what you are buying, just the same as you know a gold coin issued by the United States Mint. The subject is worth investigating by all who buy watches.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclo-



pedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you: Send us One Dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Ropp's Commercial Calculator.

This is a standard book, and a revised, enlarged and improved edition. There are millions in use. **Ropp's Commercial Calculator** is especially valuable to farmers. By its regular use many hard problems become easy. It will prevent mistakes, relieve the mind, save labor, time and money, and do your figuring in the twinkling of an eye. As handy as a watch, always ready and reliable. Anyone who will send 50 cents for one-year's subscription to this paper, The National Farmer and Stock Grower, can select one copy of **Ropp's Commercial Calculator** as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Grain Dealer Surprised.

Farmer—Isn't No. 2 Corn worth more than 35c?
Grain Dealer—That is really the market price today, but I will make it 35½c. (Load weighs 2720 lbs.)
Farmer, opening Calculator—Amounts to $17.24; had on 48 bushels and 57 hundredths. (Page 13.)
G. D.—Well, I declare! Whose lightning Calculator is that?
F.—Why, Ropp's of course—the **New** improved edition. It comes handy indeed, couldn't get along without it.

$5.00 Worth of Havana Smokes For 99 Cents

YOUR idea of what is meant by the word "stogie" will undergo a big change after you smoke one of the fifty Menges Stogies I will send you postpaid for 99 cents. I call them stogies because they resemble ordinary stogies in size and shape, but in other respects, tobacco quality and smoke satisfaction, they are equal to any 10-cent straight cigars. Old smokers have written me often regarding the tobacco I put into my stogies—it is grown in this country from the purest Havana seed. It is impossible to equal this tobacco in any stogies or cigars at my prices. This is absolutely the greatest smoker's offer made, and no smoker can get such genuine satisfaction and pleasure for so little money elsewhere.

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Menges Stogies Sure to Afford You Lasting Pleasure

The value is in the filler, not wasted in a fancy but worthless wrapper. My wrapper is good, honest leaf, free from breaks or openings and therefore draws well. A Menges Stogie is a real treat, a smoke good enough to offer to your friend or guest. I have sold thousands upon thousands of Menges Stogies under my **money-back guarantee.** I have not had a single stogie of the thousands returned but, instead, **have had repeat orders from 96 out of every 100 smokers who have tried them.**

Absolute Good Faith in Every Detail of This Big Value Offer

I guarantee my goods. I guarantee you satisfaction. I can't afford to let a single man question anything—I don't leave a single loophole for myself. I say to you in plain English—if after you smoke a few of the 50 Menges Stogies I will send you at 99 cents you find that you do not consider them worth what you have paid for them, you do not consider them satisfactory or pleasant smokers, then return what you have left to me and I will refund what you have paid me without argument and cheerfully. This offer practically means getting Havana cigars of 10-cent straight quality for 2 cents each, so let me have your order at once. Just send me the coupon or a note and money order and I will send you the goods postpaid very promptly.

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I enclose 99 cents for which send me postpaid 50 of your Havana Seed Stogies. It is understood that I am to keep them 5 days, smoke as many of them as is necessary to try them, and if I am thoroughly satisfied to receive full refund on return of remainder.
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Address _____

Selling by Farmer's Sample.

Hon. James Wilson, the Secretary of Agriculture, ended a recent address in Washington on the autumn crops with a crop story.

"A commission agent," he said, "looked carefully at a handful of wheat that had been brought him by a farmer boy, and then inquired:

"'How much more has your master got of this, my lad?'

"'He ain't got no more of it,' said the boy. 'It took him all the mornin' to pick that out.'"—Los Angeles Herald.

"Principal causes of failure in farming by irrigation are: Overplanting, undercultivation and improper application of water."—Rice Journal.

MAY MANTON PATTERNS.

Very Elegant Pattern Service, With Full Instructions For Ordering and Making.

This is the very best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration twenty seasonable patterns absolutely up-to-date, with directions for ordering and quantity of material required.

FASHIONABLE MODELS.

No. 7122.—Fancy Peasant Blouse. 34 to 42 bust, with high or low neck, with or without undersleeves.

No. 7111.—Girl's Coat. Six, eight, ten and twelve years.

No. 7052.—Semi-Princess Gown, With Two or Four-piece Skirt. 34 to 42 bust.

No. 7099.—Seven-gored Plaited Skirt, For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 6891.—Three or Four-piece Skirt, With Underlying Panels on Sides. 22 to 32 waist, with high or natural waist line.

PRETTY AFTERNOON ATTIRE.

No. 7106.—Tucked Blouse. 34 to 42 bust.

No. 7119.—Fancy Blouse. 34 to 40 bust, with high or low neck, long or three-quarter sleeves.

No. 7035.—Girl's Dress. Ten, twelve and fourteen years.

No. 7116.—Five-gored Skirt. 22 to 30 waist, with or without panels, with high or natural waist line.

No. 6989.—Six-gored Skirt. 22 to 32 waist, with high or natural waist line, with or without trimming band.

LADIES', MISSES' AND CHILDREN'S ATTIRE.

No. 6941.—Corset Cover With Straight Upper Edge. 34 to 44 bust.

No. 7011.—Combination Corset Cover and Five-gored Petticoat. 34 to 42 bust.

No. 7105.—Fancy Yoke Night Gown. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust.

No. 7103.—Child's Coat. Six months, one, two and four years.

No. 7120.—Two-piece Corset Cover For Misses and Small Women. Fourteen, sixteen and eighteen years.

UNDERWEAR.

No. 6562.—Infant's Long Dress. One size.

No. 5951.—Infant's Bishop Dress. One size.

No. 7104. Girl's Chemise Night Gown. Six to twelve years.

No. 7126.—Closed Dart-fitted Drawers. 22 to 32 waist.

No. 5887.—Infant's Single or Double Cape. One size, with hood.

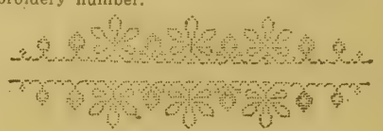
Please be sure to give the size of pattern ordered and write your own name and address plainly, that no mistake can be made to cause delay.

The price of each pattern is 10 cents.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

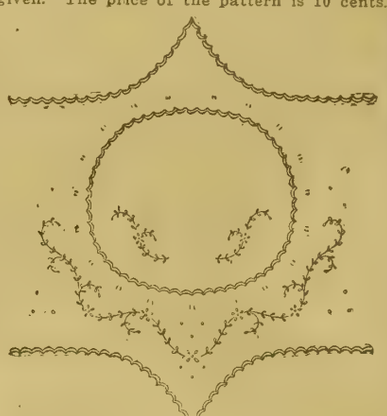
MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.



Towel Ends in Cross Stitch.

No. 597.—Design for embroidered towel ends in cross stitch style. Two ends are given. The price of the pattern is 10 cents.



Night Gown Pattern.

No. 595.—Design for embroidering a low-neck night gown. This is a very satisfactory pattern. The price is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Free to You and Every Sister Suffering from Woman's Ailments.

I am a woman.
I know woman's sufferings.
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I will mail, free of any charge, my home treatment with full instructions to any sufferer from woman's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourselves at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is safe and sure cure for Leucorrhoea or Whitish discharges, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors, or Growths; also pains in head, back and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney, and bladder troubles where caused by weaknesses peculiar to our sex.

I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that, it will cost you nothing to give the treatment a complete trial; and if you wish to continue, it will cost you only about 12 cents a week or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all old or young. To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in young Ladies, Plumpness and health always results from its use.

Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases, and makes women well, strong, plump and robust. Just send me your address, and the free ten day's treatment is yours, also the book. Write to-day, as you may not see this offer again. Address

MRS. M. SUMMERS, Box H - - Notre Dame, Ind., U. S. A.

In the year 1910 the twin island of New Zealand had 24,269,620 sheep, and the wool production was estimated at 192,822,002 pounds, of which 187,619,181 pounds were exported.

DON'T PAY TWO PRICES

Save $18.00 to $22.00 on

HOOSIER RANGES AND HEATERS

Why not buy the best when you can buy them at such low, unheard-of Factory Prices? THIRTY DAYS FREE TRIAL BEFORE YOU BUY. Our new improvements absolutely surpass anything ever produced. SEND POSTAL TODAY FOR OUR FREE CATALOG AND PRICES.

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HOOSIER STOVE FACTORY 169 State St. Marion, Ind.

The National Style Book.

The greatest and best ladies' outfitters are the National Cloak and Suit Company, of New York City. The advertisement of this house is on page 3. The National Cloak and Suit Company have sold clothing to a million women by mail because there is satisfaction in dealing with the house, and to order once and obtain perfect fitting, made-to-measure suits at moderate prices is a perfect luxury. Address, National Cloak and Suit Company, 280 West 24th st., New York City, and ask for a copy of the National Style Book.

ALL THE NEW SONGS AND MUSIC With EVERYDAY LIFE 3 MONTHS for 10 cts.

To introduce Everyday Life to new readers we will send it 3 months on trial, together with this grand collection of latest popular songs and music, all for 10 cents. Everyday Life is a bright interesting paper and is appreciated and welcomed in every home. We know if you get this paper for 3 months you will want it for a year.

	Silver Bell	All that I Ask is Love	Dinah From Carolina
	Ida Ho	You're a Grand Old Flag	Meet Me Tonight in Dreamland
	Lonesome	Why Don't You Try	I've got Rings on My Fingers
	Pony Boy	Are You Coming Out Tonight	My Wife's Gone to the Country
	Navajo	Down in Jungle Town	That's How I Love You, Mame
	Tippicanoe	Don't Take Me Home	In the Shade of the Old Apple Tree
	Any Rags	Put on Your Old Gray Bonnet	When You Know You're Not Forgotten by the Girl You Can't Forget
	Dedelia	Carrie Marry Harry	
	Hiawatha	Give My Regards to Broadway	'Neath the Old Cherry Tree, Sweet Marie
My Mariuccia	Honey Boy	A Little Boy, Called Taps	The Mesmerizing Mendelsohn Tune
My Irish Molly O	Red Wing	Down in the Brandywine	Call Me Up Some Rainy Afternoon
Beautiful Eyes	Dreaming	Yankee Doodle Boy	Put Your Foot on the Soft Pedal
I Remember You	Ogalalla	Bye, Bye Dearie	Any Little Girl that's a Nice Little Girl
Cubanola Glide	I Love It	Under the Yum Yum Tree	By the Light of the Silvery Moon
The Man Behind	Dublin Rag	Some of These Days	Next to Your Mother Who Do You Love?
My Southern Rose	Stop, Stop, Stop	Every Little Movement	Every Girl I Get the Other Fellow Steals
Garden of Roses	Grizzly Bear	Anybody Here Seen Kelly	Let Me Call You Sweetheart
Sweet Italian Love	It's You Pal	Mandy How Do You Do	I'd Rather Say Hello than Say Goodbye

10 CENTS gets all the above **LATEST POPULAR SONGS** and 100 others, also 5 pieces Piano Music, all big hits, such as "Let Me Call You Sweetheart," "Maybe I'll Come Back," etc. Best collection ever published. Also Everyday Life 3 months. 3 collections 20c. Tell your friends about this marvelous offer and order today. Address **EVERYDAY LIFE, DEPT. P 37, CHICAGO, ILL.**

YOU CAN SAVE $10 to $40.00
ON THIS HIGH GRADE "ELDORADO" SEWING MACHINE
30 DAYS FREE TRIAL
20 YEAR GUARANTEE

OUR PRICES $12.15 to $25.45

Why pay $65.00 to $85.00, at retail, for any Sewing Machine. Let us send you a high-grade, ball-bearing drop-head "Eldorado" guaranteed for 20 years at lowest wholesale price, 30 days' free trial in your own home without paying us a dollar. If you like the machine you select, and want to keep it, after you have tried it—simply pay our low cash price and save $10.00 to $40.00, which you can use to buy an elegant suit or winter outfit. "Eldorado" Sewing Machines have given satisfaction for 30 years. They have all the latest improvements and attachments. A $12.15 "Eldorado" equals many of the $45.00 retail machines and our $25.45 machine has everything that you would find on a $65.00 to $85.00 agents' machine. Fifteen Styles to select from.

Send for beautiful "ELDORADO" CATALOG of 48 pages, which tells about the best machine made—regardless of name, make or price—and how to get one on 30 days' trial.

JONES, POST & CO. Successor to JONES BROS. MERC. CO.
425 Liberty Street, KANSAS CITY, MO.

Washing Woolen Goods.

There is no cleanser that can be used so safely in renovating delicate colored woolen goods as soap bark, and the right way to use it is to put a small quantity in cold water and stir with the hands to make a nice lather, then add hot water till the whole is moderately warm and it is ready for use. When the garment is clean, rinse out and hang in the shade to dry.

Another way to clean dainty colored woolen goods is to grate two good-sized Irish potatoes into one pint of soft cold water; let stand an hour or two, then strain into another pint of water, and after this settles strain again. Rub the garment all over with a sponge dipped in the potato water, then wash in clean water without any soap; and another way to use the potato water is to strain the water that potatoes have been boiled in and wash the garment through this and then rinse in clear rain water.

Nice woolen goods should never be rubbed hard nor twisted in wringing. The water should be pressed out between cloths or the goods hung on the line to drip dry, then the water running out of the material will help to stretch it and keep it from shrinking.

Any dark-colored woolen goods that are not quite soiled enough to be washed can be cleaned and freshened by first removing all spots with gasoline and then putting the garment in a large bucket and pouring enough gasoline over it to saturate it thoroughly, then cover the bucket closely and let stand for two or three hours, then rinse in clean gasoline and hang over the line.

There is nothing better for washing woolen goods that are much soiled than warm borax suds, and this is prepared by stirring enough borax in the water to soften it, and the quantity it will take depends entirely upon the quality of water, and the borax not only softens the water and makes the cleaning easier, but it brightens the color in the goods and leaves the fabric as soft and clean as when new.

An unlined woolen skirt is as easily washed as a cotton one, but in pressing any woolen goods or garment, great care should be taken to preserve the shape of the pieces by ironing one of the goods, either lengthwise or across.

Any white woolen article may be kept as soft and white as when new by washing through warm borax suds, and it is especially good for the soft flannels and all dainty woolen articles worn by young children.—A. M. H.

Why Not Chinese and Japanese?

Col. R. H. Stockton, President of the Majestic Manufacturing Company, of St. Louis, Mo., has carefully considered the subject of farm labor in the house and in the field and is favoring the re-admission of the Chinese and the Japanese for special purposes only. His views have been received with favor by farm owners and by the influential farm press. Colonel Stockton says:

"The uneasiness and uncertainty attending the farmer's efforts as to securing help to raise and harvest his crops is doing more to drive the farmer and his family to town than all else combined. What would the regular manufacturer do were he to be uncertain as to his workmen being with him one year after another? He is not uncertain. Among all reputable factories a few are to be found drifting from one place to another, but more than two-thirds of the same mechanics are to be found working for the same people in the same shops for five, ten, fifteen or twenty years, and many longer, and I am sure if the instability of the workmen was as great in mechanical manufacturing as it is with the farmer, the manufacturing operations of the country would steadily decline. Men engage in and operate their manufacturing plants as much for the pleasure as for the profit. I know of many who look at the profit as the smallest of the recompense; it is the love of the game that keeps most of us at it, and did we expect to be continually anxious as to our employes reporting for work, or continually breaking in new men in work and to our way and see no end to it, but, on the contrary, see the anxiety increasing every year, most of us would quit.

"I can see no reason why Congress cannot make a law that would enable the farmer to secure all the Chinese laborers he would want **for farm work only,** and Japanese **for house servants.** Let them come in under proper restrictions, say, for a period of five years, and let them arrange to work for that period and then to renew it if desirable for five more, but give them no suffrage. I have never heard any sound argument against it. We need their labor and they need our work. A farmer can afford to bind himself to pay them a certain amount per month and furnish them a house or room and let them board themselves. They would prefer to cook and eat their way, and once having entered into a contract the United States government would see it enforced on both sides.

"We would see no more on 'back to the farm.'

"No matter how thrifty and well-fixed a farmer may be, if his wife has to drudge in 1911 as he and his father did in 1811, what good does his money do his wife, and where does her enjoyment come in? We need the Chinaman and the Japanese both to work on the farms, just as we needed the Irish and the Germans to help open up the country previous to 1860.

Household Dangers.

Frightful casualties which are due to the ignorance or carelessness of mistress or maid are almost daily recorded.

A friend of the writer, while scrubbing, threw a nearly empty can of concentrated lye into a boilerful of water over the fire. An explosion followed, the scalding water flew in the lady's face, and she narrowly escaped blindness, being confined to a dark room for many days.

Another acquaintance suffered a trying experience through her ignorance of the science of common things. Wishing to make syrup for breakfast cakes, she placed a tin lard pail containing sugar and water on the stove, fastening the lid on tightly, so that no steam could escape. Of course, the cover blew off when the boiling process began. The contents of the pail flew out, and, as the woman happened to be bending over the stove, her face was scalded in a frightful manner.

A young lady was recently burned very painfully by the ignition of benzine, with which she was cleaning her gloves. To see more clearly, she stepped under a lighted gas jet. A blaze resulted. The gloves saturated with benzine were on her hands, and a severe burn was the result.

Intelligent people still persist in pouring kerosene on dull fires, notwithstanding the frequent fatal results of such carelessness.

Many women are unaware that the dirty, almost empty lamp is a menace to life. It is in these, not the full lamps, in which gas is generated, and the danger of an explosion made imminent.

The gasoline stove is now in almost universal use, and housekeepers say: "There isn't a bit of danger in them if one is careful." But it sometimes happens that one isn't careful, or that one's servants or children lack caution, hence so many reports of death or injury from explosions. Though very convenient, one would better suffer a trifle from heat than risk the danger of explosion where there is a family of children.

The careless handling of drugs is another source of danger.

The writer once swallowed ammonia from a bottle labeled "Cough Remedy." She was nearly strangled by the fumes, and through the struggle to regain her breath the vocal organs were so injured that she was deprived of speech for many days.

Many housekeepers are not aware of the danger they invite by leaving cans containing fruit, vegetables or meat open for any length of time. The poison thus generated has more than once resulted in violent sickness and sometimes death.—Mrs. Mary E. Underwood.

Where He Got It.

Teacher—"Now, Willie, where did you get that chewing gum? I want the truth."

Willie—"You don't want the truth, teacher, an' I'd ruther not tell a lie."

Teacher—"How dare you say I don't want the truth! Tell me at once where you got that chewing gum."

Willie—"Under your desk."—Judge.

Unnecessary.

It was at a reception and the lady, who had been reading up on health culture, mistook Lawyer Williams for his brother, the doctor.

"Is it better," she asked confidentially, "to lie on the right side or the left?"

"Madam," replied the lawyer, "if one is on the right side it often isn't necessary to lie at all."—Success.

At St. Louis, August 31st, the best cattle in the Southern division were eighty-eight head, 1,042 pounds average, at $5.50 per 100 pounds.

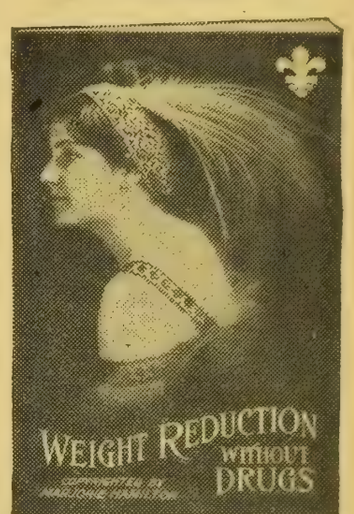
FAT VANISHES
ONE POUND A DAY.

By New Drugless Method.

TRUE SUCCESS AT LAST.

Double Chin Vanishes.

During the Last Two Months, Over Fifty Thousand Women Have Sent to Me for a Copy of This Remarkable Booklet, "WEIGHT REDUCTION WITHOUT DRUGS." Isn't This Convincing Evidence As to its Value?



I Will Send This Booklet to You at My Expense.

THE JOY OF LIVING IS THE HERITAGE OF THE LEAN. I WAS STOUT, —AND I KNOW.

My friends were charitable and they called it **obesity;** others referred to me as being STOUT, but I know, it was just plain bulky weight. I was miserable,—you, too, are equally miserable if you are too stout. To reduce your weight you must find the cause; you must get at the very reason.

I FOUND THE CAUSE—THE REST WAS EASY.

Before I succeeded, I tried everything within reason and some things beyond reason.

It was maddening.—disgusting.

All I had to do was to remove the cause, and I swear under oath, that by my simple method, without drugs, medicine, harmful exercises, or starvation diet, I reduced my weight 37 pounds in five weeks, and guarantee that I can do the same for you. I do not use medicine of any kind or worthless stuff to rub on the body, but a simple home treatment; even a child can use it without harm. Through this marvelous combination home treatment, I succeeded because I had found the right way. I can now climb to the summit of Pike's Peak with ease. I could not do that until I had taken off 37 pounds of my ponderous weight.

If you are interested in your own happiness and health and figure, you will permit me to tell you how to reduce your weight "Nature's Way."

I have printed a booklet for you entitled "Weight Reduction Without Drugs," which I am giving away without charge, prepaid to you, so that you may know of my successful method and be able to permanently reduce your weight any amount up to 70 pounds, without harmful exercises or starvation diet, drugs or medicines.

Send for my booklet, "Weight Reduction Without Drugs." It is yours for the asking, and I will be glad to send it to you, postage prepaid.

I have found that the best way to know happiness is to give it.

Sincerely your friend.

MARJORIE HAMILTON,
Suite 267, Central Bank Bldg., Denver, Col.

We take subscriptions for every publication. See page 18.

BRACELET AND RING FREE

Bracelet and Ring. WELLS MFG. CO., Dept. I. 55, CHICAGO

Time and work are worth all they cost in making dresses of

Simpson Eddystone
Black-and-White Prints

The designs of these fine cotton dress-goods are the latest and most artistic. The cloth is made of that long-wearing old-fashioned quality that has made these calicoes the standard of the United States since 1842. Colors are light-proof, tub-proof and perspiration-proof.

Show this advertisement to your dealer when you order, and don't accept substitutes. If not in your dealer's stock write us his name and address. We'll help him supply you.

The Eddystone Mfg. Co., Philad'a

Founded 1842 by Wm. Simpson Sr.

By the Way.

Said a friend to one who had raised a family of little folks: "Do not allow yourself to grow prematurely old. You have duties to yourself as well as to the children. Do not allow your mental attainments to rust out or your attire to become shabby through sacrifice to them. They will respect you more for keeping yourself up-to-date."

The observations of one shrewd observer ran in this way: "When I see the daughter in a family dressed in silks while the mother is almost too shabby to be presentable, the impression comes at once that there is a matrimonial bid in the field. The mother should wear the rich garb if one only in the family can afford it. Simple gowns are more in keeping with the beauty of youth.'" And is there not much of sound sense in the logic, though there are some well-meaning daughters who transgress wholly through thoughtlessness and with no thought of laying schemes or nets. They like handsome things, and as mother is so old and has perhaps worn plain clothing for so long, they forget that she might like the dainty lace or the touch of bright ribbon; they have had the chance since they could remember to see what a change the few dainty touches will give when worn among the grey hairs.

Yet, on the whole, we see very few old, old ladies, wrinkled and seemingly of no use in this world but to knit and tell stories of the olden time. There are so many outside influences at work, so many things to divert the mind from the rut of humdrum housework that the eyes are bright and the brains active to the very last. What interests her daughter or granddaughter interests grandma, and she is much the better off for the adaptations. Life is much less apt to become a burden either to her or to those arouud her because of her determination not to run up to seed.

The farm wife may be hampered in some ways, but in others she has a certain amount of freedom not enjoyed by many of her city sisters. If she wants pin money, there are the poultry, eggs and fruit from which to draw her funds, with several side lines, like home-made preserves, schmierkaes, etc., if she is resourceful. She has seen her urban friends through a pleasant summer vacation, with possibly no thought that she, too, is entitled to a vacation. And there are various ways in which she may have this vacation if she really makes up her mind to do it.

Even a day or two in the city will prove profitable in many ways besides the mere phase of rest and enjoyment, though this alone should prove sufficient. One enterprising woman takes orders for wall paper each spring and autumn, supplying it at a reduction from the prices usually asked in the stores. She has worked up quite a patronage in the vicinity of her residence and of some of her special friends, and the work gives her a chance for visiting these friends and at the same time considerably more than paying her expenses.

Where there are purchases to be made for a large family it is gain in the end to make them in bulk, going to the city during bargain week and thus saving the cost of the trip in the lessened cost of the goods. The first experience may not be a complete success, as it takes a little time to learn the ins and outs in a strange place, but by watching the advertisements in the city papers as presented by the leading firms, one may soon learn when is the best time to go in order to purchase certain articles. And it is no more expensive to pay a little money to the transportation companies and enjoy a change than to go on forever in the old humdrum manner. Excursion rates, too, should be kept track of and turned to advantage. We are here to get what we can out of life for ourselves and for our friends, and incidentally to build ourselves up through enjoyment and general observation. Money is not to be hoarded but to be spent judiciously.—Bessie L. Putnam.

SPLENDID SUBSCRIPTION PREMIUM.

Beautify Your Home With This Popular Stencil Outfit.

Stenciling has long been a popular form of home decoration and is today used more extensively than ever. Ladies are particularly apt at this work, and anyone can produce beautiful effects. From every standpoint stenciling is a very fascinating art of extreme usefulness. You can make the most artistic pillow tops, curtains, portieres, centers, etc., in colors for yourself or for sale, without having any knowledge of painting, by using this up-to-date outfit. In fact, stenciling is so simple with this outfit that a child ten years old can do it.

This outfit is just the thing for

beginners. It consists of six cut stencils on special oil board, six cups of water colors (something new, that will not spread, but dries instantly), two bristle stencil brushes, four thumb tacks, also full and explicit directions for mixing colors and using stencils.

Our Subscription Proposition.

Send us Fifty Cents by postoffice money order and we will send you the Universal Magazine for two years and you can select the Popular Stencil Outfit as a free premium.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Among the Flowers.

Some flowers will not bear seed and bloom satisfactorily for a protracted season. But the poppy can be depended upon to perpetuate its kind without interfering with the floral display. A single poppy will produce seed to plant all that any person can need, and by tying a string around the stem of the best individual flower of each kind you are assured of plenty of blossoms of the very best type next season.

Those who have never grown the poppy will be surprised at how much pleasure it will give, even though ephemeral in nature. It is not a flower for cutting, but the gentle quiver of the silken petals in the garden, each of the richest colors, is a pleasure which the flower lover will not soon forget.

The petunia is another old-time blossom with many fine seeds, and the flowers are often widely different in the variegations, even on the same plant. It grows easily from slips, and, if desired, it may become a comely window plant when danger from frost renders its life in the garden a precarious one.

Try cutting back one of the best of the geraniums and transplanting it to a pot. Sometimes these plants bloom better in winter than the freshly-started slips. Salvia, the most shapely and floriferous plant in your bed, will continue to bloom for weeks after potting in September, and then after a rest of a few weeks the first sunny days will again woo the buds into bloom. Though not usually regarded as a house plant, few are more satisfactory.

Carnations are difficult for amateurs to grow in winter, being subject to insect ravages. It is best to be satisfied with these plants as summer bloomers only, when they can be grown out doors with fewer enemies to fight.—Bessie L. Putnam.

His Own Medicine.

Gov. Dix, at a luncheon in Albany, said of a political leader who had been worsted:

"He will get a little of his own medicine back now. It reminds me of a story.

"A man entered an eating house and ordered a steak and fried potatoes.

"'Yes, sir; steak and potatoes, sir,' said the waiter. 'And will you have chops and peas along with it?'

"'No, thank you.'

"'Roast beef, then, perhaps, sir? The roasts beef's very fine to-day.'

"'No, just steak and potatoes.'

"'How about a nice lobster or a brace of crabs, sir, with the steak?'

"'No!'

"'Shadroe and succotash, perhaps, sir?'

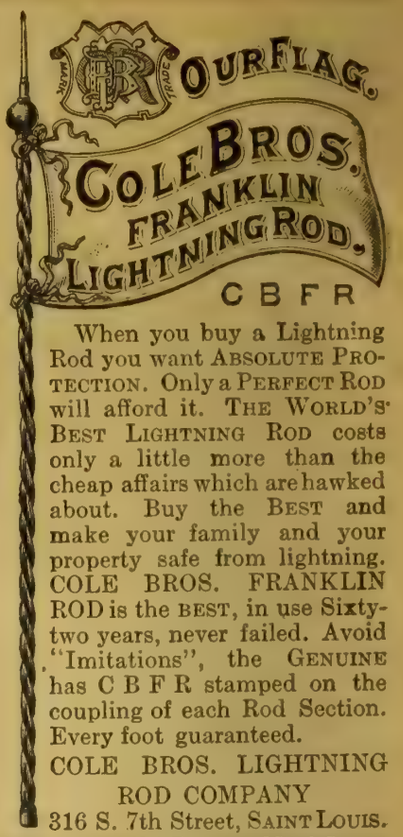
"'No, I tell you!'

"'A nice mess of fried catfish and waf—'

"But at this point the proprietor summoned the waiter to him.

"'What do you mean, you scoundrel,' he said, 'by tormenting that patron in such an outrageous manner?'

"'Oh, I wasn't tormenting him, sir,' said the waiter. 'I was just trying to make him feel at home. He's a barber.'"



When you buy a Lightning Rod you want ABSOLUTE PROTECTION. Only a PERFECT ROD will afford it. THE WORLD'S BEST LIGHTNING ROD costs only a little more than the cheap affairs which are hawked about. Buy the BEST and make your family and your property safe from lightning. COLE BROS. FRANKLIN ROD is the BEST, in use Sixty-two years, never failed. Avoid "Imitations", the GENUINE has C B F R stamped on the coupling of each Rod Section. Every foot guaranteed.

COLE BROS. LIGHTNING ROD COMPANY
316 S. 7th Street, SAINT LOUIS.

Please mention Nat. Farmer and Stock Grower.

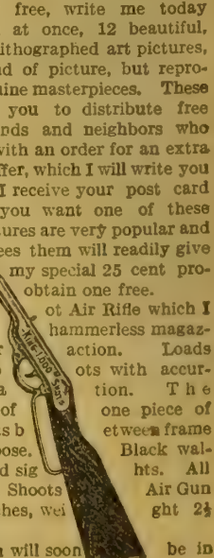
Not the Same.

A child of strict parents, whose greatest joy had hitherto been the weekly prayer meeting, was taken by its nurse to the circus for the first time. When he came home he exclaimed:

"Oh, mamma, if you once went to the circus you'd never, never go to prayer meeting again in all your life."—Tit-Bits.

BOYS, THIS RIFLE IS FREE!

If you want one of these 1000 shot King Air Rifles absolutely free, write me today and I will send you at once, 12 beautiful, size 15 x 18 inches, lithographed art pictures, not the ordinary kind of picture, but reproductions of genuine masterpieces. These pictures I want you to distribute free to 12 of your friends and neighbors who will favor you with an order for an extra special 25 cent offer, which I will write you all about when I receive your post card telling me that you want one of these rifles. These pictures are very popular and everyone who sees them will readily give you an order for my special 25 cent proposition in order to obtain one free.



The King 1000 shot Air Rifle which I want to give you is a hammerless magazine repeater with lever action. Loads automatically and shoots with accuracy and great penetration. The frame and barrel are of one piece of nickeled steel—no joints between frame and barrel to work loose. Black walnut stock and splendid sights. All parts interchangeable. Shoots Air Gun Shot. Length 36 inches, weight 2½ pounds.

The hunting season will soon be in full swing, and I want you to have one of these rifles in time, so that you can bring down your share of the game. Don't delay, write that card today stating that you want a 1000 shot King Air Rifle, and by return mail, I will send you 12 of the pictures above mentioned and full information about my special 25 cent offer. Address:

H. F. LINDE, Manager,
Dept. D, Postoffice Box 155, Chicago, Ill.

SELECTED POETRY.

THE BOY THAT WENT TO COLLEGE.

Every acre we had mortgaged,
When we hoped for better days,
In our lofty aspirations
After more aesthetic ways,
Till our farm was overburdened,
And disaster loomed apace—
But we sent a boy to college,
And 'twas that that saved the place.

We had filled him with the wisdom
That our fathers handed down,
With the rural dispensations
That are rife in every town;
But we more than half suspected
That our modes, antique and gray,
Were exceedingly back-numbered—
So we sent our boy away.

In the school of agriculture
Learned he new and better ways,
Weighed he all the trusted precepts,
We inherit from old days,
Sifted out the chaff and cockle
From the body of the grain,
Till he saw for future sowing
Only perfect seed remain.

Then our farmers saw what science
And a fertile brain can do,
When our boy came home from college,
Filled with aspirations new;
For our fields grew somewhat fairer,
And our trees in fruitfulness
Bent beneath their heavy burdens—
And our debts grew ever less.

We have other boys true-hearted,
Just as brave and strong as he,
Always dreaming of and planning
For the work that is to be,
Always using brain with muscle,
Not a whit behind in grace— —
But the boy that went to college
Was the boy that saved the place.
—H. F. Thurston, in Southern Shippers' Guide.

THE TWO MYSTERIES.

We know not what it is, dear, this sleep
so deep and still;
The folded hands, the awful calm, the
cheek so pain and chill;
The lids that will not lift again, though
we may call and call;
The strange white solitude of peace that
settles over all.

We know not what it means, dear, this
desolate heart-pain;
This dread to take our daily way, and walk
in it again;
We know not to what other sphere the
loved who leave us go,
Nor why we're left to wonder still, nor why
we do not know.

But this we know: Our loved and dead, if
they should come this day—
Should come and ask us: "What is life?"—
not one of us could say.
Life is a mystery as deep as ever death
can be;
Yet Oh! how dear it is to us, this life we
live and see!

Then might they say—these vanished ones
—and blessed in the thought!
"So death is sweet to us, beloved! though
we may show you naught;
We may not to the quick reveal the mystery
of death—
Ye can not tell us if ye would, the mystery
of breath."

The child who enters life comes not with
knowledge or intent,
So those who enter death must go as little
children sent.
Nothing is known. But I believe that God
is overhead;
And as life is to the living, so death is to
the dead.
—Mary Mapes Dodge.

YOUR FRIEND.

Perhaps no base of circumstance
Can justify the thing he did;
No charity erase a stain
That can not be forgotten or hid.
And yet, however he offend,
Was he not once your friend?

You look with sorrow on the deed,
You find him pitifully marred.
His honor seems a broken reed,
His gallant youth forever scarred.
The world can not restore or mend,
And yet—he was your friend!

You called him once your comrade true,
As, happy lads, you laughed on life—
Together playing, working, too,
You learned the thrill of wholesome
strife;
You swore to serve, leal friend for friend,
Until the story's end.

But that is altered—must be so,
Since he has failed to meet life's test!
And yet must he, unbrothered, go
Where failure, lurks apart, confessed?
Can nothing help, no love defend
This man you called your friend?

Ah! Give him now your loyal hand
To lead him from this utmost hell!
This burning, baneful, barren land,
Where only friendless failures dwell!
Give him your hand! Despair shall end
For him who hath one friend!
—Elizabeth Newport Hepburn, in New York

SCHOOL IS OUT.

Why is little Willie happy?
Why his look of joy?
Why that step so light and snappy
In our little boy?
Why that face so bright and cheerful?
Why that gladsome shout?
Why a lack of all that's tearful?
School is out!

Why those books so quickly banished
From his youthful sight?
Why those school clothes have vanished
In a single night?
Why those well-worn duds he's wearing
In the yard about?
Why that fish pole he's repairing?
School is out!

Why does Bobby keep on sleeping
When the clock strikes eight?
And to breakfast comes in creeping
As the hour grows late?
Why that unwashed face this morning?
Well, there is no doubt
Why such cleanliness he's scorning—
School is out!

Why are all the neighbors kicking
At the awful noise?
Pleading for a wholesale licking
Of that bunch of boys?
What's the reason there's a racket
When those youngsters shout?
Just this simple cause to back it—
School is out!

Why is mother cross and fretful?
Why so nervous, too?
Tired, jaded and forgetful,,
Weary, worn and blue?
Why has she so peevish acted,
As she went about?
Here's what's driving her distracted—
School is out!
—E. A. Brininstool, in Los Angeles Express.

SHORT A NICKNAME.

There's Freckles Smith an' Grinner Brown
An' Toothy Bowles—an' all the rest
O' boys 'at is in this here town
Is nicknamed! Even Measles West,
'At's poor as poor, he's got me beat,
Sometimes I wish 'at I could get
An eye out, or lose both my feet—
I haven't got a nickname yet.

You see, a nickname, it ain't like
The one your parunts names you with—
It's got to be a name to strike
Yourself, like "Freckles" does Paul Smith.
An' I ain't got no warts nor moles,
Nor toothache when wy clo'se gets wet—
('At's why we call him "Toothy" Bowles)—
I haven't got a nickname yet.

If I was fat, or I was thin,
I might be "Meat" or "Skinny" then;
I wisht I had a pimpled skin,
Or had a cross eye, or a wen,
Or was left-handed, or had spells
That made my jaws an' teeth get set!
I'm simply William Arthur Wells—
I haven't got a nickname yet.

You see, already there's a "Bill"
An' "Billy" mixed up in our crowd;
An' that Moore boy up on th' hill,
They call him "Glue," an' he is proud!
I don't know how to get me one,
But I'll be nicknamed yet, I bet,
But now I don't have any fun—
I haven't got a nickname yet!
—W. D. N.

BACK TO NATURE.

A hen is not supposed to have much common
sense or tact,
But every time she lays an egg she cackles
forth the fact.

A rooster hasn't got a lot of intellect to
show,
But none the less most roosters have
enough good sense to crow.

The mule, the most despised of beasts, has
a persistent way,
Of letting people know he's round, by his
insistent bray.

The busy little bees they buzz, bulls bellow
and cows moo,
And watch dogs bark and ganders quack
and doves and pigeons coo.

The peacock spreads his tail and squawks;
pigs squeal and robbins sing,
And even serpents know enough to hiss
before they sing.

But MAN, the greatest masterpiece that
nature could devise,
Will often stop and hesitate before he'll
ADVERTISE.
—C. P. S.

A BALLAD OF VEGETABLES.

A potato went on a mash
And sought an onion bed;
"That's pie for me!" observed the squash,
And all the beets turned red.
"Go way!" the onion, weeping, cried;
"Your love I can not be;
The pumpkin be your lawful bride—
You cantaloupe with me."

But onward still the tuber came,
And lay down at her feet.
"You cauliflower by any name
And it will smell as wheat;
And I, too, am an early rose,
And you I've come to see;
So don't turnip your lovely nose,
But spinachat with me."

"I do not carrot all to wed.
So go, sir, if you please!"
The modest onion meekly said:
"And lettuce, pray, have peas!
Go, think that you have never seen
Myself, or smelled my sigh;
Too long a maiden I have been
For favors in your rye!"

"Ah! spare a cuss!" the tuber prayed;
"My cherryshed bride you'll be;
You are the only weeping maid
That's currant now with me!"
And as the wily tuber spoke
He caught her by surprise,
And, giving her an artichoke,
Devoured her with his eyes.
—Tit-Bits.

THE HOLES WERE FINE.

"How do you like my doughnuts, dear?"
She asked; "ain't they divine?"
"They surely are," her husband gulped;
"The holes are simply fine."
—Dallas News.

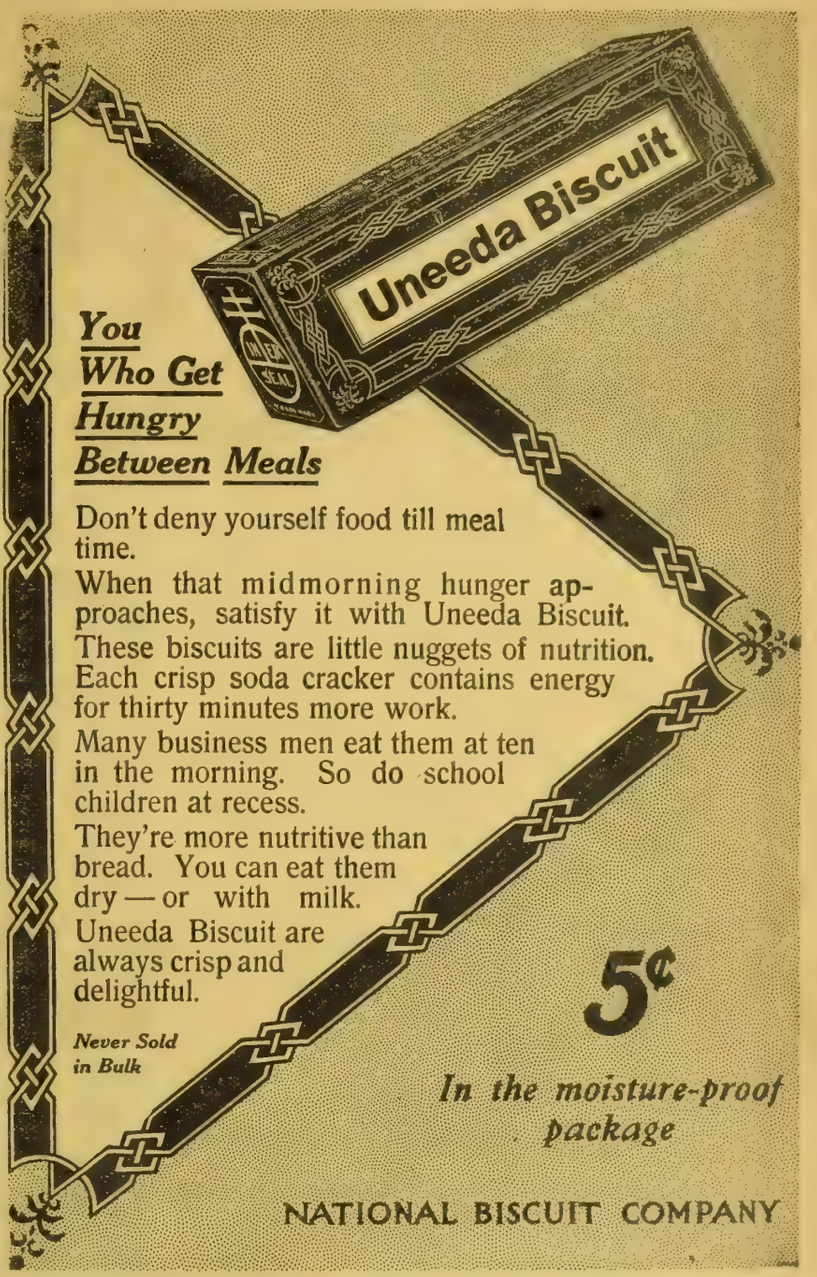
BOYS THAT RUN THE FURROW.

You can write it down as gospel,
With the flags of peace unfurled,
The boys that run the furrow
Are the boys that rule the world.

It is written on the hilltops,
In the fields where blossoms blend;
Prosperity is ending
Where the furrow has an end.

The glory of the battle,
Of clashing swords blood red,
Is nothing to the warfare
Of the battle hosts of Bread.

The waving banners of the fields
O'er the broad land unfurled—
The boys that run the furrow
Are the boys that rule the world.
—Frank L. Stanton, in Atlanta Constitution.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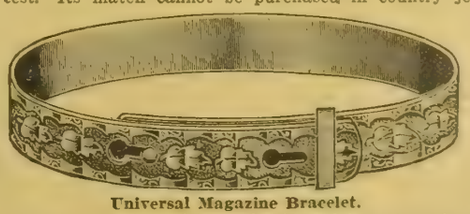

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All we wish is an opportunity to show you the evidence, and after you have seen what wonderful work has been accomplished by Magnetic Shields, **YOU ARE TO BE YOUR OWN JUDGE** as to whether or not you want to use Magnetism in your own case, the same as others have. We do not urge anyone to buy Magnetic Shields; we simply give you the facts, and after considering the facts you follow your own inclination. It is your duty to investigate. It will cost you nothing to get the facts, and you will obtain much valuable information, free of charge, upon the subject of Magnetism, if you send statement of your case.

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By a careful, thorough investigation, for Magnetic Shields have done all we claim for them and a great deal more, or we certainly would not ask you to make an investigation and use the result of that investigation as the basis from which to judge the merit of Magnetic Shields as a curative agent.

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The accompanying cut shows how magnetism is radiated from the Lung Shield, Belt and Lower Leggins into all the vital organs, as well as lower extremities, giving new life and activity to the circulation from head to foot, thus strengthening all the vital organs and large nerve centers and assisting nature in the work of eliminating diseased conditions by reason of the better circulation of blood that is established as soon as the Shields are applied. This set of shields contains over eight hundred powerful Magnetic Storage Batteries, that are guaranteed to hold their power and will never have to be recharged.

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More Forcibly Expressed in These Letters Than Any Statements We Could Make

CURED AFTER SUFFERING FOR FIFTEEN YEARS WITH CATARRH OF STOMACH AND BOWELS AND BORDERING ON PARALYSIS

For the benefit of the sick and suffering I wish to confirm the following statement, which I made Jan. 16, 1903:

I had been afflicted with catarrh of the stomach and bowels and general debility, bordering on paralysis, for the past fifteen years. For two years I lived altogether on fresh fish and dry bread and milk. After a while I had to quit fish and for three months I lived on toasted bread and milk, and kept getting worse, until I had to quit work, having no strength left. Myself and friends thought that my time in this world was short, having all this time been in the hands of at least twelve doctors, some noted specialists, and the doctors all diagnosed my case as catarrh of the bowels and stomach. After I had given up all hope of getting well again, a friend of mine, who had taken Dr. Thacher's treatment, advised me to consult the doctor. I wrote him and he advised me. I made up my mind to make one more effort and give him a trial, and the result was that today I am as well and sound as ever I was, am attending to my business, which requires from sixteen to twenty hours a day. I eat anything that is set before me, having perfect digestion, and I think Dr. Thacher's treatment is a blessing to suffering humanity, and would advise persons with chronic diseases to consult him, as I honestly believe he can do for others what he has done for me.

Very truly,
J. Y. KECK,
17 E. Third St., Pottstown, Pa.

Serious Complication of Lung, Stomach and Kidney Trouble. A Marvelous Chicago Recovery

DR. THACHER:

Dear Sir:—It gives me great pleasure to testify to the perfect cure I have gained by using your wonderful Shields. After suffering fifteen years with stomach troubles, although doctoring the greater part of the time, I kept getting worse until I was the victim of a severe complication of stomach and kidney trouble, which a year and a half ago all seemed to go to my lungs. Had dreadful pains, lost my appetite, could not sleep, became so very weak I could hardly walk across the floor, and not able to do my work. At times when my pains were not so severe I would try to read, but could not for more than five minutes at a time, as I was very nervous. My family and friends thought I could not live another month. I was getting tired of taking medicine. Nothing helped me. I happened to see your advertisement in the paper, which read: "Magnetism Cures Without Medicine." I thought "while there is life there is hope." So just one year ago today I put on your wonderful Magnetic Vest, Leggins and Insoles. The result was a miracle, for in two days I felt relieved; in a week very much better; in three weeks entirely cured.

Words cannot express how thankful I am to you for your your kind advice; also for the treatment, to which I owe my life. May you live long for suffering humanity's sake. May your great and sure cure be known a great deal better than it is today.

Yours respectfully,
MRS. O. RAY, 2316 Ridgeway Ave., Chicago, Ill.

Complicated Case of Piles and Stomach Trouble Restored to Youthful Vigor at Age of 64

DR. THACHER, CHICAGO, ILL.

Dear Dr. Thacher:—It is now eleven years since I first made my acquaintance with the Magnetic Shields. I was then a physical wreck from indigestion and piles, which made life a burden to my existence. I had suffered with a weak stomach from my boyhood, and in the army I contracted the piles and other complicated conditions, which disabled me from active work. One day I called at a house and for the first time learned of the Magnetic Shields. The book, "Plain Road to Health," had been sent to those people and I got it and read it. I recognized and felt the truth of your statements in that valuable work, and concluded that I would send for a Belt and Leggins. I soon felt a new impetus of life and general improvement. My piles left me in three days, and I never had them since. I recovered my health perfectly, and am now in my sixty-fourth year, and I am as sound and active as I was at twenty. I wear the Shields every winter and I am always free from colds, grip, etc. I never have any "tired feeling" and "under the weather," as the majority of people tell about their feelling. I have no aches and pains because the Magnetic vibration of the Shields has re-established perfect circulation of my blood in every fiber of my body; hence my perfect vigor of youth at the advanced age of sixty-four years.

I desire to have this statement published, that it may go out for the benefit of humanity. I shall gladly answer anyone wishing to know more of my case and the nature of this statement.

I am yours with love and gratitude.
N. AEBISCHER, Wausau, Wis.

We have hundreds of letters like the above, stating what marvelous results have been obtained in cases that were considered incurable in many instances. Do not be discouraged. Do not give up hope, even if you have been told your trouble could not be cured, as Nature's methods are wonderful and many cases are restored where medicine has failed to give beneficial results, as shown by the indisputable proof that we will supply you. Investigate our claims, for it is a duty that you owe yourself. All that we ask is for you to write us and send a complete description of your case and let us prove to you what has been done in some cases.

We will send you FREE OF CHARGE our new book, "A PLAIN ROAD TO HEALTH," by C. I. Thacher, M. D., and will advise you just what application of Magnetism will be required for your case. Write us fully today and we will take the same careful pains to advise you as if you called at the office and saw us in person.

DIRECT PROOF ON YOUR OWN BODY

If you are skeptical and must see before you can believe, try a pair of our FOOT BATTERIES in your shoes. They will convince nearly any living being that Magnetic Shields make the blood circulate. They insulate the body from the negative earth and conserve your positive force. They are good for Rheumatism in feet, weak circulation, cold feet, cramps, sore, tender feet, and any weakness in feet. They are worth their weight in gold to any person. They are guaranteed to hold their power. $1.00 per pair, or 3 pair for $2.00. Send size of shoe. THEY DO CONVINCE.

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National FARMER

Vol. XXVI. St. Louis, Mo., October, 1911. No. 4.

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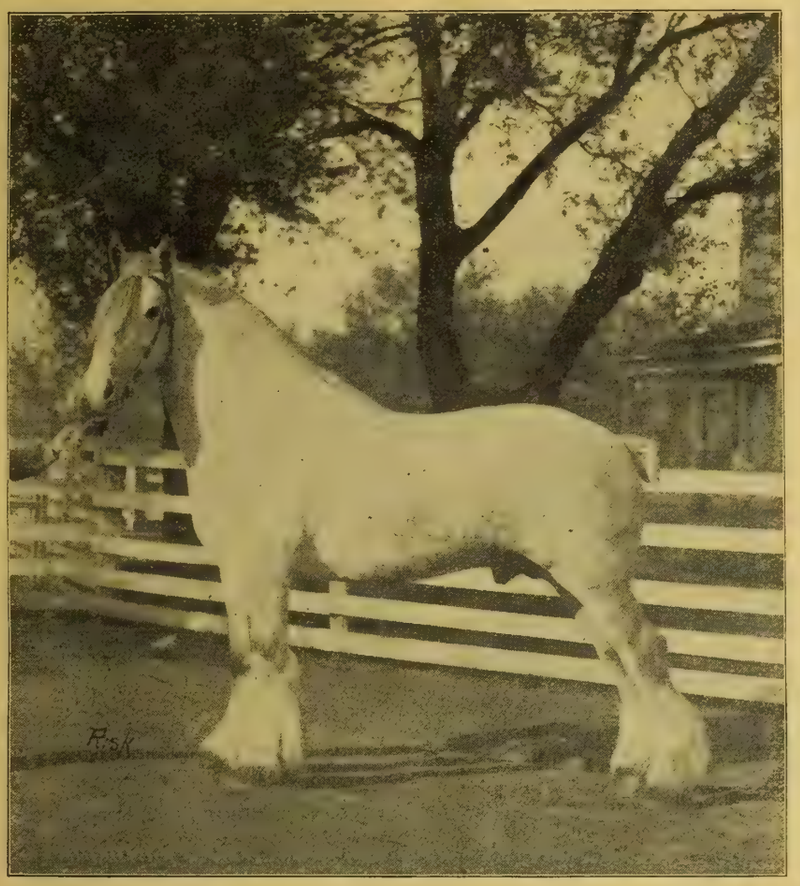

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The Cotton Estimate.

The United States Department of Agriculture has announced a cotton crop estimate of 13,868,337 bales. This estimate will cause all kinds of talk about overproduction, but every bale can be marketed in good shape, providing the crop is properly marketed. See article on page 5, entitled "What Governor Donaghey Said."

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Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The strap passes through the leather

tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Importance of the Water Table in the Soil.

The writer has this summer had impressed on him the immense importance of having the water table in the soil at a right distance from the top. What is known as the water table is where the water in the soil fills the entire space between particles of soil. If a hole is dug down to the water table, water will appear in the bottom of the hole.

From that water table the soil takes up the water by capillary attraction throughout the summer and feeds it to the roots of the thirsty plants.

There is one piece of ground that the writer has had under his observation for many years. The soil is a friable clay and good in every way so far as composition is concerned. Different people live on that piece of ground and have for fifteen years been trying to grow all kinds of things on it. But even in years when the rainfall has been excellent, the crops produced have been unsatisfactory, except where large quantities of artificial watering has been done. There is city water on this piece of land, and in some parts of it the water has been freely applied. Where this has been done, the results have been excellent.

But for fifteen years the blackberries have dried up without fail. Plum trees growing on this soil for ten years have made little growth, and only the very deep-rooting trees do well.

This piece of ground is on a gentle rise of not more than ten to fifteen feet above the ordinary level of the vicinity. But the texture of the soil is evidently such that the water table is ten or more feet from the surface most of the time. This fact is a great obstacle in the way of successful cultivation.

This presents one reason why irrigation will finally become popular in many sections of the humid states where it is now believed generally that irrigation is not needed. There are numerous localities, even in our humid states, where the water table lies naturally so low that good crops are seldom or never produced. Irrigation water is the only factor that will ever make such lands profitable. Frequently small areas of such lands are on farms that are mostly well supplied with underlying strata of water.

In the buying of a new farm this is a matter that should be looked to as well as the richness of the soil and the texture of the soil. It will be hard to find out much about this factor, for it is one to which most people have never given any thought. But the permanent growths above such soil will indicate something. Thus, if there is a grape plantation on it that has not developed large size to the vines, though planted many years, that is a fairly good index of a low water table, if the soil appears to be fairly rich. The writer knows of two grape plantaions on such land, most of the vines of which have made only slight growth in ten years, while here and there are individual vines that have received large quantities of water annually and have made great development and borne fine crops. Of course, there is no way of finding out the age of such a plantation without asking the people that own or have owned it.

Not all tree growths are an index of the height of the water table, for some trees, like the pine, are adapted to growing on just such land.

Sherwin-Williams Paints.

On page 2 will be found the advertisement of Sherwin-Williams Paints and Varnishes. They issue a booklet entitled "Paints and Varnishes for the Farm." This booklet is a wonder; it gives instructions that you need in the business of painting implements, houses, vehicles, fences and outbuildings. In addition to helping you to use the right paints in an economical manner they will see that you are directed to the dealer who will furnish their guaranteed paints, and that is worth something, for country stores are full of trash in the disguise of paint that will not preserve the surface for thirty days after it is brushed on. The same firm furnish Paris green, arsenate of lead and lime-sulphur to kill insects in orchards, etc. Write for the paint book, anyway, and address Sherwin-Williams Company, 689 Canal Road, N. W., Cleveland, Ohio.

Increased Demand For Ice Cream.

More cream is now being used in the manufacture of ice cream in the year 1911 than the entire output of cream thirty years ago. In the Michigan Farmer, Colon C. Lillie gives an idea of this, saying:

"Just this past week it was my privilege to visit what is said to be the largest manufacturer of ice cream in the city of Chicago. To give you an idea of the extent of the business of this firm, allow me to say that the company owns 140 horses, simply used for the delivery of ice cream from the factory to the retail dealers in the city of Chicago. I saw in one cold-storage room ten 1,000-gallon tanks used for the storage of the cream as it is received from the farmers. There were installed, ready for use, ten continuous ice cream freezers with a capacity of 1,000 gallons of ice cream a day, or, in other words, the firm has a capacity of manufacturing 10,000 gallons of ice cream every day; that is, every ten hours; and they had other machines that could be used should the business demand. This is only one firm in one city. Some may be surprised to learn that people put away ice cream in cold storage. By sweetening this cream and putting it away at a temperature just about at freezing, they can keep the cream in perfect condition. They have learned from experience that when the first warm spell comes everybody is hungry for ice cream, and at the same time it is almost impossible to get cream that will do for manufacturing ice cream on account of the weather. The first warm weather of the season always brings a lot of sour cream that will not do at all for this purpose. Consequently the manufacturer stores his cream for future use, just as butter is stored in the summer time for use in the winter time, when there is a shortage."

Caring For Orchards in Off Years.

The difference in the quality as well as the quantity of fruit in orchards in Southern Indiana is very noticeable this season. Some orchards are full of the finest quality of fruit, while others have only a partial crop and even that is of poor quality. Last season was an off apple year in some regions, and not much attention was given to the trees. This was an error, and this neglect is responsible for many failures this season. These orchardists who sprayed their trees last season and cultivated their orchards are now reaping the results of that work. Spraying and cultivation in off seasons insures clean, thrifty growth and plenty of foliage, and this is essential in setting fruit buds for the next crop. A very successful apple grower tells me that persistent attention to trees is the best safeguard against injury at blossoming time.—L. C. Brown.

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Sherwin-Williams Paint (Prepared)(S W P), is made for painting buildings outside and inside. S W P is made of pure lead, pure zinc, pure linseed oil and the necessary coloring pigment and driers, thoroughly mixed and ground by special machinery and put up in sealed cans, full U. S. Standard measure. S W P will cover the greatest possible amount of surface and will last for the longest time. There is economy in using good paint.

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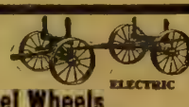

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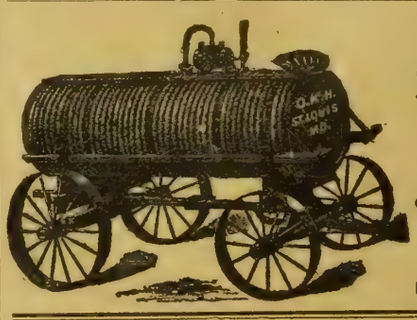

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Dep't 735. East St. Louis, Ill.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone getting up a club of four subscriptions and sending in $2.40 will be credited with one book and one-year's subscription free.

Future Delivery of Grain.

In defense of the Board of Trade system of buying and selling grain for future delivery Mr. Chester Arthur Legg says:

"Everywhere in business life we note some system of buying and selling for future delivery. When the milkman agrees to supply us with milk for the coming month or year, he is but selling milk to us for future delivery. Again, what prudent housekeeper does not purchase his coal to be delivered during the preceding summer, when prices are more reasonable? Moreover, what one of us, in arranging to feed a great crowd at a picnic, wedding or church festival, would wait until the very day of the occasion to obtain the food, flowers or drinks? If we are wise, we make our arrangements with the caterer or florist a week or more before the event.

"In every one of these familiar and common-place illustrations, which could be multiplied indefinitely, we are doing identically what the man in the 'pit' does when he purchases wheat, etc., for future delivery, and the one who sells it to him is occupying the position of the milkman, coal dealer or caterer. This should at least demonstrate that such purchases and sales of grain, etc., for future delivery are not an unusual and therefore suspicious form of trading.

"The charge is no less untrue that the system is a recent invention of the Stock and Produce Exchanges, designed for their special purposes. History records that as far back as the time of Aristotle a certain Greek merchant contracted to buy the entire olive oil output of the Island of Miletus one year before the crop matured. Moreover, in England and Holland, during the entire colonizing era of the fifteenth and sixteenth centuries, we find the practice of buying and selling warrants covering cargoes to arrive from America and the West Indies carried on most extensively. The system provided then, as it does now, a splendid service in the distribution of products at fairly stable prices and with the minimum risk to the merchants."

"The miller to-day may desire to accept an order to deliver a large consignment of flour in Europe or Asia some time in the future. At to-day's price of wheat he can see his way clear to make such a contract, but if at the time he wanted to mill it the price is advanced greatly, he may be financially ruined. By buying for future delivery the quantity of wheat necessary to make the flour, he obviates any such catastrophe. When the time of delivery comes, if he needs all the actual wheat he has bought, he will demand and get it. But if he does not need all of it, he will 'close out' his trade at the market price. It would be impossible without Board of Trade facilities for millers to engage in international trade."

Cold Storage to Cheapen Foods.

The New York Produce Review and American Creamery explains the views of different nations in regard to the value of cold storage for produce as follows:

"A cable dispatch from Rambouillet, France, dated September 7, says that a Cabinet Council presided over by President Fallieres was recently held to consider the disorders arising from the popular clamor for cheaper food, and to adopt measures intended to decrease the cost of living. The Ministers of Commerce and Agriculture explained to detail the results of their investigation of the problem and the Cabinet approved of plans to ameliorate the situation by facilitating the importation of cattle and frozen meats, and by installing refrigerating and storage plants, of which there is said to be a lack in France.

"It is declared that the cost of everything eatable in France is higher than ever before, and this is the case all over Western Europe, where the natural upward tendency of food values has been exaggerated by drouths and generally unfavorable conditions for food production.

"We mention the matter here principally to set forth the estimation of the French government in regard to the natural effect of cold storage upon the supply of food and its cost. There an extension of cold storage facilities is prescribed as a means of ameliorating the condition of food scarcity—as it should be by anyone conversant with economic laws—while here our splendid cold-storage industry is attacked and hampered with restrictions as the first move toward the same end, by legislators and newspapers who appear to know about as much of political economy as a cow does of aviation."

Cotton in Morocco.

Two years ago, while prospecting for minerals in Morocco, Herr Mannesmann was taken prisoner by the Moors and conveyed to the Sus district, which up to that time had been trodden by the foot of no European. To his surprise, he found the ruins of vast cotton plantations, which must have existed and flourished in the reign of the Sultan Edris, grandfather of the present Sultan, but which now, uncultivated and uncared for, have run wild and gone to seed. Not only did Herr Mannesmann discover the plantations themselves, but above and below Tarudant, the capital of the province, he declares are the remains of an irrigation system designed to feed the plantations with the water which their dry, chalky soil requires to make it fruitful.

An artificial canal, with a depth varying from three to nine feet, drew water from the river Sus, and a hundred years ago, when the Sultan Edris had the power to force the insolent population to work, the cotton plantations must have yielded a rich harvest, even with the primitive native methods of cultivation.

Herr Mannesmann is of the opinion that these plantations can easily be regenerated and brought up to a state of culture which will render Morocco one of the most valuable cotton-producing fields of the world. The climate, he says, is essentially suited to cotton growing, and the even temperature of Morocco makes it possible for Europeans to do manual labor, even if the natives could not be used. It was with this end in view that the Mannesmann brothers obtained from the Sultan large concessions in the Sus district.

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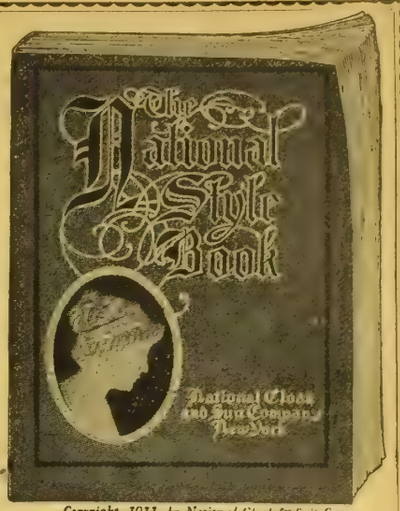

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A Few Words on Fertilizer.

The Commissioner of Agriculture of Nashville, Tenn., says:

"We think it timely to talk about commercial fertilizers. While we advocate making as much fertilizer on the farm as possible by keeping live stock and feeding the products of the farm, together with cotton-seed meal, etc., yet the truck gardener and intensive farmer can not always do so. He has to supply his plant food in some other form, often by buying the ready-mixed fertilizers on the market.

"If the farmer buys a commercial fertilizer he will find printed on the bag a statement of the percentage of nitrogen, phosphoric acid and potash it contains. No fertilizer should be bought until the buyer has calculated its commercial value from the figures on the bag.

"The commercial value of a pound of nitrogen, phosphoric acid and potash is the average wholesale selling price of these substances in the largest fertilizer markets. Chemists average these prices every year and publish the figures as commercial value for that year. Following are the prices for this year:

"Nitrogen, 17 cents a pound.

"Phosphoric acid, 5 cents a pound.

"Potash, 5 cents a pound.

"By mixing his fertilizers the farmer can usually save several dollars per ton. He can also make a variety of mixtures and adapt them to each crop and each field. He saves the freight on the filler, at least."

The farmers of the United States did not have any opportunity to vote against the so-called reciprocity proposition, but the Canadians voted all right.

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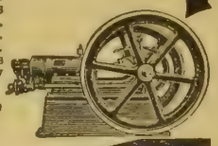
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Milch Cattle on Market.

Milch cows and calves, all grades and qualities, are selling at the St. Louis National Stock Yards at $20 to $60 per cow and calf. They are not much until you get to $45 and upward.

The Dry-farming Congress.

Many of the most famous agriculturists throughout the world have places on the programme of the International Dry-farming Congress, which meets at Colorado Springs, Colo., October 16th. The Congress is devoted to the propaganda of better farming, along the intensive lines known as "dry-farming" methods. It has 15,000 paid members and is the largest agricultural society in the world. Among the prominent names are: W. M. Hays, First Assistant Secretary of Agriculture; M. A. Carleton, Cerealist, Department of Agriculture; Dr. A. C. True, Director of Experiment Stations; Hon. W. R. Motherwell, Director of Agriculture of Saskatchewan, Can.; Hon. Duncan Marshall, Minister of Agriculture for Alberta, Can.; Hon. J. Ed. Caron, Minister of Agriculture for Quebec; and the following Presidents of Agricultural Colleges: Dr. L. H. Bailey, of New York; Dr. K. L. Butterfield, of Massachusetts; Dr. J. H. Connell, of Oklahoma; Dr. J. H. Watters, of Kansas; Dr. J. A. Widtsoe, of Utah; Dr. J. H. Worst, of North Dakota; Dr. W. E. Garrison, of New Mexico; Dr. C. A. Lory, of Colorado; and others.

St. Louis Root Quotations.

On the St. Louis market, September 30th, the following were wholesale root quotations: Golden Seal at $4.30 per pound; Lady Slipper, 15c.; Seneca, 34c.; Pink, 18c.; Black, 6c.; May Apple, 4c.; Snake, 24c.; Kansas Blacksnake (Echinacea), 11c.; do. Oklahoma, 6c.; Missouri nominal; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 4c.; Blood, 4½c.; Blueflag, 5c.; Sassafras—Bark of root, 5c.; Wild Ginger, 9c.; Spikenard, 3c.; Skullcap, 7c.; Ginseng—Wild, $5.50 to $5.75; and cultivated, $5.25 to $5.50 per pound.

St. Louis Quotations For Nuts.

Wholesale quotations for nuts on the St. Louis market, September 30th, were as follows: New Western pecans, 8 to 9c. per pound; new Texas pecans, 9 to 10c.; new black walnuts, $1.25 per bushel; new hickory nuts, $1.50 to $1.75 per bushel; Shellbarks, $1.75 to $2.00 per bushel; hazelnuts, 6c. per pound; peanuts at 3 to 3½c. per pound for farmers' stock.

Not the Result Expected.

A movement is on foot in Texas to eliminate competition in selling live stock. The idea is to consolidate all the important shippers into one company and cut out all commission firms but that one and giving that one a monopoly of the offerings. The result expected from this combination is better markets, higher prices, more competition and a big time all round.

All this was attempted before. The American Live Stock Commission Company was organized by Texas cattlemen and went into the live stock markets with the avowed intention of doing away with all the market rules then existing. They disregarded the commission rules, went into the stock-car transportation business, shipped large numbers of cattle to market, and finally did come within a fraction of controlling the shipments of grass Texas cattle when grass cattle were nearly all the cattle shipments from Texas.

They antagonized everybody they came in contact with. They wanted competition for themselves, but they rubbed the monopoly on everyone else. They did not try to find out how the market was, but they did try to convince others how the market ought to be, and the others refused to be convinced. Furthermore, although their mismanaged shipments did often break the market, it is not of record that they ever received a strong price for any shipment. They sold nearly all they had to the big packers and ignored the small buyers that were trying to fill their orders for single car-loads.

The fact of the matter is that the great influence that has built up live stock markets is the competition between commission men, each trying to outdo the other in selling the consignments entrusted to their care. The buyers represent the opposing force in selling, but the efforts of commission men to outdo each other keep them all working, fighting, competing and guessing. Eliminate the commission firms and the market will be robbed of the principal element of competition, and then the buyers will have an easy time with the one great live stock selling monopoly that will remain with their cattle in the yards eating their heads off.

Some who will read this will say: "That man is working for the commission business and he does not know what he is talking about;" but he does know, and has been through it all—as cattle raiser, as market reporter and as spectator for thirty-five years. But for the commission men the great packers would now be buying Texas cows at 1½ cents a pound and steers at 2½ to 3 cents, the same as they used to do. The commission firms enter into two contests every market day, one with the buyers who try to buy cattle cheap and the other with competitors of their own kind that are trying to get away their trade. The result is, that the stockmen have better markets than cotton growers, tobacco raisers, grain producers or fruit growers. Stockmen have well organized competitive markets on which none of the packing-house buyers can afford to go to sleep, and if they wish to buy cattle they have to make a noise like cattle buyers.

The Bogus Reciprocity.

When the voters of British North America decided to decline the offer of the United States government in the matter of reciprocity, they acted not wisely but they acted decidedly. In Canada the people vote for or against all great measures, and the failure of the people of Canada to ratify the treaty which had already been accepted by the United States government caused the overthrow of the ministry that was in power in Canada when the draft of the treaty was made.

As between the farmers of the United States and the farmers of Canada, the treaty was decidedly in favor of the Canadian farmers. Those legislators in the United States Congress who voted for reciprocity voted for the interests of Canadian farmers, and they voted against the interests of the farmers of the United States. As the incident is now closed, it may not be worth while to reopen the grave of bogus reciprocity for the present, but it is well worth while to remember that it is easy to ascertain by the records who it was that voted against the farmers of the United States in the greatest issue that the interests of farmers as a class were involved. What they have done once they will certainly do again whenever the opportunity presents itself.

Barley is a good crop, and for the present there is a duty on foreign barley; in other words, the American farmer has not yet been legislated out of his own market.

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The Wheat Situation.

Now that the reciprocity proposition is cleared away, thanks to our good neighbors in Canada, the wheat market is relieved of the possibility of an oversupply of foreign-raised wheat coming in duty free. The duty to be paid on every bushel of wheat admitted into the United States is 25 cents, and that duty will remain until it is legislated away.

Notwithstanding foreign wheat is dutiable and the American farm production is protected by that duty, wheat is not scarce, neither is it high in price. From the farmer's standpoint wheat is cheap. The United States farmers are raising about eight bushels of wheat a year for every man, woman and child in the United States of America, consequently there ought not to be much complaint.

For the last six months cash wheat has sold in St. Louis largely at 85 to 90 cents a bushel, and if the cost of transportation and sale is deducted the farmer has been getting 75 to 85 cents for a sixty-pound bushel of wheat. Since reciprocity has passed, wheat has nearly resumed the prices of a year ago. On September 30th, 1910, cash wheat sold in St. Louis at $1.00 to $1.04 a bushel, and on September 20th, 1911, cash wheat in St. Louis sold at 98½ to 99½ cents.

To give an idea of the normal wheat market, we give quotations of September 30th, 1910 and 1911, and examples of markets depressed by fear of reciprocity are given for June, July and August, 1911.

Quotation of	Sept.	Dec.	May.
Sept., 1910.	$0.93½	$0.97⅞	$1.02⅛
June, 1911.	89⅞	92¼	.....
July. 1911.	89⅞	93⅝	98
Aug., 1911.	89	94¼	1.00¼
Sept., 1911.	94¾	98¼	1.04¼

It will be seen that at the close of business September 30th, 1910, No. 2 wheat for September delivery closed at 93½ cents a bushel, but in August, 1911, the new September quotation dropped to 89 cents; but when they gave up reciprocity the Canadians gave us back our normal market, which was worth five cents a bushel immediately, and in our opinion will be worth five cents more later on.

The most significant quotation on the list is $1.04¼ a bushel, quoted September, 30th, 1911, for wheat to be delivered May 30th, 1911. With the present outlook there is nothing weak in the appearance of the wheat market.

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$8,500 offered for one invention. Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. Patents advertised for sale at our expense in Manufacturers, Journals.
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Operate perfectly on common coal oil, gasoline, distillate, alcohol or any similar liquid fuel. Our catalog explains why this is safest, simplest, most economical and practical power.
Genuine Free Trial
If it doesn't satisfy you in every way the trial costs nothing. Don't invest in any engine until you get our proposition. Write for it now.
THE MIDDLEDITCH ENGINE CO.
97 Meldrum Ave., Detroit, Mich.

Butter in New York.

At the close of September butter was selling at wholesale in New York as follows: Creamery specials, 29c.; firsts, 28c.; state dairy, finest, 27c.; good to prime, 24 to 25c;. common to fair, 20 to 23c.; factory, current make firsts, 20 to 20½c.; seconds, 19½c.

What Governor Donaghey Said.

At a meeting of cotton farmers and business men held at Little Rock, Ark., to devise ways and means for getting a better price for cotton, Hon. Geo. W. Donaghey, Governor of the state of Arkansas, declared that as an economic proposition it might be better to burn some cotton and sell the remainder at a larger price than to grow a large crop and sell it at a small price, which goes to prove that the Hon. Governor of Arkansas has much to learn as an economist. A bale of cotton that is out of debt is very easy to hold; it does not eat three meals a day, neither does it require very much shelter. If a man has borrowed 10 cents a pound on his bale, however, and he wishes to burn that bale, he will have to buy it back again before he can rightly burn it. But it is not necessary to burn cotton to keep it off the market. That can be done by an agreement that is possible and reasonable. Cotton growers can easily reach an agreement to divide their cotton into twelve parts and each twelfth part be sold each month. It is a year's crop and the market is always reduced by placing it all on sale at one time. If it is divided into twelve parts it will sell for all the cotton is worth on the market. In fact, there could be a standing rule that no man raising cotton should sell more than one-twelfth of his cotton crop in any one month, unless he pay a penalty for doing so.

A man with four bales of cotton could sell one every three months; a man with six bales could sell one every two months; the man with thirty-six bales would sell three bales a month, and so on. The sale of the largest crop in the world being regulated, the market would adjust itself. Every man who of necessity must violate the selling rule should be released from his obligation on payment of one dollar a bale to the Central Cotton Growers' Association, out of which all expenses could be paid.

The editor of The National Farmer and Stock Grower has advanced this idea before and will probably do so again and again without any influential men favoring it; but we have no hesitation in saying that some day it is the manner in which the sale of cotton will be regulated in the interest of the producer. In the meantime, Governor Donaghey is welcome to burn his own cotton.

Prices of Cash Grain.

Once a month we try to make a record of the cash prices for wheat, corn and oats on the St. Louis market. That will enable our readers to build up a line of handy information by keeping a file of the paper. The day we select is the last day of each month. The following were quotations September 30th, 1911.

Sample wheat in bulk on track.—No. 2 red sold at 98 to 99½ cents: No. 1 at $1.00. No. 1 is an unusual grade. No. 3 red sold at 96 to 98 cents; No. 4 red sold at 94 to 97 cents; No. 2 hard sold at $1.00 to $1.01 (soft Illinois) to $1.04 for semi-dark; Turkey, $1.08 to $1.12; No. 3 hard at $1.00 to $1.02; No. 4 hard at 95 to 98 cents.

Sample corn on track.—No. 2 corn, 68¼ to 68½ cents; No. 3 corn, 67¾ cents; No. 4 corn, 67 cents: No. 2 yellow, 68¼ to 69 cents—mainly 68½ cents; No. 3 yellow, 68 cents; No. 4 yellow, 67 cents; No. 2 white, 70 to 70½ cents; No. 3 white, 69½ cents; No. 4 white, 68½ cents.

Sample oats on track.—No. 2 white, 47½ to 48 cents; Standard, 47 to 47½ cents; No. 3 white, 46¾ to 47 cents: No. 4 white, 46¼ to 46½ cents; No. 2 oats, 46½ cents; No. 3 oats, 46 cents; No. 4 oats, 45¼ cents.

Home-made Gas-Light From Crushed Stone

TWENTY years ago the oil lamp had already been driven out of the city into the country home, where gas could not follow—so we thought.

In those days we would have laughed at the idea of a country home lighted with gaslight.

But like the telephone and free mail delivery gaslight has finally left the city to become a common rural convenience.

In the year 1911, the up-to-date villager or farmer not only lives in a gas-lighted house, same as his city cousin, but when he drives home on a cold, wet night he actually lights up his barn, his barnyard or porches on his house with this gas-light by simply turning an "ignition" button on a post or wall.

* * *

And this change seems quite like magic when you consider that this rural gas-light is home-made— made by the family itself right on the premises.

CRUSHED STONE

Take fifteen minutes once a month to make all that can be used in a large house.

The magic is all in the curious manufactured stone known commercially as "Union Carbide."

This wonderful gas-producing substance, "Union Carbide," looks and feels just like crushed granite. For country home use it is packed and shipped from warehouses located all over the United States in sheet steel cans containing 100 pounds.

Union Carbide won't burn, can't explode, and will keep in the original package for years in any climate. For this reason it is safer to handle and store about the premises than coal.

* * *

All that is necessary to make "Union Carbide" give up its gas is to mix it with plain water—the gas, which is then instantly generated, is genuine Acetylene.

When piped to handsome brass chandeliers and fixtures Acetylene burns with an intensely brilliant, stiff flame, that the wind can't affect.

This flame makes light so white in color that it is commonly called "Artificial Sunlight."

Experiments conducted by Cornell University have proven that it will grow plants the same as sunlight itself.

Physicians recommend Acetylene as a germicide and a remedy for eye-strain, and it is used as an illuminant in fifty-four hospitals in New York City alone.

Then, too, Acetylene is so pure that you might blow out the light and sleep all night in a room with the burner open without any injurious effects whatever.

On account of its being burned in permanent brass fixtures attached to walls and ceilings, Acetylene is much safer than smoky, smelly oil lamps, which can easily be tipped over.

For this reason the Engineers of the National Board of Insurance Underwriters called Acetylene safer than any illuminant it commonly displaces.

In addition to all these advantages, Acetylene light is inexpensive.

An Acetylene light of 24 candle-power costs only about 4 cents for ten hours' lighting, while for the same number of hours regular oil lamps of equal volume cost about 6 cents in kerosene, chimneys and wicks on the average.

* * *

Consider this carefully and you will hardly wonder at the fact that there are today no less than 185,000 town and country homes lighted with home-made Acetylene, made from "Union Carbide."

Once a month some member of the family must dump a few pounds of "Union Carbide" in a small tank-like machine which usually sets in one corner of the basement.

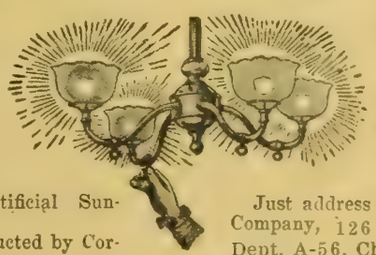
This little tank-like machine is automatic—it does all the work—it makes no gas until the burners are lighted and stops making gas when the burners are shut off.

The lights located in every room in your house, on your porches, in your horse and cow barns, or barnyards and chicken yards if you like, will all be ready to turn on with a twist of the wrist or a touch of the button at any time of the day or night.

No city home can be as brilliantly or as beautifully illuminated as any one of these 185,000 homes now using Acetylene.

* * *

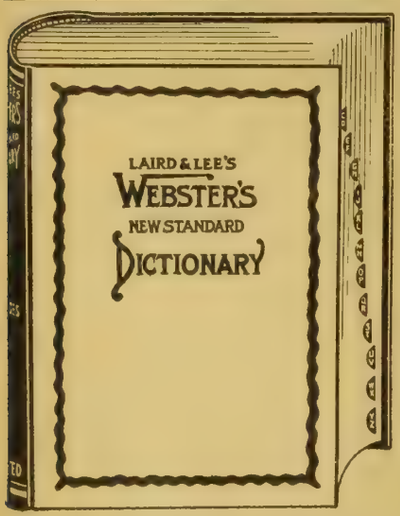
If you want to be up-to-date, enjoy modern conveniences, and keep the young folks at home, write us how many rooms and buildings you have. We will send you free an intensely interesting lot of facts, figures and booklets.



Just address Union Carbide Sales Company, 126 Michigan Blvd., Dept. A-56, Chicago, Ill.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English



word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you. Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Natural Adaptability to Fruits.

It is of no use for one to expect to grow fruits on a large scale in a locality not adapted to them and compete with the same varieties of fruit grown in localities that are adapted to them, unless the adapted regions are at such a distance that transportation is too costly.

Thus, in the growing of certain fruits we see one country best adapted, and for other varieties of fruit we see other countries best adapted. Where a thing grows naturally is the best place to grow it under world conditions such as we have to-day.

Compare North America and Europe in this regard. Much of Southern Europe, where oranges and lemons grow, is as far north as the southern parts of New England. Yet we cannot grow such fruits for hundreds of miles south of New England. The same is true of many of the fruits that the South Europeans grow and ship to us.

The fact is, that the two continents are extremely diverse in the matter of fruit-growing conditions. Southern Europe is formed by nature to grow such fruits as are grown there. Look at a map of Europe and see how several towering ranges of mountains shut off the cold winds from the north. The Pyrenees north of Spain, the Alps north of Italy, the Apennines and the Balkans barring the winds from Italy, Southern Austria and Greece and some of the less important states. These four great ranges of mountains insure a semi-tropical climate for all the vast region south of them, a region extending from the Atlantic Ocean to the Black Sea.

But how about North America! Not a single range of mountains runs for any considerable distance east and west. They all run north and south. We have nothing between us and the Arctic Ocean. Its cold gales come sweeping down upon us from the Northwest and sometimes push way through to the Gulf of Mexico. Sometimes they have withered foliage even on the north shores of the Island of Cuba.

But these same cold winds make one fruit more successfully grown here than in Europe, and that is the winter apple, the apple that is so hard in texture when it is ripe that it can be kept till spring, if need be, and can be sent all over the world without spoiling. It is wise for our Northern orchardists to push the growing of the winter apple.

But the American continent has some great advantages over Europe and most of the Eastern Continent in the growing of fruits. The great sub-tropical and tropical region just beyond our frost line to the south is by nature so adapted to the growing of bananas that it can supply North America and Europe with bananas. It has the rich land, the moisture and the heat, and is in the track of commerce. South of Europe is the Mediterranean Sea, and south of that North Africa, mostly moisture depleted or a burning desert. No banana growing there worth mentioning!

North America, including its adjacent islands, has the advantage in the supplying of both apples and bananas, and the growing and selling of these two commodities will make this continent richer than our gold mines ever did.

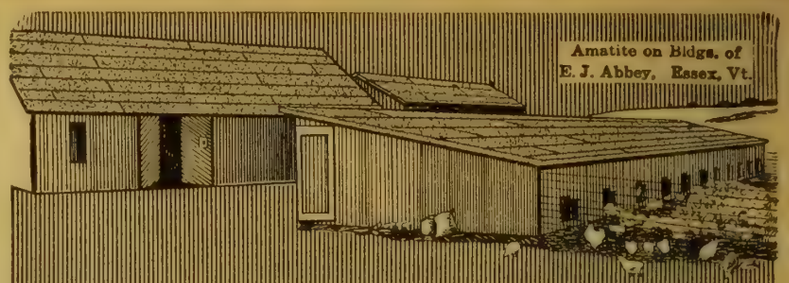
A Market Wheat Record.

On July 10, 1911, was recorded the consignment of the highest grade of wheat that ever reached the St. Louis market. There were two cars to the John Mullally Commission Company. It was hard winter wheat of the yellow variety, and was shipped from De Kalb county, Missouri. One car tested 66 pounds to the bushel and the other car 65½ pounds to the bushel. Old grain traders on the Merchants' Exchange marveled at this test. At first some of them refused to believe John Mullally's report on the test, and they formed a committee, which made a test and satisfied themselves.

It is of record that the Merchants' Exchange received some soft winter wheat in 1901 which ran 64½ pounds to the bushel. Samples of this were sent to the Pan-American Exposition that year and was awarded honorable mention. A few of the old timers on 'Change said they remembered some wheat back in the 70's which tested 65 pounds, but Mr. Mullally said there was some doubt about this. Sixty-two pounds to the bushel is considered exceptional wheat.

The De Kalb county consignment graded as No. 1 and was sold to the Sparks Milling Company, of Alton, for 91 cents a bushel. The wheat was of a very plump berry and remarkable for the absence of small-sized berries.

In high quality of the grain the 1911 wheat from Missouri is on a par or better than the famous crop of 1901. The main difference between the two years is that in 1901 the red winter wheat carried off the palm, while this year the hard wheat is the better. Nearly all the hard wheat which has come to St. Louis has graded No. 1. The No. 1 grade establishes the finest seed wheat, but the De Kalb county consignment is so superior to the average No. 1 hard wheat that it is really entitled to a special grade.



Amatite ROOFING
Needs No Painting

TRADE B MARK

AMATITE *roofing is weaned.* It doesn't need to be watched over and fussed with and cared for.

It takes care of itself from the start. As soon as it is laid on your roof, you can go away and forget about it.

You *don't have to paint* Amatite every two years as you do the "rubber" kinds. Amatite has a mineral surface which needs no painting.

The mineral surface is better and more durable than many coats of paint.

Back of the mineral surface is a layer of pitch, the greatest waterproofing compound known. Back of the pitch is a layer of felt (a whole ready roofing in itself), and behind this is another layer of pitch and another layer of felt. The result is a strong, durable roof which can take care of itself in any climate without painting.

We will be glad to send you free a sample of Amatite Roofing so that you can see for yourself just what it looks like. Address our nearest office.

Everjet Elastic Paint

Low in price. Great in durability. Invaluable for prolonging the life of ready roofings, fences, iron work, etc.

Barrett Manufacturing Co.

New York Chicago Philadelphia
Boston St. Louis Cleveland
Pittsburg Cincinnati Kansas City
Minneapolis New Orleans Seattle

Imports of Raw Cotton.

During the year ending June 30, 1911, the raw cotton imported from foreign countries and admitted duty free into the United States amounted to 113,768,313 pounds, invoiced at $24,776,320. Of this imported cotton 7,577,549 pounds arrived from Great Britain; 4,708,413 pounds from Peru; 11,421,951 pounds direct from Asia; 88,366,861 pounds from Egypt; and 1,633,539 pounds from other countries. In addition to the raw cotton there came in 35,740,475 pounds of cotton waste also duty free.

At the farm of Wm. Bell, of Cortland, N. Y., eighty head of dairy cows sold at auction for an average of $75 per head. These were grade Holsteins and belonged to a milk-shipping herd.

On August 1st, 2,971,000 cases of eggs were reported in cold storage by thirty-five cold-storage houses belonging to the American Warehousemen's Association.

The Russian crop of wheat is not expected to be very heavy this year.

"EVERYBODY"
Can Afford a Gasoline Engine
With Galloway's New Low Prices

1½ HP
$27.50

You've never before heard of such startling values—I've never offered anything like them and you know full well that no one else has ever come anywhere near my regular prices. But this time I've a startling reason—*I want 10 men in every township in the county to own and operate a Galloway Engine*—I've decided to double my factory capacity by increasing the sales twice and sell two where I formerly sold one—this calls for unusual values—hence, the greatest offer I have ever made. I can save you from $25 to $300 on an engine according to the H. P. needed. It doesn't matter what sized engine you want I've got the one to fit your wants and do more work and better work at less actual cost than any other engine in the world. Write at once for full information of the Greatest Offer Ever Made To American Farmers—don't delay but send me your name and address now, before you do another thing. Let me prove to you in cold facts why I can put $25 to $300 in your pocket

Other Prices in Proportion

WM. GALLOWAY COMPANY
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30 Days FREE Trial

Pump Jack $3.95

No Such Quality in any engine - no matter what price you pay - the Galloway price saves you $25 to $300

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone sending us four subscriptions and $4.00 to pay for same will be credited with two-years' subscription and one sewing awl free.

Alfalfa in Central Illinois.

A correspondent from Effingham county, Illinois, writes: "Will alfalfa do well in this county, and will the ground need to be inoculated?"

On the bottom lands in this county alfalfa will do well, but it is more of a problem to get it to thrive on the uplands. I believe there is some hard-pan in some localities in this county, and on this class of soil alfalfa will not do well. Inoculation is a much quicker and surer method of getting a stand of alfalfa; still, conditions are so nearly ideal along the river bottoms in this county that I would risk seeding without inoculation. Sow plenty of seed; say, fifteen to twenty pounds to the acre.—L. C. Brown.

Early Corn Not So Good.

A Clinton county (Indiana) correspondent asks these questions about corn: "For several years corn in this section has not matured, so last spring I planted my field with a 100-day variety and commenced planting on May 12. My crop is not near so good as late corn. Would you stick to the early corn, or grow something bigger?"

That very question will bother lots of corn growers this season. The dry weather hurt the early corn and has measurably cut down the yield, while the shooting period of the late varieties had the benefit of the fall rains, and consequently late fields will yield away above the early sorts. The man who changes his practice with every new condition will miss it more often than he hits it. I advise growing the corn which will mature in a normal season. If early corn has produced a bigger crop four years out of five, I would stick to it. One year Boone County White got ripe in latitude 42 degrees; still, no sane man would plant this variety so far north year after year.—L. C. Brown.

Packers in Uruguay.

Consul Frederick W. Goding sends the information from Montevideo that the contract for building the modern packing house in Uruguay for Chicago capitalists was given to Engineer Adolfo Shaw. The excavations for the foundations have been made, and the entire structure is to be completed in July, 1912. The manager states that it is to be the most up-to-date packing house in South America. Montevideo is the principal seaport of Uruguay, a country situated south of Brazil and bordering on the Atlantic Ocean, east of the Argentine Republic. Montevideo is on the sea route to Buenos Ayres.

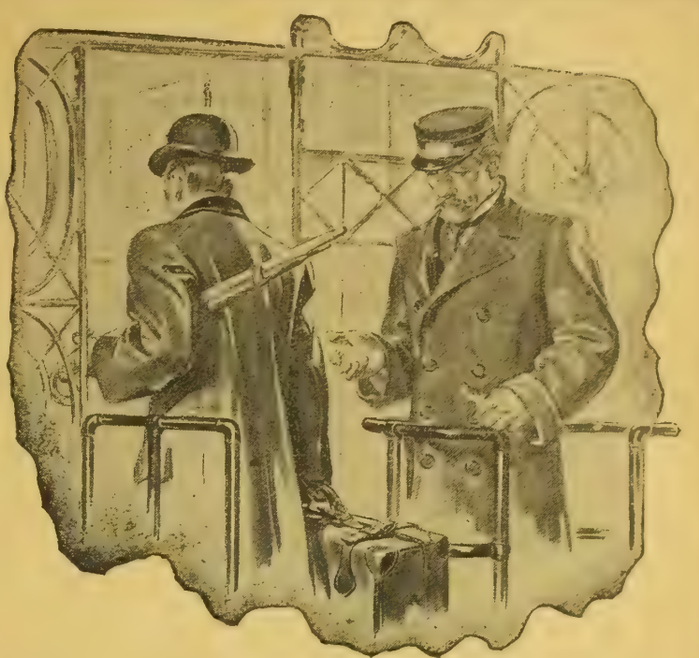
Time to Buy Sheep Feeders.

According to a calculation by Clay, Robinson & Co., the movement of sheep from the markets to be fed have decreased 278,292 head, or 40 per cent. below the total number taken out to be fed a year ago. Furthermore, when the calculation was made sheep suitable for feeding purposes were $1.75 per 100 pounds lower than a year ago. The argument advanced by Clay, Robinson & Co. was, that it is better to buy feeding sheep when they are low than to come in later when they are high. Clay, Robinson & Co. can buy sheep for you on any one of ten markets—Chicago, South Omaha, Kansas City, South St. Joseph, East St. Louis, Denver, Sioux City, South St. Paul, East Buffalo or Fort Worth.

New Zealand Chilled Beef.

As distinct from frozen beef the New Zealand shippers are now forwarding chilled beef, or, as we call it, "dressed beef," to London. The last shipment sold for 9½ cents a pound wholesale for hind quarters and 7 cents a pound for fore quarters. The shipment required fifty days from loading in New Zealand to delivery in London.

"The Eradication of Quack Grass" is the title of Farmers' Bulletin No. 464, issued by the United States Department of Agriculture, Washington, D. C.



The Howard Watch

The "Big Limited" moves out on the tick of the second—does its thousand-mile run and arrives *on time.*

Foreign railroad men marvel at the reliability of American train service. They do not realize the character of the American railroad employee—his acute sense of time—and the *watch* he carries.

The HOWARD Watch is *railroad standard*—officially certified and adopted by the Time Inspectors of 180 leading American railroads.

Its *adjustment* is so finely accurate—its special *hard-tempered* balance and its sturdy pivots run so true under jolt and vibration.

These are the crucial points where the ordinary watch goes back on its owner—the jar of driving over rough roads, or even of walking, knocks it out of true.

A HOWARD Watch is always worth what you pay for it. It is the only watch that has a *real investment value*—and about the only one there is any distinction in carrying.

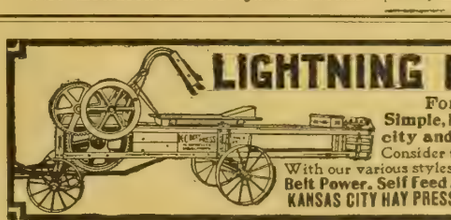
The price of each watch—from the 17-jewel (*double roller*) in a Crescent or Boss gold-filled case at $40 to the 23-jewel in a 14K solid gold case at $150—is fixed at the factory and a printed ticket attached.

Find the HOWARD jeweler in your town. When a man makes a permanent investment like the purchase of a HOWARD Watch he naturally wants to *see* what he is buying—he wants to get the dealer's expert advice. The HOWARD Watch is sold only by legitimate jewelers—and not every jeweler can sell you a HOWARD. The jeweler who can is a representative merchant—a good man to know.

Send us your name on a postal card and we will send you—FREE—our pamphlet—THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

E. HOWARD WATCH WORKS

Dept. No. 122, Boston, Mass.



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Most for Money

$1.00 size bottle of Frazier's Distemper Cure holds 8 ounces (other so-called distemper cures hold 6 ounces). We authorize your druggist to refund the purchase price if "Frazier's" fail to give satisfaction in all cases of Distemper, Influenza, Coughs, Colds, Shipping Fever, Catarrhal Fever and all nose and throat diseases. Two sizes, 50 cts. and $1.00. Send for free horse booklet.

BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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By THE HALE PUBLISHING CO.
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PUBLISHER'S ANNOUNCEMENT.

On the 1st day of January, 1912, The National Farmer and Stock Grower will be published by The National Farmer Publishing Company, of St. Louis, Missouri. The National Farmer Publishing Company is being organized for the purpose, purchasing the business of the Hale Publishing Company, of St. Louis, with the avowed intention of increasing the real estate holdings, adding largely to the printing plant and to operate the enterprise on a magnitude of about four times the present basis.

The Hale Publishing Company owns and issues regularly several books and periodicals. The former include the Agricultural Blue Book, published annually, which is a directory of live stock breeders and of merchants and manufacturers who do business with stockmen and farmers. Another is the Book of Live Stock Champions. A new edition, now advertised, is to contain 1,000 pictures with records of each animal. The History of Agriculture by Dates is another book publication which is beginning to be used as a text book in schools and colleges. These books have always paid a profit to the publisher, although most of the printing, lithographing, engraving and binding has been sent out to other establishments.

The periodical publications of the Hale Publishing Company consist of The National Farmer and Stock Grower and the Universal Magazine. These are both issued monthly. The National Farmer and Stock Grower report to the Congressional Committee of Postoffice Expenditures accounted for an average of 250,000 pounds of paper used in twelve issues, weight six to the pound, average issue 125,000 copies, of which quantity 82 per cent. was mailed at second-class rate to subscribers. This has always been an influential farm publication.

The Universal Magazine was first issued in June, 1907, and is now over four years old. At the time it was entered at the postoffice as second-class mail matter so many new regulations were being put into force and effect that it was thought best to concentrate all efforts on The National Farmer and Stock Grower. But the Universal Magazine had literary merits, a good title and is increasing in value. This publication with economical management has never lost a cent and is forging to the front. It is now more than paying its way, and that without soliciting any advertising. With proper effort and capitalization the Universal Magazine alone will pay 10 per cent. annually on one hundred thousand dollars.

The Hale Publishing Company was capitalized at $35,000, and as the business enlarged the stockholders added $10,000 on a 6 per cent. interest basis for the purpose of buying machinery. The majority of this advanced money has since been repaid out of the earnings of the company. Outside of what is left of this obligation the Hale Publishing Company has no indebtedness. The business, printing plant, patents, copyrights, are all free and clear, and will be turned over to The National Farmer Publishing Company at actual value for the purpose intended and will be paid for in 6 per cent. bonds of the new company or in capital stock, as the seller may elect.

About fifty thousand dollars will be required for a new building. The site selected is 100 feet front on the south side of Park avenue, near Jefferson avenue and Lafayette Park, St. Louis, and the architect's plans provide for a six-story building, with about 5,400 square feet of floor space. This building is calculated on a basis that the amount of space available for rental to others will leave the company free of expense, and the rental of the tenants will be sufficient to pay a dividend on the investment. Several other publishing firms have indicated a desire to lease space in the building. The location is the best obtainable, being nearest available clear space to the new St. Louis postoffice at the Union Station, where all St. Louis periodicals must be mailed.

The Hale Publishing Company is paying dividends. For the year 1911 (last three months estimated) the earnings are sufficient to pay 6 per cent. on the small indebtedness and 10 per cent. on the capital stock. All the working money of the Hale Publishing Company on hand December 31st, 1911, will be turned over to the new company in exchange for stock in The National Farmer Publishing Company.

The capital stock of The National Farmer Publishing Company will consist of 1,000 shares of par value of $100.00 each. Every share will be sold at full par value, payable 10 per cent. with application, 25 per cent. January 1st, 1912, 25 per cent. April 1st, 1912, and 40 per cent. July 1st, 1912. This is an invitation to subscribe for the stock.

The bonds of The National Farmer and Stock Grower will consist of 100 of the denomination of $1,000 each. The bonds will mature in twenty-five years and bear 6 per cent. interest. The bonds will be dated January 1st, 1912, and the interest will be paid monthly if desired. Interest coupons will be issued, payable quarterly, but if the coupons are deposited with the Farmers' & Merchants' Trust Company, of St. Louis., the dividend checks will be forwarded monthly. Payment for bonds will be 10 per cent. with application, and the balance January 1st, 1912. The bonds will be secured by first mortgage upon the business and property of the company.

So far this is a brief, simple statement of the change to be brought about. The reason is easily made apparent. The profits of such publications begin at the unit of one hundred thousand copies. The first 100,000 copies of The National Farmer and Stock Grower cost 3 cents a copy, and the second 100,000 cost 1¼ cents a copy. There is twice as much profit in selling the second 100,000 copies that there is in selling the first. This applies to books and papers. While the small business staggers along touching bottom, the business with ample capital reduces cost to a minimum and organizes selling forces which are irresistible.

This publisher's notice is probably the only prospectus that will be issued. The reorganization changes the name of the corporation, but the men who have been successful in establishing the business will continue their investments. The money required is for expansion and enlargement.

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and on all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the government receives the income that is necessary and must be collected for the public service, and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Continue Raising Grain.

The grain farmers of the United States may just as well go on raising grain as fast as they can and as much as they can, otherwise Congress will very likely admit foreign grain free of duty from all countries, reciprocity or no reciprocity.

SATISFACTORY STEEL SHINGLES.

The manufacturers of Edwards Reo Steel Shingles have long given a bond against damage by lightning, and, so far as the roof is concerned, farmers state those steel shingle roofs are the best protection against fire, and anyone who knows the ease with which wood shingles burn will agree with them. This is a very important thing to consider on the farm where it is hard to prevent flames from spreading from one building to another.

A patent interlocking device protects the nails and prevents rusting or leaking. Anyone can put on the roof with hammer and nails.

Reo Steel Shingles are made of Bessemer steel in sheets five to twelve feet long and twenty-four inches wide. They come freight prepaid in either painted or galvanized steel and all ready to put on. They make a beautiful roof.

The Edwards Manufacturing Company is the largest manufacturer in their line in the country and have a special paying proposition to up-to-date farmers who will represent them.

Every reader of this paper is invited to write for the company's valuable roofing book and this special proposition. Address the Edwards Manufacturing Company, Lock street, Cincinnati, Ohio, and ask for Catalogue 1057.

Dried Fruit at St. Louis.

The following were wholesale prices for consignments of dried fruit at St. Louis on September 30th, 1911: Evaporated apples rings—Poor to fair at 5 to 6c; good at 6½ to 7c.; choice at 7½c.—fancy, suitable for facers, bring more; evaporated quarters from 5 to 7c.; cores and peelings, 1½ to 1¾c.; chops at 1 to 1½c. per pound; evaporated pears, choice at 7 to 7½c.; chopped not quotable. Sun-dried apples—Bright, large quarters, 6 to 6½c.; other cuts nominal. Peaches—Prime to choice sun-dried halves at 6 to 6½c.

5 YEAR GUARANTEE

WATERLOO BOY
THE PRICE MAKER

Price No other gasoline engine reduced the price of gasoline engines like the WATERLOO BOY

Waterloo Boy has fewer parts than any other engine. It costs less to make few parts than many parts. WATERLOO BOY is made in large quantities. It costs less per engine to make 100 engines a day than to make 10. That's why we make the under-selling price.

Service

Waterloo Boy is Dependable
Always ready to go. No fuss. No Bucking. Starts easy in winter. Igniter simple as a pair of scissors. Automatic feed regulation does away with both the expense and bother of a pump. Speed lever works like a throttle on a locomotive. Nearly all parts are interchangeable. If you want satisfaction all the year round, buy the Waterloo Boy.

Durability

Waterloo Boy Lasts
It's not a "cheap skate." Built of best material, by men that know how. 17 years of making good. GUARANTEED 5 YEARS. 30 DAYS FREE TRIAL.

Waterloo Gasoline Engine Co.,
228 W. 3d Av. Waterloo, Iowa.

WE DO AS WE ADVERTISE

Horse Secrets Disclosed.

This is a valuable book. It tells how to feed and fatten your stock in the cheapest, quickest way; how to rear an orphan foal by hand; the secret of silage feeding; how to break a horse of bad habits, and scores of other money-making, money-saving secrets.

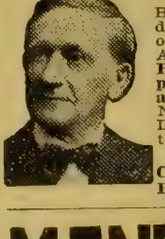
This book is published by the FARM JOURNAL of Philadelphia, the foremost monthly agricultural paper of this country.

THE FARM JOURNAL

does not sell this book, but offers it to its new subscribers. This paper has for thirty-three years been working for the prosperity of farmers and the happiness of farm homes. In the Farm Journal everything is boiled down so that its twenty-four to sixty pages every month give you the most matter in the least space. It is ably edited by authorities and is a cheery and welcome friend in every house it enters. Send us Fifty Cents to pay for the Farm Journal for two years and we will send you a free copy of Horse Secrets Disclosed as a free premium. Address, EVANS SUBSCRIPTION AGENCY, 3550 Vista Ave., St. Louis, Mo

HONEY—Calif. sage honey, freight paid, per lb.—Light Amber, 10c; White, 11c; Water White, 12c—Will ship allowing inspection before payment. Large sample, 10c. Honey leaflet free. Spencer Apiaries Co., Box 99, Nordhoff, Cal.

DON'T WEAR A TRUSS!



New Rupture Cure! Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01. Catalogue Free.

C. E. BROOKS, 59 Brooks Building, Marshall, Mich.

MEN Wanted

COMMENCEMENT SALARY $800.

5,000 Railway Mail Clerks; City Mail Carriers; Postoffice Clerks to be appointed soon. Short hours. Steady work. Examinations coming everywhere. Common education sufficient. Political "pull" unnecessary. Farmers eligible. Send postal immediately for sample questions from previous examinations and schedule showing coming dates and places. FRANKLIN INSTITUTE, Dept O 107, Rochester, N.Y. (Examination coaching free.)

This Free Book Will Save You $20.00 a Year

I want to tell you all about my *Celebrated Steel Shoes*—why one pair will outwear six pairs of leather shoes—how a pair will give you more foot-comfort than you ever had in your life. How they will keep your feet powder-dry all the time. How light and comfortable they are the year around.

I have told half a million others these facts. They have bought steel shoes of me and saved millions of dollars among them. More than that—they can be on their feet all day—at any work, without foot fatigue. And they have gained health protection.

Steel Shoes

N. M. RUTHSTEIN
The Steel Shoe Man.

prevent rheumatism, sciatica, lumbago, lame back and other troubles caused by wet feet. I want to show you the way to avoid these dangers and all such troubles as tender feet, corns, bunions, chilblains, and at the same time show you a saving of $20 a year in actual money on account of the extra wear you get from my shoes.

Will you write me a postal today and get full particulars? Let me send you this free book of mine by return mail.

Address

N. M. Ruthstein
The Steel Shoe Man
254 Seventh St.
Racine, Wis.

A Fine Animal Regulator.

Live stock and poultry books of useful quality are to be had free by addressing Pratt Food Company, Dept. 54, Philadelphia, Pa. Our readers will remember a few years ago the many stock foods, tonics and regulators that were advertised. Under close government scrutiny many of these have "petered" out because there was no merit in them. To-day Pratts Animal Regulator is a stronger proposition than ever. Read about it on page 10.

Dairy Show Veterinarian.

It is announced that the International Dairy Show, which meets at Milwaukee, October 10th to 18th, 1911, has appointed Dr. David Roberts, of Waukesha, Wisconsin, as official veterinarian. Dr. Roberts has also been appointed official veterinarian for the National Dairy Show, which holds its annual session in Chicago from October 26th to November 4th.

These are deserved honors for the eminent veterinarian, and both the dairy shows are to be congratulated on securing his services. This is not Dr. Roberts' first experience in matters of this kind. He has so frequently been called upon to serve as veterinarian at live stock shows that it has become something of a habit with him.

Dr. Roberts is advertising with us a fine live stock book free to stock owners. It is worth writing for. Address, Dr. David Roberts Veterinary Company, 90 Grand avenue, Waukesha, Wis.

LAND SALE BY UNCLE SAM.

Oklahoma Acres at Low Prices to Encourage Settlement by Good Farmers.

Uncle Sam is going to auction off about 1,650,000 acres of land in Oklahoma this fall. The sales will begin November 2d, 1911, and will run almost continuously for about two months. Absolute clear titles will be given. These lands are Indian lands. These are a part of the tract awarded by the government eighty years ago to the Five Nations—the Choctaws, the Chickasaws, the Cherokees, the Creeks and the Seminoles—and were the pick of the earth at that time.

The entire tract allotted to each tribe was originally held by the tribe and not by the individuals composing it. The individual Indians had merely a common property in the whole landed possessions of the tribe. The Indians were furnished with schools, were given instructions in farming and stock raising and horticulture, and their progress was unexampled in the history of the aboriginal peoples. So fast did they assimilate the ideas of the white man that nine years ago the demand was made that the tribal possessions should be broken up and distributed among the individuals composing the tribes. The Indian had arrived at the desire of individual holding. The demand was granted. The allotment of tribal lands to the individual Indians was made. It was not done in a day, for there were many problems to be worked out, but it was accomplished at length, and there remained some of the richest and best of the Oklahoma lands still unallotted. These unallotted lands are now to be sold by the several tribes under the direction of the Secretary of the Interior. There will be only two transfers of the record—first, from the government to the tribe, and, second, from the tribe to the purchaser at the coming auction sale.

Where These Lands Lie.

Take a map of Oklahoma and fold it edge to edge each way. It will crease into four quarters. Down in the southeast quarter adjoining Texas upon the south and Arkansas upon the east, lie the unallotted lands. They do not include all the land in the counties of that section—not by any means! But they do include some of the richest lands and much that has been splendidly improved by the tribes before the allotments were made. This sale will pass some of the greatest bargains in farming lands ever sold over Uncle Sam's counter. The whole section is webbed over with the Frisco Railway and its branches until it requires only a glance at the map to convince anyone that good and quick transportation, the greatest essential of them all to the development of any country, is already amply provided.

The lands are only about 400 miles from the Gulf of Mexico, with a down grade all the way. They are within easy shipping distance of Kansas City, St. Louis and Chicago. There will never be a time when they cannot find ready and profitable market for every ear of corn, every pound of alfalfa, every head of cattle, every bushel of wheat, potatoes, oats, barley or other cereal, every fowl, every barrel of apples, every box of peaches, every vegetable or other product they can produce, and it is hardly safe to state the bare facts of their productive capacity, for people who are unacquainted with the character of the soil and the quality of the climate of this favored region are more than apt to lift incredulous brows and ask: "Is it possible?"

Schools and Churches.

Oklahoma has, for its age as a state, the finest school system in the Union. Upon its becoming a state, the federal government appropriated the sum of $5,000,000 to its school fund, and this has been materially increased from other sources since. The people have all possible educational advantages.

Payments May Be Deferred.

Another feature of this great land sale makes it attractive to a great many people. It is not necessary to make the payment all in cash. Only 25 per cent. of the price need be paid at the time of the sale, another 25 per cent. within a year, and the balance in two years with 6 per cent. interest upon the deferred payments.

It is stipulated by the government that of the lands classed as agricultural lands no person may buy more than 160 acres in any one nation, and of other lands the limit is 640 acres. This includes land bought at any previous sale. The object of this provision is obvious. It is recognized by Uncle Sam that small holdings and large population make for the ultimate prosperity of the section. Possession is given immediately upon approval of the sale by the government, and no time is lost in this. The deed, conveying clear title, is given as soon as payments are completed, which can be done at once, if the purchaser prefers.

There are vast tracts of these lands that are not particularly adapted to agriculture, but which are rich in mineral deposits. It is a matter of general tradition that the older Indians knew and worked some very rich gold mines which have been lost sight of by the present generation. Coal and other minerals are present in many places in paying quantities.

Specific Information.

For the information of those who wish to benefit by this auction sale the government has had printed a large number of blue-print maps of each of the counties within which the sale will take place. These maps will be mailed to those interested for fifty cents each. Application for maps should be made to the Commissioner of the Five Civilized Tribes, Muskogee, Oklahoma.

The sale begins November 2, 1911, and continues almost daily with the exception of Sundays until January 15th, 1912. For further particulars address A. Hilton, G. P. A., 1418 Frisco Building, St. Louis, Mo.

No More Hog Sickness—Feed Merry War Lye

EVERY DAY, and more convincingly than ever before, MERRY WAR LYE is proving its claim to be the Greatest Hog Remedy, Conditioner and Fattener in the World.

When farmers in practically every hog-raising state in the Union declare that MERRY WAR LYE has done more for their hogs than any other remedy they ever used—that it prevents cholera, cures worms, puts their hogs in a fine, sleek, fat condition and INCREASES THEIR PORK PROFITS—YOU surely should be convinced that it will do the same for YOUR hogs. For hog diseases are the same in all parts of the country. Hundreds of farmers write us similar to this:

"It Cured Our Hogs"

Mrs. T. Akins, Hoxie, Ark., writes: "MERRY WAR LYE is all the lye that we use. Before we began using it we had a lot of hogs with Cholera. We used MERRY WAR LYE and it cured our hogs."

"Best Destroyer of Worms"

Mr. H. F. Gustoff, Coon Rapids, Iowa: "MERRY WAR LYE is the best destroyer of worms in hogs I ever used. It is all right."

Keep YOUR Hogs Healthy—Make Them Fat and Thrifty.

TRY MERRY WAR LYE at once. The cost is a trifle. Feed it night and morning EVERY DAY. You will notice that your hogs will begin to improve from the first feed. Makes them immune to disease—fattens them surer and quicker than anything else—tones the system, assists in the perfect assimilation of food and prevents scouring. It saves feed, because every pound of corn or other ration fed goes into flesh and fat and none of it is wasted.

IMPORTANT WARNING!

Don't infer that ordinary, or regular, lye can be used as a hog remedy.

MERRY WAR LYE is prepared ESPECIALLY as a hog remedy and it is the only lye that is guaranteed to be absolutely safe to feed to hogs.

Save These Directions

Follow these directions carefully: Mix one tablespoonful MERRY WAR LYE with slop for 10 hogs, or ½ can with barrel of swill. Stir well and feed night and morning. If your hogs are on a dry feed ration, mix ½ can MERRY WAR LYE to each barrel drinking water.

At All Leading Dealers

Most dealers handle MERRY WAR LYE. If yours can't supply you, write us, stating your dealers' names, and we will see that you are supplied and will also send you, free, a valuable booklet on, "HOW TO GET THE BIGGEST PROFITS FROM HOG RAISING."

MERRY WAR POWDERED LYE comes in 10c cans, full case of 4 dozen cans for $4.80, at Grocers', Druggists' and Feed Dealers'. There are no substitutes.

E. Myers Lye Co., Dept. 22 St. Louis, Mo.

FREE TO THE RUPTURED.

STUART'S PLAS-TR-PADS are a wonderful new treatment for rupture, curing as they do the worst forms in the privacy of the home. Being SELF-ADHESIVE, purposely to hold without straps, buckles or springs. No truss. Plapao Laboratories, Block 57, St. Louis, Mo., is sending FREE trial of Plapao. Write for this marvelous cure.

ELBERTA PEACH ORCHARD, on the line of the Frisco Railroad System, near Durant, Okla., and near the government lands to be sold. See article entitled "Land Sale by Uncle Sam," on this page.

25 YEARS SERVICE

is a common performance for the ECLIPSE WINDMILL

The Eclipse is designed for durability. There are only four wearing parts. One wheel turn gives a pump stroke. The side vane swings the mill into safety in storms. Material is ample and right. The head casting is thick and wide. Main bearing and pivot are long and rigid. Basswood is used for lightness, seasoned ash and "heart of oak" for strength. All parts are made exact and fit firmly together. For valuable information on windmill durability and efficiency write for Catalog number DH692

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Chicago Omaha | St. Paul Kansas City | St. Louis Denver

Ropp's Commercial Calculator.

This is a standard book, and a revised, enlarged and improved edition. There are millions in use. **Ropp's Commercial Calculator** is especially valuable to farmers. By its regular use many hard problems become easy. It will prevent mistakes, relieve the mind, save labor, time and money, and do your figuring in the twinkling of an eye. As handy as a watch, always ready and reliable. Anyone who will send 50 cents for one-year's subscription to this paper, The National Farmer and Stock Grower, can select one copy of **Ropp's Commercial Calculator** as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone who will send in four subscriptions and $2.00 to pay for same will be credited with one-year's subscription to The National Farmer and Stock Grower and one copy of **Ropp's Commercial Calculator.**

The Grain Dealer Surprised.

Farmer—Isn't No. 2 Corn worth more than 35c?
Grain Dealer—That is really the market price today, but I will make it 35½c. (Load weighs 2720 lbs.)
Farmer, opening Calculator—Amounts to $17.24; had on 48 bushels and 57 hundredths. (Page 13.)
G. D.—Well, I declare! Whose lightning Calculator is that?
F.—Why, Ropp's of course—the New improved edition. It comes handy indeed, couldn't get along without it.

National Dairy Show.

Important action was taken at the September meeting of the Board of Directors of the National Dairy Show. Plans for leading features of the approaching Show (Chicago, October 26th to November 4th) were approved and methods to round out the exhibition were discussed.

First of all, premiums for Brown Swiss and Dutch Belted cattle were each increased 20 per cent., and there was added to the classification a Breeder's Cow Herd, open to the best ten cows two years old or over. This is open to all breeds and will bring the best specimens of each breed against each other. Cows entering this contest must be bred but not necessarily owned by the exhibitor, who, if he is fortunate, will receive a thousand-dollar trophy and cash prizes of $250 and $100.

There will be on exhibition a model barn, and this with the government's elaborate photographic trips through the leading dairy districts will round out the agricultural architecture, so that the National this year will have the best exhibit in this line ever before attempted.

Another good move made by the Board was the assigning of banquet dates in advance of the Show, so that there will be no conflicting dates for the numerous entertainments offered.

A committee was appointed to devise a plan by which there may be gathered the leading cows of the country now on authenticated yearly test. Satisfactory progress has been reported in assembling this great working herd, which will prove the best example of dairy type and conformation ever witnessed in this country.

He who attends the National at Chicago this year will get more than his money's worth. The dairy cow is to be elevated to the position to which her importance entitles her.

The Show is the Court of Last Appeal, the Final Contest of the Show Yard Supremacy of the year. In its deeper meaning, the exhibition stands for soil conservation and the raising of conditions of country life in America. Dairymen and agriculturists in general should support the work.

The Breeding Plat.

Every farmer should have breeding plats in the most favorable spots on the farm, where, far enough removed from other crops of the same kind, to avoid crossing and contamination, one may breed up high-producing strains of the different kinds of seeds. The soil of this plot should be well prepared, the very choicest of seed should be used, planting should be done at favorable times and thorough cultivation should be maintained. From these plots seed for the general crops of the next cropping season may be chosen.—From Bulletin No. 3, Panhandle Agricultural Institute, Goodwell, Okla.

Cost of Filling Silo.

A Nebraska farmer figures on the cost of silage:

"The drouth has caused my hay crop to be very short, but I do not know whether I can afford to use the corn for silage or not. What does it usually cost per ton?"

The cost of silage per ton depends very largely on the value of the land and the kind of corn crop that is grown. We have known of instances where it required but eight acres to fill a hundred-ton silo, and other instances where it would take at least twenty-five acres. For this reason the cost of filling a silo depends on the amount of forage per acre more than on the cost of labor involved, which is one of the smallest items.

Prof. Haecker, of Nebraska Station, after carefully taking into consideration all the factors which enter into the production of corn, estimates the cost of putting up a ton of silage at $1.95. Some Iowa farmers have computed the cost as low as $2.15 per ton; others have gone as high as $2.49.

Prof. Mumford, of Illinois, has computed the cost of ensilage, figuring the value of corn at 35 cents per bushel, to be approximately $2.75 per ton. On an average it will cost you from $2.00 to $2.50 per ton for filling your silo. This is a very small price to pay for ensilage when compared with hay and other feeds, which will range from $10.00 and up per ton.—I. H. C. Service Bureau.

Pratts

Animal Regulator

by regulating the seat of all diseases—the bowels, blood and digestive organs—it thoroughly renovates the system, drives out cholera germs and worms. It is a great money-maker because it keeps hogs healthy, reduces feed bills and

Saves Time
Fattening Hogs

The quicker a hog is fattened, the sweeter the meat and the more profit to the owner. When Pratts Animal Regulator is used, you are sure of getting early pork and best prices.

Satisfaction Guaranteed or Money Back

Pratts Animal Regulator has been used for 40 years by successful feeders of hogs, horses and cattle the whole world over on our money back plan. If you do not see a decided improvement tell your dealer and he will refund your money.

25 lb. pails $3.50. Also in smaller packages and 100 lb. bags. If your dealer cannot supply you, write us.

Pratts Poultry Regulator
Is guaranteed to make your hens lay more eggs and keep them free from disease.

Send postal for valuable Books on Live Stock and Poultry, FREE.

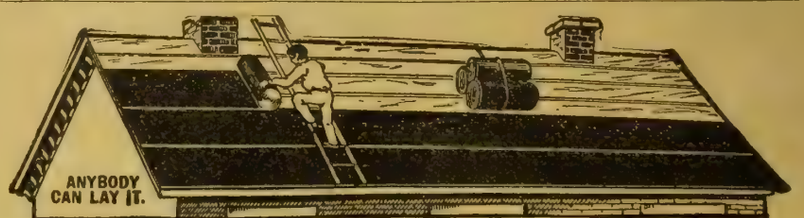
PRATT FOOD CO., - - Dept., 54, Philadelphia, Pa.

Cream Tester Fined.

According to the Lincoln, Neb., Journal, A. P. Larson, of Minden, a cream tester employed by the Beatrice Creamery Company, was fined $50 and costs for manipulating cream tests and his license has been revoked. The Beatrice Creamery Company has announced that it will discharge him from its service. The prosecution was by the State Food Commissioner on evidence obtained by his inspector that Larson had made false tests of cream brought to him by customers of the creamery company. The inspector found that Larson had falsely raised the test of new customers to get their patronage and had made corresponding reductions in the test of old customers. In this way the amount of cream he sent to his company was the correct amount, but some customers were cheated and some received more pay for their cream than they were entitled to receive.

Cotton in Egypt.

In Egypt a new variety of cotton named Sacharalides, after the discoverer at Birket-es-Sadr, is now being planted in considerable quantities. This Greek cultivator, starting from a single boll, has succeeded in putting on the market an early-maturing cotton of good quality.



Rubber Roofing

Warranted For Twenty-Five Years.
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 734, East St. Louis, Ills.

The Steel Roof
That Lasts a Lifetime

And Makes Money for You When Your Neighbors See It

Edwards Interlocking "Reo" Steel Shingles last as long as your building stands. Proved on thousands of homes and farm buildings. That's why thousands are tearing off old wood shingles, cheap tile and tar preparations and putting on the everlasting

Edwards Interlocking "Reo" Steel Shingles

No wear-out to them. No repair bills. Once on, your roofing troubles are over. You can put on Edwards Interlocking "Reo" Steel Shingles so easily! Only a hammer and nails required.

$10,000 Guaranty Bond Against Lightning

An Edwards Roof gives better protection to a building than any other roof made. We agree to refund every cent you paid us if lightning destroys an Edwards Steel-Roofed Building.

We have a Special Cash Money-Making Proposition for the man who writes for it, in each community. Get your own roof at the lowest price and let it make money for you!

Write for our big FREE Catalog No. 1057 Send dimensions of your buildings and we will quote you cost of an Edwards Roof—freight prepaid.

THE EDWARDS MFG. CO.
1007-1057 Lock Street, Cincinnati, Ohio
Largest Manufacturers of Steel Roofing Material in the World. (54)

Things to Eliminate From Milk Production.

Dairying can be made successful largely through a process of elimination. The lack of success to-day comes very largely from retaining in the business things that make it unprofitable.

One of the great eliminations is the ignorance of what the cows are doing, collectively and individually. There are many herds to-day where a few cows are making all the profits, the other cows adding nothing to the profits or actually reducing them. It has been said that if one-third of all the cows in the country—the poorest third—could be struck by lightning, it would be a very profitable thing for the dairymen of the United States. Each farmer should know for himself just what each cow is doing. The only possible way to do this is by the help of the milk scales, the milk sheet and the milk tester.

One of the things to eliminate is the wrong kind of feed. The writer has known of men who during the entire winter fed their cows on timothy hay and cold water, and that, too, where that kind of hay could be sold a mile away at from $12 to $15 a ton loose. Yet because the hay was raised on the farm, no thought was taken of its real value. In fact, the farmers that did it had the mistaken idea that timothy hay must be worth more for feeding cows than clover hay, since it brought a higher price on the market. But the large amount of carbohydrate material in timothy hay makes it an inferior feed for dairy cows, which must have a ration quickly digested and fairly abundant in protein. Every farmer can buy books from which he can learn the values of different feed materials, and this only will enable him to eliminate the most wasteful methods of feeding.

Eliminate the useless labor. There are numerous farms to-day where there is no water running into the barns, but where the cows in the winter have to be turned out and driven to the watering trough, which often has to be chopped out, or else the water is carried in pails to the barn for the use of the cows. A farmer boy can be named who for ten years drew water with a well pole from a well eighty feet distant from the cows and carried the water to them for a period of six months every winter. When the snow was deep a path had first to be shoveled to the well. It would have been a simple matter to have laid a one-inch pipe from the well to the barn, below the frost line, and have put a suction pump onto the barn end of the line. Labor is money in the United States of America, and such useless labor is a waste of money.

Eliminate the ruts from the dairy business. What is a rut on one farm may not be a rut on another. The writer defines a rut as a "wrong practice persisted in from habit." Here is one milk producer that is selling his milk for city consumption whole when it would be more profitable for him to sell the cream and utilize the skim milk on his farm. Another man is making butter, when he could more profitably sell his milk or his cream to a creamery. One farmer that was selling his whole milk at a very unsatisfactory price got out of the rut by establishing an equipment for making ice cream, which he sold in a near-by city. Having his own cream, his own ice, his own power and his own labor, he could sell at any price that others could sell at and still make money; or he could, if occasion required, dip a little under the going price. The thing to do is to find if one is in a rut, for an old practice may be a good practice and not a rut.

Authenticated Test Work at Meridale Farms.

Ayer and McKinney, proprietors of Meridale Farms, located in Delaware county, New York (the banner county of the Empire State), have just issued a leaflet telling some of the results of their efforts to make every Meridale Jersey return a profit at the pail and churn.

There are now in this herd ninety-seven cows which have qualified for the American Jersey Cattle Club Register of Merit, in a year's authenticated work. These averaged for the year 7,596 pounds of milk, with an average of 5.306 per cent. of fat, and 462.33 pounds of butter per cow.

In these ninety-seven are included forty-four which are less than four years old, forty-two between the ages of four and ten years, and eleven animals ranging in age from ten to eighteen years. The forty-two cows in their prime averaged 8,497 pounds of milk and 510.7 pounds of butter per cow. The eleven cows over ten years of age, at the beginning of the test, averaged 7,979 pounds of milk and 491 pounds of butter. The forty-four youngsters averaged 6,640 pounds of milk and 409 pounds of butter. Of these forty-four, seventeen were heifers with first calf, and these produced 104,586 pounds of milk and 6,352 pounds of butter, an average of 6,152 pounds of milk and 373 pounds of butter each. Two of these were but two years old at the beginning of the test, and these produced 14,192 pounds of milk and 780 pounds of butter, an average of 7,096 pounds of milk and 390 pounds of butter. One of these was the first daughter of the imported Jap to complete a yearly authenticated test. Of the animals under four years of age, eighteen exceeded by 62 pounds per cow the highest Register of Merit butter-fat requirement for any age.

A large proportion of these ninety-seven cows are daughters of bulls bred or owned at Meridale Farms, and many of them are direct descendants of the noted bulls Matilda, 4th's, Son and Ida of St. Lambert's Bull, foundation sires of the Meridale herd.

In their year's work, sixty-nine Meridale Jerseys exceeded an average of 500 pounds of butter per cow. Their average milk production was 8,210 pounds per cow, with an average of 5.306 per cent. butter-fat.

Eleven Meridale Jerseys produced over 600 pounds of butter per cow during the year, their average being 10,017 pounds of milk and 603 pounds of butter per cow.

There are also significant records made by a nine-year-old, a ten-year-old, an eleven-year-old, a thirteen-year-old, a sixteen-year-old and an eighteen-year-old, respectively.

Messrs. Ayer and McKinney believe that the only right way to test a cow's value is in her all-year-round production and her year-by-year work.

The foregoing information is taken from a leaflet published by Messrs. Ayer & McKinney, 300 Chestnut street, Philadelphia, Pa., who will gladly send a copy to interested readers of this paper.

In the saloons of the city of St. Louis buttermilk de luxe; that is, buttermilk ice cold out of a refrigerator, is being retailed at 10 cents a glass. The glass holds something between a half pint and a pint. Ten cents a glass does not induce all the patrons of the bar to give up beer and take to buttermilk.

During the year ending June 30, 1911, the imports of lemons amounted to 160,214,785 pounds.

Make Your Fall and Winter Dairying Profitable

The wasteful losses of any "gravity" setting system or poor cream separator are always greatest when the milk is often cool or the cows are old in lactation, and under these conditions, with butter prices highest, the use of the best cream separator becomes even more important than at any other season, so that a

DE LAVAL
Will Save Its Cost by Spring

With any setting system you are wasting at least a quarter of your product at this season, with cream and butter values highest; while the superiority of the De Laval to other separators is always greatest under the difficult conditions of separation, particularly in the skimming of cool milk.

Why delay your purchase of a De Laval until another Spring. Put it in now and let it save its own cost meanwhile. And as to that you may either buy for cash or on such liberal terms that the machine will actually pay for itself.

You may prove all this by test to your own satisfaction. See the local De Laval agent or communicate directly with the Company.

THE DE LAVAL SEPARATOR CO.
NEW YORK CHICAGO SAN FRANCISCO SEATTLE

Let Galloway Save You $25.00 to $40.00 on a Manure Spreader

If you'll send a postal for my Special 1911 Spreader Offer, I believe we can make a deal. If we do, you'll save at least $25.00, perhaps $40.00, according to size and style you want. And you get a free trial and a guarantee that would break me if my Spreader wasn't *right*. I know I *have* to go *high on quality* and *low on price*, because I sell by mail. The other fellow is right on the ground to *persuade* you personally. My *quality* and price has to do all *my* persuading. Let me try it. Our capacity is 42,000 spreaders this year in order to quote the low prices I do—30 to 365 days free trial and my long time binding guarantee in writing. $25.00 to $40.00 saved—think of it! That's fair, isn't it? If you can think of a fairer proposition than I'll make you, I'll print it in my next advertisement.

Prices, $39.50 Up. Freight Paid

Get your pencil or pen right now, and send me a postal for my big Spreader Book, showing 5 styles and sizes, from $39.50 up. I'll send the book free and a proposition that will make you do some tall thinking whether you buy from me or not. Address

WM. GALLOWAY, Pres., THE WM. GALLOWAY CO.,
1289 Galloway Sta., Waterloo, Iowa.

Send Postal For Book

FARM AND RANCH LANDS.

ARKANSAS. — INVESTIGATE Bradley county, Arkansas; splendid agricultural, fruit lands; easy to cultivate; $10 to $20 acre; realize $25, $200 acre; free range, green vegetables each month; nice climate; a land of plenty; write us. **Norris & McKenney,** Hermitage, Ark.

ARKANSAS.—Lands on the Cotton Belt Route in Arkansas are offered for sale at remarkably low prices. All farmers and "intend-to-be farmers" should post themselves. Write for free books showing the best locations. Address, **E. W. LaBeaume,** G. P. & T. A., 1419 Pierce Bldg., St. Louis, Mo.

FREE Literature will be sent to anyone interested in the wonderful Sacramento Valley, the richest valley in the world. Unlimited opportunities. Thousands of acres available at right prices. The place for the man wanting a home in the finest climate on earth. No lands for sale; organized to give reliable information. Sacramento Valley Development Ass'n. SACRAMENTO. **California**

MISSISSIPPI.—A stock farm of 717 acres in Claiborne county, Mississippi, for sale cheap. Address, **Miss Jennie Maddox,** Locust Ridge, La.

OKLAHOMA.—Improved and unimproved lands in best farming country in Oklahoma at from $10.00 to $50.00 per acre. City property in the fastest growing town in the state. All kinds of bargains in Real Estate. If interested in location or investment, write us and let us show you. **Collinsville Realty and Collection Agency,** Collinsville, Okla.

TEXAS.—Many of the very best farms and farm lands are to be found on the line of the Cotton Belt Route in the state of Texas. A reference to that country will be found on page 18 of this paper. Send in your name to receive free books concerning the rich land bargains to be had on this line. Address, **E. W. LaBeaume,** 1419 Pierce Bldg., St. Louis, Mo.

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneaoplis, Minn.**

No wonder timothy seed is high in price. The Missouri yield is 2.4 bushels per acre.

Hog Cholera Spreading.

From the latest reliable reports it seems to be an undeniable fact that hog cholera is greatly on the increase this year, and that, moreover, in certain sections of the country it is rapidly spreading, despite the best efforts of government vaccination experts to check it.

A subscriber of a well-known live stock publication is quoted as saying that in parts of Western Missouri, Arkansas, Oklahoma and Western Illinois, through which he had recently traveled, making frequent stops, he found hog cholera spreading very rapidly, and that in a single township in a certain county through which he passed it was his opinion that the death loss from hog cholera had already amounted to $200,000.

Should the farmers and hog raisers be called upon to sustain such enormous losses? Assuredly they should not. But is there any way by means of which such losses can be prevented? Just as assuredly there is. Thousands of farmers throughout the country have learned that a small quantity of Merry War Lye with swill or drinking water cures hog cholera, promptly checks its spreading where once it has broken out and is a positive preventive of that disease. It is also recognized as the best hog conditioner and destroyer of lung and intestine worms on earth. It keeps hogs on their feed, in prime condition and constantly adding to their weight. Therefore every farmer, regardless of whether or not his own hogs have cholera or whether or not it is prevalent in his neighborhood, should at once use this one sure precaution which, in numberless instances, has been proved so successful. As a single instance, the experience of Mrs. Verna Thiston, of Fortuna, Mo., strikingly proves the efficiency of Merry War Lye when used according to directions. She writes: "We never had any sick hogs since using Merry War Lye."

Merry War Lye is for sale at all dealers. It is the only lye which is guaranteed to be absolutely safe to feed to hogs—the only lye, in fact, which is prepared especially as a hog remedy and conditioner. For this reason great care should be exercised against the acceptance of any other brand of lye for hog-feeding purposes. Disappointment in results and possible injury to the hogs would more than likely attend the administering of any other brand than Merry War Lye. E. Myers Lye Company, Dept. 22, St. Louis, Mo. Write for free book on Profitable Hog Raising.

The Market For Corn.

The corn market has advanced somewhat recently, as will be seen from the following cash prices on the St. Louis market: January 31st, 1911, 44½ cents a bushel; February 28th, 44 cents; March 31st, 45½ to 46 cents; April 30th, 52½ cents; May 30th, 52 to 52½ cents; June, 30th, 60½ cents; July 31st, 64 to 65 cents; August 31st, 63¼ cents; and September 30th, 68½ cents.

In the speculative market for corn, of which Chicago is the leader, the September option of 1911 was started February 28th at 49½ cents; March 31st the quotation was 50½ cents; April 30th, 52⅜ cents; May 31st, 53⅞ cents; June 30th, 61¼ cents; July 31st, 63¾ cents; August 31st at 65¼ cents, and was closed out at 68⅛ cents a bushel. On the close of September 30th the December option closed at 64 cents, against 48⅝ cents a year ago.

The May corn option (which of course means next May) was quoted on September 30th at 65½ cents, a strong 13 cents higher than the last May option was closed out for. It appears frm this that the enormous crop of 3,125,000,000 bushels last year has been decently cleared away and there will be no difficulty in disposing of the crop of 2,620,221,400 bushels estimated as the crop of 1911. There is absolutely no question concerning the independence of the farmer who is able to raise plenty of corn.

Improvement in Cattle Breeding.

On page 11 there appears an article concerning the authenticated test work at Meridale Farms, Delaware county, New York. This is a dairy establishment started twenty years ago with a few Jersey cattle and by associates engaged in business in the city of Philadelphia. Messrs. Ayer & McKinney are partners as advertising agents and as farmers. The most astonishing item concerning their operations is, that of all the breeding establishments in the United States of America this farm, probably more than any other, has made permanent improvement in foundation stock and actual improvement in a cattle breed.

Foreign Prices For Wheat.

On September 30th, wheat was selling in Paris at $1.31⅜ per bushel; December at $1.32⅜. In Berlin, October wheat was quoted at $1.31⅝, and December at $1.36⅝. The only way that American wheat can be sold in Europe is by contracts for future delivery.

Barley in St. Louis.

At St. Louis, on September 30th, barley prices declined two to three cents, due to larger arrivals and a lighter demand. A majority of the offerings of low and medium grades which were carried were unsold. Screenings ranged at 40 to 70c., mixing feed at 75 to 85c., heavy feed at 85 to 95c., and malting at 95c. to $1.24. Receipts at St. Louis, eighty-four cars.

The Best Farm Locations

Productive lands, favorable climate, and abundant rainfall make farm locations in the Southeast the most profitable.

Land from $10 to $50 an acre close to the best markets. Wheat, corn, hay, all truck crops, give best returns. Conditions unsurpassed for dairying and live stock, hog and poultry raising. **Beef and pork produced at 3 to 4 cents a pound.**

Five to six crops of alfalfa per season grown. Good farmers make 60 to 100 bushels corn per acre. Home markets near at hand pay highest prices for dairy products and demand is undersupplied. **Apple orchards pay $100 to $500 an acre,** and orchard lands cost only a fraction of those in other sections.

The Southeast Has Locations for Every Kind of Farming

The climate assures the finest results from intelligent agriculture, and makes the region unsurpassed as a pleasant and healthful home location. It is an open winter country, and its summers are enjoyable. You can locate where there are good schools, churches, roads, rural delivery, and all other advantages. The Southern Railway and associated lines will help you find the location you desire. Our several publications, free on application, give full information. Address,

M. V. RICHARDS, Land and Industrial Agent, Southern Railway, Room 71, 1820 Pennsylvania Ave., Washington, D. C.

500 ACRES

A magnificent tract; rich corn, alfalfa and blue grass land. It has been in blue grass for years; in corn and alfalfa now. The corn has stood a torrid drouth for over two months and much of it will make 60 bushels to the acre. It fronts rock road in Jackson county, Missouri; near three railroad stations; due south of this city, in line of best development and high prices; fine stock farm; fine grain farm; fine dairy farm. Better still, it is an elegant suburban home proposition; only thirty minutes by auto from business center; will make an elegant home for one or a dozen gentlemen who wish to stay the strenuous business life; location high and surroundings beautiful; lay of land susceptible to highest class artistic improvement; price, it is a shame, only $150 an acre. It is worth that at Salina, Kan. In Illinois it would sell for $400 an acre. It will pay good interest on the investment and increase in value for fifty years at a rate better than 10 per cent. money. It has a perfect cement shale and stone in greatest abundance near the railroad.

Also 800-acre fancy farm in Lafayette county, Missouri, at $100 per acre, one-third cash, balance five years at 5 per cent. annual interest.

Also 3,280 acres, fine stock ranch, on main line of Rock Island Railroad between Kansas City and St. Louis. Good improvements; 11½ miles of new first-class woven-wire fencing. $22.50 per acre. Easy terms.

For fancy cheap small tracts out south, see me.

J. H. LIPSCOMB,

306 Fidelity Trust Bldg., Kansas City, Mo.

ALFALFA,

Shield Brand, 99½ Per Cent. Pure.

TIMOTHY, CLOVER, RED TOP, BLUE GRASS, WINTER VETCH.

SHIELD BRAND PASTURE,

HARDY, PERMANENT GRASS MIXTURE.

SEED WHEAT and RYE,

TURNIP SEED, VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

Send For Golden Arrow Seed Catalogue.

A. W. Schisler Grain Co.,

708 and 710 N. Fourth St., ST. LOUIS, MO.

KITSELMAN FENCE

Sold direct to you at factory prices on **30 days trial.** Save the dealers profit. Farm, Hog and Poultry Fence at from **11½ CENTS A ROD UP.** All wires are heavily galvanized 80 rod spool of Ideal galvanized Barbed Wire $1.65. Write today for large free Catalogue showing 75 different styles and heights of fencing.

Box 261 KITSELMAN BROS. MUNCIE, IND.

BROWN FENCE

FREE SAMPLE — WE PAY THE FREIGHT

STOUT STRONG — DURABLE CHEAP

BROWN FENCES will outlast any other because of heavier wires and thicker galvanizing. 160 styles for all purposes. Also Lawn Fences and Gates.

Bargain Prices, 13c Per Rod Up delivered at your railway station. Send today for catalog and free sample for test.

The Brown Fence & Wire Company Dept. 45 Cleveland, Ohio

STRONGEST FENCE MADE

Made of Double Strength Heavily Galvanized Wire. Requires fewer posts and outlasts all others. Lowest prices ever quoted. 26-inch Hog Fence 15c. 47-inch Farm Fence 23-5/10c. 60-inch Poultry Fence 30c. per rod. **Sold Direct to the Farmer Under Our 30-DAYS-FREE-TRIAL-MONEY-BACK GUARANTEE-CONTRACT.**

Our big free Catalog contains fence information you ought to know. Write for it today. It's FREE.

COILED SPRING FENCE CO. Box 256 Winchester, Ind.

PEERLESS

SELF RAISING GATE

is the result of 15 years successful gate making.

Expert gate builders and high grade materials are combined to make the PEERLESS gate right.

Big, extra size frames; filled with the famous Peerless all No. 9 wire fencing, crossbars 6 inches apart. Self-raising, no dragging over snow, ice, rubbish or grass—it lifts itself.

But this is not enough; we are now installing, at enormous expense, equipment to galvanize our gates. Every part will be

HEAVILY GALVANIZED

will be rust proof, will look better and last longer than a painted gate, without raising the cost to the user.

Your dealer can get Peerless Gates. If he will not—write to us.

Peerless Wire Fence Co. 242 Mich. St. ADRIAN, MICH.

Buy Automobile Tires

Plain or Bailey Treads, for Clincher, Quick Detachable, or Dunlop Rims (Quick Service), from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

HOG BOOK FREE.

Dr. D. C. Snoddy, President of the D. C. Snoddy Company, of Nashville, Tenn., has written a book on the pig and his diseases. This book explains Snoddy's whole method of curing hog cholera and preventing disease. It also tells how to destroy worms and keep hogs healthy and growing. It tells how to manage young pigs and how to make the hog business a certain success. This book is mailed free to all who write Dr. D. C. Snoddy Company, Dept. H, Nashville, Tenn.

Grain Market Influences.

The influences upon the markets for grain come from every direction. The number of private dispatches that cost money is astonishing. Cables from India, China, Liverpool, Buenos Ayres come thick and fast. Just in one day the following influences were mentioned: "Improvement in New York;" "private report of frost in Argentine;" "Minneapolis was higher;" "Winnipeg, bad weather;" "heavy offerings in Liverpool;" "favorable advices from India;" "Russian shipments smaller;" "United Kingdom, favorable weather;" "slow milling demand;" "wheat seeding favorable." All these related to wheat, and in addition thereto, there were many more of a minor character relating to the local and general markets. These telegrams were received at St. Louis. In Chicago telegrams arrive by the hundreds. Dealing in grain is not done by guesswork but in response to world-wide information and calculations.

Prices Paid For Hay.

The best way to quote the hay market is to publish a list of sales. The following sales were made at St. Louis, September 30th. On the St. Louis side of the river—Part car clover-mixed at $18; two cars do. at $20; one do. at $20.50; two do. at $21; one light do. at $22; one car part clover-mixed at $21.50 and part old timothy at $22; one car part clover at $17.50, and part No. 1 timothy at $23.50.

Timothy—One car common at $13; one No. 3 at $18.50; one No. 2 at $19.50; two do. at $20; one do. at $21; one do. at $21.50; two do. at $22; one No. 1 at $23; two do. at $23.50; three do. at $24; one high No. 1 at $24.50.

Prairie hay—Two cars No. 2 at $12; one do. at $13; one do. at $13.50; two No. 1 at $14.50, one delivered to East Side; one high No. 1 at $16. Alfalfa—One car No. 1 at $18.

On East Side—Part car clover-mixed at $17. Timothy—Part car No. 3 at $17; part car do. at $18; one No. 2 at $20.50, delivered to St. Louis; one do. at $21.50 do.; one scant No. 1 at $22.75; two No. 1 at $23, one delivered to St. Louis; two do. at $23.50, one do.; nine do. at $24, mainly do.; three high No. 1 at $24.50 do. Alfalfa—One car good No. 2 at $17. Clover—No. 2 quotable at $14 to $16; No. 1 at $17 to $18.

Grass Seeds at St. Louis.

Grass seeds are sold by the 100 pounds on the wholesale market of St. Louis, and the following prices were quoted September 30th, 1911: Timothy—Average run at $12 to $13.50; clean, bright, at $14 to $14.50; high grade at $15.25 to $15.50. Clover, weedy, at $9.00 for badly to $16 to $17 for slightly; prime, clean, $18 to $18.50. Redtop—Fancy clean at $17; poorer lots in proportion. Spot offerings included 110 sacks timothy, which sold from $13.95 to $14.85 for fair grade; forty sacks clover, three at $14; five at $17.30; fourteen at $17.50; five at $14.85; and balance at quotations; sixty sacks Redtop in lots at from $1.50 for tailings up to $16.25 for the best lot; and one lot of alfalfa at $18.

In St. Louis, on the wholesale market, sorghum is quoted at 18 to 25 cents a gallon.

At wholesale, prime beeswax is quoted at 30 cents in St. Louis.

Get It All!

After working and worrying to get a bunch of stock ready for market, don't sacrifice any of the profit. You cannot afford to consign to any but the best salesmen. You cannot afford to experiment. Ship to the firm whose name for a quarter-century has been the synonym for

Top-Notch Salesmanship
Financial Responsibility
and the "Square Deal."

BILL YOUR NEXT CONSIGNMENT TO

CLAY, ROBINSON & CO.

LIVE STOCK COMMISSION

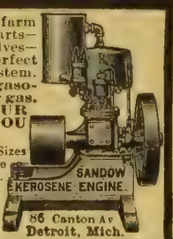
East St. Louis | Chicago | Kansas City | South St Joseph | Fort Worth
East Buffalo | Denver | Sioux City | South St. Paul | South Omaha

Sandow $37.50
2½ H.P. Stationary Engine—Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil), gasoline, alcohol, distillate or gas. Sold on 15 days' trial. YOUR MONEY BACK IF YOU ARE NOT SATISFIED.

5-year ironclad guarantee. Sizes 2½ to 20 H. P., at proportionate prices, in stock, ready to ship. Postal brings full particulars free. Write for proposition on first engine in your locality. (116)

Detroit Motor Car Supply Co., 86 Canton Av Detroit, Mich.



A German co-operative creamery handled 2,862,919 pounds of milk in 1910, of which were retailed 31,475 pounds and the balance made into 223,372 pounds of butter. The average yield of milk per cow was 6,223 pounds. The net price, including the bonus, paid for milk was $1.08 per 100 pounds.

THREE-YEAR SUBSCRIPTIONS.

Orders For The National Farmer and Stock Grower Solicited.

Kindly Sign the Blank Form Below and Become a Regular Subscriber.

We desire to invite attention to our three-year subscription proposition. We hope to obtain one hundred thousand additional subscriptions during the present year to continue for three years. It is practically a trial subscription and payable at the end of the first year. The subscription can be stopped at any time by paying for the period the paper is taken. This method of taking subscriptions is the invention of Uncle Piper, our subscription editor, who has guaranteed that every one of them will be paid when they are due. The subscription price of this paper is $1.00 for three years, and the bill for the subscription is sent to the subscriber at the end of the first year. When the bill goes out Uncle Piper slips in a list of handy premiums for the subscriber to select one from, providing he pays the bill promptly, and the general result is that the bill is soon paid. When it comes to getting subscriptions from intelligent, high-class farmers, Uncle Piper is at the head of the class.

Uncle Piper.

SUBSCRIPTION BLANK.

To the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — You are hereby authorized to enter my name as a subscriber to The National Farmer and Stock Grower for three years. At the end of the first year I will pay one dollar for the three-year period. This order is given with the understanding that I am at liberty to stop the paper at any time by paying the subscription to that date.

Name.....

P. O. Box.....R. F. D.....

Postoffice.....

Fire-proof Things.

So far as possible we should be working toward a fire-proof condition of our material existence. The loss of the world from disastrous fires has been continuous and enormous. No matter how small the locality, it has its histories of fire tragedies. In cities and on farms the list of casualties is a long one.

Fire has been the great destroyer of our forests. When a boy, the writer watched forests ablaze, and since then there has not been a year when many great forest fires have occurred. An officer of the Forestry Department at Washington once said in the presence of the writer: "I have seen a single fire destroy more timber than all the timber consumed in the United States in that year, and I have seen several such fires."

For this reason the first great work of the government after it has set apart each forestry reserve has been to establish corps of fire wardens. These have laid out great treeless roads through the preserves, where incipient fires could be halted, if they get started. The same wardens are perpetually on patrol and act as police in enforcing the rules against fires.

In this respect the millions of trees that are growing all over the country on farms and by roadways have a far greater opportunity to escape fire than did the great forests. First, being man-planted, they are further apart and have less dry, dead, burnable wood than is to be found in any forest, for in thick forests the making of dead trees is part of the scheme of growth. An acre of land may start with a thousand of seedlings and in a hundred years have less than a hundred trees. The rest have died and become fuel for any spark that might come along.

So the government has been putting in systems of lumbering by which trees on the point of being eliminated may be taken out before they die and make a way for flames. It is a great work and should be a suggestion to every farmer that has a piece of forest or a wood lot.

We ought to get around to building fire-proof barns. Every year many domestic animals are burned to death in barns and stables. One of the saddest sights the writer ever saw was when he looked into the ruins of some large stables in an Eastern city. There were the bones of the horses that had been burned in their stalls with no chance to escape. Penned in by man, they had been forced to undergo the terrible torturee of being roasted alive. For convenience sake we compel the farm animals to live in the same buildings with tons of fire-ready material. It would perhaps cost a little more to have the hay, straw and other inflammable stuff in a separate building from the stock, but it would be an act of humanity to do so.

We have fire-proof building materials in abundance and we ought to use them in the erection of public buildings of all kinds and in the construction of our residences and also in the construction of the places in which we place our farm animals, lock them in and leave them for the night.

Cane Too Coarse For Hay.

A Wayne county, Illinois, correspondent writes: "Last June I drilled in about five acres to cane, using about twenty pounds of seed to the acre. I wanted it for hay or forage, but it is too big and coarse to make good hay."

This is one of the commonest errors made in sowing cane seed. In order to get good hay at least one bushel of seed per acre should be sown. Fine, leafy growth makes a splendid article of feed, but when the stalks are coarser than pipe stems it is not so good. Thin seeding naturally produces heavier stalks, and then if the crop is left until late in September before it is cut, the crop is apt to be past its best feeding stage. The only thing to do now is to cut the crop as soon as possible and cure it in shock. Cattle will eat most of the heavy stalks, but obviously there is more waste than there would be if the crop had been sown much thicker.—L. C. Brown.

Don't miss *this* Oklahoma Indian Land Sale

Never, since Oklahoma was *first* opened, have you had such a chance to get good land at *rock bottom* prices. *One million, thirty thousand* acres of fine farm and mineral lands to be *auctioned* by U. S. Government; with over 13,000 separate tracts to bid on—*13,000 chances* to get just what you want at *your price.*

Your title will be *perfect—guaranteed* by the Government, and immediate possession is given on first payment of only 25%—balance, 25% at end of first year, 50% in two years.

There is but *one way* to take *full* advantage of this wonderful sale . . *get on the ground.* It will not cost much, for there are

Round trip excursion fares via Frisco Lines

from Chicago, St. Louis, Kansas City, Memphis and other points. The Frisco Lines have 1,500 miles of track in Oklahoma, reaching most every point of sale. Your ticket, via Frisco Lines, gives you the privilege to **go one way and return another** so that, *at no extra cost*, you can attend *many* more sales than would be possible on a trip going and returning the same way. You must act *now*. This is an opportunity that won't wait on *anyone*—first sale begins Nov. 2nd, at Chickasha, Okla.

Get our free book today!

It contains full facts about character of the lands (with pictures of crop scenes, etc) locations, dates of sales, terms, acreage at each point, cost of fares, and a *big colored county map of Oklahoma*, from which you can see just how to arrange a trip via Frisco Lines to take in the sales you want to attend. *We haven't many copies of this book*—to get your free copy—

Mail this coupon TODAY.

A. Hilton, General Passenger Agent, Frisco Lines
1418 Frisco Bldg., St. Louis.

Please send me your free book of information about the Oklahoma Indian Land Sale.

FRISCO LINES

Name_____

Address_____

Beef Hide Importations.

The Department of Commerce and Labor issues a report of imports and exports for each year ending June 30. The following memorandum is taken from those reports:

Year ending.	Pounds.	Value.
June,1908..	98,353,249	$12,044,435
June,1909..	192,252,083	23,795,602
June,1910..	318,003,538	46,700,139
June,1911..	150,127,796	21,609,430

During the year ending with June, 1911, this country exported 440,085,694 pounds of wire.

Big Stumps Pulled Quick and Easy

No Stump can Resist the Hercules

Pulls an acre a day. It doubles land values. Enables you to grow crops instead of paying taxes on land that yields nothing.

HERCULES

All Steel Triple Power

More power than a tractor. 60 per cent lighter, 400 per cent stronger than cast iron puller. 30 days' free trial. 3-year guarantee to replace, free, all castings that break from **any cause whatever.** Double safety ratchets insure safety to men and team. Accurate turning means light draft. Mail postal for free book showing photos and letters from owners. Tells how to turn stump land into big money. Special introductory price proposition will interest you. Write **now.**

HERCULES MFG. CO., 140—17th St. Centerville, Iowa

Selecting Apples For Show Purposes.

[By Prof. R. S. Herrick, Colorado Agricultural College, Fort Collins.]

The demand for better fruit on the part of the consumer is increasing, and, on account of this, competition between the different fruit-growing sections is quite keen.

This competition is not only found in the different fruit markets, but is shown at our Fairs and Apple Shows. The people in every apple-growing section like to see their fruit win the highest recommendation and approval wherever it is found on the market or on exhibition.

The lack of knowledge in selecting fruit on the part of the apple grower is often the reason why the best representative specimens are left, while some overgrown, poorly-colored ones are expected to win the premiums. For this reason it would be well for every orchardist to study the different points upon which apples are scored and judged.

The following score card for plate exhibits is one that will be used at the "American Apple Exposition," Denver, Colorado, November 13-18, 1911:

For Perfection.....100 points.
Size (normal)..... 10 points.

It will be noticed that size counts for but one-tenth of the points given for all requirements. The apples should be of good size but not overgrown for the varieties. It is much better to have five apples of medium, uniform size than it is to have them of different sizes, even though part of them are large.

Uniformity and Trueness to Type.... .....25 points.

These two conditions are very important ones and should receive special attention.

The five apples should be so uniform in size that they resemble so many peas in a pod; one should compare one apple with another and see if they are exactly alike in form and size.

A pair of measuring compasses will facilitate in securing uniformity of size.

In selecting for trueness to type, one should know what the correct type is for the variety. Look over carefully the different trees of the same variety and fix in mind the prevailing type.

Color.. .....25 points.

The color should be the best obtainable for the variety. Do not rub or polish the apples, as this destroys the natural bloom and many judges will disqualify apples when thus treated.

Texture and Flavor..20 points.

The time of picking, care and manner of handling have much to do with texture. If the apples have to be kept for any length of time they should be picked when they reach maturity and stored where a uniform temperature of 34 degrees Fahrenheit can be obtained.

With the proper management of the orchard as regards pruning, thinning, spraying, irrigation and cultivation, much good can be obtained in securing better texture and flavor of the apples.

Freedom from Blemish.20 points.

This means that the apples should be free from all worm holes or bites, frost and hail marks, limb bruises, spray burns, etc. The stems and calyxes must be intact and they should be of the correct size and length for the variety.

Be very careful in picking and packing not to bruise nor unnecessarily to rub the specimens, as this may have much to do with determining the decisions.

Feeding Good Cattle or Scrubs.

A good chapter on cattle feeding is contained in Animal Industry Bulletin No. 128. For three winters the Bureau investigated the difference between the results obtained by feeding pure-bred cattle of the recognized beef breeds and cattle that, being of no particular breeding, are classed as scrubs. They fed them alike and they fed them fairly; they studied them scientifically. The experiments show clearly an economic superiority of the pure-bred over the scrub steer, due, first to his relatively smaller maintenance requirement, and, second, to his ability to consume a larger surplus of feed above the requirement. Both of the facts tend to make the actual production of human food in the form of meat and fat per unit of total feed consumed by the animal notably greater by the pure-bred animal.

When they came to the butcher block they found the scrub was still a scrub and the pure-bred steer was still a "thoroughbred." The scrub was rated as "common," and the pure-bred was graded as "prime." The total dressed weight and the weights of the several wholesale cuts show the considerably higher percentage of dressed weight in the case of the pure-bred, which is characteristic of the beef animal, and likewise the predominance of the loin cut, over the less valuable cuts of the forequarter in the beef animal as compared with the scrub, and the marketable meat of the retail cuts show that the proportion of more valuable cuts was notably greater in the pure-bred.

Cattle feeders who are interested in the fine points of their business will find it to their advantage to write to the Chief of the Bureau of Animal Industry, Department of Agriculture, Washington, D. C.

Golden Arrow Seed Catalogue.

The A. W. Schisler Grain Company, St. Louis, Mo., will send a catalogue of vegetable, flower, field and garden seeds to any of our readers who will write for it. It is called the Golden Arrow Seed Catalogue and is named after their Golden Arrow Seed Corn, after their very prolific yielder and the cleanest and brightest yellow corn on the market. Quotations will be furnished on any and all seeds in season in any quantity. Address, A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo.

ECONOMIZE

A THOUSAND DOLLARS, we will say, is your yearly income. Maybe it's $600 or $800 or $2000—but $1000 will do for an example. Now suppose that out of this $1000 you spend $600 in a year and put $400 in the bank. That means $400 saved, doesn't it? But suppose you start buying the necessities of life in an economical way like 2,000,000 other people are doing. Suppose that this year you cut your expenses down to $400 and put $600 in the bank. That means $600 saved, doesn't it? You can do it, you can cut one-third off of your living expenses and it's the easiest, most agreeable thing to do that there is. Send to us for one or more of these books which contain the articles you are going to buy this winter. You will find as all of our 2,000,000 satisfied customers have, that our prices are the very lowest and the quality of our merchandise is the very highest. The reason our prices are low is this—we buy in tremendous quantities and trim down the price on each article to the lowest possible figure. We give you the advantage of these extensive and economical business methods.

THROUGH THESE BOOKS WE OFFER YOU THE OPPORTUNITY TO SAVE 20 PER CENT TO 50 PER CENT OF THE MONEY YOU MUST SPEND IF YOU TRADE ELSEWHERE.

We guarantee every article we sell to give you full satisfaction. Without dispute, without question, we will take it back at our own expense, if it does not, and refund your money or make any fair exchange or adjustment.

MONTGOMERY WARD & CO.

Chicago Avenue Bridge CHICAGO — 19th and Campbell Sts. KANSAS CITY

Send Coupon below to Nearer Address

The New Furniture Book

You will enjoy this book. It is crowded from cover to cover with attractive offers that will delight you. A couple of pretty chairs or an attractive, substantial couch will make a home much more comfortable.

Whatever you need, from the Kitchen table up to the furniture for the guest chamber, you will find just what you want in the pages of this Furniture Book. You have read of our economical business methods. They enable us to sell you furniture at prices that often mean a saving to you of 50 per cent on what you had intended to pay to the retail dealer. Your copy is waiting for you. Let us send it today. Ask for book number 7.

Carpets and Rugs at Factory Prices

A new carpet or perhaps a rug will "brighten up" that room you think does not look quite inviting or cozy enough. Don't imagine you can't afford one. Our carpet and rug catalogue, book No. 15 contains some price surprises for you.

SPEND THIS MUCH $ IN THE RIGHT PLACE AND IT WILL BRING YOU AS MUCH AS THIS $ WOULD IN THE WRONG MARKET

A Saving on Clothing

A well dressed man or woman makes a splendid impression everywhere. Good clothes are a recommendation in themselves. "Clothes do not make the man" the old saying goes, but we all know they often help a lot. It is easy to be well dressed and not expensive either. Let our new clothing book show you how to dress well at a small expense. It brings right into your home a wonderful collection of clothes, weaves, patterns, and colors from which to select.

Every style is new, nobby and up-to-date. Remember it costs you nothing to get this book. Better have us mail you one today. The women's book is No. 30, the men's book is No. 33.

HERE IS A BOOK THAT WILL

Save 1-2 of Your GROCERY Money

The Grocery List is a mighty interesting little catalogue. You're going to spread it out under the lamp and turn its pages and just delight in comparing the money-saving prices it quotes, with the high prices that small dealers ask. Before you know it you'll have your pencil out figuring up how many Christmas presents you can buy with the money you saved on your grocery bills. But the thing that's going to give you real satisfaction is this: For less money you are getting better quality and more food! Then, of course, you know that everything is so clean and pure and absolutely reliable.

The number of the Grocery Book is 11.

When we receive your request we will put your name on our mailing list to receive the new Grocery List every two months.

Save Enough on Winter Farm Necessities to Clothe the Family

A feed cooker—a good one—that's what you need this winter. Perhaps you stand more in need of a tank heater or an incubator or a brooder or some other winter farm necessity.

Whatever you need, we have it. We carry a big variety of every farm necessity. The prices on these are of course the very lowest just as they are on all the rest of our merchandise. Send for book 8.

Stoves at 1-2 the Usual Cost

When the wind howls and the boards creak and the windows rattle and the snow sifts in under the door sill think of the comfort a warm stove and a good range are going to give you. It's going to be mighty comfortable to toast your toes on the edge of your stove or baseburner, read and talk and then doze off into a little nap in the pleasant warmth from the glowing coals.

In the morning you'll be glad that you thought about getting that good range in time when you sniff the aroma of piping hot coffee, and batter cakes browning on the griddle.

It's going to be cold this winter. You must have a good stove. You must have a good range.

Send for book No. 23, our new Stove and Range Book that has just been printed.

Check the Book You Want

Let us show you, free of all cost, how you can save money on everything you buy to eat or wear or use in any way.

Send Coupon to Nearer Address

Montgomery Ward & Co.

19th and Campbell Sts. KANSAS CITY — Chicago Avenue Bridge CHICAGO

Please send to my address below the books I have checked absolutely free of cost.

1 Paints
2 Pianos
3 Organs
4 Trunks
5 Roofing
6 Vehicles
7 Furniture
8 Incubators
9 Wall Paper
10 Typewriters
11 Grocery List
12 Feed Cookers
13 Tank Heaters
14 Wire Fencing
15 Carpets, Rugs
16 Building Plans
17 Baby Carriages
18 Men's Fur Coats
19 Sewing Machines
20 Gasoline Engines
21 Cream Separators
22 Building Material
23 Stoves & Ranges
24 Underwear Samples
25 Automobile Supplies
26 Bicycles -- Motorcycles
27 Baby's Dress and Toilet
28 Women's Tailored Suits
29 Circular and Drag Saws
30 Women's Fashion Book
31 Rain Coats, Rubber Coats, etc.
32 Tombstones and Monuments
33 Men's Clothing
34 Women's Furs
35 Dry Goods
36 Muslin Underwear
37 Millinery

Name.....

Post Office.....

R.F.D.....State.....

Send Coupon to the Nearer Address.

156

This Book is for Mothers

It's the "Baby Book." There are some of the daintiest, prettiest little dresses and caps in it you ever saw. Then there are snug, warm "nighties" and stockings—and everything else the baby needs. Beds and cribs, go-carts, high chairs, toys, rattles--well, you'll just be delighted when you see it.

And everything is so reasonable! Without even knowing it you will have bought everything for baby and have a neat sum left—maybe enough to buy a rug or a pair of shoes, or to "put away for a rainy day."

The "Baby Book" is a beautiful book. You'll like it. The number is 27.

Men's Fur Coats

When the mercury in the thermometer plays tag with the zero mark—then is the time that the man in "the big fur coat" is the envy of all eyes. Nothing takes the place of a good fur coat for protection from cold, stormy weather.

There's one in our new Fur Coat Catalogue (Book No. 18) for you.

Women's Furs

Dressy, silky, soft furs—the kind every woman admires—are fully shown in catalogue No. 34.

Our forty years' experience in expert fur buying is at your service.

Sewing Machines

A reliable, smooth running sewing machine will soon save its cost in time, strength and labor saved.

Our years of experience enables us to offer you by far the best machines on the market at the prices quoted.

The sewing machine book is No. 19.

Raincoats and Rubbercoats

Rainy weather has no terrors for you if you have a good raincoat. You rather enjoy splashing around in the wet, when you are warm and dry. Damp—rainy—snowy weather will soon be here. Better get your raincoat now and be ready for it.

Send for book No. 31

Underwear Samples

A suit of soft, warm, well fitting underwear will be mighty fine to jump into when those cold, frosty mornings come. Our underwear samples book shows you one of the finest, and most complete lines of knitted underwear that you ever saw.

Write today for book No. 24.

Pianos and Organs

Purity of tone and best quality of materials are the distinguishing marks of our pianos and organs. Cost, plus one small profit is all we ask. See catalogue No. 2 for pianos; No. 3 for organs.

Evans-Montague Commission Company

THE MEASURE OF SUCCESS
attained by a
SHIPPER OF LIVE STOCK
depends largely upon
THE COMMISSION HOUSE
to which he consigns his
CATTLE, HOGS AND SHEEP.

If you wish to receive
TRUSTWORTHY AND RELIABLE
SERVICE,
and have your consignments
SOLD BY CAPABLE AND CONSCIENTIOUS SALESMEN,
you cannot do better
THAN PATRONIZE OUR HOUSE.

The Shippers' Interests
ARE OUR INTERESTS,
and our rapidly-increasing business
IS THE STRONGEST TESTIMONIAL
of our ability
TO PLEASE OUR CUSTOMERS.

Evans-Montague Commission Company

P. O. Box 68,
NATIONAL STOCK YARDS, ILL.

A First-class Commission House.

In consigning live stock for sale at the St. Louis National Stock Yards, remember the Evans-Montague Live Stock Commission Company. It is a successful firm, highly competent and persevering in the interest of their customers. The Evans-Montague Commission Company solicit consignments of cattle, hogs and sheep for sale on the market, and desire stockmen to take notice that the company has special buyers who select and buy stock and feeding cattle for their customers. S. T. (Tom) Boothe, who has been on the market for fifteen years, is native cattle salesman. Colonel James H. Campbell is with this house as Vice-President, in charge of the Southern cattle department. His presence adds strength to the organization. The firm is equally well equipped to sell hogs and sheep. Stockmen requiring market information should address Evans-Montague Commission Company, Box 68, National Stock Yards, Ill.

Hogs at St. Louis.

At the St. Louis National Stock Yards, October 1st, some fine light hogs, weighing 162 to 196 pounds, sold at $6.80 per 100 pounds. Heavier weights, choice hogs, averaging 226 to 242 pounds, sold at $6.75 per 100 pounds. The bulk of the mixed hogs sold at $6.45 to $6.65 per 100 pounds.

Don't Have a Blind One

"VISIO"

An Absolute Cure for
Moon Blindness
(Periodic Ophthalmia), Cataract
and Conjunctivitis
Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will positively cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

No Benefit, No Pay.

You ought to try a 25-day trial treatment of Bodi-Tone on its no benefit, no pay plan. This plan is fully explained in the large Bodi-Tone advertisement on the last page in this issue. If you have not yet tried Bodi-Tone, you can get a dollar box on trial, without a penny in advance, simply in writing for it. Read the offer.

A Quarter-Centennial Souvenir.

Of more than passing interest to live stock feeders and shippers is the announcement of the recent twenty-fifth anniversary of the founding of the greatest live stock commission firm in the world, Clay, Robinson & Co., an event which that ever-enterprising concern has fittingly commemorated by the publication of a "silver souvenir" pamphlet depicting the rise and expansion of their business since 1886. This book, which is now being distributed to the patrons of the firm and other interested persons, is a most beautiful specimen of the engraver's and printer's art, profusely illustrated and worked in two colors, with a specially designed silver embossed cover. The booklet opens with fine portraits of the two original members of the firm, Mr. John Clay and Mr. Charles O. Robinson, who are still active in its management and control. The other three partners, Messrs. J. G. Forrest, F. H. Connor and C. A. Kleman, are also shown. A brief but intensely interesting sketch, entitled "After Twenty-five Years," traces the development of the firm from 1886 to 1911, and in doing this many an interesting side-light and valuable historical fact is interwoven. From the official statistics presented in the book the reader learns that the business of Clay, Robinson & Co. has almost trebled in the past ten years, the annual cash turnover for 1910 being in round numbers $105,000,000, against $37,000,000 in 1900. This is an amazing showing and indcates beyond cavil that the firm's methods and service bear the stamp of popular approval.

The matter and illustrations included in the silver souvenir under the heads "After Twenty-five Years," "Facts and Figures," "Some of the Veterans," and "The Live Stock Report," reveal clearly the intelligence and aggressiveness with which the Clay-Robinson organization has been developed to its present high state of efficiency. There are portraits of the leading salesmen at the firm's Chicago, South Omaha, Kansas City, South St. Joseph, South St. Paul, Sioux City, East St. Louis, East Buffalo, Denver and Fort Worth houses; views of the splendidly-equipped offices at Chicago and other markets; portraits of the officers and data of the twelve banks controlled by the firm; a page devoted to John Clay & Co., which business, although operated as a separate organization, is really a part of Clay, Robinson & Co., and whose operations in the loaning of money to cattle and sheep feeders runs into millions annually, while a complete roster of the 219 employes complete the story of the quarter century in review. It is a record of which any man or set of men may well be proud, and we add our hearty congratulations to America's greatest live stock house. "May they live long and prosper."

Imports and Exports of Horses.

During the year ending June 30, 1911, the imports of horses were 6,331 for breeding purposes, duty free, and 3,262 that paid duty. From Great Britain there came 1,187; from Belgium, 1,465; from France, 2,024; from Canada, 2,977; and from other countries, 1,940. During the previous year imports were 7,867 free of duty and 3,753 paying duty.

During the year ending June 30, 1911, exports of horses to Great Britain amounted to 563 head; to Canada (including mules), 21,743; and to other countries, 2,839 head. During the previous year 28,910 horses (and mules) were exported from the United States.

Western Range Horses and Mules.

The sales of Western range horses and mules by Campbell & Reid and Western Sale Stables Company are rapidly drawing to the close. One sale on October 5th will be over before this paper is distributed and the next sale is scheduled for Thursday, October 19th. This will be followed by another sale on Thursday, November 2d. Whether there will be any sales later depends upon circumstances. All who desire to own good, young horses that can be rapidly developed into domestic sale ring horses should take advantage of the sales that remain. The sales are held at the St. Louis National Stock Yards. Further particulars can be had by addressing J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Recommends Missouri Horses.

In a report to the Quartermaster General of the Army, just received, Maj. Letcher Hardeman, who is in command of the remount station at Fort Reno, Okla., paid a compliment to horses purchased in Missouri.

During the past year 834 horses were received at the Fort Reno Station. They were purchased in Missouri, Oklahoma, Texas, Montana, Wyoming and Virginia.

Most states have been willing to concede to Missouri the palm for the excellency of its mules, but to have an army expert, an officer who is attached to the cavalry arm and knows a good horse when he sees one, also give her horses first place, is rather more than some other states will be willing to stand for without protest.

With 642 horses on hand July 1, and the purchase of 834, Maj. Hardeman reports there were a total of 1,476 animals at Fort Reno during the fiscal year. Of this number, 841 were issued to various posts, 60 died and 61 were sold to officers. Of the horses issued, 602 went to the cavalry, 98 to the artillery and 136 were riding horses. The percentage of loss was greater than last year by about two per cent.

The Bushnell Horse Show.

At the Bushnell, Ill., Horse Show to be held October 12th and 13th, there will be $4,000 awarded in prizes. The officers are Jno. M. Brandt, President; Lute J. Barber, Secretary; Bert Roach, Treasurer; and J. G. Truman, General Manager. Last year there were seventy-four classes with over 700 entries. Bushnell is a great center of horse-breeding territory, and the Show is an exhibition of horses that excels in dignity, numbers and purses any of the State Fairs and compares favorably with national events.

At St. Louis, on September 30th, rye was in good demand and one-half cent higher; No. 2 fresh receipts sold at 96 to 96½c., and No. 3 at 94 to 95c.

On October 1st the best price for cattle in the Southern division at St. Louis was $5.15 per 100 pounds for steers averaging 1,114 pounds.

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard

Write for market information.
Address,

HOLLAND, NUGENT & MAXWELL BROTHERS,
P. O., National Stock Yards, Ill.

Don't Cut Out A SHOE BOIL, CAPPED HOCK or BURSITIS FOR

ABSORBINE

will remove them and leave no blemishes. Cures any puff or swelling. Does not blister or remove the hair. Horse can be worked. $2.00 per bottle delivered. Book 6 E free.

ABSORBINE, JR., liniment for mankind. For Boils, Bruises, Old Sores, Swellings, Goitre, Varicose Veins, Varicosities. Allays Pain. Price $1 and $2 a bottle at druggists or delivered. Will tell more if you write. Manufactured only by W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

KENDALL'S SPAVIN CURE

"ONLY SURE REMEDY"

Gadsden, Ala., Apr. 26, 1909.
Dr. B. J. Kendall Co.
Gentlemen: Please send me copy of your TREATISE. I have been using your Spavin Cure for 20 years, and find it is the only sure remedy. It is the best liniment I can get for horse and man. Yours truly, W. J. McBee.

That tells the whole story, and it is the experience that hundreds of thousands have had in the past 40 years, and it's the experience you will have—"It is the only sure remedy"—

For Spavin, Ringbone, Curb, Splint, Swellings and All Lameness

Sold By Druggists—$1.00 a Bottle, 6 bottles for $5.00. Keep it on hand always. Be ready for the emergency. Kendall's stops the pain, starts the circulation, penetrates and removes the cause of the disorders. Ask for a free copy of "A Treatise on the Horse." If not at dealers write to—

DR. B. J. KENDALL CO., Enosburg Falls, Vt.

Traveling Salesmen and Saleswomen Wanted

Earn While You Learn. We now have on file letters from thousands of Wholesale and Manufacturing firms who are anxious to employ Salesmen and Saleswomen capable of earning from $1,000.00 to $10,000.00 a year and expenses. No former experience needed to get one of these good positions. We will teach you to be a high grade Salesman or Saleswoman in eight weeks by mail and our Free Employment Bureau will assist you to secure a position where you can earn good wages while you are learning Practical Salesmanship. Write today for full particulars, list of good openings and testimonials from over a thousand persons we have recently placed in good positions.

Address, Nearest Office, Dept. 161.
National Salesmen's Training Association
Chicago New York Kansas City New Orleans Seattle U. S. A.

WESTERN

RANGE HORSE SALES.

Horse raisers are advised that sales are being conducted by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL., As usual, during the season of 1911. The Eleventh Sale will be held on

Thursday, Oct. 19th,

And every two weeks thereafter until the close of the season. The Twelfth Sale will be held on

Thursday, Nov. 2d.

We will be glad to hear from Ranchmen having Horses for sale, also from buyers who wish to have splendid Horses to finish up for the domestic sale ring.

Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Mid-winter Sheep Show.

In connection with the Forty-eighth Annual Meeting of the National Wool Growers' Association there will be held at Omaha, Neb., December 13th to 16th, inclusive, a National Mid-winter Sheep Show.

Cash premiums will be provided by the Show Committee which will exceed those offered at any other Sheep Show ever held. Every effort will be put forth to make this Show really attractive to exhibitors of any class of sheep. All who are interested should address the Secretary, National Mid-winter Sheep Show, care Commercial Club, Omaha, Neb.

TRAPPERS GET READY
BIG MONEY IN FURS

Over ten million dollars will be paid to trappers of fur bearing animals during the coming winter. Any man or boy living in the country can add a goodly sum to his earnings by trapping during spare moments. We furnish ABSOLUTELY FREE a complete Trapper's Guide which tells you the size of trap and kind of bait to use for the different animals, how to remove the skins and prepare them for market. We also furnish the best traps and baits at lowest prices. We receive more furs direct from trapping grounds than any other house in the world, therefore can pay the highest prices for them. Our price lists, shipping tags, etc., are also FREE for the asking. If you are a trapper or want to become one, write to us today. We will help you.

F. C. TAYLOR & CO.
GREATEST FUR HOUSE IN THE WORLD
315 Fur Exchange Building, St. Louis, Mo.

RAW FURS.

St. Louis is the largest and best market in the world for Raw Furs. This includes all Skins and Pelts of animals obtained by trappers in any section of the United States. All Furs require careful grading in the interest of the owner and shipper.

We Handle Furs and Pelts Strictly On Commission,

selling them to the best possible advantage. We grade to suit the requirements of buyers and sell for the highest quotations. Large or small consignments given careful attention. We solicit the Furs of hunters, traders and trappers. Reference: Any bank or merchant in St. Louis. Send for price list.

J. C. Crowdus & Company,
104 North Main Street, ST. LOUIS, MO.

Cattle Importations.

During the year ending June 30, 1911, breeding cattle to the number of 2,441 head were admitted into the United States free of duty, and 180,482 paid duty, because they were for grazing or slaughter. The year before the breeding cattle imported amounted to 2,611 head, and the others to 193,327 head.

Government Buys More Morgan Horses

The Bureau of Animal Industry of the United States Department of Agriculture has just purchased in Meade county, Kansas, four additional horses for use in the government breeding work that is being carried on in Vermont with the object of preserving and improving the Morgan breed. These animals are the seven-year-old Morgan mare Fanny P. (Vol. III, A. M. R.), two yearling fillies by Headlight Morgan (a son of Ethan Allen, 2d), and a colt foal out of Fanny P. by Headlight Morgan. One of the fillies is out of Fanny P., and the mare is again in foal to Headlight.

Fanny P. is by Julian Morgan, the sire of Roy Morgan, champion Morgan stallion at the principal State Fairs of the Central West in 1910. Fanny P.'s dam was by Flying Morrill, and her second dam by a son of Billy Root.

The pedigree of Headlight Morgan is well known to Morgan breeders. The horse was foaled in Southwestern Kansas, and has a well-deserved reputation in that vicinity as a sire.

These horses are among the descendants of a large consignment of selected animals purchased in Vermont and Illinois in the early nineties by the Morgan Horse Company, of Carpentersville, Ill., and sent to Southwestern Kansas to take advantage of cheap pasture there. Unfortunately, however, and partly on account of the depression in the horse market several years ago, the venture was not a success, the company disbanding and the horses being scattered over a wide territory. Some of this stock still remains in Kansas and Oklahoma.

The animals bought by the government will be taken to the Morgan Horse Farm at Middlebury, Vt.

New Records in Horse Sales.

In the matter of selling domestic horses at auction Messrs. Holland, Nugent & Maxwell Bros., at the St. Louis National Stock Yards, are making new sale records. Mr. T. H. Holland advises us that the last auction was the best in some time. Good, big horses were selling strong and will sell strong right along. The trade on chunks was better than it has been. The Southern horses all sold well, but people are expecting too much for small 1,000-pound mares. Messrs. Holland, Nugent & Maxwell Bros. hold the Monday and Tuesday auctions every week in the year. Shippers who are not acquainted should send in a car-load and try the market.

The Mule Trade at St. Louis.

Holland, Nugent & Maxwell Bros., successful salesmen of mules at the St. Louis National Stock Yards, advise that for two weeks preceding October 1st the mule trade was all anyone could reasonably expect. The dealers bought them readily at satisfactory prices. The market is in good condition. Good cotton mules, sugar mules and draft mules are the best sellers. Common, plain, thin stuff is selling bad.

Our Wheat Importations.

It will be a good idea to keep track of our wheat importations. During the year ending June 30, 1908, the imports amounted to 364,307 bushels; the next year 41,082 bushels; the next, 164,201 bushels; and during the year ending June 30, 1911, the imports amounted to 509,439 bushels.

Average Windmill Service.

The Eclipse Windmill is the durable one and the average life is twenty-five years. Of all the wind engines that have ever been sold by the manufacturers of the Eclipse none has ever failed to give satisfactory service. The particular windmill approved for farms and ranges is described in Catalogue D H 692. Be particular and write for it to Fairbanks, Morse & Co., at Chicago, or St. Louis, or Kansas City, or Omaha, or St. Paul, or Denver, whichever is nearest to you.

Light on the Farm.

Darkness has driven more boys and girls off the farm than all other influences combined. It is impossible to enjoy life with dark surroundings. Darkness is no longer fashionable. The cleanest and best light is the most economical. The first cost is moderate—the running cost is nominal. Turn to page 5 and read about "The Home-made Gas Light From Crushed Stone." Then write to Dept. A—56, Union Carbide Sales Co., 126 Michigan Blvd., Chicago, Ill., for booklets and particulars.

The Angus Herd Book.

Volume 20 of the Aberdeen-Angus Herd Book, just received, indicates a high degree of prosperity for the breed. It contains record of Aberdeen-Angus cattle from 136,501 to 148,500, with list of breeders and animals and matters relating to prizes won at different shows by Aberdeen-Angus cattle. The price of the volume to members is $1.00 and to non-members $3.00. Only a small edition was printed this year, thus it behooves every member to send in for his copy promptly. Address, Chas. Gray, Secretary, 817 Exchange avenue, Union Stock Yards, Chicago, Illinois.

"The horse market calls for full-aged, big horses and chunks with good middles. The market does not call for short-aged green chunks or leggy big horses with no rib." This information is taken from a market circular addressed to horsemen.

The St. Louis Horse Show for 1911 will be held at the Coliseum from October 30th to November 4th, inclusive. Mr. G. Lacy Crawford is President, and James H. Bright, Secretary and Treasurer. The headquarters of the Horse Show Association will be at the Planters' Hotel.

Mr. Alexander Gemmel, one of the foremost horsemen of Great Britain and in his day owner of many stylish horses, stated recently that Nala, a bay stallion owned by J. W. Harriman, is the geatest harness horse he ever saw. Nala is an American trotting-bred carriage horse.

Choice Heavy Cattle.

On the 1st of October, at the St. Louis National Stock Yards, twenty-nine head of 1,815-pound steers were sold at $8.00 per 100 pounds. They were shipped by J. R. Wesson, of Moniteau county, Missouri, and sold to the United Dressed Beef Company of New York. It is seldom that any better cattle are sold on any market.

I Cured My Rupture

I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today.

Free Rupture-Cure Coupon

CAPT. W. A. COLLINGS, Inc.
Box 27 Watertown, N. Y.

Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name.....

Address.....

.....

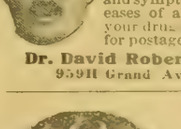
Sales of Sheep and Lambs.

On Tuesday, September 26th, at the St. Louis National Stock Yards, Clay, Robinson & Co. reported the sale of sixty Illinois lambs, seventy-seven pounds average, at $6.30 per 100 pounds, which was the top sale on the market; also 185 Missouri lambs at $6.00; twenty Missouri ewes, 115 pounds, at $3.85 per 100 pounds; twenty Illinois ewes, 120 pounds, at $3.85 per 100 pounds; and ten Indiana ewes, 100 pounds average, at $3.75 per 100 pounds. These sales give a fair idea of the market.

Live Stock

Every owner can now get free Dr. David Roberts Practical Home Veterinarian. 184 pg book, reg. price $1. Posts you on ailments and symptoms, enables you to treat diseases of all animals. Call for it at your drug store. If not there, send 10c for postage and receive a copy direct.

Dr. David Roberts Veterinary Co.,
959H Grand Ave., Waukesha, Wis.

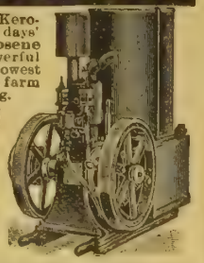


SICK HOGS

Cured and disease prevented with Shoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. 25c case cures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. SHODDY CO., Dept. H, NASHVILLE, TENN.

Use KEROSENE Engine FREE!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing.



Gasoline Going Up!

Automobile owners are burning up so much gasoline that the world's supply is running short. Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline. No waste, no evaporation, no explosion from coal oil.

Amazing "DETROIT"

The "DETROIT" is the only engine that handles coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Basic patent—only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Complete engine tested just before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric-lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate amazing, money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, we will allow you Special Extra-Low Introductory price. Write!

Detroit Engine Works 383 Bellevue Ave., Detroit, Mich.

The Chicken Mite.

[By B. F. Kaupp, Colorado Agricultural College, Fort Collins.]

There are two kinds of chicken mites—first the common chigger, scientifically known as the Trombidium holosericeum; and, second, a mite about the same size but with an ovipiriform-shaped body instead of an oval one, as in the case of the first. There are also some other microscopic differences. This latter parasite is scientifically called the Dermanyssis gallinae.

There has been considerable trouble with this first-named parasite during the present summer, which will extend into the fall. The hot, dry weather is most favorable for their multiplication and development. Many birds (principally hens) infested by the chigger, have been brought to this laboratory during the season. The statement from these poultry people invariably being that the birds die suddenly, and, when opened, all organs appear normal, at least so far as they could tell. Those examined in the laboratory have proved the same. Further examination reveals the fact that the cracks and crevices of the poultry houses, as well as the cracks and crevices of the roosts and the nests, were literally alive with these little pests, which are about the size of a pin head. When full of blood they appear somewhat red or bluish.

These chiggers are blood suckers. Their piercing apparatus is cone-shaped, and with this they wound the skin and suck the blood. Imagine 500 to 1,000 (as we have found them) of these, and imagine the irritation, and you will readily understand why the birds die. The irritation which each produces at the point of attack is considerable.

The birds often die suddenly without many visible symptoms.

The parasite lays its eggs in the cracks, crevices and in the filth of the hen house, where they hatch out, first into an asexual, six-legged state, later moults and develops into the eight-legged or mature state.

To rid birds and premises of these mites it is necessary to thoroughly clean the building, including nests. Repeat this every two or three days, if not every day. Spray with two per cent. solution (in water) of kreso, creolin or zeoleum, forcing the solution into cracks and crevices and repeat twice a week. Pour coal oil on the roosts twice a week. Place one inch of air-slacked lime in the nests before placing new straw. Place in dusting wallow a small quantity of tobacco dust, sulphur and pyrethrum (insect powder). Dust hens with same if found necessary, or dip with five per cent. solution creolin, kreso or zenoleum.

Some Fruits of This Year's Experience in the Poultry Yard.

In this year's experience in poultry raising, the most satisfactory thing has proved to be the little yards in which a few hens were set and in which all raised their broods.

These yards were made out of material lying around, four-inch boards, inch-mesh wire and two-inch mesh wire. It required about two hours to make each one, and this expenditure of time was the only expense connected with the pens.

To make each pen, thirteen strips of board were used, each strip being six feet long and four inches wide, with eight pieces of board of about any width, but eighteen inches long. Each pen was made with the idea of being easy to knock down and pile up under a shed to keep it through the winter. So each side was made by itself.

In the making, two of the six-foot strips were laid down just ten inches apart. An eighteen-inch cross piece was nailed across the ends about one and one-half inches from the extreme ends. This space at the ends has to be left so that the four sides will fit tightly and the fit not be interfered with by the cross pieces.

Several nails were put in each end of the cross pieces instead of the one or two absolutely needed. This gave the side greater rigidity.

Then a strip of one-inch wire was nailed over the space left in the side. Two-inch mesh would permit the small chickens to get through.

When the four sides were completed, they were set up and nailed together with one or two very large nails in each corner. It is an easy matter to pry these nailed sides apart, when knocking down is desired. In previous years the writer has used hooks and eye-screws instead of the big nails, but the nails are simpler and hold the structure more firmly. This gives a square box that needs to have pieces of lath, say a foot long, nailed diagonally across the corners, to stiffen the box.

The cover is made of four pieces of the board, forming the outer four edges, with a fifth across the middle to prevent the wire from sagging. Two-inch mesh wire is nailed over the aperture in the cover.

At first the writer used leather hinges to connect the cover and box, but finally found that hinges are in the way and a nuisance. No hinges are needed, as the weight of the cover will keep the chickens in and other things out.

For watering, a gallon bottle in one corner of the pen is inverted in the saucer of a flower pot. A piece of wood in the bottle neck keeps the month of the bottle half an inch above the bottom of the saucer and the saucer fills with water to that depth. A gallon of water will thus supply a brood for a long time.

In this way all loss of little chicks from cats and rats is avoided. Almost any kind of a box in the little yard is good enough for the mother hen to brood her chickens in.

When a hen is placed on eggs in this kind of a yard she sits steadier than when given unlimited liberty. The writer has had several experiences this summer where hens were off so much that many of their eggs were chilled. In one case not a chick hatched, though nearly all the eggs were fertile. The hen would be off for hours at a time hunting bugs and dusting herself.

Winter is a good time to make such things as pens of the above character, for in the busy season even two-hours' time will be found hard to get, and several of these yards will be found useful, even with a small flock.

They can be moved a few feet daily, and so fresh grass and fresh ground be always secured for the growing chicks.

From Farm to Consumer.

Mr. Walter B. Franklin, of Clint, Texas, in El Paso county, writing to the Petaluma Journal, gives an account of marketing eggs direct from the ranch to the consumer.

Mr. Franklin is manager of a poultry plant that last year produced an average of 152 eggs per year per hen from 2,000 laying hens. Naturally, having plenty of eggs for sale and with a railroad running direct from his farm into El Paso, he was pretty close to market, and he placed the fresh eggs on the train daily and in cartons labeled "Perfection Eggs."

Notwithstanding the eggs were excellent quality, guaranteed fresh and put up in a most attractive manner, the dealers in the city did not offer the owner satisfactory prices. The consequence was that Mr. Franklin abandoned his railroad shipments and he also abandoned the city salesmen. Mr. Franklin bought an automobile delivery wagon, and, having a good pike road direct to town from his farm, commenced selling eggs direct to the cousmer.

The first introduction to the El Paso consumer was a full-page advertisement in a daily paper, asking the people how they would like to get eggs absolutely fresh, not over twenty-four hours old, that were large, full of nutriment, palatable and healthy, that could be relied on.

The consequence was that the automobile goes in as often as necessary, and the ranch is paying automobile and hired man expense out of 35 and 40 cents a dozen for eggs, instead of railroad express charges and selling commissions out of 20 and 25 cents a dozen for eggs. By reason of having a large number of eggs to sell the automobile expense is justified, and in any community farmers co-operating on the same plan will be able to sell eggs direct to the consumer. According to railroad mileage, the station at Clint is twenty-two miles from El Paso, but by wagon road it is longer, as the road distance mentioned by Mr. Franklin is thirty-five miles.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Standard Watch Case.

In buying a watch, be sure to obtain the Keystone Watch Case. In order to understand this subject, see page 23. It is easy to obtain the benefit of the guarantee, for the reason that it is engraved inside every case. If you will take the trouble to examine the case you will then know exactly what you are buying, just the same as you know a gold coin issued by the United States Mint. The subject is worth investigating by all who buy watches.

Geo. Langlois, of Sebastapol, Calif., reports to the Petaluma Poultry Journal that four white Indian Runner ducks laid for him in April, thirty days, 116 eggs; May, thirty-one days, 115 eggs; total, 231 eggs in sixty-one days, or 57¾ each in the sixty-one days.

I raise 60 bu. of corn—

per acre, said Mr. Gray, of Piggott, Ark. I grow anything here that we could in Indiana—wheat, clover, timothy, oats, corn and all kinds of garden stuff and fruit. I don't see any difference in this land, unless I may say it is better. In Indiana, my farm was eight miles from a railroad. I sold it for $105 an acre and got this *improved* place, just a *quarter of a mile* from the station for $57 per acre.

There are hundreds of places in these sections where the finest kind of corn lands—lands that will easily make 40 to 75 bushels to the acre, can be bought at $10 to $25 per acre, and the best improved places at $30 to $60 along the

Cotton Belt Route in Arkansas and Texas

There are many sections in Arkansas and Texas that are *just suited* for your line of farming—where you can buy *many* acres with the price of every *one* you now own—get the benefit of the *big* boost in land values sure to come—live in a mild climate where you can do money making work *every* month—without sacrificing *anything* in living conditions that you now have. Telephones, good schools, rural delivery, modern towns, close markets—you'll find them all through Arkansas and East Texas.

On the 1st and 3rd Tuesdays of each month there are very low round trip excursions to Arkansas and East Texas via Cotton Belt Route, allowing 25 days for trip and *free stop overs.* Plan to go on the *next* one.

Get our free books today!

(new)—they show examples of successes in Arkansas and Texas in your line of farming—by people from many states—some of them likely from your own State. Nothing will convince you like these statements from "home folks." Scores of illustrations. Write for free copies today.

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1419 Pierce Bldg., St. Louis

COTTON BELT ROUTE

WEATHER FORECASTS

For the Month of November, 1911, by the Famous Prognosticator, Prof. W. Wadsworth Marsh.

[Copyright, 1911, by W. W. Marsh.]

We publish the weather predictions by Prof. Marsh one month in advance. This is the October edition of The National Farmer and Stock Grower, and the following are the predictions for the month of November. The success of Prof. Marsh is phenomenal.

November will be a tempestuous month, the precipitation high, rain and snowfall at times quite heavy.

November 1st to 3d.

Between these dates storm over Michigan and Lake Huron, its area covering the entire country east of the Mississippi river, with heavy rain over Ohio, Indiana, Kentucky and Tennessee, covering the entire Ohio Valley, Pittsburg, Pa., Pennsylvania, the Alleghany region, the rain area extending to the Atlantic coast.

Rain at Lynchburg, Va., Charlotte, Asheville, Atlanta, Wilming, N. C., Charleston, S. C., Augusta, Ga., Jacksonville Fla., Tampa, Mobile, Montgomery, Vicksburg,New Orleans, Little Rock, Galveston, San Antonio, Memphis, Chattanooga, and storm, wind and quite heavy rain at Corpus Christi, Nashville, Knoxville, Louisville, Paducah, Evansville, Indianapolis, Cincinnati; rain at Columbus, O., Parkersburg, Pittsburg; rain. probably snow, at Buffalo, Milwaukee, Cleveland, Detroit, Toledo, Grand Haven, Grand Rapids, Sault Ste. Marie, Marquette, Chicago, Duluth, St. Paul, Davenport, Des Moines, Keokuk, Peoria, Springfield, Mo., and Springfield, Ill., St. Louis, Mo., and storm quite heavy at Cairo, Ill.

Light rain at North Platte, Fort Worth; rain at Tacoma, Portland, Ore., San Francisco, Cal., Scranton, Pa., Washington, D. C., followed by colder weather.

November 7th to 10th.

Damaging storms, changeable temperatures, mild weather to cold wave, high cyclonic winds, rain and snow alternating, from Colorado, New Mexico and Texas northwestward, to New England, and in the North Pacific States. These storms will be severe, covering the Ohio Valleys, Middle Mississippi Valleys and the Southwest, and throughout Ohio, Indiana, Kentucky, West Virginia, Tennessee, Pennsylvania, the Alleghany region, the entire state of Pennsylvania, and along the Ohio river and tributaries, from the Alleghany Mountains to the Mississippi river, causing suddenly rising rivers, the cyclonic winds damaging floating property.

Violent storms covering the South, heavy rainfall and cyclonic winds covering the entire Gulf States, with high gales and heavy rains on the Gulf of Mexico, sweeping the entire coast from New Orleans to Maine; much damage by wind and water, affecting the states of Georgia, Alabama, Florida, Mississippi,Louisiana, Texas, and over the Carolinas and Virginias and their coasts, the temperature changing from thunderstorm conditions to almost freezing temperatures; snow at times over Northern Texas and northern sections of North Carolina. Vessels should be protected along the coasts. Heavy frost will follow the storms over Western Florida, Alabama and Mississippi.

Storms will sweep the Great Lakes and lake region.

Storms, changeable temperatures, mild weather to cool wave with high cyclonic winds, heavy rain, sleet and snow alternating, covering the states of Kansas, Iowa, Nebraska, Missouri, Dakotas and Illinois, and the entire Upper Mississippi and Missouri Valleys, these storms severe with heavy precipitation, rain, sleet and snow alternation.

Storms, rain, wind and snow at Dodge City, Oklahoma, and heavy rains at Abeline, Tex.

November 11th and 12th.

Generally fair and frosty weather may be expected.

November 13th to 17th.

Between these dates another storm will cross the country, affecting the entire United States.

Quite severe storm with high winds and rain turning to snow, and cold wave covering the Northwest and the Western States and the upper lake region, extending southward over the Central Valleys to the Gulf States. Heavy rains and wind over the Gulf States and coasts, on the Gulf of Mexico, extending eastward, covering the Ohio Valleys and the states of Ohio, Indiana, Kentucky, West Virginia, Pennsylvania, Alleghany region, followed by colder weather.

Rain, turning colder, with snow and high winds over Missouri, and rain turning to snowstorm in the Middle Rocky Mountain region and the Upper Missouri Valley.

Rain and wind covering the Carolinas and Virginias and their coasts, and rain to snow with high winds covering the Upper Mississippi Valley and the states of Kansas, Iowa, Nebraska, Illinois, and cyclonic storm with heavy rainfall over Arkansas.

Wind and rain from the lower lakes southward to Texas. Snowstorm over Colorado, Wyoming and Montana and along the Rocky Mountain slope. Snow quite heavy at Salt Lake City, Utah.

Storm over the East, high wind and rain covering the states of New York, New England, New Jersey, Maryland, and along the North Atlantic coast, with storm and rough sea on the Atlantic. This storm will affect the cities of the East.

High gales on the Great Lakes, especially Lakes Erie, Huron and Michigan. Wind, rain and snow at Chicago, Milwaukee, St. Paul, Duluth, Cleveland, Detroit, Toledo, Marquette, Sault Ste. Marie and the lake towns, followed by frost.

Rain to snow over Oregon, Idaho, and rain over Washington state and California.

Rain and snow over New Mexico and Northern Arizona. Snowstorms over Manitoba and Canada.

Rain at Eastport, Me., Father Point, Que., Honolulu, H. I.

November 18th and 19th.

Generally fair, frosty weather may be expected.

November 20th to 25th.

Between these dates severe storms over the United States and foreign countries.

Storms, heavy gales, rain turning to snow and severe blizzard along the coast of Newfoundland.

Severe storms, changeable temperatures, heavy rains and snow alternating with cyclonic winds, from Texas northward to Southern Minnesota, and snow to the northwest of this belt, and rain and snow with cyclonic winds from the Rocky Mountains to the Mississippi river.

Cyclonic winds, changeable temperatures, heavy rains, sleet to snow covering the states of Kansas, Missouri, Iowa, Nebraska, Illinois and the Upper Mississippi and Missouri Valleys.

Storms, rain turning to heavy snow and blizzards, covering Montana, Wyoming, Colorado and the Dakotas. Stock should be protected from the sudden changes and blizzard from mild to cold waves and zero temperatures.

Heavy snowfall and high gales over the Lake Superior region. Travel will be impeded over the entire lake region and the Northwest.

Storms, changeable temperatures, rain to sleet and snow, alternating with high winds, at Cleveland,Toledo and over Northern and Northwestern Ohio. Damaging storms, high gales, heavy rainfall, covering the South. Severe gales and heavy rains on the Gulf of Mexico and Gulf States, affecting Texas, Mississippi, Georgia, Alabama, Louisiana, Arkansas, and along the Gulf coast, floods following the storms, the wind and water causing damage over West Tennessee, Northern Mississippi and Arkansas, causing washouts, etc.

General storms of cyclonic force originating in Tennessee and Mississippi, with heavy rains and snow alternating, covering the Ohio Valley, Ohio, Indiana, Kentucky, West Virginia, Pennsylvania, Carolinas and Virginias and their coasts, Ohio river valleys, Eastern and New England States, North Atlantic coast and ocean, the entire Eastern States and cities, causing much damage to property.

These storms will extend from San Francisco, Cal., on the West, to New York cities on the East, and from the lake coast on the North, to the Mississippi on the South.

Heavy rains will fall over Washington state, Oregon and Nevada. These storms will be the worst that the United States has experienced for years. Rain, sleet and snow will cover the Southwest.

November 26th and 27th.

Generally fair weather may be expected in most sections of the United States.

November 28th to 30th.

Between these dates another storm will cross the country. Belt of rain and snow extending from Texas to New England and in northern districts and east of the Rocky Mountains and along the northern borders of the United States, eastward to the lake region.

Storm, central off the North Pacific coast, and rain over the northern plateau and North Pacific States.

Rain at Fresno, Sacramento, San Francisco, San Diego, San Luis Obispo, Seattle, Spokane, Tatoosh, Island.

Unsettled, stormy weather general over the Rocky Mountains and Central Valleys, with snow along the Rocky Mountains, and quite heavy, wet snow over Colorado, Southeastern Wyoming, Southern Utah, Northern New Mexico and Arizona. Snow quite heavy at Pueblo and Colorado Springs, followed by cold wave. Snowstorm and cold wave in Northern Nebraska and Southern South Dakota.

Heavy gale and damaging storm along the coast of Newfoundland. Storm, rain and snow from the Rocky Mountains to the Appalachian Mountains.

Rain followed by cold and snow covering the Ohio and Mississippi Valleys, southern lake region, and snow and cold in northern lake region, Minnesota and Eastern South Dakota and the Middle and Southern Plateau.

Below-zero temperatures with snow over the Dakotas, Colorado and Wyoming. Rain and snow over the West, Northwest and Southwest, with quite heavy snow and cold covering the Northern States.

Rain and snow covering the Upper Mississippi and Missouri Valleys. Storm, wind and rain over the South, covering the Gulf States and coasts. Snow over Canada, Manitoba.

Rain at Eastport, Me., Elkins, West Virginia.

PROF. W. W. MARSH.

Is This Fair?

Certain Proof Will Be Made That Stuart's Dyspepsia Tablets Cure Stomach Trouble.

A Trial Package Sent Free.

Stuart's Dyspepsia Tablets are made to give to the system, through the digestive tract and the stomach, the necessary chemicals not only to digest food, but to enrich the fluids of the body so that it may no longer suffer from dyspepsia or other stomach trouble.

We will send you a quantity of these tablets free, so that their power to cure may be proven to you.

Thousands upon thousands of people are using these tablets for the aid and cure of every known stomach disease. Know what you put into your stomach, and use discretion in doing so.

Stuart's Dyspepsia Tablets contain fruit and vegetable essences, the pure, concentrated tincture of Hydrastis, Golden Seal, which tone up and strengthen the mucous lining of the stomach, and increase the flow of gastric and other digestive juices; Lactose (extracted from milk); Nux, to strengthen the nerves controlling the action of the stomach and to cure nervous dyspepsia; pure aseptic Pepsin of the highest digestive power and approved by the United States Pharmacopoeia.

One of the ablest professors of the University of Michigan recently stated that this Pepsin was the only aseptic pepsin he had found that was absolutely pure — free from all animal impurities; Bismuth, to absorb gases and prevent fermentation. They are deliciously flavored with concentrated Jamaica Ginger — in itself a well-known stomach tonic.

Liquid medicines lose their strength the longer they are kept, through evaporation, fermentation and chemical changes, hence Stuart's Dyspepsia Tablets are recognized as the only true and logical manner of preserving the ingredients given above in their fullest strength.

If you really doubt the power of these tablets, take this advertisement to a druggist and ask his opinion of the formula.

It is due your stomach to give it the ingredients necessary to stop its trouble. It costs nothing to try. You know what you are taking, and the fame of these tablets prove their value. All druggists sell them. Price 50 cents. Send us your name and address and we will send you a trial package by mail free. Address F. A. Stuart Co., 253 Stuart Building, Marshall, Mich.

Don't Wear a Truss

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STUART'S PLAS-TR-PADS are different from the truss, being medicine applicators made **self-adhesive** purposely to hold the parts securely in place. **No straps**, buckles or springs—cannot slip, so **cannot** chafe or compress against the pubic bone. The most obstinate cases cured. Thousands have successfully treated themselves at home without hindrance from work. Soft as velvet—**easy** to apply—**inexpensive**. Awarded Gold Medal. Process of recovery is natural, so no further use for truss. We **prove** what we say by sending you Trial of Plapao absolutely **FREE**. Write **TODAY**.

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Address—PLAPAO LABORATORIES, Block 57 St. Louis, Mo.

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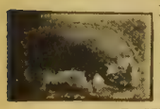
We positively give FREE a fine Adjustable Signet Bracelet, guaranteed 5 years, and a beautiful Stone Set Ring for selling 20 packs Heliograph art post cards at 10c a pack. Order 20 packs, when sold send us $2, and we will positively send Bracelet and Ring. **WELLS MFG. CO., Dept. M 55, CHICAGO**

LIVE STOCK BREEDERS' CARDS.

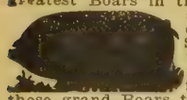
SPLENDID POLAND-CHINA SWINE.



Kirby Stock Farms, Marmaduke, Ark.
Poland-China Headquarters. Pigs, Boars and Bred Gilts. Write for information and prices. I guarantee my representations.
J. W. KIRBY, Manager.

BLUE RIBBON HERD POLAND-CHINA HOGS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description. **JOHN McLAUGHLIN,**
R. F. D. No. 1, Marmaduke, Ark.



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America's Largest and Oldest.

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SHIRE, PERCHERON and HACKNEY STALLIONS.
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J. G. TRUMAN, Manager, BUSHNELL, ILL.

POLAND-CHINA SWINE.

Best of breeding. Prices, $12.00 and up. R. C. R. I. Red and R. C. Brown Leghorn Fowls, $1.00 up. Write for particulars.
D. F. BEAUCHAMP, Meredosia, Ill.

ELMER GIMLIN, Taylorville, Ill., White Wyandotte Specialist. Exclusive business. Duston strain. Stock, $2 each; 15 eggs, $1; $3 per 50; $5 per 100. Catalogue free.

PURE-BRED SHROPSHIRE SHEEP of good quality. First-class. Used to head flock. Good bone and well wooled. Ram now in use was imported from England.

Have some very fine lambs by him that have the size and are the kind to get some good stuff at the right price.
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BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.
WILLARD MILLER, R. F. D. 2, Anita, Iowa.

PURE-BRED REGISTERED ANGORA GOATS

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.
R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at four State Fairs in 1909. Only made two exhibits in 1910, winning thirty-eight ribbons. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds. Boars 1,000 to 1,200 pounds.
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Mortonsville, Woodford County, Kentucky.

DUROC-JERSEY SWINE. Have some good Fall Pigs of either sex. Prices reasonable. Sired by Wonder H., 84,797, and Belleville Col., 95,535. Address, **H. H. HOFMANN, Route 1, Belleville, Ill.**

100 Head of Pedigreed **DUROC RED SPRING PIGS** at $8.00 a head.
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TOP CHESTER WHITE AND O. I. C. HOGS

with quality and finish from First-premium Hogs at Illinois and Iowa State Fairs. Fine circular free.
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Tamworths The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.
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BEST KENTUCKY STRAINS.
Price List Free.
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Three extra fancy registered Bull Calves for sale, out of three of the best Cows in my herd, and sired by Blue Belle's Golden Roseboy, 85,230, one of the greatest Bulls of the breed and half brother to Noble of Oaklands, just sold for $15,000.00. Write for price, breeding, etc. Satisfaction guaranteed.
ALBERT S. ENNIS,
712-21 Central National Bank Bldg., St. Louis.

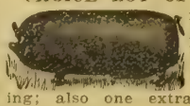
HOGS! HOGS! For Sale: REGISTERED Poland-China and English Berkshires. The best of breeding. For prices see and write
S. Y. BURKS,
Bolivar, Mo.

LARGE YORKSHIRE SWINE.
THE BREAKFAST-BACON HOG.
Also produces finest quality of sweet, tender, juicy, fresh pork. Pure-bred.
HARDY, VIGOROUS, PROLIFIC, KIND.
Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers.
Write for descriptive pamphlet.
T. C. KIMBER, P. O., Pilot Knob, Mo.

POLAND-CHINAS OF BEST STRAINS,

that have size and bone as well as quality. They grow fast and feed easy. Gilts and Boars of March and April farrow, that weigh 150 to 200 pounds, by Size and Quality, 47,889, Siefker's Mastodon, 55,755, and Master Meddler, 2d, 55,000, best lot I ever raised and priced to sell at once. Satisfied customers in thirty-six states. Come or write to **A. F. SIEFKER, Defiance, Missouri.**

CHOICE LOT OF BERKSHIRE PIGS



for sale. One good Herd Boar, a grandson of Masterpiece, 77,000. These are all the Large English Berkshires of the most popular breeding; also one extra fine Roan Shorthorn Herd Bull for sale. Some choice B. P. Rock Cockerels. Call or write **E. L. JOHN, Owner Broadway Stock Farm, Broadway, Maries County, Mo.**

MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered, high-class and Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.
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Oats Market Situation.

We do not like the idea of shipping a thirty-two-pound bushel of oats to market, and, after paying freight and commissions upon it, to sell that thirty-two-pound bushel of oats for 30 cents; that is exactly what we were doing last February at St. Louis, and on September 30th at the same market the price was 46½ cents. This paragraph applies to cash oats, which means sales by sample and delivery by car-load on track. In our opinion 46½ cents is not more than a fair price for a bushel of oats.

We will now compare three oats quotations, each a year apart. A year ago (September 30th) at Chicago, the September option was closed out with oats at 31½ cents a bushel. This year at Chicago the September oats option was closed out at 45⅜ cents. That is the past—14⅛ cents a bushel difference one date with another.

The next option traded in is December. It is not an excitable option, but it helps to fill out the year. A year ago (September 30th, 1910,) the December oats option was quoted at 31¼ cents a bushel. This year (September 30th, 1911,) the closing quotation was 47¾ cents, a difference of 16½ cents in favor of the present year.

The future is brought before us with the May option. A year ago (September 30th, 1910,) the May option was quoted at 34 cents, whereas this year (September 30th, 1911,) the May option was quoted at 50¼ cents, establishing a gain of 16¼ cents a bushel in one year.

Our readers are reminded that there is not usually any more speculation in oats than is necessary to keep up a certain amount of active trading. The foreign oats admitted to this country pay a duty of 15 cents a bushel, and this serves to keep the market from settling down to a point below the cost of production, except when crops are enormous. Oats are now on a level to encourage a large crop for 1911.

Not Sure of the Age.

"See here, Rastus," said the new arrival at the hotel, "do you mean to tell me that this egg is fresh?"

"It was when hit was laid, suh," replied the waiter.

"And when was that, pray?" demanded the guest.

"Ah dunno, Boss," replied Rastus. "Diss yere is mah first season at diss yere hotel, suh."—Harper's Weekly.

Southern Live Stock.

The three Southern States—Alabama, Louisiana and Mississippi—reported to the census a combined total of 2,746,326 cattle, 3,879,773 hogs, 515,422 sheep, 532,110 horses and 632,533 mules. As compared with ten years ago, there is an increase of 402,982 cattle, 377,521 hogs and 82,278 mules. There is also a decrease amounting to 234,107 sheep and 44,216 horses.

ABSORBINE FOR SIDE BONE.

Absorbine is a very efficient remedy in overcoming the lameness and allaying inflammation from a side bone or bone spavin, used as directed on page 17 in pamphlet with bottle. The following report from F. G. Warner, Placerville, Calif., under date of February 1, 1911, will be of interest: "A very valuable saddle horse started a side bone, went very lame, and one-half bottle of your Absorbine absolutely cured him." Use Absorbine for bog spavins, thoroughpins, wind puffs, rheumatic deposits, lameness and inflammation, swollen glands, etc. On sale at druggists, $2.00 per bottle, or sent direct upon receipt of price, express prepaid. Write to-day for descriptive pamphlet, sent free upon request. W. F. Young, P. D. F., 106 Temple street, Springfield, Mass.

PILES Quickly Cured

Instant Relief, Permanent Cure—Trial Package Mailed Free to All in Plain Wrapper.

We want every man and woman suffering from the excruciating torture of piles to just send their name and address to us and get by return mail a free trial package of the most effective and positive cure ever known for this disease, Pyramid Pile Cure.

The way to prove what this great remedy will do in your own case, is to just fill out free coupon and send to us and you will get by return mail a free sample of Pyramid Pile Cure.

Then after you have proven to yourself what it can do, you will go to the druggist and get a 50-cent box.

Don't undergo an operation. Operations are rarely a success and often lead to terrible consequences. Pyramid Pile Cure reduces all inflammation, makes congestion, irritation, itching, sores and ulcers disappear—and the piles simply quit.

For sale at all drug stores at 50 cents a box.

FREE PACKAGE COUPON

Fill out the blank lines below with your name and address, cut out coupon and mail to the PYRAMID DRUG COMPANY, 154 Pyramid Bldg., Marshall, Mich. A sample of the great Pyramid Pile Cure will then be sent you at once by mail, FREE, in plain wrapper.

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THE UNIVERSAL DESK.

This elegant desk is a splendid subscription premium for club raisers. It is Golden Oak. The height is 41 inches, width 26½ inches, and in the shipping crate the weight is 52 pounds. It is packed in sections but easily put together. The interior has two pigeon holes and two compartments. The picture is an exact reproduction of the desk. Anyone who desires to do so can earn one of these desks by taking a few subscriptions for our own publications, the Universal Magazine and The National Farmer and Stock Grower. For particulars address **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis Mo.,**

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ON THIS HIGH GRADE "ELDORADO" SEWING MACHINE 30 DAYS FREE TRIAL 20 YEAR GUARANTEE

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20 Year Guarantee

IF YOU SEE IT YOU WILL BUY IT.

Let us send it without expense to you C. O. D. express charges paid by us, for examination at your nearest express office and if you think it a bargain and equal in appearance to any $15.00 gold finished watch pay the express agent $3.95 and it is yours. Mention if you want Ladies,' Men's or Boys' size.
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ASTHMA CURED TO STAY CURED

No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease. **FREE TEST TREATMENT** including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.**, Dept. N, American Express Building, Chicago.

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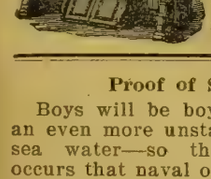
We positively give FREE a GEM WIND, STEM SET BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 5 years, and a beautiful Ring for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch, Ring and Chain. **GEM WATCH CO., DEPT. 1019, CHICAGO.**

SOLID STERLING SILVER 18c.

Send us your name and address with 18 cents in stamps and we will send you our new illustrated Catalogue, "THE BOOK OF A THOUSAND WONDERS," and this sterling silver thimble, postpaid; size, 5 to 11. Address, **Dept. A, E. B. COLEMAN & CO., Equitable Bldg., ST. LOUIS, MO.**

THE UNIVERSAL MAGAZINE ORGAN.



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Proof of Sobriety.

Boys will be boys—and Scotch is an even more unstable element than sea water—so that it sometimes occurs that naval officers get back to their ships listing heavily to port, says the New York correspondent of the Cincinnati Times-Star. When that happens the offender is due for a good wigging. But, for the honor of the service, he is given every chance to prove that he did not offend against the regulations. The other day a young lieutenant was called before an examining board, charged with intoxication on a certain day. He pleaded not guilty, and called as a witness the colored attendant in the messroom.

"Nossir," said that witness, "de lieutenant was pufficklv sober when he went to bed dat night. I remember it, because he gib me an order."

"He ordered me to call him ve'y early de nex' day," said the attendant. "He said he wanted to get up early."

The members of the board were delighted. They never like to put an official blot on a young man's record. And so it was in order to transmute conviction into certainty that one of the examiners asked a further question:

"You have testified," said he, "that the lieutenant said he wanted to get up early on the morning following the night of his alleged offense. Now, do you recall what he said he wanted to do the next morning, which required him to rise so early?"

"Oh, yes, sah," said the darky. "I remember that pufficklv well. He said, suh, that he was to be queen of the May."

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions**, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once. I would be pleased to send you the names of people who state they have been cured of various Stomach ailments and speaking the highest praise of this medicine. Just fill out the Coupon below—let me send you this wonderful treatment together with highly interesting literature, testimonials, etc. Don't suffer with agonizing pains—don't permit a dangerous surgical operation, which gives only temporary relief, when this medicine will permanently help you.

GEORGE H. MAYR, Mfg. Chemist
Mayr Building, 154-156 Whiting Street, Chicago
References:—Mercantile Agencies or State Bank of Chicago

MAYR'S WONDERFUL REMEDY
FOR STOMACH TROUBLES INDIGESTION GAS ON THE STOMACH AND INTESTINES
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Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy

Name .....

Address .....

City and State .....
Write Plainly

Express Office 76

You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to benefit.

Absolutely harmless. Guaranteed by the Pure Food and Drug Act. Serial No. 25793

Extensive Poultry Fattening.

A bulletin entitled "Fattening Poultry," describing successful methods of fattening poultry on a large commercial scale and giving complete data on the feeding of over 100,000 birds, has just been issued by the United States Department of Agriculture. It gives information of operations on an extensive scale, and, so far as known, is the first publication showing the cost of producing a pound of gain in poultry.

"The successful feeding of poultry depends largely on the ability of the feeder to notice the condition of the chickens on feed," is one of the fundamentals laid down by the bulletin. "The common practice in poultry packing houses is to feed each lot seventeen days or less. Most of the milk-fed chickens are fed fourteen days. Practically all of the special feeding in this country involves the use of milk, which produces the 'milk-fed chickens' of the market. Milk, while the least expensive, seems to be the most essential constituent of the ration, and when a feeder cannot get milk in some form he generally does not attempt to fatten poultry commercially.

"Crate feeding from troughs is the method employed in this country by most of the large fattening establishments, with six to ten fowls in a crate. Birds fed only for a short time may be forced on highly concentrated feeds, whereas if fed longer they may need a ration containing a greater variety and less concentrated.

"Milk seems to be a very important influence on the digestive process, keeping the fowls in good condition under forced feeding. Beef broth is used to some extent, but it is not as good as milk. At the beginning fowls should be fed lightly for two or three feeds, gradually increasing the amount until they do not clean up all that is given to them. The main object should be to keep their appetites keen and at the same time have them consume as much feed as they can assimilate. By feeding a small amount often they will eat a greater quantity, and their appetites will remain keener."

The conclusions reached by the investigation show that general-purpose fowls make more economical gains in fattening than the Mediterranean class. The average person will get better results in fattening by feeding three times rather than twice daily. It was found that the average cost of feed and labor per pound of gain for a large lot of poultry was 9.09 cents, and the cost of the feed alone was 7.10 cents. It was also observed that hens made less gain than chickens, in crate fattening, and that low-grade wheat flour was a more economical feed than oat flour at the present prices of grain.

A copy of this bulletin may be obtained by addressing a request to the Secretary of Agriculture, Washington, D. C., for Bulletin 140 of the Bureau of Animal Industry.

The Style Books and Samples.

Our lady friends should remember the Style Book issued by the National Cloak and Suit Company, as advertised on page 3. Stylish clothes, good material and easy prices go together here. You can also get samples of material used in made-to-measure tailored suits by asking for them. Address, National Cloak and Suit Company, 280 West 24th street, New York City, N. Y.

GET THIS FREE BOOK ON KEROSENE'S AMAZING POWER.

Farmers everywhere have come to appreciate the amazing power as well as astonishing economy of ordinary kerosene for use in stationary engines.

No one ought to actually purchase any engine until they read the simple facts on this subject which have been proven by thousands of farmers almost everywhere who have been using the Detroit Kerosene Engine. A book has been written on this subject, fully illustrated in colors, which will be sent postage paid and free to our readers who will write a postal card or letter for it. Get your copy and then consider how you can save $40 to $200 cash on the first price of a Detroit Kerosene Engine direct from the factory on most liberal free trial. You will find that kerosene is the world's cheapest power when used with a Detroit—a permanent economy on the cost of fuel, added power and time saved, to say nothing of the recognized value every day in the year of having a power plant on your place. You can have a Detroit of from two to twenty-four horse power to use to your satisfaction, or, under the company's liberal guarantee, send it back without a dollar charged you for the trial. Write a postal or letter for this book to-day to Detroit Engine Works, 383 Bellevue avenue, Detroit, Michigan.

PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases. **DR. R. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.**

5 Fine POST CARDS FREE

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Honest man or woman wanted in every town to take exclusive agency for supplying Ecktone Family Remedies in their territory. Good income for right persons. No previous experience necessary. Send no stamps—just write. Do not delay. **ECKTONE MEDICINE CO., Dept. 13, 810 Olive St., St. Louis, Mo.**

SOLID GOLD, 85c.

Send us your name and address with 85 cents in stamps and we will send you our new Illustrated Catalogue, "THE BOOK OF A THOUSAND WONDERS," and this solid gold collar pin, postpaid. It is Roman finished and well made.

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It makes no difference where you live or how old you are, if you can do a very little work for us among your friends, we will give you **ABSOLUTELY FREE** this beautiful [illegible] Bracelet with a dark rich Amethyst setting, [illegible] the most beautiful bracelets ever made, [illegible] neat velvet lined box. Send us your name today. **United Publishing Co. 1424 Wyandotte St., Kansas City, Mo.**

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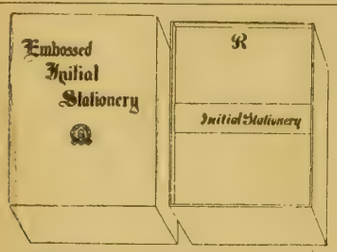


Embossed Initial Stationery.

containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the Universal Magazine for two years, and they can select their own initial for the stationery, and we will send it as a free premium postpaid. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone sending in four subscriptions and $2.00 to pay for same will be credited with a two-year subscription to the Universal Magazine and one box of Initial Stationery.

Around the Garden.

No matter how carefully the weeds are kept out early in the season, if there has been a resting for even a couple of months they will have taken possession again. It will pay, if your time next season is of value, to choose a time after a rain, when the ground is soft enough for them to pull easily, and free it of the great plants which are perfecting weed seeds by the thousand to keep you busy next year. Besides, they will interfere seriously with the harvesting of the crops.

Especially clean out the rows of salsify and parsnips, leaving the ground not only free from weeds but light, for these will remain in the ground over winter, growing during the milder weather.

Winter onions may be set to advantage any time during the fall. While a bed once established will live year after year, the small bulbs formed at the top of the stems dropping and planting themselves, it is much better to plant each separately. They not only have more room, but they can be regularly worked and are thus more thrifty and of better quality.

Keep the strawberries free from weeds and cut out any plants which tend to stray across and interfere with other rows. These plants will mat as nothing else will or can, if left to their own sweet will. If the chickweed strives for a place with them, fight it as you would the plague. It is an innocent enough looking plant, but it will smother out almost any other vegetation. It grows even in mid-winter if there comes a mild bit of weather, thriving nicely under the snow. Only a persistent severing from the roots will master it, and as it blossoms and seeds freely, even a very few days of inattention may require a repetition of the battle.

Those who have used tile in the blanching of celery are loud in praises of it. While the first cost may seem a bit of extravagance, when the tile are once purchased they may be used year after year. And the method is easy, while the danger of rust is lessened, especially in a wet season.

While the results are fresh in the mind it is well to review the work of the season and note the improvements which may be made. You were annoyed, perhaps, early in the season, because in the long rows you had sown parsnips and peas—the one ready to cultivate, while the other, slow to germinate, was scarcely above the ground. Next time you will profit by this experience and plant species which grow uniformly in the same row.

If the cut worms have proved an annoyance, they may be avoided another year by fall plowing. This will also render the soil very light and easily worked, the only objection being that the ants enjoy it for this very reason; and to avoid the one pest you thus court another. The question must be recognized, which, to you, is the worse of the two evils?

When cleaning out the poultry house through the winter, bury the refuse on the plot designed for cucumbers or melons. Many are afraid of the concentrated strength. And while we have never had bad effects, even when it is applied during the growing season, used in this way there will be no danger. By spring the fertilizer will be so much decomposed and mingled with the soil that the application cannot possibly do harm, and the tillage necessary to fit the ground for planting will insure against any chance of too concentrated an application.

Before winter it will be quite an advantage to collect all dead stalks and refuse which the stock will not eat and make a bonfire of them. Not only is the process a neat one, making the plowing easier, but the ash thus contributes a bit of fertilizer to the land.—Bessie L. Putnam.

Don't Rub in the Truth.

At the Pen and Pencil Club in Philadelphia an editor told a story about Mayor Gaynor of New York.

"While I was working in New York," he said, "I had occasion to interview the Mayor about a story I had written—a story exposing certain municipal defects. In the course of the interview I complained bitterly that the story had made me very unpopular, though it was true in every line, and all men admitted it to be true.

"The Mayor smiled at my complaint and told me the anecdote of the one-eyed cadi:

"He said that a one-eyed cadi sat in his hall of judgment on a certain day, when a man entered, made obeisance and began:

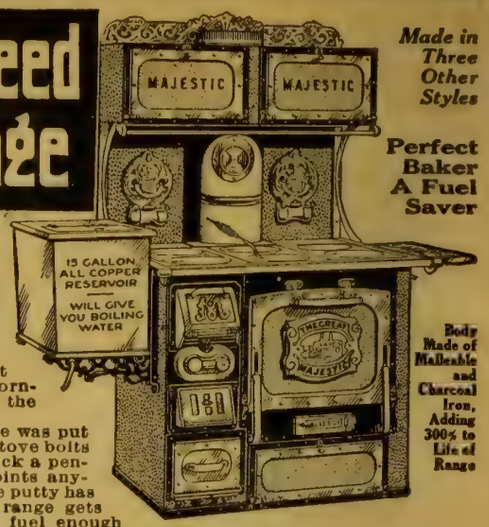
"'Hail, O one-eyed cadi! May your days, O one-eyed cadi, be blessed! The fame of the one-eyed cadi's nobility of character has penetrated even to my obscurity; yea, the impartial justice meted out by the one-eyed cadi is known to all; and hence, O one-eyed cadi, I beg—'

"'Stop!' the cadi interrupted. 'Suppose I am one-eyed, do I want to be reminded of it every minute? Get out of my sight!'"

Imports of Oats.

The United States imported 107,318 bushels of oats in the year ending June 30, 1911; 1,034,511 bushels the previous year; 6,666,989 bushels during the year ending June 30, 1909; and only 364,307 bushels during the year ending June 30, 1908.

Why You Need a New Range



Made in Three Other Styles

Perfect Baker A Fuel Saver

Body Made of Malleable and Charcoal Iron, Adding 300% to Life of Range

Some housewives who display a remarkable amount of broad, sound, common sense along other lines, persist in the delusion—and it is a delusion—that they are really practicing economy by trying to get along—to get results—out of an old, worn-out range merely to save the price of a new one.

Your old range or stove was put together with putty and stove bolts and probably you can stick a penknife in the seams and joints anywhere on it where the stove putty has crumbled away. When a range gets in that condition, it takes fuel enough to warm all outdoors in order to get your oven hot enough for baking—and then you run the risk of burning whatever is in the oven. You can soon burn up the price of the best range ever made in a useless waste of fuel in an old, worn-out stove or range—and that's neither practical economy nor good management.

If you would practice real economy in your household management, it will pay you, the next time you are in town, to call on the dealer who handles it and examine closely into the perfect baking and remarkable fuel saving qualities of the

Great Majestic Malleable and Charcoal Iron Range

Outwears Three Ordinary Ranges

It is the only range made entirely of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break, and while the first cost of a Great Majestic may be more than some other ranges, ***it outwears 3 ordinary ranges.***

Half The Fuel

The *Majestic* is put together with rivets (not bolts and stove putty) making it absolutely air tight, like an engine boiler. The joints and seams will remain air tight forever as neither expansion nor contraction can affect or open them.

Pure Asbestos Lining

In addition, it is lined with pure asbestos board, covered with an open iron grate—you can see it. No heat escapes—no cold air gets into the oven—saves half the fuel and assures perfect baking.

Movable Copper Reservoir

The reservoir is *all copper,* heated like a tea kettle through copper pocket (stamped from one piece of copper) setting against left hand lining of fire box. It boils 15 gallons of water in a jiffy and, by turning lever, the frame—and reservoir—moves away from fire. This feature is patented and can be used only on the *Majestic.*

Ask your Dealer to show you the greatest improvement ever put into a range—makes Majestic 300% stronger where other ranges are weakest.

Other Exclusive Features

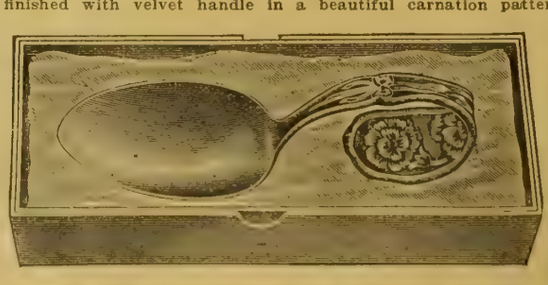
It's the best range at any price, and should be in *your* kitchen. It is for sale by the best dealers in nearly every county in 40 states. If you don't know who sells them in your vicinity, write us and we will tell you, and send you our booklet, ***"Range Comparison".*** Every farmer's wife should read this booklet.

Majestic Mfg. Company, Dept. 131 St. Louis, Mo.

The Range with a Reputation

Universal Magazine Baby Spoon.

This is the attraction of the present day. An elegant baby spoon. This spoon is finished with velvet handle in a beautiful carnation pattern and is guaranteed to be heavily plated with silver on a German silver base; something real good that will be kept a lifetime. We have adopted the Baby Spoon as a **Universal Magazine** subscription premium. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and



we will send one elegant Baby Spoon in a beautiful box, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** Notice to Club Raisers.—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with two-years' subscription and we will also send an extra Baby Spoon for getting up the club.

The Twice-a-Week ST. LOUIS REPUBLIC

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Democratic newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

The American Poultry Journal

Published at Chicago. The oldest, largest and best Poultry Journal in America. Beautifully illustrated. Issued on the first of each month.

Subscription Club.

SEND US ONE DOLLAR

and we will mail to your address

THE ST. LOUIS REPUBLIC TWICE-A-WEEK EDITION for one year.
THE NATIONAL FARMER AND STOCK GROWER for one year.
THE AMERICAN POULTRY JOURNAL for one year.

Address,
THE HALE PUBLISHING CO.,
3550 Vista Ave., - St. Louis, Mo.

Great Market For Poultry.

Philadelphia prices for dressed poultry in the middle of summer: Fresh killed fowls, ice packed, fancy, weighing 4½ to 5 pounds apiece, per pound, 17c.; fancy, 4 to 4½ pounds, 16 to 16½c.; smaller size, as to quality, 13 to 15c.; old roosters, dry picked, 11c.; broilers, nearby, as to size and quality, 18 to 20c.; Western, fancy selected roasting or broiling chickens, 18c.; good to choice, 16 to 17c.; Western, common to fair, 12 to 15c.; squabs, white, per dozen, $1.75 to $5.00; dark and No. 2, 50c. to $1.25.

Our Subscription Department.

This office will quote subscription prices upon any regular publication issued in the United States. We do business direct with the New York Publishers' Clearing House, and all our orders are filled on the day of arrival. All who wish to subscribe for periodicals, magazines or class publications should send their orders direct to the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo. Write for quotations on any list of papers.

THE BOOK OF LIVE STOCK CHAMPIONS.

We are actively engaged in preparing the new edition of the Book of Live Stock Champions for publication.

We have published several editions of this valuable book and intend to make the new edition far superior to all others.

We already have illustrations of seven hundred different champions, and in each case the picture occupies a half page in the book. We are now gathering the remaining three hundred pictures.

Each illustration is a special demi-tone engraving from a photograph taken from life. No drawings or fancy pictures appear in the book.

First and second-prize winners are not eligible unless they have also won championship prizes. It is a Book of Live Stock Champions, not simply a book of ordinary prize winners.

Champions of the beef cattle breeds are admitted by their show-ring honors. We have enough pictures of beef cattle champions to make a book by themselves.

Dairy cattle are admitted by show-ring honors, also by officially tested dairy records. We have the finest selection of dairy cattle in the world.

Draft horses are admitted on show-ring honors. Trotters and pacers are admitted on track records or as noted sires. We have all the famous horses, going back thirty years.

Thoroughbred horses are admitted on account of track honors or as sire or dam of champions. Saddle horses and ponies are admitted as championship winners.

Jacks and jennets, also mules, are admitted on show-ring or market honors.

Hogs, sheep and Angora goats are admitted as winners of sweepstakes prizes at State, National or International Fairs.

Numbers of famous car-loads of cattle, horses and sheep which have won show-ring and market honors will be published in the book.

Every live stock champion is entitled to entry providing a first-class photograph can be obtained. We do not intend to disfigure the book with poor pictures. It is better to leave out the poor pictures than to apologize for an inferior book.

We do not charge the owner for publication of his animal, but we do ask his co-operation in furnishing first-class photographs and the records of said animals.

It is worth something to a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at one dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer. After publication the cloth-bound copies will cost two dollars a copy without the subscription.

HERE IS A SUBSCRIPTION BLANK.

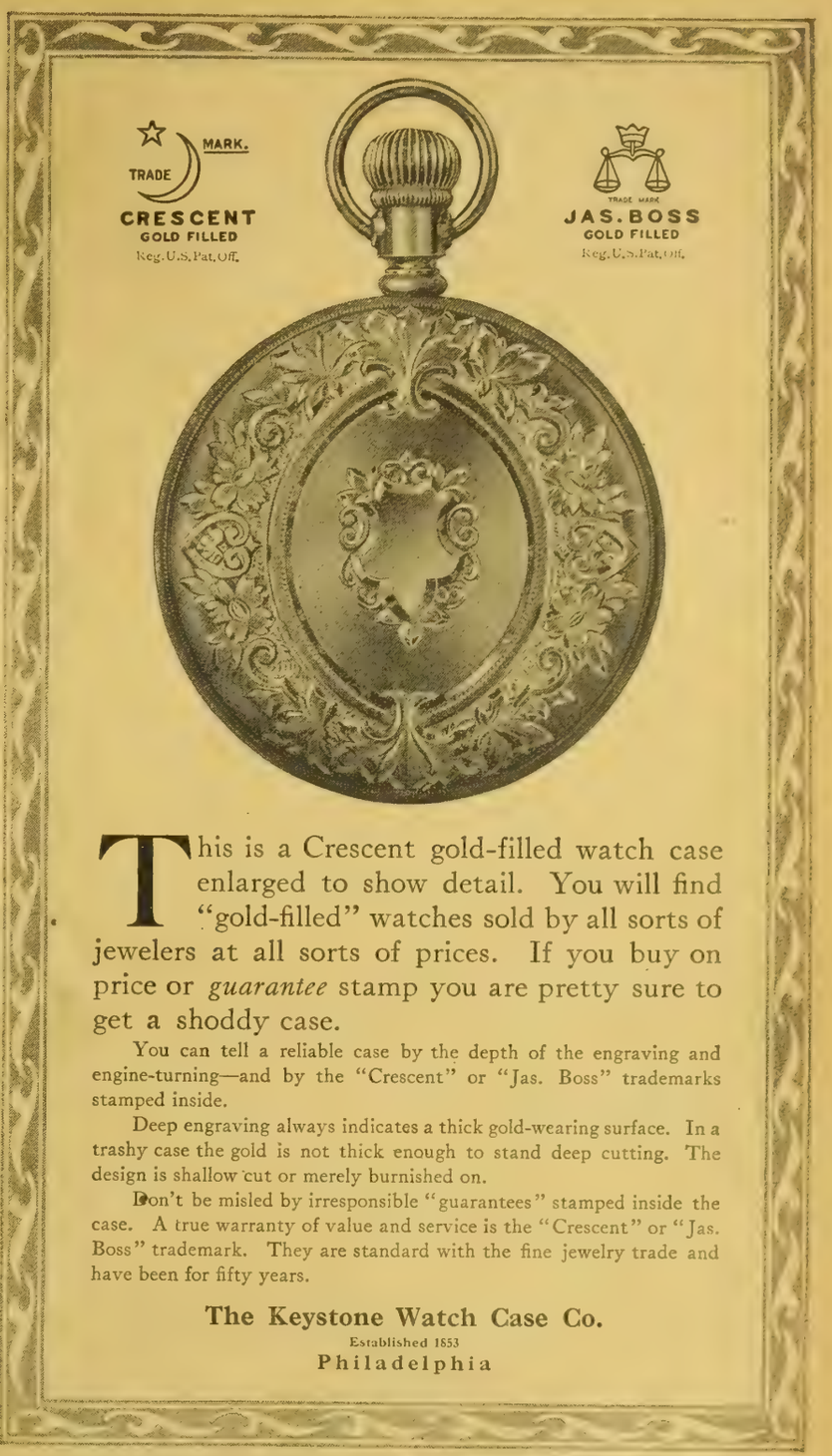
Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find one dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the The Book of Live Stock Champions, cloth-bound edition of 1911, immediately after publication.

Name.... .....

Address.. .....

My occupation is.....



This is a Crescent gold-filled watch case enlarged to show detail. You will find "gold-filled" watches sold by all sorts of jewelers at all sorts of prices. If you buy on price or *guarantee* stamp you are pretty sure to get a shoddy case.

You can tell a reliable case by the depth of the engraving and engine-turning—and by the "Crescent" or "Jas. Boss" trademarks stamped inside.

Deep engraving always indicates a thick gold-wearing surface. In a trashy case the gold is not thick enough to stand deep cutting. The design is shallow cut or merely burnished on.

Don't be misled by irresponsible "guarantees" stamped inside the case. A true warranty of value and service is the "Crescent" or "Jas. Boss" trademark. They are standard with the fine jewelry trade and have been for fifty years.

The Keystone Watch Case Co.
Established 1853
Philadelphia

To Buy Groceries Right.

On page 15 will be found an advertisement of Montgomery Ward & Co., relating to their pure-food grocery catalogue. This firm is well and favorably known as a strictly reliable house, and hundreds of thousands of farmers will testify to this from having bought of them for many years. To get this catalogue, all you have to do is to write a postal card, saying: "Please send us your grocery catalogue as advertised in The National Farmer and Stock Grower." Address, Montgomery Ward & Co., Chicago Avenue Bridge, Chicago, Ill., or to Montgomery Ward & Co., Nineteenth and Campbell streets, Kansas City, Mo. The service is equally as good from either establishment.

Town and Country Population.

According to the census, there are 42,623,383 people who are classed as living in towns and cities and 49,348,883 who live in villages and in the country and classed as the rural population.

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

According to Hon. L. C. Dyer, there are twenty-four establishments in St. Louis classed as meat packing houses. This, of course, includes East St. Louis.

DON'T PAY TWO PRICES

Save $18.00 to $22.00 on

HOOSIER HEATERS & RANGES

Why not buy the best when you can buy them at such low, unheard-of Factory Prices? THIRTY DAYS FREE TRIAL BEFORE YOU BUY. Our new improvements absolutely surpass anything ever produced. SEND POSTAL TODAY FOR OUR FREE CATALOG AND PRICES

Hoosier Stove Factory
169 State St., Marion, Ind.

MAY MANTON EMBROIDERY.

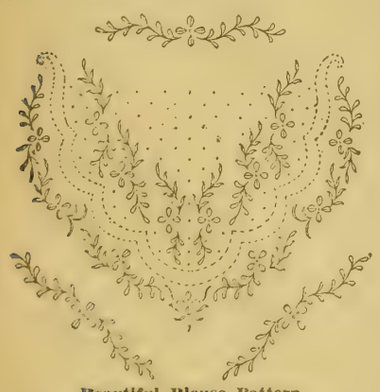
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.

A Satisfactory Border.

No. 598.—Design for an embroidered border in cross stitch style. The border is one and five-eighths inches in width. Four yards and four corners are given. The price of the pattern is 10 cents.

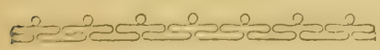
Infant's Pillow.

No. 600.—Design for embroidering an infant's pillow, seventeen inches square. Upper and under portions are given, the under portion with scallops and eyelets only. The two are designed to be laced together through the eyelets. The price of the pattern is 10 cents.



Beautiful Blouse Pattern.

No. 599.—Design for embroidering a blouse with lace insertion. The price of the pattern is 10 cents.



Beaded Braid Border.

No. 601.—Design for a beaded or braided border. The border is one and two-eighths inches in width and four yards are given. The price of the pattern is 10 cents.

Cross Stitch Border.

No. 602.—Design for an embroidered border in cross stitch style. The border is one and five-eighths inches in width and four yards are given. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Village Playground.

A suitable playground for children has long been accepted as a definite need in our cities and larger towns. But it is only recently that the need of the country child for regulated play has been recognized. It has been assumed that boys and girls who live in the country among the many resources that nature offers need nothing further in their play development. But the fact has to be faced that the country child knows often less than the city child how to play, and needs equally direction and guidance if the play life is to have its greatest value.

The solving of this problem in a small Vermont town is full of suggestiveness.

The village is a small one, having a few thousand inhabitants. There was no park or public square of any kind, but there was an energetic Village Improvement Society. In June, 1910, this society voted ten dollars to begin a playground fund, and the matter was put in the hands of one of the members, a bright college girl of resources and sympathy. The use of a vacant lot was donated and the enterprise began. A kind-hearted carpenter gave his work, charging only for materials. Other necessities were given by generous citizens. An organization of workingmen in the town voted twenty-five dollars for lawn swings, and the village newspaper gave the movement enthusiastic publicity. The entire equipment the first season was unsolicited.

The playground was located near a Soldiers' Home, and the old veterans became so interested watching the children's happiness that they contributed five dollars out of their scanty pension money.

The first year the play was supervised by volunteer workers. Once a week folk dancing was taught, and there was a story-telling afternoon. Much to the surprise of everyone, the first season closed with an equipment valuing nearly one hundred dollars, consisting of a sand box, two lawn and two rope swings, horizontal bar, trapeze, two rings, a high and broad jump, flag and flagpole, slide, tooter and basket ball and base ball fields.

The playground was closed in the fall, when the public school opened, but the young girls who had supervised the play organized a Girls' League as a branch of the Village Improvement Society for the study of local problems and practical work.

The following spring, without a dissenting vote, three hundred dollars were appropriated for the playground. A large part of this money was used to obtain a trained Supervisor, additional funds were solicited and the equipment of the previous year was greatly increased. Raffia work and a class in sewing were started. Once a week there is a field day, and the boys formed a Base Ball League.

Two evenings a week the grounds are open for the younger working people in the village. In this way the entire population who need recreation are served.

This is almost an ideal community enterprise, growing from very small beginnings, and enthusiastically supported by the entire community. The plan of the playground is so ample that it is a good model for anyone desirous of developing recreation in a country village.—Anna B. Taft.

The condition of Missouri pastures is 92 out of a possible 100.

SAVE MONEY EASILY

YOU SAVE ONE-FOURTH

Start to-day by sending for the big free 636 page MACY Catalog, now ready. It is a veritable encyclopaedia of the world's choicest merchandise. Whether you need wearing apparel, house furnishings, stoves, groceries, hardware,—whatever it may be,—you will find it here and at prices that for goods of equal quality are positively without precedent. You will learn the meaning of the "Regular Macy Saving," and secure for yourself the unparalleled price advantages offered only to MACY customers. Our latest Catalog is bigger and better than ever, by far the largest ever issued by any New York retail concern. The prices quoted are 'way below the usual and the qualities are in every instance thoroughly dependable. Our guarantee of satisfaction protects you completely. OUR PREPAYMENT POLICY delivers thousands of articles into your home free of transportation charges. Our *prices* are *least*, your *savings* are *most*. And a post card does it all. Write to-day for our big free Catalog and it will be sent postpaid by return mail.

R. H. MACY & CO., 640 Macy Building, **New York**

Not Bad Milk.

There has been considerable milk agitation at St. Louis recently, but it has not touched the receivers and distributers of milk from the country farms. The milk sold by the principal distributers at St.Louis is very good. Some of the milk retailed over the counter at cheap restaurants is thin and some of the city dairies are dirty. A general clean-up is the result of the disturbance and the agitation is doing no harm.

High-scoring Butter.

At the Wisconsin State Fair, the first premium for creamery butter was awarded to H. H. Whiting, of Cedarburg, Wis., on a score of 98; the second to R. P. Christensen, of Milltown, Wis., score 97.5; and the third to A. L. Radke, of Plato, Minn., on a score of 97.

At wholesale, in St. Louis, sunflower seed is quoted at $3.65 to $3.75 per 100 pounds.

$1.00 a month Buys this Machine

30 days free trial

We will sell you a high-grade, drop-head, Sew Easy Sewing Machine for $1.00 a month. We guarantee each machine for 25 years. We ship direct from the factory. We do not sell to stores and we have no agents. We can save you some money. You get the machine at once and use it while you are paying for it and it only costs you about 3 cents a day. We have many special features in our machine such as short needles which don't break easily. Our shuttles hold half again as much thread as the old spring tension shuttle. We can't tell all the good points in this advertisement, and we couldn't afford to send you a machine on the small dollar a month plan unless we gave big value and low prices. We want you to write us today, saying: "Please send me circulars and full particulars about your dollar a month' Sewing Machine offer." Write Today. Address

SHEFFIELD MFG. CO., Dept. 142 1421 Olive Street, St. Louis, Mo.

We Want to Send You Our New Free Fall and Winter Catalog and Style Book

Contains 100 pages of money-saving items. For instance: Laundry Soap, 2½c a bar; Baking Powder, 12½c a can; Toilet Soap, (3 cake box), 12½c. Quality guaranteed—

30 Days' Trial—No Money in Advance

1500 Premiums Given with orders for our GUARANTEED GROCERIES. Write a postal for this big money-saving catalog. Tells how to furnish your home without a cent of extra cost. See for yourself the money you can save on our FACTORY-TO-FAMILY Plan. Write for it today.

CROFTS & REED CO., Dept. C636, CHICAGO

It Will **Save You Nearly ½** On Groceries, Clothing, Furniture, Shoes and All Other Household Supplies.

Given Free with $10 order

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information. Fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

For Lovers of Flowers.

Park's Floral Magazine is the oldest and best floral monthly in the world. Forty-first year. Illustrated. Bright as a Marigold and published at 25 cents a year.

The **Universal Magazine** is a bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money; also published at 25 cents a year.

We have made arrangements whereby by clubbing these two papers together and adding twelve fine tulip bulbs we are enabled to make the combination for 30 cents. The tulips are imported from Holland; the bulbs are all blooming size, and if planted now or before the ground freezes will bloom in early spring. They are hardy and will remain in the ground, increasing in size from year to year.

Send 30 cents and we will send both papers one year and the bulbs post free by mail. To Club Raisers:—Anyone sending us four subscriptions in accordance with this advertisement and $1.20 to pay for same will receive both papers one year and an extra dozen tulips for getting up the club. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

For the Sick Room.

Cleanliness is the foremost agency in destroying disease germs, and it should be constantly practiced from the beginning to the end of an illness.

A chimney taken from a lighted lamp is one of the best and most quickly-prepared "hot" applications, and the best way to use it is to slip the hot chimney into an old stocking and apply to the pain; but it is a good plan to keep several sand bags ready for use. Make the bags of soft white linen or cotton and of any size wanted and fill with clean sand, and they are soft and yielding if not filled too full, and, when wanted, warm in the oven, and sand holds the heat for a long time. These bags can easily be pressed up close to the back or wherever it is needed.

Carbolic acid is a fine disinfectant for the sick room, and ground coffee or sugar burned on hot coals, and vinegar boiled with myrrh and sprinkled around the floor and edges of a sick room are excellent deodorizers, but they are not disinfectants.

All clothing should be put into hot carbolized water as soon as it is removed from the body of a sick person, because it absorbs the poisonous matter thrown off by the skin, and a teaspoonful of the acid to two gallons of water is about right; and in contagious diseases they should be allowed to soak in this water for six hours, then they should be boiled for an hour and they will be safe for anyone to use after that.

Ventilation is of great importance, and more fresh air is required for the sick than for the well, as there are many sources of impurity in the atmosphere of the sick room, such as the breath of both patient and attendants, the odor of perspiration and the foul air produced by burning gas or lamps.

In the sick room a bottle of strong boric solution will be found very useful, and this can be weakened as desired, and the strong solution is prepared by dissolving two heaping tablespoonfuls of boric powder in a quart of hot water. When you have a bottle of this boric solution you have one of the best home remedies for weak eyes, and a little salt added makes a fine gargle for sore throat, and there is nothing better to use as a douche for a cold in the head or for catarrh. The boric solution used as a douche for bowel trouble is extremely beneficial, and a little of the solution added to the water for bathing a sick person is very soothing and refreshing and will remove any odor from perspiration or from any other cause.

Every precaution should be used in cleaning a sick room to keep the dust down, as it is annoying and unsanitary for the sick person, and a good way to clean the room without having any dust is to put a little ammonia in warm water, then wring a mop as dry as possible out of this water and go all over the carpet, then sweep with a broom. When this is done, go over the furniture with a damp cloth and polish with a soft, dry cloth, and no dust need be stirred up at all, and it is a good plan to open the windows wide to let in fresh air and let out any unpleasant odors; and the face and head of the patient should be covered with a light covering when the windows are open.—Martha.

Tomato Salad For Winter.

A most delicious way to keep tomatoes for winter use is to put them up in what is sometimes known as cold catsup or winter salad. The tomatoes being uncooked, they have the delicious flavor of freshly-picked tomatoes. The salad keeps for many months, probably indefinitely, though we have never had any left after the first of May to prove it. This is the recipe for the salad:

One peck ripe tomatoes, two cupfuls chopped celery, two cupfuls brown sugar, one cupful chopped peppers, one cupful chopped onion, one-half cupful mustard seed, one-half cupful salt, vinegar.

Slice the tomatoes, add the above ingredients and mix. Then pour over enough vinegar to amply cover the mixture. Put into Mason jars and seal with rubber ring and screw top, or put in a stone jar and cover by tying a cloth over it.—Janet Thomas Van Osdel.

Payment in Advance.

Charles F. Murphy, the political leader, was talking at a luncheon in New York about loyalty.

"The loyalty of some men," said Mr. Murphy, grimly, "reminds me of the Chicago waiter.

"A Chicago man, as he ended his pork lunch, said to his regular waiter:

" 'George, I won't give you your usual dime to-day.'

" 'No, sir?' said George, with a surprised look.

" 'No, George,' said the Chicago man. 'I want to inculcate saving habits in you, and so I'm going to give you your tip in a lump sum as a Christmas present.'

" 'Thank you, sir,' said George, gratefully. He hesitated, looking rather worried, and then he ventured. 'But I wonder if you'd mind paying me in advance, sir?'

"The Chicago man frowned, but took out his wallet.

" 'Why, no, George, I guess not," he said, 'though it seems rather a strange request to make. What's the matter? Are you hard up, or is it just that you mistrust me?'

" 'Oh, no, sir,' said George, as he slipped the money in his vest pocket. 'It's nothing of that kind, sir; only I'm leaving here to-day, sir. I've got a New York job.' "

A gasoline engine is surely worth one extra man on a farm and maybe more. Make your own calculation in regard to running expenses.

SisterWoman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send **you, your daughter, your sister, your mother, or any ailing friend,** a full 50-cent box of Balm of Figs Compound **absolutely free.** It is a remedy for the treatment of **woman's ailments,** and I want to tell you **all about it**—just how to use it yourself—right **at home** without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—**let me prove it to you,** and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so **quickly** and **surely** cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with **any form of female weakness or diseases so common to women.**

This 50c box of Balm of Figs Compound will not cost you one cent

I will send it to you **absolutely free,** to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to **prove** my faith by sending out these **50-cent boxes** free. So, dear reader, irrespective of your past experience, write to me **at once — today** — and I will send you the treatment **entirely free** by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the **very best test** of anything is a **personal trial** of it, and I know a 50-cent box of Balm of Figs Comcound will **convince you** of its merits. Nothing is **so convincing** as the **actual test** of the article itself. Will **you** give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a **50-cent box of this remedy absolutely free.** Address,

MRS. HARRIET M. RICHARDS, Box C 223, JOLIET, ILLINOIS

I Guarantee to Cure

ECZEMA

TO STAY CURED!

It is also called SALT RHEUM, SCALD HEAD, TETTER, ITCH, WEEPING SKIN, MILK CRUST, PRURITUS—these are different names, but all mean one thing—ECZEMA.

DR. J. E. CANNADAY, THE DOCTOR WHO TREATS NOTHING BUT ECZEMA.

I prove every word that I have said—I give to every sufferer

A FREE TRIAL

Just to show you that you need my treatment. It is yours for the asking. If you have been to other Doctors, if you have taken patent medicine, and used lotions and salves till you are disgusted, write to me—I will send you ABSOLUTELY FREE OF CHARGE, A TRIAL TREATMENT. There are no strings to this statement. There is not one cent to pay—not a penny accepted. I know what my trial treatment will do; I know that it will convince you more than anything else on earth that you need my treatment.

Don't Miss This Chance for a Cure

If you are SUFFERING FROM ECZEMA you can only be cured one way—REMOVE THE CAUSE. What is the cause? ACID IN THE BLOOD. How do you remove it? By cleansing the blood of the ACID.

My treatment is soothing—relieves the dreadful itching at once and cures the disease quickly. You don't have to take treatment for months and months. ONLY ONE CASE IN TEN needs the second treatment—ONE IN FIFTY needs the third—think of that!

What Eczema Is

Eczema is a disease of the blood and affects all parts of the body—the face, lips, ears, hands, feet, genital organ, etc.

SYMPTOMS.—Yellowish red eruption; the pimples or patches may swell and the itching is so great the person will scratch the top off, then they bleed and dark scales form; there is an oozing of matter. In some the skin cracks and bleeds. Itching is terrible; a person suffering will scratch till they bleed. Scales form on parts of the body, where the clothing comes in contact.

Reliable Beyond Question

This is a statement from the bank of my home town, where I have done business for years.

THIRD NATIONAL BANK

Sedalia Mo Jan. 2 1913.

TO WHOM IT MAY CONCERN:—Dr. Cannaday, of our city is a physician, making a specialty of ECZEMA. We have handled his business exclusively for one year and eighty four days. His patients deposit their money with us, in their OWN NAME, to be paid to the doctor, if his treatment is satisfactory. If we remember correctly, we have been called upon by only FOUR of his patients for their money, and it seemed then, that the fault was more with the Express Companies than with the treatment failing.

Considering the number of cases he treats, we regard his success as remarkable. We consider him perfectly reliable, and assure those placing their money with us a fair, square, business deal.

Yours truly,

Ten Years Guarantee

I positively Guarantee that every case cured by me will stay cured 10 YEARS! It must be good or it could not be sold this way.

Strong as Rock of Gibraltar

I am a graduate from two leading medical schools. I am the holder of a GOLD MEDAL taken in Competitive Examination. Does this not show that I am fully qualified? I will send you my book, showing endorsements of business men of all classes. Also testimonials and pictures from cured patients everywhere. Some of them may be YOUR NEIGHBORS.

MY BOOK

Is the most complete book ever sent out. I explain every form of the disease plainly and fully. I show pictures of many severe cases, which are extremely interesting. I send you names of thousands who have been cured and are grateful.

DR. J. E. CANNADAY
969 Park Square
Sedalia, Mo.

FREE OFFER—CUT HERE

Dr. J. E. Cannaday,
969 Park Square
Sedalia, - Mo.

Please send without cost to me prepaid Free trial treatment, also copy of your Free Book.

Name.....

Address.....

.....

Treatment and literature sent in plain wrapper.

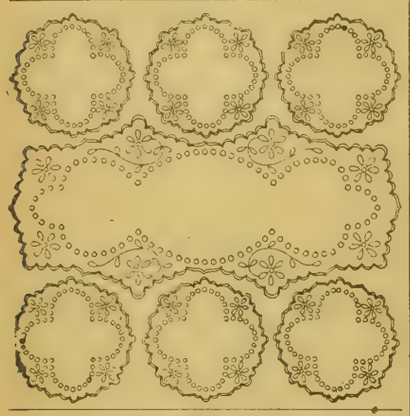
UNIVERSAL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated below shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us Thirty Cents and we will send you this dainty set for a short time only, absolutely safe delivery



guaranteed, and the Universal Magazine for one year. The Universal Magazine is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns, and has a number of original household articles. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone who will send in four subscriptions and $1.20 to pay for same will be credited with one-year's subscription to the Universal Magazine and one Embroidery Set.

Are You Nervous?

Nervousness is often merely a sign of physical weakness, an indication that the body is out of Tone. Bodi-Tone, which is offered on trial to every reader, has proven of immense value in nervous exhaustion, tired nerves, jangling nerves and shattered nerves, because its action in toning the body is just what is needed in the big majority of these cases. See trial offer on last page.

Housecleaning Helps.

If the cleaning was done thoroughly in spring the work now will be comparatively light. In many cases a mere sweeping and washing of windows will suffice. Again, insect pests must be fought, and the pests of the house, when they do exist, are most persistent.

Many never allow old clothes to accumulate, giving them away or making them into carpets and rugs as soon as they have passed the original stage of usefulness. Happy are they who can thus do, being assured of something better to replace them and thus having no bother with the accumulation. But there are others less fortunate who never let anything go without soon feeling the need of it, who must cut over and remodel until thoroughly tired of it. Those cannot thus easily make a wholesale clearance, but must save up the odds and ends to be used later.

It is such who have most trouble with moths. The old-fashioned kind that make a case of the cloth they infest and then remain as if dead until the miller emerges; the larvae-like moth that looks like a worm, these two infest woolen goods, and may best be kept out of them by rolling the goods very tight and by using lavender leaves or oil freely. Some prefer cedar chests; tobacco leaves or moth balls also tend to keep the pest at bay. The buffalo moth is never in a dormant state, and the larvae care little whether the goods are all wool or half cotton; they even delight in gathering at the base of a pile of papers. The larvae are small black, pumpkin-seed-shaped bits of down. The minute one is touched it literally slides away with a motion almost imperceptible. Crush it and it crumbles into dust.

Just a day or two ago I saw the query as to whether the lady bug causes the buffalo or carpet moth. It would be about as sane to say that bats breed bedbugs—a belief equally spread among the people and believed. This little spotted lady bug is one of our real friends and has nothing in common with the moth-producing insect. The latter is smaller, black and white, with a dash of dull brick red along either side, while the coloring of the lady bug is bright scarlet. Both are commonly seen in spring on the windows of infested houses.

Every year sees more and more banishing of carpets, and the vacuum cleaner is the only thing that can rescue them from oblivion. The oiled or varnished floor, with a plain rug, is so much more easily kept in order that it forces itself into the good will of the housewife. If you cannot afford the expensive art square, have rag rugs woven to take its place. Three strips woven with a plain center and fancy ends may be placed side by side and thus make a very good substitute for a real rug, even though the stripes are only carried out in the ends; or with burlap and a hook or needle your own handiwork may be used.

Ammonia is useful in cleaning in place of soap; and after you are through with the water containing it, pour around some plant; it is an excellent plant food.

A small amount invested in paint or varnish will freshen a dilapidated piece of wood wonderfully. But if you have a really choice piece, an heirloom in the family, do not venture to cover the beautiful wood with paint or varnish. A careful restoration of the natural wood is much more satisfactory.

Cover the broom with a bag of Canton flannel before sweeping or brushing down the ceiling. Save the old tissue paper for polishing lamp chimneys and windows. Clean mica with vinegar; rub up the zinc with a cloth moistened with kerosene.—Bessie L. Putnam.

Utilizing the Waste.

In visiting one of the largest steel mills in the world recently, emphasis was placed by the guide upon the fact that every rail which did not stand the test marking completeness was worked up again in the mill or sent to another plant to be made into salable products. "There is no waste here," he repeated, with pardonable pride.

In the cities all discarded household materials are sent to the rummage sale or placed personally where they will do some good. But on the farm, in spite of our efforts at economy—and few know better how to economize than the farmer's wife—there are many bits here and there for which there is no sale and seemingly no place.

But a few weeks ago we had nice cucumbers going to waste, and tried in two or three instances to give them away, but were unsuccessful; yet it chanced that a friend had been buying those not so nice, and was really glad of the chance to buy those for which there seemed to be no place. And so it often is. The early sweet apples may make very good pig feed, and yet we can rivet the bonds of friendship by treating our city friends, who are paying good prices for apples not nearly as good, with this waste; at least it is only waste to us.

In a few weeks we will be racking our brains to think of something nice to send Aunt Jane for Christmas. Nothing would please her better than dried corn from the garden or a few glasses of jelly from the apples and plums that are going to waste in the orchard; or a pillow stuffed with fragrant evergreens, hops or sweet clover. In the garden are beds of sage and summer savory, more than any one family can use. Try to pair off the left-overs to suit those who want them. There are always some who can use every useful product. It is a study which pays big in the end to unite the surplus and the wanting.—Bessie L. Putnam.

YOU **$5 to $10 a Day Easy Money** **YOU**

MAKES no difference if you never sold a dollar's worth of goods in your life---big money comes easy taking orders for our famous made-to-order union made suits, pants and overcoats. Prices so low, quality so high, they sell on sight.

Be a Bank-Roll Owner— Not a Small-Change Man

You'll never have a better chance to get in with the big-money crowd than we're offering you right now without a cent of expense. And remember, there's no hard work involved. It's a snap. We sell suits from $5 to $10 less than other houses, give better materials, better tailoring, better fit---and an absolute guaranty of satisfaction or money refunded.

We Back You We will put our enormous capital, our years of experience, back of you---you don't need a cent. **We start you free** on the high road to wealth---your success is our success. Regal representatives are pointed out with pride in their home towns as substantial citizens. Remember, the business grows like a snowball rolling down hill---every new customer means reorders from himself and his friends, for no one else in the world can duplicate our values. But the prize goes to only one man in a town, so **write today** for the

Beautiful Sample Outfit—FREE

Just send us your name and address quick and we will forward, **absolutely free**, the biggest, handsomest outfit in the country, newest samples, large fashion plate of latest styles, everything necessary, with full instructions so you can commence taking orders at once.

Your Own Clothes At Inside Rock-Bottom Price Of course, one of our best advertisements is a stylish, becoming suit on an agent. So we give you on your own clothes the benefit of all advertising and wholesale discounts. **We prepay express charges.** Write us right away for exclusive territory. The fellow that's late now will be mighty sorry later on. Hundreds of others are getting the big easy money—why not you?

We Use the Union Label on All Our Garments.

REGAL TAILORING COMPANY, 323 Regal Building, Chicago, Illinois

Not a Patent Medicine.

Bodi-Tone, the tablet medicine which is becoming so popular through its cures, is not a patent medicine. Its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit. Read the trial offer on last page.

Opportunities to Save Money.

On page 15 will be found the advertisement of Montgomery Ward & Co., of Chicago, the original mail order house, and one that in every department is ahead of the times. There are two establishments—one at Chicago and the other at Kansas City. Note the coupon on page 15 and mark the item you are interested in and send it to the nearest address.

On the peach orchard farm of E. W. Mirable, near Roswell, New Mexico, bees are taking honey from ripe peaches. This is claimed to be a new product and samples will be shown at the Roswell Exposition this month.

Personal To Rheumatics

I want a letter from every man and woman in America afflicted with Rheumatism, Lumbago or Neuralgia, giving me their name and address, so I can send each one ***Free A One Dollar Bottle*** of my Rheumatic Remedy. I want to convince every Rheumatic sufferer at my expense that my Rheumatic Remedy does what thousands of so-called remedies have failed to accomplish—***ACTUALLY CURES RHEUMATISM.*** I know it does, I am sure of it and I want every Rheumatic sufferer to know it and be sure of it, before giving me a penny profit. You cannot ***coax*** Rheumatism out through the feet or skin with plasters or cunning metal contrivances. You cannot ***tease*** it out with liniments, electricity or magnetism. You cannot ***imagine*** it out with mental science. ***You Must Drive It Out.*** It is in the blood and you must ***Go After it and Get it.*** This is just what Kuhn's Rheumatic Remedy does and that's why it cures Rheumatism. Rheumatism is Uric Acid and Uric Acid and Kuhn's Rheumatic Remedy cannot live together in the same blood. ***The Rheumatism has to go and it does go.*** My Remedy cures the sharp, shooting pains, the dull, aching muscles, the hot, throbbing, swollen limbs, and cramped, stiffened, useless joints, ***and cures them quickly.***

I CAN PROVE IT ALL TO YOU

If you will only let me do it. I will prove much ***In One Week,*** if you will only write and ask my Company to send you a dollar bottle ***FREE*** according to the following offer. I don't care what form of Rheumatism you have or how long you have had it. I don't care what other remedies you have used. If you have not used mine you don't know what a ***real*** Rheumatic Remedy will do. ***Read our offer below and write to us immediately.***

D. D. Kuhn

A FULL-SIZED $1.00 BOTTLE FREE!

We want you to try Kuhn's Rheumatic Remedy, to learn for yourself that Rheumatism can be cured and we want no profit on the trial. A fair test is all we ask. If you find it is curing your Rheumatism or Neuralgia, order more to complete your cure and thus give us a profit. If it does not help you, that ends it. We do not send a small sample vial, containing only a thimbleful and of no practical value, but ***a full-sized bottle,*** selling regularly at drug-stores for ***One Dollar Each.*** This bottle is heavy and we must pay Uncle Sam to carry it to your door. ***You must send us 25 cents*** to pay postage, mailing case and packing and this full-sized One Dollar Bottle will be promptly sent you free, everything prepaid. There will be ***nothing to pay*** on receipt or later. Don't wait until your ***Heart-Valves*** are injured by Rheumatic Poison, but send today and get a One Dollar Bottle free. Only one bottle free to a family and only to those who ***send the 25 cents for charges. Address***

KUHN REMEDY CO., Dept. N. 2100 NORTH AVE., CHICAGO, ILLS.

Ribbon in Fashion.

Louis Moray, expert fashion writer, says:

"In both the millinery and dressmaking field ribbon is more used at the present time than it has been for several seasons. It is considered superior in every way to piece goods for trimming hats and for many other purposes. It will be largely used for garnitures, as well as for girdles and sashes.

"The use of ribbon roses and other flower effects on evening gowns and hair dressings, or hair ornaments has superseded almost everything else. The double width is as often seen in ribbons as it is in fabrics. Bows, rosettes, muffs and entire hats are made with double width ribbon in enormously full plaited loops. It is also largely used instead of cord or silk for embroidering marquisette, chiffon and other materials in raised flower designs. This work appears on evening dresses and on tunics of other dresses.

"Extremely costly ribbons will be used in costume designs instead of garniture bandings. Messaline ribbons will be much used, and the East Indian effects in sash widths seem to be quite apparent in some of the high grades. Pecots are in plain, striped and shot. Velvets have velvet centers with Roman striped borders, tinsel, or satin in contrasting colors."

How Pets Are Dangerous.

Probably slowly, but very surely, the unscientific masses are being educated to the fact that germs are real, vital, result-producing organisms and not a product of the brains of over-fussy, would-be reformers. Even though she cannot see the germs walking around the edge of the common drinking cup, the mother who reads at all knows that scientists say they are there—evil, disease-producing germs—and so she does not allow her child to put the cup to the lips, but produces a folding drinking cup or perhaps a glass that she carries in her satchel. If neither of these are obtainable, the child probably goes thirsty until it reaches home. By the same process of education the mother no longer allows her child to use the common soap or the common towel supplied at the school, the railway station or any other public place.

But all of these are easy as compared with telling the child that he must no longer hug his little hairy, furry or feathery pets and half squeeze the life out of them with a demonstration of the affection that is bottled up in every normal child. Or suppose he is thus commanded, how long will he remember to keep his hands off the beloved objects?

But physicians say that the germs of nearly every known disease are hidden in the fur of the family cat. This does not mean that the cat is ill. It may be perfectly well and still be carrying the germs in its fur. And it must be remembered that many of these germs would have no effect on the health of the cat, for it is not subject to all of the diseases of humans. So when the little one cuddles down to its furry pet the child may be inviting scarlet fever, measles, whooping cough, typhoid fever, tape worm and sometimes even smallpox. An Ohio physician, who suspected that one of his patients had contracted tuberculosis from a cat, examined a number of cats in the town and found that every one of them had the disease.

And the dog and the canary bird are also known to carry disease germs in their coats.

Of course, frequent and thorough bathing of the pets and perfect cleanliness of their living quarters will help some, but even all of this care will not kill the disease germs. The only safe course is to teach children the danger of fondling their pets. A "Don't touch the cat!" without any explanation will mean that pussy will be still secretly hugged at times. But a simple and forceful explanation of the why of it will make many children remember to obey out of a sense of self-protection. — Janet Thomas Van Osdel.

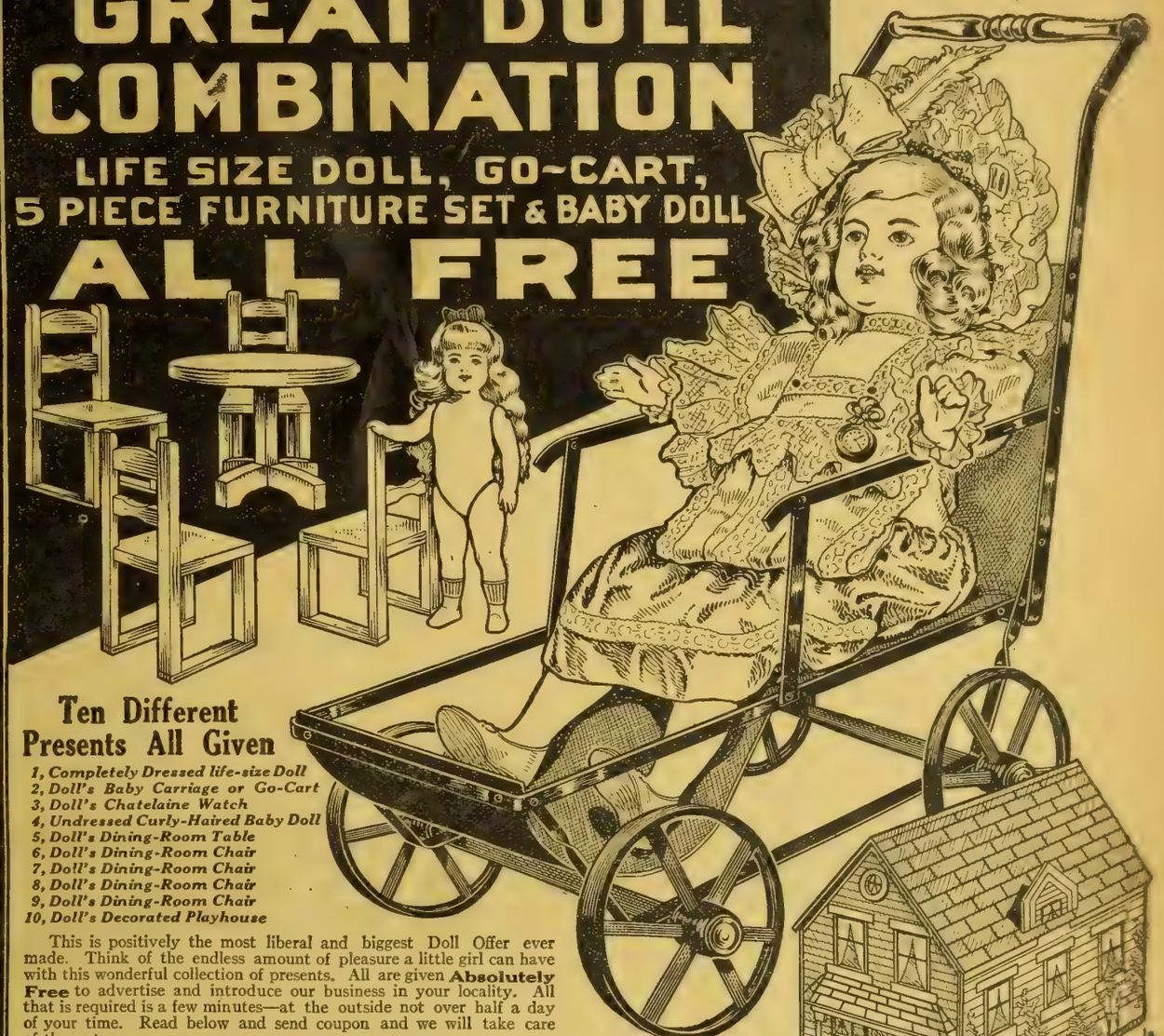
Farmers who will read the sample copies of this publication that we are sending out will find that it is worth the money to them. The subscription price is 50 cents a year, or three years for one dollar.

The acreage in Argentine devoted to wheat growing is now two million acres more than it was five years ago.

GREAT DOLL COMBINATION

LIFE SIZE DOLL, GO-CART, 5 PIECE FURNITURE SET & BABY DOLL

ALL FREE



Ten Different Presents All Given

1, Completely Dressed life-size Doll
2, Doll's Baby Carriage or Go-Cart
3, Doll's Chatelaine Watch
4, Undressed Curly-Haired Baby Doll
5, Doll's Dining-Room Table
6, Doll's Dining-Room Chair
7, Doll's Dining-Room Chair
8, Doll's Dining-Room Chair
9, Doll's Dining-Room Chair
10, Doll's Decorated Playhouse

This is positively the most liberal and biggest Doll Offer ever made. Think of the endless amount of pleasure a little girl can have with this wonderful collection of presents. All are given **Absolutely Free** to advertise and introduce our business in your locality. All that is required is a few minutes—at the outside not over half a day of your time. Read below and send coupon and we will take care of the rest.

Description of Presents

Our life-size doll is bigger than the ordinary baby—a foot and a half high. She is beautifully and stylishly dressed from head to toe, including large picture hat, trimmed with plume, lace, etc., fancy sateen dress with yoke, complete underwear, stockings, slippers with buckles, etc. Bisque body, jointed arms and legs, long, curly, waxen hair; opens and closes her eyes.

Dolly's buggy or go-cart is substantially made and amply large enough for dolly to sit in, as shown in the above picture. It is guaranteed to run smoothly. Dolly's little chatelaine watch looks just like a real watch, and she is very proud of it.

Our little baby doll is very sweet and lovely, with long hair.

The five piece furniture set is the cutest doll set you ever saw—regular dining-room table already set up and four upright dining-room chairs.

Just imagine the good times the little girl can have dressing dolly, making clothes for baby doll, and taking both out riding in the go-cart, serving dinner and tea, etc., etc.

Do not forget our little doll's playhouse, which is given extra for promptness, as explained elsewhere in this offer.

How to Secure All

If you want my ten grand doll premiums, simply sign your name on the coupon below and send to me promptly. I will then send you twelve of my new-style, large, 16x20 inches, all **gold** illuminated text pictures, with decorations. These pictures are brand new and made especially for me, none like them on the market. You distribute these gold text pictures free on my special plan—collecting 25c with each picture. Then you send me the $3.00 collected and the same day received, I will ship you the big dressed doll, go-cart, five-piece dining-room set, baby doll, doll's chatelaine watch, and also doll's house for promptness—not one, but **all ten presents.**

If you do not care to distribute my new gold text pictures on my easy plan, after receiving them, they can be returned at my expense. Nearly everyone, however, who sees my new pictures and hears about my new plan, will jump at the offer, and you can do the distributing in a very little time. All you need to do now is to send the coupon without delay.

EXTRA!

DOLL'S HOUSE

This handsome little Doll's House is decorated in colors, with painted chimney, windows, porch, etc. It is given extra and in addition to the other nine presents included in this offer, **just for promptness.** Send the coupon below **promptly**—at once, and get this nice little Doll's House as an extra present to complete the combination.

Cut Out On This Line

M. CLARK
Sec'y
107-111 S. Clinton St.
CHICAGO

Dear Sir—Send me your twelve new all-gold illuminated text pictures to distribute on your new plan, which will entitle me to all your nine doll presents and the extra present for promptness. I am under no obligation to distribute pictures after receiving your plan and can return at your expense.

Name _____

Address _____

16 _____

No Money Required.

My Company is a two and half million dollar corporation, and I furnish highest references. Remember, if you do not care to distribute my new gold text pictures on my new plan—all well and good. I run all the risks, guarantee my presents and pay all postage. Don't fail to send the coupon at once and take advantage of this wonderful offer now.

M. CLARK, Sec'y, 107-111 So. Clinton St., Chicago, Ill.

Just Send This Coupon

FREE TO YOU—MY SISTER

Free to You and Every Sister Suffering from Woman's Ailments.

I am a woman.
I know woman's sufferings.
I have found the cure.
I will mail, free of any charge, my home treatment with full instructions to any sufferer from woman's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourselves at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is safe and sure cure for Leucorrhoea or Whitish discharges, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors, or Growths; also pains in head, back and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney, and bladder troubles where caused by weaknesses peculiar to our sex.

I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that, it will cost you nothing to give the treatment a complete trial: and if you wish to continue, it will cost you only about 12 cents a week or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all old or young. To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in young Ladies, Plumpness and health always results from its use.

Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases, and makes women well, strong, plump and robust. Just send me your address, and the free ten day's treatment is yours, also the book. Write to-day, as you may not see this offer again. Address

MRS. M. SUMMERS, Box H - - Notre Dame, Ind., U. S. A.

MAY MANTON PATTERNS.

Very Elegant Pattern Service, With Full Instructions For Ordering and Making.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration twenty-three seasonable patterns absolutely up-to-date, with directions for ordering and quantity of material required.

PRETTY MODELS.

No. 7150.—Fancy Peasant Blouse. 34 to 42 bust, with square neck, revers and frill, or with high neck and shield, with sleeves gathered into cuffs or plain.

No. 7151.—Girl's One-piece Night Gown. Four to twelve years, with loose elbow sleeves or three-quarter sleeves gathered into bands.

No. 7156.—Semi-Princess Gown. 34 to 42 bust. With or without chemisette and under sleeves.

No. 7153.—Skirt With Deep Tunic Effect. 22 to 30 waist, with high or natural waist line.

No. 7155.—Girl's Middy Blouse Dress. Four, six and eight years, with or without applied yoke, with straight skirt that can be plaited or gathered.

VARIOUS STYLES.

No. 7142.—Tucked Blouse or Shirt Waist. 34 to 44 bust.

No. 7127.—Short Coat For Misses and Small Women. Fourteen, sixteen and eighteen years, with three-quarter or long sleeves, with sailor collar that can be made square or with one or two points at the back.

No. 7097.—Fancy Waist. 34 to 42 bust, with low or high neck, fancy short or three-quarter plain sleeves.

No. 7083.—Circular Skirt, With Adjustable Train and Panel. 22 to 32 waist, with high or natural waist line, dart-filled or gathered, in round or walking length.

No. 7118.—Girl's Dress. Eight, ten and twelve years, with high or round neck.

No. 7134.—Two-piece Skirt, With Underlying Side Panels, For Misses and Small Women. Fourteen, sixteen and eighteen years.

LADIES', MISSES' AND CHILDREN'S ATTIRE.

No. 7131.—Girl's Dress. Six to twelve years, with straight skirt, round or high neck, three-quarter or long sleeves.

No. 7025.—Tucked Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. Especially adapted to bordered materials, with high or square neck.

No. 7115.—Mannish Shirt Waist. 34 to 40 bust.

No. 7038.—Five-gored Skirt. 22 to 30 waist.

No. 7154.—Six-Gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7152.—Boy's Blouse Suit. Four and six years.

No. 7132.—Peasant Yoke Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years, with high or low neck, with or without under sleeves.

No. 7140.—Breakfast Jacket. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust, with sleeves that can be left loose or gathered into bands.

EVERY-DAY ATTIRE.

No. 7106.—Tucked Blouse. 34 to 42 bust.

No. 6982.—Six-gored Skirt. 22 to 32 waist.

No. 7143.—Child's Apron. Two to eight years, with high, round or square neck, with long or short sleeves; to be closed in back or front.

No. 6772.—Boy's Shirt Waist. Six to twelve years.

Please be sure to give the size of pattern ordered and write your own name and address plainly, that no mistake can be made to cause delay.

The price of each pattern is 10 cents.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Abnormal Vegetables.

A pumpkin, squash and eggplant several times their normal size were exhibited in Edwardsville, Ill. The pumpkin weighs 185 pounds and is so large that it takes two men to load it into a wagon. One man was unable to roll the pumpkin up a skid. It is three feet long and seven feet two inches in circumference. The pumpkin was raised by John Schmidt, of Wanda.

The squash was raised by H. H. Stahlhut, of Fort Russell. It weighs fifty pounds and is thirty-three inches long and three feet in circumference.

The eggplant was raised by Mrs. Julia Rohrkaste, of Edwardsville. It weighs four pounds and two ounces and is twenty-three inches in circumference.

Farming Not Slavery.

Prof. H. J. Waters, formerly Director of the Missouri Agricultural College, and now President of the Kansas Agricultural College, does not believe that in order to raise excessive farm crops intensive farming should degenerate into slavery. He refers to the slavery of the man, woman and child on the farm. He said at the Missouri Rural Life Conference:

"The increased acre yield must not come at the cost of man yields. We must not sacrifice our manhood and womanhood, as they have been sacrificed in European countries on the altar of high acre yields to support the people in the cities."

Notwithstanding the drouth that was, Missouri corn is three-quarters of a full crop.

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We positively give FREE a STEM WIND, STEM SET, BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 5 years, and a beautiful Ring, for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch, Ring and Chain. WELLS MFG. CO., DEPT. 1086, CHICAGO.

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We give this fine, sweet-toned violin, good white horse hair bow and box of resin for selling only 20 new MOTTO PICTURES at 10c each. We trust you. Send for pictures today—When sold, send $2 00 and Violin and Complete Outfit will be sent you promptly. Satisfaction guaranteed. ALTON WATCH & MDSE. CO., Dept. 1408 Chicago, Ill.

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Send for 12 packages of our beautiful high grade gold embossed post cards to distribute at 10c pkg. Return us the $1.20 when collected and we will send you by return mail this very fine 14K gold filled heavy band ring, not the cheap kind. Address, R. F. MOSER 421 Household Bldg., Topeka, Kans.

The "Entirely Different" Candy Laxative.
The longer you take them, the less you have to take. Better than salts or castor oil. They taste like chocolate creams. 25c. dealers, or send to Paragon Chemical Co., G 5, Galesburg, Ill.
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TAPE-WORM Expelled alive in 60 minutes with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE. DR. M. NEY SMITH, Specialist, Office, 302 N. 12th St., - ST. LOUIS, MO.

FAULTY METABOLISM AS A COMMON CAUSE OF DISEASE, is the subject discussed in Bulletin No. 1 of the Shafer Pathological Laboratory. The Bulletin is sent free on request and will prove interesting to everyone in Pain and Poor Health.
Address: John F. Shafer, M. D. 406 Penn Ave., Pittsburg, Pa.

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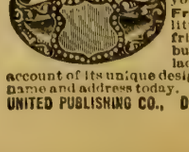

A new style Shield Signet Ring, beautifully engraved and guaranteed for six years. We will send you one of these beautiful Rings Free, if you will assist us just a little among your own personal friends. This is not a cheap ring, but one that any girl or young lady would delight in wearing on account of its unique design and high quality. Send your name and address today.
UNITED PUBLISHING CO., DEPT. NO. 45 KANSAS CITY, MO.

Charming Little Courtesies.

What is more charming than a well-bred girl with the agreeable manners that show social training and a desire to please? Yet there is danger of overdoing even in courtesy.

It is the fashion just now to decry the manners of the present day; to say that boys and girls have no bump of reverence and less breeding. This may be true for the boys—there seems to be an alarming increase of cubbism—but girls are punctilious almost to a fault.

Manner should be spontaneous, not artificial, to be really pleasing. It should also be tactful. The girl who will charm is not she who is ostentatiously polite; who jumps to her feet with a bound and stands at attention with a smirk of conscious self-satisfaction whenever a woman a few years older than herself appears.

It is polite, a sign of right feeling, to show deference to older women, but many a girl is so painfully deferential to a girl who has been out but four or five more years than herself that it looks almost like "cattiness."

One woman who has been a belle for seven or eight years spoke slightingly of one of the season's debutantes. "I thought she was charming, noted for her good manners," replied a matron.

"Perhaps," was the reply, "but I don't like that kind of manners. She always tries to rub in my age by her tremendous punctiliousness. I'm sure she does it on purpose, as I overheard her say once she'd think those old girls would take up charity rather than try to rush society so hard when they were back numbers."

It should be easy to be attentive and courteous without obtrusiveness, and the sooner a young girl acquires this art the quicker her manners will seem natural.

Then there are courtesies that are too obvious. When a girl, usually careless and rude, even indifferent to the world at large, becomes overpoweringly good-mannered, the recipient is likely to go cause hunting.

The girl who is rude to her inferiors or to the women she thinks "cut no ice," gains little by her courtesy to those that do. They read her only too plainly, and are disgusted rather than pleased.

Then there is courtesy paid to the right person in apparently the right way that falls short of the mark because of a bored look or a wandering eye. Let a girl rise draggingly from her chair when an older person enters a room, or, while apparently listening attentively, gaze around the room on the sly or look blankly into space, and her manners will never make a hit with that person.

The courtesies that count are those that spring from a kind heart linked to a gracious manner and unselfish desire to be of use, to please. Anything more formal is quickly classified as surface good breeding and little appreciated.

FAT is Dangerous

Over-Fatness Shortens Life, Causes Heart Failure, Loss of Vigor, Kidney and Stomach Troubles. Spoils Figure, Is Uncomfortable, Unsightly.

Let Me Send You My Proof Treatment Absolutely Free.

WOULD YOU LIKE TO REDUCE YOUR FAT A POUND A DAY?

ILLUSTRATIONS SHOW REDUCTION OF 98 POUNDS.

My treatment is intended to make you look and feel years younger; to aid in giving you beautiful figure, skin, eyes, full womanly health and attractiveness, the kind that husbands adore and all others admire.

THOUSANDS OF TESTIMONIALS.

Lost 115 Pounds. Mrs. E. M. Reynolds writes: "When I began your treatment I weighed 285 lbs. I now weigh 170 lbs., and **never felt better** in my life. My bust measure is reduced from 54 inches to 38 inches; waist from 42 inches to 28 inches."

Permanent. M. E. King writes: "By the Dr. Bradford Method **I reduced 35 lbs.** eight years ago; haven't gained an ounce since. Rheumatism also cured."

Reduced 90 Pounds. W. R. Dennison writes: "I tried many so-called remedies, but got no satisfaction until I adopted the Dr. Bradford treatment, and have reduced 90 lbs. easily. Am now able to attend to my hotel business **without the feeling of being tired out** before evening comes on."

Weighs 60 Pounds Less. Mrs. Philip Fisher writes: "I was **a great sufferer from obesity,** it made me feel sick most of the time; had pains in back and **could hardly walk.** Am now able to tell another story; my **troubles have disappeared** and am **feeling fine.** Have lost 60 lbs. by your treatment."

Reduction 56 Pounds. Mrs. Alice Rouse writes: **"Health comes before everything else,** and your treatment has brought it to me; the loss of fat has been 56 lbs., and I have had many other benefits."

Lost 98 Pounds. Mrs. J. H. Wooldridge writes: "My figure and appearance have been wonderfully improved, have lost 98 lbs. **Friends amazed."**

Saved Her Life. A. G. Osgood writes: **"You saved Mrs. Osgood's life;** she was so fat that she had **fatty heart;** doctor said she could not live over a month, and **was liable to die** any moment. We got your treatment; loss of fat has been about 60 lbs. and her health marvellously benefited. No fear of dying now, doctors say."

Lost 112 Pounds. W. C. Newburn writes: "I have lost 112 lbs., am **wonderfully** benefited in heart and general vigor. Can climb mountains easily."

Full testimonials, from which above extracts were taken (with addresses), also many others, will be sent you.

I OFFER FREE PROOF TREATMENT

The testimonials printed in this advertisement are but a **few of thousands.** After you write me for my Free **Proof Treatment,** I will mail you a **legion** of testimonials, with names and full addresses of persons whose **weight has been reduced** and **perfect health restored.** You can write to or call upon former patients, who willingly, yea **gladly allow the use of their names.** My Treatment **reduces one pound daily** in many cases and is absolutely **safe, harmless, guaranteed.** My Method is intended to make you look **years younger, improves figure** and complexion. Gives surpassing **vigor,** ladies **cheerfulness** and **joy** in healthy living. READ MY FREE BOOK. *I believe you will say it is worth its weight in gold!*

Men and Women: Improve your health, become as active, physically and mentally as at age of 18 years! My treatment is **gentle,** wastes no time. Results noticeable daily. **No wrinkles,** no darkness under eyes, no flabbiness. **No starving,** no severe or time-taking exercising. Mine is absolutely the modern perfected method—the **triumph of therapeutics** and pharmacology in the cure of obesity. Beware of quacks who imitate my advertising.

You can place absolute confidence in me. I will treat you by mail as satisfactorily as if you were to come here. **You will be surprised and delighted** with the daily reduction and benefits to personal appearance, vigor and general health. Correspondence sacredly confidential. Plain envelopes used for my letters.

Get Rid of Your Needless Fat

It is dangerous, unsightly, uncomfortable and embarrassing to be too fat. Excess fat weakens the heart. The liver, stomach and kidneys become diseased, breathing is difficult, blood impure and congested, and end may come in **sudden death** by **HEART FAILURE, APOPLEXY, APPENDICITIS,** etc. You may save yourself from these **DANGERS; do not delay!**

Let me prove to you that my treatment will positively reduce needless fat, no matter where excess fat is located; stomach, bust, hips, cheeks, neck, double-chin; it will **healthfully, quickly, safely** and **lastingly** be reduced, without exercise or dieting; **your figure improved.** Would you like **clear, pure skin;** no wrinkles? **Lost vigor restored.** Rheumatism, asthma, shortness of breath, kidney and heart troubles, female ailments in women, often leave as the fat goes away. I will send you without a cent of charge to you, my **FREE PROOF TREATMENT.** You may reduce your fat a pound a day; others have done it.

FREE

SHOWING REDUCTION OF 112 POUNDS.

My treatment aims to give you perfect health with true, manly vigor. Women and men will be attracted to you. LIVE YOUR YOUTH OVER AGAIN!

Don't miss this offer. My PROOF TREATMENT is FREE. It will probably make you feel better at once. I also send you **Free** my Book of Valuable **Advice,** with testimonials from many well-known people. Everything mailed in plain wrapper. Keep this advertisement. **Write to-day. Address:**

DR. H. C. BRADFORD, 287C, Bradford Bldg, 20 E. 22d St, New York, N. Y.

NOTICE.—Dr. Bradford is a diplomated, registered, licentiate practising physician of the State of New York, with a long record of success in quickly, gently and safely reducing the weight of over-stout men and women. You can place your confidence in him. Your letter to the Doctor will receive prompt, friendly, confidential attention.

Woman and Secrets.

"The late William Rotch Wister, the father of American cricket, might also be said to have been a godfather of the feminist movement," said, at the Acorn Club in Philadelphia, a woman writer.

"Mr. Wister," she continued, "abominated that type of husband who treats his wife like a child, refusing to take her into his confidence. I once heard Mr. Wister tell a story about a Germantown man of that sort.

"The man came back from a business meeting wherein the future welfare of himself and his family was vitally involved, but he declined to tell his wife what had been the meeting's outcome.

"'Oh, no,' he sneered, 'I can't tell you anything. You'd repeat it if I did. You, being a woman, are constitutionally unable to keep a secret.'

"But the wife, with a quiet smile, retorted:

"'George, did I ever tell the secret of how you were led astray that summer the church conference met in Chicago, and got arrested in a saloon for biting off the bartender's ear?'"

The Weak Ones.

Police Chief Sebastian of Los Angeles was talking about a married man who had fallen before the charms of the beautiful flirt catcher.

George was always weak," said Chief Sebastian. "Once when he was a boy at school, his mother was apologizing for him to his school teacher.

"George is so easily led," the mother said.

"'Yes,' the teacher agreed, 'except in the right direction.'"

OFTEN IMITATED—NEVER DUPLICATED

Suesine Silk 39¢

Tens of Thousands of Women have Proved its Greater Reliability and value by Actual Use. They Buy it Again and Again, Year After Year, and They Tell Their Friends.

No advertisement we could write can speak half as strongly for Suesine Silk as the praise of these hundreds of thousands of fastidious women, and good judges of value, who know Suesine by **their own experience**—and who buy it again and again every season, year after year.

These women refuse all imitations and substitutes — they insist on buying genuine Suesine—with the name along the edge of every yard—like this

SUESINE SILK

Don't be talked into buying a substitute or you will be sorry—these imitations are adulterated with tin, glue and iron dust, which make them quickly fall to pieces—don't be coaxed or persuaded into buying them, for you will surely regret it.

We will send you, absolutely free, forty-two samples of Suesine Silk—more than 255 square inches altogether.

We ask only, that, when writing for these free samples, you will mention the name of your regular dry goods dealer, and say whether he sells Suesine Silk or not. Please be sure to give that information in writing to us.

No matter where you live, it is easy to get genuine Suesine Silk

We do not sell Suesine Silk except through regular retail merchants. But if we cannot send you the name and address of a Dealer in your vicinity who has Suesine Silk, we will see that your order is filled at the same price, and just as conveniently, by a reliable retail house, if you enclose color sample and price, 39c. per yard.

The price of Suesine Silk in CANADA is 50c. a yard.

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SPLENDID SUBSCRIPTION PREMIUM.

Beautify Your Home With This Popular Stencil Outfit.

Stenciling has long been a popular form of home decoration and is today used more extensively than ever. Ladies are particularly apt at this work, and anyone can produce beautiful effects. From every standpoint stenciling is a very fascinating art of extreme usefulness. You can make

the most artistic pillow tops, curtains, portieres, centers, etc., in colors for yourself or for sale, without having any knowledge of painting, by using this up-to-date outfit. In fact, stenciling is so simple with this outfit that a child ten years old can do it.

This outfit is just the thing for beginners. It consists of six cut stencils on special oil board, six cups of water colors (something new, that will not spread, but dries instantly), two bristle stencil brushes, four thumb tacks, also full and explicit directions for mixing colors and using stencils.

Our Subscription Proposition.

Send us fifty cents by postoffice money order and we will send you the Universal Magazine for two years and you can select the Popular Stencil Outfit as a free premium.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone sending us four subscriptions and $2.00 to pay for same will be credited with one two-year subscription to the Universal Magazine and one Stencil Outfit free.

Flowers Worth Growing.

In reviewing our successes and failures in the floral world we are at the same time getting ready for better work another year and enjoying again in memory the pleasures of the summer just passed. There are old favorites renewed after being forgotten for years, and new ones grown for the first time. Some of these may have failed to equal our expectations, yet for the most part such failures may be traced to an unfavorable season or lack of care. The plant that is well grown is seldom disappointing. Even a carrot grown as a house plant may become a thing of beauty.

The old-fashioned morning glory is now seen winding up the trellis of the modern city home in the same loving way that it used to twine about the strings which made the trellis for the log cabin, and the same soft tints of blue and pink are seen. In rich ground this plant perpetuates itself from a self-sown seed in the more northern climes, though to keep it in just the place you want it a careful sowing of the seed is preferable.

The hollyhocks, with satiny petals, are another species which look out for themselves, becoming in a measure weeds unless watched. Yet as a border in the background they are especially valuable. Give them rich soil and they will flourish with very little care. Some of the double forms are exquisite in color as well as faultless in form.

If you have not grown them recently, resolve to have a bed of mixed poppies next year. The improved varieties are as rich in color blendings as a bed of rare tulips and equally showy. The first cost is small. It is less work to sow the seed than to plant bulbs, and the display may be kept up from year to year with very little trouble, the seeds being self-sown.

If you happen to have an old chip yard that is an eyesore, convert it into one of the most luxuriant growths of flowers. If conveniently located, plant bulbs this very fall. Hyacinths will grow to wondrous size in the rich soil and the flowering spikes next season will be the admiration of all beholders. There is no danger of getting the ground too rich, as with barn-yard fertilizers, and the decayed wood seems to suit bulbs exactly. If the spot is not the desired one, have the rich top dressing carried to some suitable place and make the flower-bed there. The ground can then be re-seeded to grass and the greatest fertility will be where you can quickly convert it into a beauty spot.

Do not omit to provide a large box of rich, fine soil for potting plants during the winter, when the snow prevents getting it outside. There are always emergencies requiring some extra soil. Sometimes the florist sends bulbs as a Christmas present to old customers; a friend offers you a prized plant; or something wants re-potting, despite your efforts to anticipate such demands in a more convenient season. Then when you want to start tomatoes or cabbage plants in the spring, it is very much easier.

There is no use in anyone who really likes flowers being entirely without them during the winter months. A petunia or nasturtium from the garden will brighten the window if you cannot afford to buy house plants; or even a wild flower, a clump of spring flowering native bulbs, a fern, or a thrifty parsley plant, will prove a thing of beauty when the winter reigns without.

If there is danger from freezing, remember that paper is better to keep out cold than cloth, especially if there is a little wind. One choice plant may be kept wrapped in paper and old carpet if necessary; and the pleasure of having some green in winter is certainly worth working for. If you have the facilities, do not be satisfied with less than a windowful; but have at least one.—Bessie L. Putnam.

How to Cook Potatoes.

Potatoes are low in protein and should be eaten with meat, fish and eggs.

The mineral matter lies next the skin and is quite largely lost when the potatoes are peeled.

The starch of new potatoes has not reached its maturity, so they are not so easily digested as old potatoes.

Potatoes have no pronounced flavor, as may be combined with many other foods.

A peck of potatoes weighs fifteen pounds and will average from fifty to sixty potatoes. One pound may be about four potatoes of medium size. One pound may cost from one to five cents in the cities.

If pared and all bad places removed the average loss is 25 per cent. The government experts report a loss of 11 per cent. Potatoes used were unusually good and great care given to removing as little of the potato as possible.

Soak old potatoes in water.

Change the water while cooking, if strong.

Never allow potatoes to stand in the sun.

Always pour off the water as soon as done and remove the cover to allow the steam to escape.

Potatoes cooked in their jackets should be pierced to allow the steam to escape.

Baked potatoes should be rolled in a cloth till the skins burst. This prevents the potatoes from cooking too long, which makes them sticky and soggy.

Potatoes should be simmered (not boiled). It is a waste of fuel and spoils the potatoes. The rapid boiling makes them a solid paste, which is both unpalatable and indigestible.

Cook potatoes with the skins on as often as possible. They are more nourishing and palatable. Mashed potatoes are delicious cooked in their jackets, peeled and mashed.

Potatoes may be kept warm a long time without spoiling if the skins are broken and the kettle well ventilated.

Potatoes well ventilated while cooking are more wholesome and of better flavor.—Eldora Lockwood, in Woman's World.

The Twice-a-Week GLOBE-DEMOCRAT

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Republican newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

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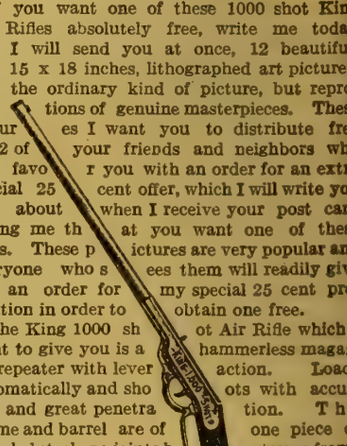
BOYS, THIS RIFLE IS FREE!

If you want one of these 1000 shot King Air Rifles absolutely free, write me today and I will send you at once, 12 beautiful, size 15 x 18 inches, lithographed art pictures, not the ordinary kind of picture, but reproductions of genuine masterpieces. These pictures I want you to distribute free to 12 of your friends and neighbors who will favor you with an order for an extra special 25 cent offer, which I will write you all about when I receive your post card telling me that you want one of these rifles. These pictures are very popular and everyone who sees them will readily give you an order for my special 25 cent proposition in order to obtain one free.



The King 1000 shot Air Rifle which I want to give you is a hammerless magazine repeater with lever action. Loads automatically and shoots with accuracy and great penetration. The frame and barrel are of one piece of nickeled steel—no joints between frame and barrel to work loose. Black walnut stock and splendid sights. All parts interchangeable. Shoots Air Gun Shot. Length 36 inches, weight 2½ pounds.

The hunting season will soon be in full swing, and I want you to have one of these rifles in time, so that you can bring down your share of the game. Don't delay, write that card today stating that you want a 1000 shot King Air Rifle, and by return mail, I will send you 12 of the pictures above mentioned and full information about my special 25 cent offer. Address:

H. F. LINDE, Manager,
Dept. D, Postoffice Box 155, Chicago, Ill.

SELECTED POETRY.

PASSING OF THE OLD WEST.

The West ain't what it used to be before the wire bands
Was stretchin' out on ev'ry side an' fencin' in the lands;
There ain't the elbow room there was before the nester came
An' squatted on the virgin soil to cultivate the same.

It used to be so big an' wide, so boundless an' so free,
As if a-reachin' out its arms an' sayin: "Come," to me.
An' we who had our cattle herds, we let 'em roam at will;
There wasn't any grazin' zone on valley, swale or hill.

The West was boundless; there was room for all, an' room to spare;
Each cattle man was free to say that he was treated fair.
Before the plow and reaper, why, we simply came an' went,
An' with our herds a-waxin' fat, the cowman was content.

But now it's changed: they've hemmed us in an' told us thus an' so;
An' they have fixed the boundaries where we may come and go.
We've got to hold our herds in hand an' fight for land to graze,
Becuz they ain't a-runnin' things as in the good ol' days.

The sunset of our day is gittin' dimmer in the skies;
They're forcin' us to leave the lands we won an' which we prize.
It won't be long till Cattle Land is just a memory—
A vision of the ol' frontier in days that Used-To-Be.

—E. A. Brininstool.

THE RANCH GIRL'S WAY.

The cowboy told how he asked polite,
A ranch girl fair to see;
"To the J B dance next Friday night
Kin I have your companee?'
"Kind sir," she pertly did reply,
"I has my companee,
An' his team kin easy pass yours by,'
An, so, 'Good night,' says she."

Then the puncher said: "Ag'in I try;
'Kin I have your companee
To the L X blowout next July?'
An' 'N-I-T,' says she.
'Besides,' she adds, 'you are too slow,
I has my companee
Fer that event. Do you have to go?
Well, 'Here's your hat!' says she.

Again he spoke: "But I hates to quit,
'Kin I have your companee
To the Christmas dance at Two Bit?
An' she says v-i-z:
'So fur as you're concerned I'll say,
I has my companee
Engaged from now till the judgment day,'
An' so, 'Good night,' says she.

"Now, tell me honest what you think,"
The cowboy asked of me;
"Would you not say—" he paused to wink,
"That I plumb frosted be?"
"I would," I sighed. He laughed, 'You miss!
Love's brand don't always show—
She'll go with me, for a 'Yes, sir,' kiss
Undid her woman's 'No.'"

—Robert V. Carr.

SONG OF THE SCYTHE.

One after the other the mowers pass,
With song of scythe through swaying grass,
Hush, ah, hush! 'tis the over word,
Which all the July day is heard
As the scythes swing low,
Clover and thyme and lilies tall,
Side by side are lying all.
Ribbons of beauty the long swaths seem,
Richest of gems the scythes agleam
As singing so:
"Hush, ah, hush!" and fall asleep
On sunlit mead, on hillside steep;
Hush and sleep,
And sleep.

A wreath of beauty the wild rose spray,
Where the bobolink sang his roundelay,
Thrilling sweet to his dainty bride,
Petals and songsters scatter wide
As the scythes swing low,
Daisies that hid the downy nest,
Cardinals with their fiery crest
Bow their heads as keen scythes pass
Over the clover, over the grass,
As singing so:
"Hush, ah, hush!" and fall asleep
On sunlit mead, on hillside steep;
Hush and sleep,
And sleep.

Held in amorous clasp of the sun,
Grasses sleep till day is done.
One by one their comrades fall,
A fragrant bed where they nestle all
As the scythes swing low.
Subtle mists from the fields arise,
They yield their soul till daylight dies;
And still the scythes through clover deep
Onward go with a ceaseless sweep;
As singing so:
"Hush, ah, hush!" and fall asleep
On sunlit mead, on hillside steep;
Hush and sleep,
And sleep.

—Winfield Lionel Scott, in Boston Evening Transcript.

THE PARTING.

"Well, since our young romance is dead,
There's naught to do but go;
But not without one kiss!" I said—
And the little girl said: "No."

"I leave my dreams of perfect bliss,
I leave my roses dust—
And must I go without one kiss?"
The maiden said: "You must!"

"One kiss!" was still my final plea—
"Ah, you have many such!
One little kiss to give to me—
Say, do I ask too much?"

"Nay—not too much," she breathed at last,
In tears at my rebuff;
"Nay, not too much! Our hour is past—
You do not ask—enough!"

Ah, mighty woman's feeble strength!
Ah, swift mankind, too slow!
Ah, easy riddle, guessed at length—
I'm never going to go!

—Cleveland Plain Dealer.

MY GARDEN.

There is a garden of my heart,
Where bloom the flowers of song;
At eventide, the world apart,
I walk my buds among;
Within me the deepening dark of night,
Flames forth the rose's red love-light.

The lily, on her slender stem,
Bends in the gentle breeze,
Caressed by waft of trailing hem
My vision never sees,
The filmy fringe of robe of day
Gilding into the far away.

When all my little urns of gold
Are brimmed with wells of sleep,
And shadowed bowls of verdure hold
The draught the moonrays steep,
I lie where nods, by murmuring streams,
My poppy from the Isle of Dreams.

—Samuel Abbot, in Boston Transcript.

Useful Helps in the Home.

An easy and safe way to start a fire is to dip a cob in coal oil, then roll in ashes and light with a match, and it is a good plan to keep the coal oil in a fruit jar with the top screwed down to keep it from evaporating.

Burn some small pieces of zinc in your stove once in a while to clean the soot out, and if the pipes are not much stopped up, burn potato peelings in the stove to clean out the soot.

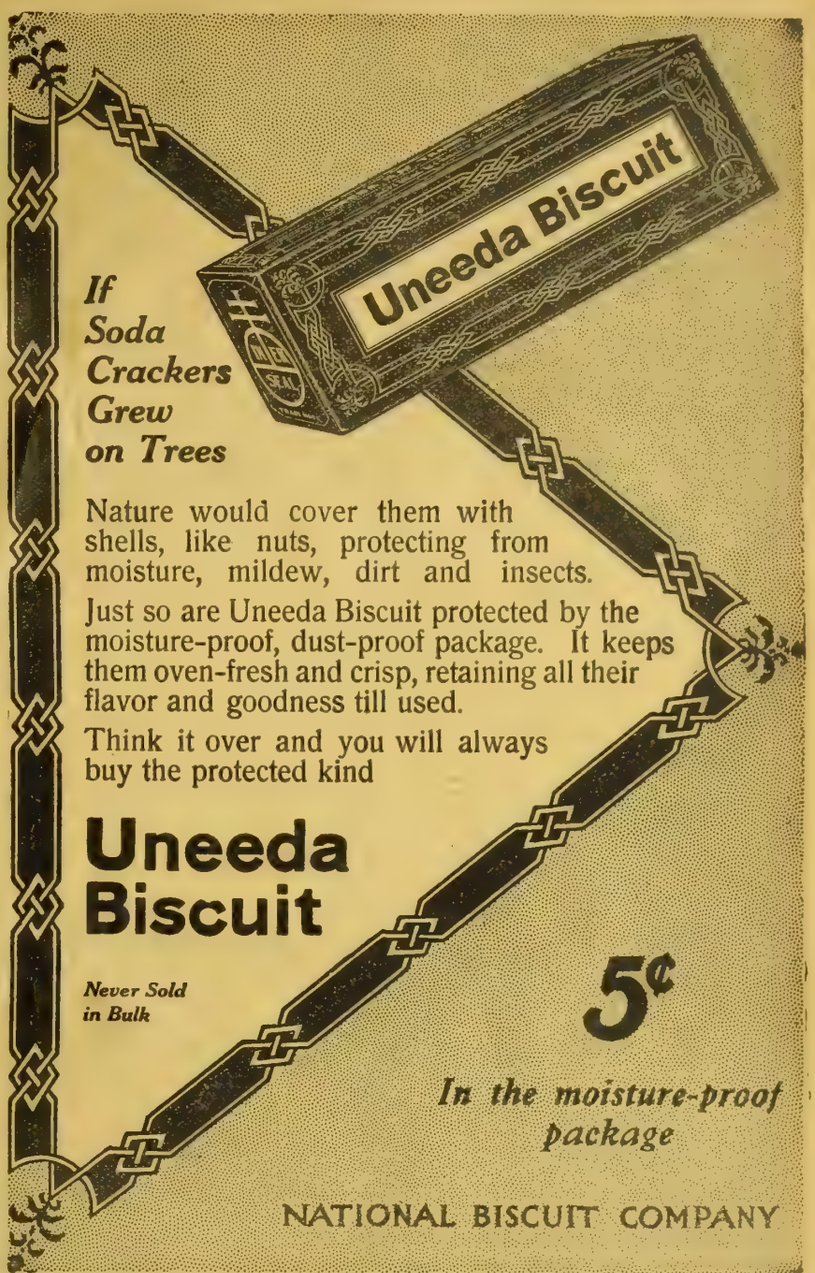
Save all the small pieces of toilet soap and you have collected a nice quantity, put them on the back of the stove in a little pan to heat slowly, and when all have melted, mould into a firm little cake, and when it becomes hard it is ready for use.

If a door hinge squeaks every time you swing the door open, dip a small brush or feather in coal oil and give the hinges a good oiling, but as this will run down the side of the door, a piece of thick paper should be placed on the floor.

A nice, warm lap robe for buggies and sleds in cold weather is made by cutting out the part of men's worn-out coats and pants and piecing them together into a robe of the desired size. First wash and press them nicely, then make a lining of any old material and baste the pieces to the lining and cover the seams with yarn in some simple stitch, and this yarn can be raveling of old gloves or socks, and the lining can be made of the best width of old dress skirts. Put in a thick interlining of old newspapers, then tie quite closely together and you will have a warm lap robe without any expense.

A nice way to make a soft bed side rug is to take pieces of old ribbons and silk, and cut them in strips about three inches wide, then lay four or five of these strips together, place them on a foundation and stitch through the center, then cut into fine fringe, and the strips should be stitched as close together as possible.

One of the most useful remedies in the house to use for small cuts, scratches and bruises is a good talcum powder, and it is best to bathe the part with warm water and dry with a soft cloth, then dust freely with Mennen's Talcum Powder, as there is nothing more healing or soothing than this prepared powder, and it is especially useful in a family where there are small children. This powder is excellent for any skin irritation, and if small cuts and hurts are cared for at once with the right remedy it may prevent blood poison and other serious troubles that often come from very slight wounds.—Aline.


Uneeda Biscuit
If Soda Crackers Grew on Trees
Nature would cover them with shells, like nuts, protecting from moisture, mildew, dirt and insects.
Just so are Uneeda Biscuit protected by the moisture-proof, dust-proof package. It keeps them oven-fresh and crisp, retaining all their flavor and goodness till used.
Think it over and you will always buy the protected kind
Uneeda Biscuit
Never Sold in Bulk
5¢
In the moisture-proof package
NATIONAL BISCUIT COMPANY

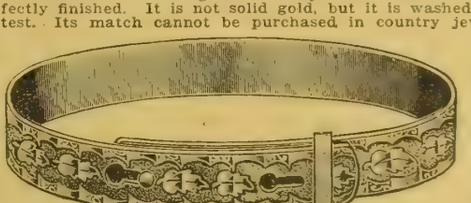
Ask Your Neighbor.

Many of your neighbors have used Bodi-Tone on its 25-day-trial-plan, for thousands have tested it in this way. Ask them what they know about it; ask them how it cures. Read the trial offer on the last page of this issue.

The farmers of the United States are under obligations to our good friends and brothers—the Canadians.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Universal Magazine Bracelet.

To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.

RIGHT

You Can Prove It

It is offered *right*, on trial, to any man or woman who wants it, without a penny in advance. It is offered *right* to prove to every man or woman that it is *right* clear through, to prove that it is made in the *right* way, from the *right* things to set the body *right*. It goes to the *right* places in the body, gives them the *right* help and cures in a right way that *stays right*. We treat you *right* and want no money from you until you can write to us and say with gladness and gratitude

"It Is All Right"

If you do not find it *right* for your own case, for your own trouble, for your own condition, you don't pay a penny for it. It must be *right*, you must prove it *right*, or you get it absolutely free. You can prove it, without paying a penny until you are certain. This is the way we offer Bodi-Tone to the sick, this is the way thousands everywhere have already tried it, for Bodi-Tone is made to do *right work*, work that is sure and certain, work that will last, that the test of time will prove *right*. If you are not feeling right, if anything is wrong in your body, send for a dollar box of Bodi-Tone on this *right* plan, that is as fair to every sick person as it is to us, and give it a chance to set you *right* in the same right way it has done for thousands.

Bodi-Tone

does just what its name means—*cures disease by toning all the body*, and we want you to try a box at our risk and see what it will do for *your* body. Bodi-Tone is a small, round tablet, that is taken three times every day. Each box contains seventy-five of these tablets, enough for twenty-five days' use, and we send you the full box without a penny in advance, so that you can try it and learn what it is, so you can learn how it works in the body, how it *cures stubborn diseases* by helping nature to tone every organ of the body. Tone is a little word, but it means a great deal, everything in health. When all the organs are doing their part, when each is acting in a perfectly natural way, when all the functions are healthy and performed with natural vigor, when the energy, strength and power of resistance to disease are all at a natural point, then the body is in proper tone. When disease has attacked any part, the tone of the entire physical body should be raised to the highest possible point, to make all the body help in the cure. This is the power which underlies all of Bodi-Tone's great work for the sick, this is the power it offers you to help you get new health and strength.

What It Is

Bodi-Tone is not a patent medicine, for its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit.

When you use Bodi-Tone you know just what you are using, know it is good and safe and know you are taking the kind of medicine to provide real help for the body. It is a pure remedy that satisfies the most exacting. It contains no narcotics or habit-forming drugs, nothing that your own family doctor will not endorse and say is a good thing. It does not depend on killing pain with cocaine, opium, morphine, or other dangerous drugs. It does not excite the body with alcohol, but it tones the body and cures its disorders with remedies Nature intended to tone and cure the body when that power was given them. Thus, Iron gives life and energy to the blood, Sarsaparilla drives out its impurities, Phosphate and Nux Vomica create new nerve energy and force, Lithia aids in the Kidneys, Gentian does invaluable work for the Stomach and Digestive forces, Chinese Rhubarb and Oregon Grape Root promote vigorous Liver activity, Peruvian Bark raises the tone of the entire system, Golden Seal soothes the inflamed membrane and checks Catarrhal discharges, Cascara gives the Bowels new life in a natural way, and Capsicum makes all more valuable by bettering their quick absorption into the blood. *A remarkable combination that does wonderful work for health.*

All For Health

Each one of these valuable ingredients in Bodi-Tone serves to assist, to help, to build upon the others work. Each adds a needed element from nature to the body. Each has work to do and does it well. They are used because of this ability. We claim no credit for discovering the ingredients in Bodi-Tone, each of which has its own well-deserved place in the medical books of most of the civilized world. We simply claim the credit for the successful formula which we invented, for the way in which these valuable ingredients are combined, for the proportions used, for the curative force which thousands have found in Bodi-Tone, for the cures which make it different from other remedies. Most of these ingredients are as old as civilization itself, for the curative forces which Bodi-Tone ably uses are the forces which have always existed in nature for the restoration of the body's health. Many are regularly prescribed in some form by the medical profession for various diseases and irregular conditions, being used either separately or in combinations with such drugs as each doctor may favor, for there are wide differences of opinion among the doctors of various schools. The *exact combination used in Bodi-Tone* is what gives it the far-reaching and thorough curative and restorative power that makes possible the remarkable cures experienced by Bodi-Tone users, cures which prove the difference between Bodi-Tone and common remedies. That is why we want to send you a box on trial, for we know you will find it different and superior.

You Need It

If you are tired of ceaseless doctor bills and wearied of continual dosing without results, *you need Bodi-Tone right now.* If your local doctor has done you no real good, if you have given him a chance to do what he can and the ordinary medicinal combinations he used have failed, give this modern, scientific combination of special remedies a chance to show and prove what it can do for you. Its greatest triumphs have been among men and women with chronic ailments who had tried physicians and specialists at home and elsewhere without lasting benefit, and for this reason all chronic sufferers are invited to *try it at our risk.*

Bodi-Tone offers its valuable services to you right now, right from this page, if you are sick, if you need medicinal help, if your bodily organs are not acting as they should, if your body is not in right and natural tone. That is what Bodi-Tone is for—to restore health, vigor, vitality and strength by restoring tone to the body.

If there is anything wrong with your Kidneys, Bodi-Tone helps to restore tone to the Kidneys, helps to set them right. If there is anything wrong with your Stomach, Bodi-Tone helps to tone the Stomach, helps to set the wrong right. If there is anything wrong with your Nerves, your Blood, your Liver, your Bowels or your General System, the health-making ingredients in Bodi-Tone go right to work and keep on working day after day, exerting always a definite action that produces curative results of the kind sufferers appreciate. If you have Rheumatism, Bodi-Tone helps to eliminate the Uric Acid from the system while it restores tone to the Kidneys, Stomach and Blood, thereby preventing a continuance of Rheumatic poison and putting new activity into muscles, nerves and joints. Bodi-Tone should be used by all women suffering from any Female Ailment, for its toning properties have been found especially valuable in such ailments. Bodi-Tone should be used by all persons whose bodies are not up to the full maximum of natural vigor, strength and vitality, for its purpose is to restore the body to its highest plane by making health in every bodily function.

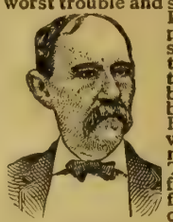
We Risk All

Why delay another day, when a trial of this proven medicine is yours for the asking. Why keep on suffering, when by filling in your name and address on the trial coupon and mailing it to us, you can get a twenty-five days' treatment of this great remedy which has already restored thousands to health. It just costs a two cent stamp, and you don't pay a penny unless it benefits you. You take no chances, for the value and curative powers of Bodi-Tone have been amply proven by two years of glorious cures. It is no longer a new remedy, but a remedy with a history—a history of cures that has astonished the doctors and delighted the sick. It has been tested in hundreds of thousands of cases, covering ailments in both sexes, at all ages.

Persons suffering from Rheumatism, Stomach trouble, Kidney, Liver and Bladder Ailments, Uric Acid Diseases, Female Troubles, Bowel, Blood and Skin Affections, Dropsy, Piles, Catarrh, Anaemia, Sleeplessness, LaGrippe, Pains, General Weakness and Nervous Breakdown, have tested Bodi-Tone and fully proven its right remedial value in such disorders.

Their experiences have proven beyond a shadow of doubt how the Bodi-Tone plan of *toning all the body* is a *right* plan that helps to *cure* these and other disorders, that it is *a right and to nature.* Many who have for years been in poor health and have tried most all of the prominent medicines, have found that *one single box of Bodi-Tone* did more good than *all* the others combined. Others who had suffered for many months, and many for years, trying many doctors and specialists, found their first real benefit in Bodi-Tone, after all else had failed and hope was almost gone. It goes to the root in the body and cures because its work is rational and thorough, the only kind that makes cures permanent. Read the reports on this page, showing how it makes new life, health and strength, and send for a trial box and see if it will not prove the *right thing* for you.

Bad Catarrh Cured at Sixty-Nine Years

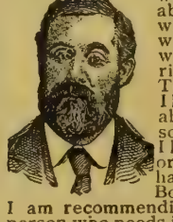


ROYAL, ARK.—I suffered for years with Stomach Trouble, Indigestion and Catarrh of the Bladder, as a result of Malarial Fever. For the past eight years my worst trouble and suffering has been with my Bladder. I had great difficulty at times in passing water, there being a painful smarting and burning, and at other times I would have difficulty in retaining it. My condition finally had become very serious, as slime and blood were passing, and I feared that Brights Disease had set in. I tried various remedies and doctors with no benefit until I read about Bodi-Tone in one of my papers and sent for a one dollar box. The results from this box were so satisfactory I ordered more Bodi-Tone and kept right on using it. I have now used three boxes, and with such great benefit that the Bladder trouble has entirely ceased. I am also much better in other ways. I am sixty-nine years old, and consider Bodi-Tone a remarkable medicine to do such good work for me at my age and in my serious condition. H. E. EVARTS.

Heart Trouble, Smothering Spells and Dropsy

BURNSIDE, KY.—I am fifty-six years old, and for a number of years have been bothered with Heart Trouble, Smothering spells and Heart Dropsy. I grew very weak and my legs and arms would swell very much larger than their ordinary size. In fact, my entire body would be swollen, but the swelling was the worst in my limbs. My Kidneys, too, were out of working order and gave me much trouble. My physician treated me and gave me medicine for awhile which seemed to make me worse instead of helping me, and I began to think my case was a hopeless one. But upon seeing the Bodi-Tone advertisement I decided to give it a trial. I got a trial box, and since I took the first dose I have never had a spell with my heart. I kept it up and the swelling left me and I continued to get better right along. I am now able to do all my work and am feeling better than I have for years. Other members of my family have used it with like good results. MRS. WM. VAN HOOK.

Its Effect in This Case Was Almost Magical



HARTFORD CITY, INDIANA.—When I commenced to use Bodi-Tone I had been laid up for about eight weeks with Rheumatism. Whenever I was able to get around at all, I had to walk with a cane. My flesh was so sore that whenever I would touch it the feeling was just like I was lifting the flesh right off the bone. The effect of Bodi-Tone was almost magical in my case. I had not used it a week before I was able to go back to work. It took all soreness and lameness out of me and I have not since had a Rheumatic ache or pain. I am fifty years of age, but I have never seen a medicine to beat Bodi-Tone. I am a railroad man, and I am recommending Bodi-Tone whenever I meet a person who needs it. ABE BRICKER.

Trial Coupon

Clipped from National Farmer and Stock Grower

Bodi-Tone Company,
Hoyne and North Ave., Chicago, Ill.

I have read your offer of a dollar box of Bodi-Tone on 25 days' trial, and ask you to send me a box by return mail, postpaid. I will give it a fair trial and will send you $1.00 promptly when I am sure it has benefited me. If it does not help me I will not pay one penny and will owe you nothing. Neither I nor any member of my family have ever before used Bodi-Tone.

Name_____

Town_____

State_____

St. or R. F. D._____

National FARMER

Vol. XXVI. St. Louis, Mo., November, 1911. No. 5.

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TWELFTH

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THE WORLD'S GREATEST LIVE STOCK SHOW.

THE INTERNATIONAL HORSE SHOW, embracing all that is paramount in the horse world, will be held evenings during the Exposition.

THIRTY NATIONAL LIVE STOCK ASSOCIATION CONVENTIONS. PREMIUMS OVER $75,000. ENTRIES MORE THAN 11,000 ANIMALS. GRAND CAR-LOAD EXHIBIT. NUMEROUS NEW ATTRACTIONS.

Grand Entrance of International Live Stock Exposition, Union Stock Yards, Chicago.

DAILY AUCTION SALES OF PURE-BRED LIVE STOCK.

WEDNESDAY, DEC. 6th, 1 P. M.	THURSDAY, DEC. 7th, 1 P. M.	FRIDAY, DEC. 8th, 1 P. M.
50 Choice ABERDEEN-ANGUS.	50 SELECTED SHORTHORNS.	50 HIGH-CLASS HEREFORDS.
For Catalog, write CHAS. GRAY, Secretary, U. S. Yards, Chicago.	For Catalog, write B.O.COWAN, Ass't Sec'y, U. S. Yards, Chicago.	For Catalog, write R.J.KINZER, Secretary, Kansas City, Mo.

On TUESDAY, DECEMBER 5th, at 1 P. M., the RAMBOUILLET SHEEP ASSOCIATION will hold a sale. For further particulars write DWIGHT LINCOLN, Secretary, Milford Center, Ohio.

Also on THURSDAY, DECEMBER 7th, at 1 P. M., the AMERICAN HAMPSHIRE SWINE ASSOCIATION will hold a sale. For Catalog, write E. C. STONE, Secretary, Peoria, Ill.

EDUCATION, ENTERTAINMENT, PLEASURE TRIP, ALL IN ONE.

LOWEST RATES ON ALL RAILROADS.

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- ___ If you are subject to malaria.
- ___ If you spit up mucus or slime.
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- ___ If you are troubled with catarrh.
- ___ If your sleep does not refresh you.
- ___ If you feel weak and all run down.
- ___ If you have palpitation of the heart.
- ___ If you have heartburn and indigestion.
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- ___ If you have any rectal trouble or piles.
- ___ If you belch up wind from the stomach.
- ___ If your hands and feet get cold easily.
- ___ If you spit up sour and undigested food.
- ___ If you have foul breath and coated tongue.
- ___ If your bowels are irregular or constipated.
- ___ If you have specks floating before your eyes.
- ___ If you have dizziness or swimming of the head.
- ___ If you have itching or burning of your skin.
- ___ If you have hot and cold flashes over the body.
- ___ If you have boils and pimples on the face and on the neck.
- ___ If you feel bloated, distressed or sleepy after eating.
- ___ If you are depressed in spirits and easily discouraged.
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It is distinctly understood that I will never ask you to pay for the proof treatment, letter of advice, diagnosis, or for answering your special questions. I will also send you my Medical Book containing valuable suggestions, simple home rules, etc., all free—Absolutely Free—Write at once. Address,

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The Farm Problem of Constant Employment.

Partial idleness is a cause of much poverty both on farms and in towns. Few people can make headway financially unless they work most of the time.

With this thought in mind, one has but to look at the conditions in various rural communities to see the real cause of the decadence of many farm families.

Even in our thriftiest communities the problem eixsts and is more acute than it was a hundred years ago, when a good deal of small manufacturing was done on farms, and this gave profitable employment in the winter, when farming operations were at a standstill. This manufacturing consisted largely of the making of the material for the family's clothing. There was the working up of the wool into rolls, and the spinning of the rolls into yarn, and then the weaving of the cloth. In addition, there was the actual making of the suits of clothes and the bedding. Farm wagons and farm utensils of various kinds were made on the farms in large quantities. The winter evenings were also used for the work of cutting up a good share of the perishable apple crop and stringing the quarters preparatory for drying. Here and there was a ropemaker who had his own spinning wheels for the manufacture of small rope. Wood carving of household utensils was common.

We make less on the farms to-day and buy more. About all the things that used to be made on the farm are now purchased from the outside, and on the farm has come in nothing to take the place of the departed activities. This is a matter of large importance. Either profitable activities must again come in to assist the farmer to make money out of his waste time or farm operations must be adjusted to give more constant employment. It is safe to say that no ordinary man is going to get rich by working half of his time.

One-crop farming is proving a great time waster on many farms. Yet many farmers are said to enjoy this kind of farming because it gives them employment for but a small part of each year. But even some of the farmers that like this kind of farming have become desperately poor through it. This is especially remarked in the parts of the South devoted to the one-crop idea. The poverty is great, with houses dilapidated and everything out of repair. But in this case there is something more than enforced idleness—there is willful idleness—for if a man has the time he surely can keep his buildings in repair and painted and his land in suitable condition for working and free from weeds. But whether enforced idleness or voluntary idleness, the results are the same.

Mixed farming gives better opportunity to provide continuous employment than does special farming. Winter dairying as an adjunct to some other kind of farming helps provide work both summer and winter. A poultry department on the farm may be developed to a point where a large amount of winter work will be required, and this work will be profitable.

But however the problem is worked out, it is not one that can be ignored without poverty becoming the most striking feature of many homes.

Cultivation of Foreign Wheat in England.

A committee known as the Home-grown Wheat Committee, has for the past ten years been conducting experiments in England for the purpose of testing the suitability of foreign wheats for cultivation in Great Britain. The purpose of the committee was to ascertain what might be done "to improve wheat growing from the milling point of view in England."

Experiments were made with the best grades of wheat from the chief producing countries, and the results of the experiments have been published at intervals. The last report covers the years 1909 and 1910. Australian, Indian, South African, Hungarian, Sudan and Russian wheats have not prospered in England. The hard Canadian varieties have done better, but these, it is said, have not yielded so favorable results as the Squarehead Master and the other leading English varieties. The Canadian varieties bring a few shillings per quarter more than the English varieties, but what they gain in quality is more than offset by what they lose in quantity.

It is believed by the committee that the introduction of wheat will be of service chiefly for the purpose of crossing with native varieties.

This is from the official report to the Department of Commerce and Labor by the United States Consul in London.

Development of Bone and Muscle in Farm Animals.

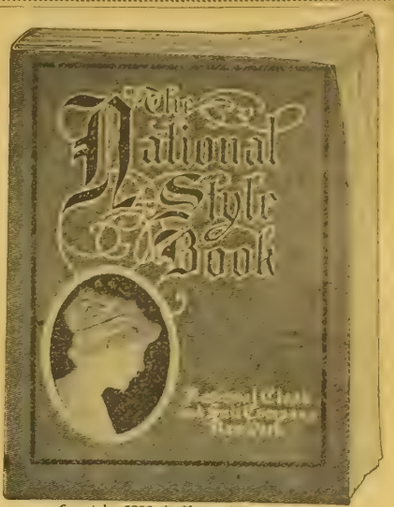
Good bone and good muscle are necessary in farm animals and count for a great deal in the service the animals render to mankind. The same kind of feeding that will produce good bone is very likely to produce good muscles, and these two go together in their development.

We find in the farm animals of the world a great variety of kinds of bone; some of them soft and spongy, some of them hard and compact and some adapted to about every condition existing in the world. On investigation it will be found that every particular kind of bone comes from a long time of feeding foods having certain compositions combined with certain conditions of living. Some cannot be greatly changed in one generation, but it requires many generations to develop some of the bones found in certain animals.

While bone cannot be greatly changed in a single generation, yet the difference can be made so great that it will be easily observable. Thus, the experiment has been made of feeding two groups of hogs, one on food rich in bone-making material and the other on food poor in bone-making material. After the hogs were slaughtered their bones were broken by the application of certain pressures. The bones of hogs fed on the food rich in bone-making material required much greater weights to break them than did the bones of the hogs otherwise fed. Yet the matter of brittleness is not all there is in the bone question. To modify its shape and size and the texture of the muscles and tendons attached to it is another question.

The wonderful bone and muscle developed in the Arab horses is the result of several thousand years in feeding, breeding and in exercise or activity. The forage of the deserts where they have been developed must be rich in the material that go to make good bone, good sinews and good muscles. Of course, their activities have always been of the intensest kind—galloping over arid plains, where no roads existed, but where the feet of the horse were forever encountering inequalities of ground that strained the sinews to their utmost, and so, in the course of centuries, developed them.

Fall Fashions are Very Beautiful



"The prettiest in years," "the most becoming fashions in a generation," "so very, very new"—this is the story of the fascinating, charming styles for Fall.

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As a general proposition, it appears to be true that plants growing in a semi-arid region contain much less starchy matter than plants growing in humid regions; consequently the forage of the deserts ought to be rich in nitrogen, phosphorus, lime, potash and silica.

The running feats of Arabian horses are remarkable. One American, having secured a horse on the edge of a great eastern desert, galloped him for thirty-five miles in about four hours, and the horse was not greatly exhausted. Those wonderful feet and powerful sinews and firm muscles had enabled the Arabian horse to take continuous bounds over a no-road country with perfect ease, when any other horse would have become exhausted long before his journey was done.

Such muscles and bones also prevent accidents, especially broken legs. Corn-fed animals develop weak, fragile bone and ultimately weak muscles. Overfed hogs frequently break down behind, which means that a bone has broken in the hind leg. This illustration used to be more common than at the present time, for formerly some hogs were fattened and fattened till they reached an age of eighteen months and a weight of 400 or 500 pounds. The marketing of them younger, as now done, does not permit the hog to attain the weight where he breaks down.

In breeding animals of all kinds, good bone and muscles should be worked for, by feeding foods not too rich in starchy matter, such as corn, corn fodder, sorghum and the like. Starchy foods have their place, but it is not in developing firm bone and powerful muscles.

Bullish Report on Wheat.

The last government report on wheat was midly bullish. It showed a total yield of spring wheat of 200,367,000 bushels, quality 79.8 per cent., and nine bushels to the acre. The total yield of spring and winter wheat was 655,516,000 bushels, as compared with 695,443,000 bushels last year, a decrease of 39,927,000 bushels. The average yield is placed at 12.6 bushels to the acre.

Increase in Cotton Ginning.

Up to October 25th, in Texas, the cotton ginning surpassed previous records by more than 600,000 bales, in Georgia by 428,00 bales, in Alabama by 138,000 bales, in North Carolina by 129,000 bales, and in South Carolina by 132,000 bales.

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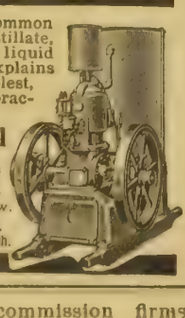
Operate perfectly on common coal oil, gasoline, distillate, alcohol or any similar liquid fuel. Our catalog explains why this is safest, simplest, most economical and practical power.

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Hereafter the commission firms will not send out free poultry coops.

The Corn Market Situation.

On October 31st, at St. Louis, Mo., cash corn was quoted at 71½ to 72 cents a bushel, the price being practically three cents a bushel higher than at the close on September 30th. This, from a shipper's standpoint, is pretty good, as we have to go back to July, 1909, to find such a quotation.

The speculative market does not show any such rosy conditions. The October cash corn market is a thing of the past, and the history of the December delivery and May option has yet to be developed.

And "they" say the farmer is the only man who cannot tell what his crop will sell for. And "they" are mistaken; the farmer can contract his No. 2 corn at 63 cents a bushel, December delivery, and at 64¾ cents a bushel next May delivery, so long as October 31st quotations remain. He will have to pay freight to Chicago, also the usual selling commissions; he will have to deliver No. 2 corn fully up to grade, inspected by proper authority, and to insure the contract being kept faithfully on both sides a cash consideration has to be put up to bind the bargain.

On October 31st B. W. Snow's crop report for November 1st estimated the yield per acre for corn at 25.2 bushels. Upon the basis of Snow's estimate of acreage, 105,465,000 acres, the total corn crop would figure 2,657,718,000 bushels. Yields in the principal states are reported as follows: Ohio, 38; Indiana, 35; Illinois, 32; Iowa, 33; Missouri, 25; Kansas, 15; Nebraska, 22; Oklahoma, 9; Texas, 15. Snow's estimate is the independent view of a statistical expert, and his estimate is that the corn crop of 1911 is 37,000,000 bushels more than the estimate of Uncle Sam's Department of Agriculture. B. W. Snow has a little more influence on prices than Uncle Sam, but very likely the Department of Agriculture reports from time to time are in possession of Mr. Snow and may form some of his material. Snow has been known to improve upon government reports.

We take it that corn is selling above average prices, and if 63 cents for December and 64¾ cents per bushel in market can be held to the close of each option, there ought to be no kick coming to the man who has corn to sell.

The Oats Market Situation.

The favorite grain crop of the editor of The National Farmer and Stock Grower is oats. At the breakfast table he begins with oatmeal and insists upon his wife doing the same, or there is trouble in the family; furthermore the editor never raised a bushel of wheat; has never surprised his neighbors with any extraordinary yields of corn, but he did once cause his neighbors to take notice of a crop of oats not less than sixty-five bushels per acre, although there were some oat-growing failures near by.

It is not proper for an editor to brag about what he has done or what he knows, neither is it advisable for him to know it all, because the "know-it-all" editors make the most mistakes, not so much in their farming as in their teaching. They don't usually fit the lesson to the pupil. They don't teach the farmer according to his understanding. They seem to give the lesson to one class that would better fit another class.

The editor of The National Farmer and Stock Grower does not hesitate to plead ignorance. One day, at an Agricultural Exposition, he talked with a college professor a long time, and the result was quite satisfactory, when, getting on another line of thought, he was brought up with the answer of the college professor, who said: "I really don't know, for you see I never took beef." Since that time the editor does not ask the dairyman about sheep, or the sheep raiser about soils, or the market reporter about the cost of production, and he doesn't hesitate to say: "My dear sir, I never took beef."

For twelve straight, long years the editor was a market reporter and was used to asking questions and getting the answers from buyers and sellers, and he fixed up those reports so that a stockman once said: "You do sure put a looking-glass on the market," which was quite a compliment.

However, to come back to oats, the healthiest food for man or beast —the market has declined a little, but not much. The St. Louis cash oats sold at 46½ cents on September 30th, and the price was the same a month later, on October 31st. There is no decline in that; it is, from one month to the other, practically a steady market.

But the Chicago market, that deals in oats for future delivery, has declined a little. On September 30th the December option was quoted at 47¾ cents, and on October 31st the market quotation on same option was 46½ cents. On September 30th the May, 1912, option for oats was quoted at 50¾ cents, and one month later, October 31st, the May option was quoted at 49 cents.

But we must remember that it is only six months ago that oats were selling around 30 cents a bushel. The advance has been remarkable, an achievement brought about to some extent by the salesmen in the market pushing the market up at every opening and resisting conditions that might force declines.

There is an idea that the Board of Trade is full of a lot of inactive people, who simply feed on the farmer in a leisurely manner; that the markets rise and fall by some inexplicable influence; and all these people have to do to make a fortune is to make out their accounts of sales by the blackboard.

One day a farmer was on the Board of Trade and, listening to the tumult, said: "What are those monkeys doing?" The answer was that they were buying and selling corn. The farmer said: "Anyone would imagine they were trying to put out a prairie fire." One thing the farmer can rely on, and it is that the "bulls" in market are working for him, and they have done some pretty good work in the oats market during the past six months.

The Argentine Crop Report.

Crop Expert B. W. Snow cabled from Buenos Ayres, October 31st: "Have had four days of heavy rain, with a minimum of two inches over the entire belt, which should be sufficient for the wheat crop in the north and carry the crop in the southern district another month. General opinion seems to be prospects are brighter than in 1907, when the yield was 192,000,000 bushels. Oats crop prospect seems satisfactory everywhere."

Onions Arriving in Market

On November 1st, onions in car lots arriving in St. Louis were sold as follows: Fancy Red Globe sold at $1.00 to $1.15 per bushel, but poor as low as 75c.; white, $1.40 to $2.00; yellow, 80c. to $1.00 per bushel.

The best farm engines are advertised in this paper.

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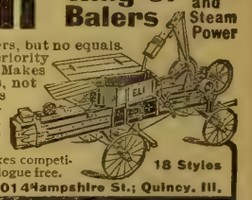
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Read about Union Pacific lands on page 25.

An Enterprising Publication.

For the improvement of the grain crops of the United States and for the purpose of increasing the subscription lists of The National Farmer and Stock Grower, we have offered substantial prizes to be paid to successful exhibitors of corn and oats at every County, State, Interstate, National and International Show in the United States.

These prizes have been offered every year since 1908, the only condition being that the corn or oats winning any of the prizes must be grown from seed furnished by The National Farmer and Stock Grower as a free subscription premium.

All the seed sent out by The National Farmer and Stock Grower was grown by the most eminent agriculturists and prize winners at the greatest Exposition contests, including L. B. Clore, of Indiana. D. L. Pascal, of Iowa, and the Garton Bros., of England, notable crop improvers.

The consequence is that from the seed furnished by The National Farmer and Stock Grower not less than 25,000 experimental plots have been started on as many farms; there has been a general improvement on those farms in corn and oats, and many prizes have been won and paid.

This year (1911) the first prize won and the first State Premium paid by the paper is to Mr. J. M. Gresham, of Smyrna, Rutherford county, Tenn. He was furnished two pounds of Victor Black oats grown by the Garton Seed Company, of Warrington, England, and furnished us by the A. W. Schisler Grain Company, of St. Louis, Mo. From this seed Mr. Gresham raised and exhibited in Class 4, Lot 27, of the State Fair of Tennessee. Mr. Gresham won First State Fair Prize for the best exhibit of black spring oats, and this entitled him to our $25.00 Prize, promptly paid him by The National Farmer and Stock Grower.

The National Farmer and Stock Grower is published monthly at St. Louis, Mo., and has done much for the advancement of agriculture and the increase of grain crops in the United States. There are other good farm papers, but for the good it has done in the general improvement of stock raising and grain growing The National Farmer and Stock Grower is the best of them all. There is a saying that if you do not "blow your own horn, competitors will not blow it for you." We are entitled to advertising to the amount of twenty-five dollars for the money paid Mr. Gresham; so a little horn blowing can be excused.

Apples at St. Louis.

At St. Louis, in the month of August, 23,740 barrels of apples arrived; in September, 62,730 barrels arrived; and in October, 164,410 barrels arrived. The total thus far in ten months of the year 1911 is 271,203 barrels, against 248,615, the total for 1910, and 317,664, the total for 1909. There was a glut of apples when 22,000 barrels arrived in two days, mainly by boat, and apples sold very cheap. October 25th, on the levee at St. Louis, apples were sold at the following prices, quote by the barrel: Ben Davis at 75 to 90c. for poorest to $1.00 and $1.15 for No. 2, $1.20 to $1.50 for choice, $1.50 to $1.60 for fancy high-colored—bulk of sales at $1.25 to $1.50; Geniting at $1.40 to $1.80; Huntsman's Favorite at from $1.50 to $2.50; Missouri Pippin at $1.50 to $2.25; Willowtwig and Roman Beauty at $1.50 to $2.50; Winesap at $1.50 to $2.75. Bulk Ben Davis at 60 to 70c. per 100 pounds, and at 90c. to $1.00 per barrel measure, delivered, and wagon-loads home-grown bulk Ben Davis at 75c. per barrel measure.

On October 31st, according to market reports, most of the stock was soft or mellow Ben Davis (too ripe) and rough. On levee: Ben Davis at $1.00 to $1.15 for No. 2, $1.25 to $1.50 for choice and $1.60 for fancy high-colored; bulk of sales at $1.15 to $1.35; Geniting at $1.25 to $2.00; Huntsman's Favorite at from $1.50 to $2.50; Missouri Pippin at $1.50 to $2.50; Willowtwig at $1.50 to $2.00 for ordinary, to $2.75 for fancy; Roman Beauty at $1.50 to $2.75; Winesap at $1.75 to $2.75. Bulk Ben Davis at 40 to 60c. per 100 pounds and 75c. to $1.00 per barrel measure; wagon-loads Ben Davis sell at range of 85c. to $1.10 per barrel measure. If our readers will keep this paper and refer to it next April they will learn something about the price of apples that were put in cold storage in October, 1911.

The Wheat Market Situation.

There is not much to be said about wheat at the present time. The cash market at St. Louis was practically in the same notch on September 30th and October 31st—the prices paid being 98 to 99½ cents per bushel, according to grade and quality. Thus it will be seen that the cash wheat had neither gained nor lost in value one month with the other.

The speculative wheat market, with Chicago leading other centers, exhibited something like a two-cent decline. The December quotation, which had closed on September 30th at 98¼ cents, closed on October 31st at 96½ cents, a net loss of 1¾ cents a bushel. The May, 1912, option, which had closed the month previous at $1.04¼, was quoted at the close of October 31st at $1.02 per bushel.

It is pertinent to the subject to state right here that the wheat quotations in the month of October, 1911, were stubbornly contested. The United States situation being somewhat favorable to strong prices, was overshadowed by reports of another character from pretty nearly every wheat-growing country on earth. Cables from Argentine, indicating a full harvest or better, was one of the features of October 31st. Let alone by the outside world, the American wheat situation is strong, but it must not be forgotten that wheat is a world's crop, and the crop of one country has an influence upon the other, even if Canadian wheat pays a duty before it is sold in the Unied States, for which we are proportionately thankful.

Arrivals of Apples.

In October, 1909, apples arrived in St. Louis to the number of 96,695 barrels and 7,260 boxes; in October, 1910, 105,790 barrels and 50,410 boxes; and in October, 1911, the total was 164,410 barrels and 16,800 boxes.

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Please send me free and prepaid booklets explaining your free trial offer of your Alectride Tool Grinder.
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No letter necessary; merely send the coupon.

Sharpen your tools at my expense. I want to show you that the ancient grindstone is a back number and that the emery wheel is a menace. I want you to try positively free this genuine Alectride Farm Tool Grinder. Alectride is the only true abrasive. **It will not draw the temper from steel;** it will sharpen the dullest tool in from 3 to 5 minutes, when the grindstone would take half an hour. Alectride **never** wears out. It does not glaze over. I want to send a few of these machines out on **Free Trial** in every part of the United States. I want to put one in every locality. I want you to clip off and send the coupon at the upper right hand corner of this announcement and I will mail at once circulars explaining every detail of the ofler I am making here.

I Don't Want You to Send Me a Cent of Your Money. I Don't Want Any Promise

I merely want to place this Genuine Alectride Grinder on your farm for a few days. Sharpen your dull axe, your dull scythe, your dull corn knives, your dull cold chisels, or hatchet, or any dull tool you have. See how quickly and how easily it is done. See how Alectride (made of the substance of precious stones) sharpens your tools in from one-fourth to one-twenty-fifth of the time required by a grindstone and does not heat nor draw the temper. Do all this—give this machine the most severe tests—then unless you think that you positively cannot get along without this Alectride Tool Grinder, send it back at our expense. We'll ask no questions. We'll take it back without a word, and we'll pay the transportation charges. Now send the coupon. Let us tell you all about this wonderful abrasive and our free trial offer.

Remember—Alectride is really manufactured precious stones. It is even *harder* than the hardest diamond. Alectride will scratch a diamond and cut glass like a knife cuts an apple. Send the coupon today and get full explanation of our **Great 10 Day Free Trial Offer.** Do this now. Do not delay.

Harman Supply Co., 160 Harrison St., Dept. 3618, Chicago, Ill.

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1 One Sickle Grinder Wheel (Improved)
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Fuel for Country Homes
Light for Country Homes

Imprisoned in Crushed Stone

CRUSHED STONE

And any country home owner can unlock the prison—with an ever-ready magic key made of nothing but plain water.

Touch the water-key to the stone prison and the miracle takes place.

Instantly and rapidly the stone changes into slacked lime—at the same time releasing great quantities of gas right before your eyes.

The gas is Genuine Acetylene—a perfect cooking fuel for the kitchen range and an unrivaled illuminant wherever light is needed. Anybody can use the water-key to release from its stone prison, Acetylene in any quantity required.

It is only necessary to regulate the release—and make only just enough gas to supply the stove or lights while they are actually in use—no more, no less.

COOKING

The process is mechanical — so much so and so simple that it is always left entirely to a little automatic tank-like machine.

With but a few minutes' attention once a month, this machine sends gas as required direct to the kitchen stove and to chandeliers and fixtures located in every room in the house, as well as the barns and all the outbuildings.

Such machines are so nearly perfect and so thoroughly reliable that there are no less than one hundred and eighty-five thousand of them installed on farms in this country alone.

In every case the machine is set up in a few hours in the cellar or outbuilding and connected with concealed pipes without injuring walls or floors.

Thereafter the housewife has the pleasure of cooking her meals in half the time on a fire that she can instantly turn on or off, up or down, with the twist of her wrist.

While the whole family can enjoy and be proud of a home lighted throughout with brilliant, pure white light shining from handsome brass or bronze fixtures.

For years our millions of city cousins who use gas for lighting and cooking have had all the best of it.

Now the tables have turned, for this rural gas "Acetylene" is ten times richer than the best city gas—is not poisonous to breathe and makes light even cheaper than kerosene.

We have several free books telling how the power of Niagara Falls is used to make this wonderful gas-producing stone.

LIGHTING

How the stone is distributed from warehouses all over the country under the trade name of "Union Carbide."

Why Union Carbide won't burn; how it can be stored as easily as coal; how Acetylene Light has been used to grow plants on a big scale, and how all the lights on a farm can be fixed to light with the pull of a small brass chain without matches.

We will be glad to send these books free, together with an estimate as to how little an Acetylene plant will cost for your home.

Just write us how many rooms and how many buildings you wish to light and receive our reply by return mail.

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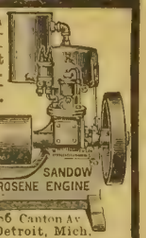
Sandow $37.50
2½ H.P. Stationary Engine—Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil), gasoline, alcohol, distillate or gas. Sold on 15 days' trial. YOUR MONEY BACK IF YOU ARE NOT SATISFIED.

5-year ironclad guarantee. Sizes 2½ to 20 H. P., at proportionate prices, in stock, ready to ship. Postal brings full particulars free. Write for proposition on first engine in your locality. (116)



Detroit Motor Car Supply Co., 86 Canton Av. Detroit, Mich.

Concerning Seed Barley.

Wisconsin grew approximately 800,000 bushels of pedigree barley in 1911, according to Prof. R. A. Moore, of the Agronomy Department of the College of Agriculture of the University of Wisconsin. Through the work of the Wisconsin Experiment Association and the grain breeding work at the Experiment Station, Prof. Moore says the average yield of barley has been greatly increased during the past few years. During the past ten years pedigree barley has yielded an average of 50.7 bushels per acre at the Experiment Station, while the average of the state for common barley has been 28.7 bushels.

"Wisconsin will probably raise enough pedigree barley in 1914 to seed all of the barley fields in the world," says Prof. Moore. One-eighth of all of the barley grown in the United States is now produced in Wisconsin.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone getting up a club of four subscriptions and sending in $2.40 will be credited with one book and one-year's subscription free.

Worms From Infected Ground.

"While a few swine can be raised in limited quarters, if such quarters are kept clean, they will do better, will keep in better health, and can be grown more cheaply if they have plenty of range for pasture. It is desirable to have the pasture fenced off into suitable areas so that the hogs can be shifted from one pasture to another, not only to provide fresh pasture, but also to afford an opportunity to disinfect the pastures, either by plowing and seeding to a forage crop or by exposure to sun and weather. Nearly all cases of intestinal worms, which are rather common to swine, are contracted from infected ground, and swine can be kept free from these parasites by frequent changes of pasture." This is from Farmers' Bulletin No. 465, issued by the United States Department of Agriculture.

Live Stock on Farms.

According to the census of the year 1910, the total number of farms in the United States was 6,340,367.

Of the total number, 94.9 per cent., or 6,017,142, reported domestic animals; 83 per cent., or 5,265,772, reported cattle; 73.7 per cent., or 4,671,441, reported horses or colts; 68.5 per cent., or 4,340,592, reported swine; 29.4 per cent., or 1,861,474, reported mules or mule colts; and only 9.6 per cent., or 609,323, reported sheep or lambs.

Number, Value and Average Value.

The total number of cattle reported in 1910 was 61,225,791.

Of the cattle, 20,580,845 were dairy cows, the total value of which was $704,612,000, and the average value, $34.24. The number of farms reporting dairy cows was 5,127,635, or 80.9 per cent. of the total number of farms in the United States; thus, there is an average of four dairy cows per farm reporting such cows for the entire United States.

Only 1,440,383 farms, or 22.7 per cent. of all farms, report cows not kept for dairy purposes, but these farms report 11,788,473 such cows, or twice as many per farm reporting as in the case of dairy cows. It is noticeable that about one farm in five report yearling steers and bulls and only about one in eight older steers and bulls, but farms with yearling steers and bulls report an average of only four per farm, while those reporting older beef animals show nine per farm.

The total number of horses and colts reported in 1910 was 19,731,060. Of these, 17,344,916 were classed by the census as mature horses; that is, horses born before 1909, and their value was $1,951,808,000, and average value, $112.53. It may be noted that whereas 73.3 per cent. of all farms reported mature horses, only 16.1 per cent. report yearling colts. This is a true measure of the extent to which farmers raise horses. Only 6.9 per cent. of the farms of the United States reported colts born in 1910, the small proportion being due to the early date of enumeration (April 15).

The total number of mules of all ages in 1910 was 4,183,572, which is slightly more than one-fifth of the number of horses and colts. The average values of mules are considerably higher than those of horses of the corresponding age groups.

The total number of swine in 1910 was 58,000,632, of which about three-fifths, or 35,015,408, were reported as mature hogs; that is, "hogs born before 1910." The total value of this class was $350,981,000, and the average value, $10.02. Spring pigs were reported by only 29.4 per cent. of all farms, the small proportion being due to the early date of enumeration.

The total number of sheep and lambs reported for 1910 was 51,809,068. Of these, 31,582,097 were mature ewes born before 1910, and their total value was $163,421,000, or an average value of $5.17. The number of spring lambs was 40 per cent. of the number of ewes, but the census was taken too early in the year to get a count of the full year's crop.

"I Shall Never Paint Those Roofs!

"I shall simply leave them alone. It will not be necessary to spend a cent on them." They are covered with

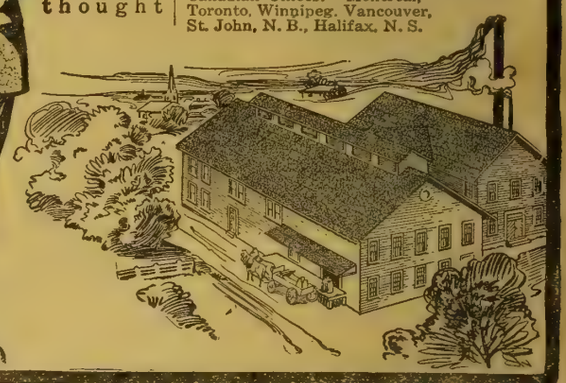
Amatite ROOFING

AMATITE has a real mineral surface and therefore needs no painting.

There have been other ready roofings in the past which had a mineral surface, but they were not practical.

Amatite, however, is successful because the mineral matter is embedded in *pitch*. Pitch is very tough and has great adhesive power. Year after year those roofs will give faultless service without anybody giving a thought to them. This is the kind of roofing to have! The day of these smooth coated roofings that require a heavy coat of paint every year or two is past. They cost too much to maintain. You can spend more money on the paint alone during the ten years than a new Amatite roof would cost.

A free sample of Amatite Roofing and a booklet can be obtained on request by addressing the nearest office.



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A very low-priced black paint—very tough and durable. Stands heat so well that it can be used on boilers. For wood or metal, ready roofings, fences, iron work, farm implements, tanks, etc.

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Canadian Wheat and Oats.

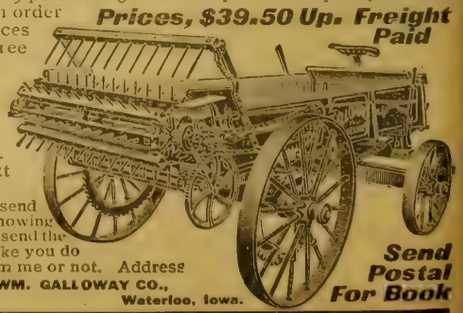
According to the United States Department of Agriculture, the Canadian crop of wheat in the year 1911 is estimated at 205,000,000 bushels, against 150,000,000 bushels last year, and the crop of oats in 1911 is 368,000,000 bushels, against 323,000,000 bushels in the year 1910.

The Pacific coast demand for beef cattle is cutting quite a figure in the ranch business of the Western States.

Let Galloway Save You $25.00 to $40.00 on a Manure Spreader

If you'll send a postal for my Special 1911 Spreader Offer, I believe we can make a deal. If we do, you'll save at least $25.00, perhaps $40.00, according to size and style you want. And you get a free trial and a guarantee that would break me if my Spreader wasn't *right*. I know I *have* to go *high on quality* and *low on price*, because I sell by mail. The other fellow is right on the ground to *persuade* you personally. My *quality* and price has to do all *my* persuading. Let me try it. Our capacity is 42,000 spreaders this year in order to quote the low prices I do—30 to 365 days free trial and my long time binding guarantee in writing. $25.00 to $40.00 saved—think of it! That's fair, isn't it? If you can think of a fairer proposition than I'll make you, I'll print it in my next advertisement.

Prices, $39.50 Up. Freight Paid



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THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness,saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone sending us four subscriptions and $4.00 to pay for same will be credited with two-years' subscription and one Sewing Awl free.

Inspiration in Agriculture.

A few weeks ago the writer had the pleasure of visiting a great institution in the country where more than 500 delinquent boys were being cared for. The managers of this institution are experts in the work of reform. It was therefore interesting to learn that they set a higher value on agriculture as a remedial force than on any other industry taught at the place.

A dozen trades are taught,, but there are more boys learning agriculture than all the other trades put together. They find in agriculture an inspiration that they do not find in anything else. As a result, many of these boys, as soon as they have completed their terms at the institution, seek and find employment on farms, where they become approved laborers. A system of inspection follows these boys to their new homes. This makes it possible to know what they are accomplishing after they go out into the world. Of a few hundred that have recently thus gone to work on farms, over 150 have bank accounts of their own.

But how is it that these boys at this institution find such an inspiration in agriculture, while many of our farm boys grow up without finding anything lovable in the pursuit of agriculture?

The answer is, that at this institution the boys have both inspiring object lessons and inspiring teachers. The teachers are enthusiastic in the teaching of agricultural science and their spirit is imparted to their pupils. The object lessons are more perfect than are to be found on most farms and so make a uniformly favorable impression on the boys.

One of these object lessons is the model dairy, which has in it forty-five cows, all cows of such merit that they last year averaged 7,000 pounds of milk each. These cows stand, when in the stable, on cement floors which are continually being cleaned and where the light floods everything. No dirt is to be found. The milkers do their work in perfect conditions, and the milk is clean all the time. Milk so produced gives confidence to those that produce it. In his mind's eye every boy owns a dairy like this, if not so big.

The flocks of sheep are model flocks and are well kept. The cattle and horses are of the improved breed. The boys soon learn to feel a great interest in every phase of agriculture with which they come into contact.

The gardens overflow with vegetables and fruit, and the boys eat the results of their own labors. This is one of the most potent ways of giving an inspiration.

But on many farms no such object lessons are to be found. Nor are the inspiring teachers there. Scientific agriculture has not yet come with its inspiring ideals, and all the work is drudgery, both to the father and to his sons.

So long as many of our farms lack the elements of inspiration so long will the boys that grow up on those farms look forward to the time when they can break away from farming as an occupation.

The Outlook For Swine.

No matter how many questions may be raised in regard to the future market for agricultural products, the farmer is absolutely safe to continue to raise hogs. The total number of hogs in the United States in the year 1900 was 62,876,108 head, and in 1910, with a large increase in population, the hog total is 58,000,632 head. There will be no surplus of hogs at any time in the future in this or any other country.

Imports of Farm Products.

Bulletin No. 90, issued by the Bureau of Statistics of the United States Department of Agriculture at Washington, D. C., is an elaborate statement of imports of farm and forest products, giving quantity and value from each country for the years 1908, 1909 and 1910. All men who are intelligently studying agricultural problems will be thankful for the opportunity to read and study the eighty pages of this pamphlet, which is thoroughly indexed and easily referred to.

The Howard Watch

IN the matter of time every one defers to the man with the HOWARD. And right there is the best gauge of the HOWARD Watch—the standing and quality of the men who carry it.

Ask the average man what time it is and he hedges to save his self-respect. He tells you, *"My* watch says such a time," or *"I* have so and so."

A watch that has to be apologized for is not worth investing in. It does not represent value for its price. It can never be more satisfactory than any other makeshift.

The HOWARD Watch is *fundamentally right.* It is produced by the finest practical watchmakers in the world. It goes through months of the most exquisite adjustment—to heat and cold, to isochronism, to *positions.*

Every HOWARD Watch is fitted in its own case at the factory—timed and adjusted *in that case.* HOWARD movements and cases are never sold separately.

A HOWARD Watch is always worth what you pay for it.

The price of each watch—from the 17-jewel (*double roller*) in a Crescent or Boss gold-filled case at $40 to the 23-jewel in a 14K solid gold case at $150—is fixed at the factory and a printed ticket attached.

Find the HOWARD jeweler in your town. When a man makes a permanent investment like the purchase of a HOWARD Watch he naturally wants to *see* what he is buying—he wants to get the dealer's expert advice. The HOWARD Watch is sold only by legitimate jewelers—and not every jeweler can sell you a HOWARD. The jeweler who can is a representative merchant—a good man to know.

Send us your name on a postal card and we will send you—FREE—our pamphlet, THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

E. HOWARD WATCH WORKS

Dept. No. 122, Boston, Mass.

I Want Your Boy

and girl to write to me at once. In my fight against that trust which makes your implement dealer black-list me because I sell my U. S. Standard Scales to you at dealers' prices, I want the name of every honest farmer who believes in Fair Play and who is willing to help me fight to prove to Mr. Dealer that the farmer's credit and his dollar is the equal of any man's.

Your boy can help. Write me for particulars.

"JONES, he pays the freight,"

16 Kid St., Binghamton, N. Y.

Electric Handy Wagons

Do away with high lifting in loading and unloading and cut the work of hauling in two. Complete steel wheeled wagons, suited to all work. Make good roads, do away with rutting, make draft lighter. We furnish steel wheels for old running gears and guarantee them to fit. If the wheels on your old wagon are going to pieces, write us. We will save you money. Catalog free. Address

Electric Wheel Co.
Box 40, Quincy, Ill.

Electric Steel Wheels

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and on all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the government receives the income that is necessary and must be collected for the public service, and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

THE BOOK OF LIVE STOCK CHAMPIONS.

We are actively engaged in preparing the new edition of the Book of Live Stock Champions for publication.

We have published several editions of this valuable book and intend to make the new edition far superior to all others.

We already have illustrations of seven hundred different champions, and in each case the picture occupies a half page of the book. We are now gathering the remaining three hundred pictures.

Each illustration is a special demi-tone engraving from a photograph taken from life. No drawings or fancy pictures appear in the book.

First and second-prize winners are not eligible unless they have also won championship prizes. It is a Book of Live Stock Champions, not simply a book of ordinary prize winners.

Champions of the beef cattle breeds are admitted by their show-ring honors. We have enough pictures of beef cattle champions to make a book by themselves.

Dairy cattle are admitted by show-ring honors, also by officially tested dairy records. We have the finest selection of dairy cattle in the world.

Dairy cattle are admitted by show-show-ring honors. Trotters and pacers are admitted on track records or as noted sires. We have all the famous horses, going back thirty years.

Thoroughbred horses are admitted on account of track honors or as sire or dam of champions. Saddle horses and ponies are admitted as championship winners.

Jacks and jennets, also mules, are admitted on show-ring or market honors.

Hogs, sheep and Angora goats are admitted as winners of sweepstakes prizes at State, National or International Fairs.

Numbers of famous car-loads of cattle, horses and sheep which have won show-ring and market honors will be published in the book.

Every live stock champion is entitled to entry providing a first-class photograph can be obtained. We do not intend to disfigure the book with poor pictures. It is better to leave out the poor pictures than to apologize for an inferior book.

We do not charge the owner for publication of his animal, but we do ask his co-operation in furnishing first-class photographs and the records of said animals.

It is worth something to a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at one dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer. After publication the cloth-bound copies will cost two dollars a copy without the subscription.

Lessons in Protection.

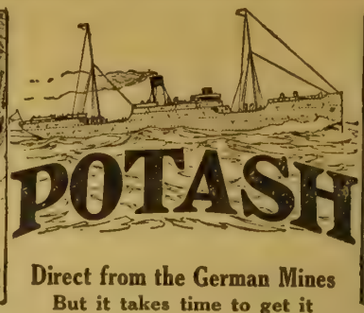
The first lesson in protection is to put the clothes on the new-born child; the next lesson is to close the door against the cold blasts of winter. Another lesson in protion is to build a levee to protect the land from the overflow. And yet it is said protection is iniquitous.

Protection of home industries by tariff laws constitutes the best policy for the welfare of the United States. This country collects three hundred million dollars tax on foreign goods as foreign goods are admitted, and if it was not collected on foreign goods it would have to be collected upon our own goods.

The benefits derived from this arrangement cannot be estimated by the amount paid to the government, because the duties also keep many goods out. For example, some wool is kept out. True, large quantities of wool come in, but if all the wool used in this country was foreign wool coming in duty free there would not be much wool raised in the United States.

If we admit Australian wool free of duty and send all our money to Australia for the raw wool, the wool money may buy automobiles in Australia, but it will not keep any factories going in the United States.

If we admit South American beef and mutton free of duty and send our beef money to Argentine for Argentine beef, the cattle raisers in the United States will not be in the market for nice furniture, pianos, etc. The manufacturers will have to move out or ship their goods out to get money for them.



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Direct from the German Mines
But it takes time to get it

See your dealer *now*, before he contracts for his goods, and urge him to get good up-to-date brands, containing 6 to 10 per cent potash, and to carry POTASH SALTS in stock.

There is profit in such goods both for you and your dealer.

You get more plant food for your money, your fertilizer is better balanced, your soil fertility is conserved, and your crops are larger and of better quality.

Potash Pays.

We will sell you or your dealer Potash in any amount from 200 lbs. up. Write now for prices and for free pamphlets giving just the facts you are looking for about improving crops and soils.

GERMAN KALI WORKS, Inc.
Continental Building, Baltimore — Monadnock Block, Chicago
Whitney Central Bank Building, New Orleans

If we admit wheat from Canada and other countries free of duty, thereby discouraging the farmers of the United States, our own farmers will not support any American industry with the money that went for wheat in Canada.

There are millions of people who will vote for free admission of foreign goods with the idea that the money sent abroad for these foreign goods will support the industries at home; but it will not. If you send the money abroad, there it will stick.

This simple article, which is a lesson in protection, is worth reading, and worth reading twice. We are in favor of the state protecting home industries upon the same principle that we expect the head of the household to protect his own family.

There is considerable difference between a farmer's farm and a rich man's plaything.

At the St. Louis National Stock Yards, two million and a half hogs have already been received and sold this year.

Sweet potatoes at St. Louis, October 31st: Yellow Virginia at $2.10 to $2.25 per bushel, delivered; home-grown Bermuda at 40 to 50c.; Queen and yellow at 50 to 60c.; Red Nansemond at 75 to 85c. per bushel loose.

Veal calves at the stock yards were selling at $6.50 to $8.50 per 100 pounds on November 1st.

Choice timothy at $23 per ton and choice prairie hay at $16 per ton looks high to the buyer.

Why Rent a Farm

and be compelled to pay to your landlord most of your hard-earned profits! Own your own farm. Secure a Free Homestead in Manitoba, Saskatchewan or Alberta, or purchase land in one of these districts and bank a profit from $10.00 to $12.00 an acre every year.

160 ACRE FARMS IN WESTERN CANADA FREE

Land purchased three years ago at $10.00 an acre has recently changed hands at $25.00 an acre. The crops grown on these lands warrant the advance. You can

Become Rich

by cattle raising, dairying, mixed farming and grain growing in the Provinces of Manitoba, Saskatchewan and Alberta in Western Canada.

Free homestead and pre-emption areas, as well as land held by railway and land companies, will provide homes for millions.

Adaptable soil, healthful climate, splendid schools and churches and good railways.

For settlers' rates, descriptive literature "Last Best West," how to reach the country and other particulars, write to Sup't of Immigration, Ottawa, Canada, or to the Canadian Gov't Agent.

Canadian Government Agent,
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C. J. BROUGHTON,
412 Merchants Loan & Trust Bldg., Chicago, Ill.

Don't forget the International Live Stock Exposition at Chicago.

There's Nothing Cheap About Waterloo Boy Except the Price

The best thought of mechanical experts, best materials, best skilled labor, and the biggest factory, all combine to make the

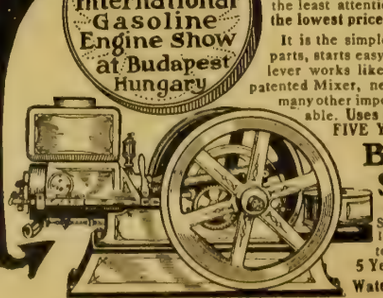
Waterloo Boy the best GASOLINE ENGINE in all the world—a fact which is proven by the recent winning of gold medal in World's Competition.

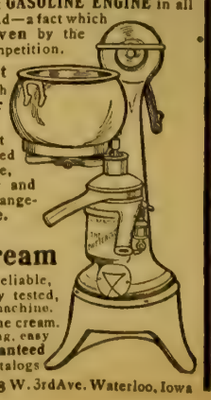
Gold Medal Awarded by International Gasoline Engine Show at Budapest Hungary

This great engine gives the most power at the smallest cost—the best service with the least attention—and the longest life for the lowest price.

It is the simplest engine made—has fewest parts, starts easy in coldest weather, its speed lever works like the throttle of a locomotive, patented Mixer, new, simple, positive Igniter and many other important features. Parts interchangeable. Uses either Gasoline or Kerosene.

FIVE YEAR GUARANTEE.





Buttercup Cream Separator is an old reliable, thoroughly tested, close skimming, standard machine. Skims down to 1-100 of 1% of the cream. Low, convenient, light-running, easy to clean, heavy base, etc. Guaranteed 5 Years. Write today for FREE catalogs

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This Free Book Will Save You $20.00 a Year

I want to tell you all about my *Celebrated Steel Shoes*—why one pair will outwear six pairs of leather shoes—how a pair will give you more foot-comfort than you ever had in your life. How they will keep your feet powder-dry all the time. How light and comfortable they are the year around. I have told half a million others these facts. They have bought steel shoes of me and saved millions of dollars among them. More than that—they can be on their feet all day—at any work, without foot fatigue. And they have gained health protection.

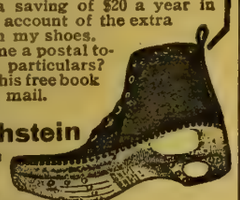
Steel Shoes

N. M. RUTHSTEIN
The Steel Shoe Man

prevent rheumatism, sciatica, lumbago, lame back and other troubles caused by wet feet. I want to show *you* the way to avoid these dangers and all such troubles as tender feet, corns, bunions, chilblains, and at the same time show you a saving of $20 a year in actual money on account of the extra wear you get from my shoes.

Will you write me a postal today and get full particulars? Let me send you this free book of mine by return mail.

Address



N. M. Ruthstein
The Steel Shoe Man
254 Seventh St.
Racine, Wis.

At Kansas City, late in October, some fancy native steers, 1,500 pounds average, sold at $8.85 per 100 pounds.

At the National Dairy Show, the President of the United States had an escort of dairy cows.

How to Handle Cotton.

United States Senator John Sharp Williams, of Mississippi, has suggested what is pretty near the right idea in regard to handling the cotton crop, which is for the cotton grower to hold the surplus of a fat year to fill the deficit of a lean year, just as Joseph, the son of Jacob, did in Egypt so many years ago.

There is some difference, however; Joseph was not a farmer, but a speculator, and, having cornered the crop, he waited for the lean year, and, being absolutely safe in control of the supply, he sold out at his own price. There is no record that Joseph paid the farmers a good price for the corn in the first place.

It will be seen in practice that to hold cotton for a stated price is not a business proposition. Cotton farmers usually owe money, and that has to be paid, and the cotton is the security; it is really the banker who would have to hold most of the cotton, and the banker has no right to use depositors' money to loan farmers money beyond certain well-defined limits, which are not high enough to suit the farmer.

The only way to handle the cotton crop in the interest of the planter is for the planters to systematically divide the crop into twelve equal parts and to sell no more than one-twelfth each month. That will relieve all concerned and strengthen the market at the same time. That is the only way it can be done. If one man had the right to order it done and the power to enforce the order, the available supply for the year would be divided by twelve and the market would at once assume a condition in favor of the producer instead of being in favor of the buyer. In fact, in lean years the prices would be on the highest basis and the result be all that any planter could expect. Such a plan as we suggest would encourage the manufacturers to buy supplies month by month and there never would be a glutted market, not even in the harvest months, when the surplus always depresses the market.

The only way to control the cotton crop appears to be by and through a Cotton Growers' Association that can agree upon the programme as outlined. All those who would not or could not join should be invited to dump their cotton on the market as quick and as cheap as they can and get it out of the way. All those who belonged to the association and who found it absolutely necessary to sell some cotton out of the regular order should be released from obligation on paying a penalty of a dollar a bale to the funds of the association.

This plan has been mentioned before, but it has not been acted upon. We are fully convinced, however, that the cotton crop will never be sold for all it is worth until some such arrangement is entered into and carried out in good faith.

We hold that no crop should ever be curtailed; no crop should ever be held in store to accumulate to depress another year; no more cotton should be sold at ginning time than at any other time of the year; no cotton should ever be sold by a grower for future delivery.

Poultry, Pigeons and Pet Stock.

Preparations for the annual exhibit of the St. Louis Poultry, Pigeon and Pet Stock Association at the Coliseum, November 27th to December 2d, have been made, and the exhibit will be limited to 3,000 head. An innovation at this show will be the giving of certificates instead of ribbons. The St. Louis Show is assuming the proportions of a National Exposition. Dr. Jules Baron is President of the Show, and W. E. Way, Secretary.

G. S. Byers, of Hazelrigg, Ind., has been selected to judge the English class and all game fowls. James H. Tucker, of Concord, Mich., will judge all Wyandottes and Rhode Island Reds. H. H. Cowan, of Virden, Ill., will pass upon Buff Plymouth Rocks. E. C. Branch, of Lee's Summit, Mo., will judge all Plymouth Rocks except Buff and all Asiatics. W. F. Brace, of Victor, N. Y., will judge all Mediterranean, Polish and Hamburgs. T. M. Campbell, of Darlington, Ind., will pass upon all water fowls, turkeys, bantams and the French class. The Coliseum is a fine building in which to hold a Poultry Show.

Government experts paid $4.80 a dozen for the eggs to start the experimental poultry farm at Beltsville, Maryland. They were eggs from established breeds; and the eggs produced on the experimental farm will probably cost $4.80 a dozen.

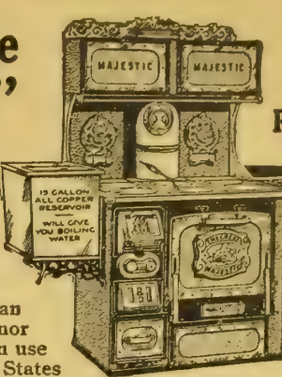
The Cost of the Army Ration.

The daily average cost of rations issued to soldiers of the United States Army during the past year was 22¾ cents. Notwithstanding the cry about the high cost of living the army is better fed now for less money than was paid for the ration thirty years ago.

Angus Cattle at Auction.

The booklet entitled "Supremacy of Aberdeen-Angus Cattle" is at the service of any of our readers who will ask for it. The merits and importance of Aberdeen-Angus cattle are set forth in history, statistics and illustrations. There will be an auction sale of Aberdeen-Angus cattle held on December 6th at the International Live Stock Exposition. Write for catalogue at once to Chas. Gray, Secretary, Union Stock Yards, Chicago, Ill., and at the same time ask for a copy of "Supremacy."

Don't Buy Any Range "Unsight, Unseen"



The Range With a Reputation

Made In Three Other Styles

If anyone should ask you to buy a team of horses "unsight, unseen," from a mere printed description you would think he intended to "sting" you. Now there is no more sense in buying a range "unsight, unseen" than there is in buying a team of horses—nor is it necessary. ***The Great Majestic*** is in use in almost every township in the United States west of the New England States. Possibly one of your neighbors has been using one for years—and is thoroughly satisfied.

If not, there is a dealer somewhere in your county who sells them—and it will pay you to drive an extra ten miles, if need be, to see and carefully examine the ***Great Majestic***—the range with a reputation—built on honor—of the best materials—before investing your money in a range of any kind.

You don't buy a range every day, or indeed, every year, and when you do, you want the best your money can procure—that's the

Great Majestic Malleable and Charcoal Iron Range

Outwears Three Ordinary Ranges

It is the only range made entirely of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break, and while the first cost of a ***Great Majestic*** may be more than some other ranges, ***it outwears three ordinary ranges.***

Economical—Saves Half Your Fuel

The ***Majestic*** is put together with rivets (not bolts and stove putty). The joints and seams will remain air tight forever.

The oven is lined with guaranteed ***pure asbestos board,*** covered with an iron grate ***—you can see it.*** No heat escapes or cold air gets in. Takes but half the fuel used in other ranges for perfect baking.

All Copper Reservoir—Against Fire Box

The reservoir is ***all copper*** and heats like a tea kettle through a copper pocket, stamped from one piece of copper, setting against left hand lining of fire box. It boils 15 gallons of water in a very few moments and is instantly moved away from the fire.

Ask Your Dealer To Show You The Greatest Improvement Ever Put In a Range

Increasing the strength and wear of a ***Great Majestic*** more than 300% at a point where other ranges are weakest—be sure to inquire about this feature—many other exclusive features.

For sale by the best dealers in nearly every county in 40 states. Write for our booklet, ***Range Comparison.***

MAJESTIC MFG. CO., Dept. 131 St. Louis, Mo.

Protect the Horse.

The Horse Protector advertised by the Trenton Spring Company, of Trenton, N. J., is worth investigating. The horse that can do an honest day's work is worth being fitted with all the modern appliances that will help lighten the load.

Missouri is famous for saddle horses and has much to do with bringing them towards the standard of perfection. D. S. Maddox & Son, of Monroe City, Mo., have a few stallions and fillies for sale of their own raising that are highly representative of the breed.

Last Elgin butter quotation in October, 31c., against 29½c. the previous week, 30½c. the corresponding week a year ago, 31c. two years ago, and 28c. three years ago.

The Best Farm Locations

Productive lands, favorable climate, and abundant rainfall make farm locations in the Southeast the most profitable.

Land from $10 to $50 an acre close to the best markets. Wheat, corn, hay, all truck crops, give best returns. Conditions unsurpassed for dairying and live stock, hog and poultry raising. **Beef and pork produced at 3 to 4 cents a pound.**

Five to six crops of alfalfa per season grown. Good farmers make 60 to 100 bushels corn per acre. Home markets near at hand pay highest prices for dairy products and demand is undersupplied. **Apple orchards pay $100 to $500 an acre,** and orchard lands cost only a fraction of those in other sections.

The Southeast Has Locations for Every Kind of Farming

The climate assures the finest results from intelligent agriculture, and makes the region unsurpassed as a pleasant and healthful home location. It is an open winter country, and its summers are enjoyable. You can locate where there are good schools, churches, roads, rural delivery, and all other advantages. The Southern Railway and associated lines will help you find the location you desire. Our several publications, free on application, give full information. Address,

M. V. RICHARDS, Land and Industrial Agent, Southern Railway,
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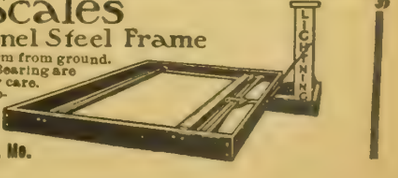
Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



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is a common performance for the ECLIPSE WINDMILL

The Eclipse is designed for durability. There are only four wearing parts. One wheel turn gives a pump stroke. The side vane swings the mill into safety in storms. Material is ample and right. The head casting is thick and wide. Main bearing and pivot are long and rigid. Basswood is used for lightness, seasoned ash and "heart of oak" for strength. All parts are made exact and fit firmly together. For valuable information on windmill durability and efficiency write for Catalog number DH692

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THREE-YEAR SUBSCRIPTIONS.

Orders For The National Farmer and Stock Grower Solicited.

We desire to invite attention to our three-year subscription proposition. We hope to obtain one hundred thousand additional subscriptions during the present year to continue for three years. It is practically a trial subscription and payable at the end of the first year. The subscription can be stopped at any time by paying for the period the paper is taken. This method of taking subscriptions is the invention of Uncle Piper, our subscription editor, who has guaranteed that every one of them will be paid when they are due. The subscription price of this paper is $1.00 for three years, and the bill for the subscription is sent to the subscriber at the end of the first year. When the bill goes out Uncle Piper slips in a list of handy premiums for the subscriber to select one from, providing he pays the bill promptly, and the general result is that the bill is soon paid. When it comes to getting subscriptions from intelligent, high-class farmers, Uncle Piper is at the head of the class.

Uncle Piper.

SUBSCRIPTION BLANK.

To the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — You are hereby authorized to enter my name as a subscriber to The National Farmer and Stock Grower for three years. At the end of the first year I will pay one dollar for the three-year period. This order is given with the understanding that I am at liberty to stop the paper at any time by paying the subscription to that date.

Name. . . . . .

P. O. Box. . . . . R. F. D. . . . . .

Postoffice. . . . . .

Difference in Tested Cows.

An illustration of the difference in the individuality of cows is shown in the records of a herd kept at the New York State Station. The best cow in the herd averaged 10,150 pounds of 4 per cent. milk annually for three years on $58 worth of food. The poorest cow averaged 3,350 pounds of 5.85 per cent. milk on $52.49 worth of food. If in one year the poorer half of the herd had been replaced by animals equal to those in the better half it would have increased the yearly station revenue $237.40, if the milk had been sold at current shipper's price, or $379.90 if the milk-fat had been sold, with an added expense of only $40, the cost of the extra food consumed by the better cow.

Handling Apples.

Few people realize the importance of handling apples with care while picking, packing and marketing. Apples are bruised very easily, and especially those varieties having a tender flesh or skin. Bruises mean not only an unattractive appearance, but a real waste of fruit by having to cut out the bruised tissue. Probably the greatest damage from bruises, however, results from the fact that the bruises furnish an entrance for fungus or rot spores. These spores, or "fungus seeds," are as fine as dust and float in the air. If they happen to lodge on a bruised or broken spot on the apple, they take root and grow and spread through the apple, causing it to rot. Wrapping or covering the apple may not always protect it, as the spores may have lodged on the apple before it was picked. However, if the skin and flesh of the apple can be kept intact and not bruised or broken, there is not much danger of the fungus or rot finding its way into the apple.

To prevent bruising, apples should not be dropped or thrown into a bucket, box or barrel, and in pouring from one vessel to another care should be taken that the apples are as close as possible to the bottom of the vessel in which you are placing them before the pouring begins. If a pail is used to pick in, it should be small enough to lower into the boxes and, even then, holding back the apples with the hands is a good idea, as it breaks the fall and lessens the bruising. No apple which falls from the tree should be allowed to go into the first-grade apples.

The degree of care it will pay you to exercise in handling your apples will be determined largely by the grade of fruit you are putting on the market and the care with which you guard your reputation as a fancy fruit producer.—S. Van Smith, Colorado Agricultural College, Fort Collins.

Shoulder Galls and Abscesses.

In the fall, after a hard summer's work, the shoulders of the work horse should be carefully examined for galls and abscesses. If they are neglected during the idle months of winter the animal is in no condition for spring work.

The causes of shoulder galls and abscesses are ill-fitting and dirty collars, also horses unaccustomed to work are put at hard, continuous pulling before the shoulders become toughened. The first symptom of a sore shoulder is that the hair stands erect in the location of the injury. Later, if the animal is continued at work with the same kind of collar, the skin and hair slough, leaving a raw, bleeding surface. The size of the sore may be from that of a silver dollar up to three inches in diameter.

The sore shoulder causes the horse considerable pain, and if not relieved the animal soon loses flesh and may cause a sound animal to become balky.

Many times a soft swelling appears just above the point of the shoulder. If opened at the outset a straw-colored liquid escapes. On the other hand, if not molested it becomes infected and an abscess forms.

These abscesses are often superficial, but may be deeply seated and require expert attention. The deep abscesses may be located six inches or more below the surface of the skin, between the shoulder joint and the chest wall. These abscesses often prove serious and should only be treated by a qualified veterinarian.

By way of prevention of shoulder abscesses and galls, give particular attention to the collar. See that it fits snugly at the top and only room enough between the neck and collar to admit the arm. Also remember that the collar should be kept clean. Wash the dried sweat off the collar at night, and bathe the shoulders with cold water after the horse is unharnessed.—C. L. Barnes, Colorado Agricultural College, Fort Collins.

Money-making Rations Shown by College.

That different rations may produce the same dairy products with different profits for the farmer, was graphically presented at the International Dairy Show at Milwaukee by the College of Agriculture of the University of Wisconsin. The ration for one cow for a day, producing 57 cents' worth of milk and butter and costing 32 cents, consisted of fifteen pounds alfalfa hay, five pounds corn stover, forty pounds beets, three pounds ground oats and four pounds corn meal. Thirty pounds skim milk, valued at five cents, were shown beside the feed. One and three-quarter pounds butter were also shown as the production of the ration and was valued at 52 cents.

Another ration, consisting of fifteen pounds alfalfa, thirty pounds corn silage, one pound oil meal, one pound dried distillers' grains and three pounds hominy feed, producing the same amount of milk and butter, but costing only 25 cents, made a neat profit of 32 cents. By means of these graphic methods of illustrating, the results of the scientific work of the College of Agriculture can be more readily appreciated by the farmers throughout the state.

Illinois Butter Contest.

At the Illinois State Fair, the September scoring for Illinois buttermakers was done. The highest scores were received by K. B. Carpenter, Mt. Carroll, 95.83; R. Coon, Mt. Carroll, 95.66; P. J. Peterson, Round Lake, 95.50; S. Grimm, Crete, 95.16; W. F. Moore, Watseka, 95.00.

The highest water content of the butter was 16.97 per cent.; the lowest 11.60 per cent.; the average 13.75 per cent. The highest scoring tub showed the following analysis: Water, 13.27 per cent.; fat, 83.54 per cent.; salt, 2.14 per cent.; curd, 1.50 per cent.

Milk in New York City.

According to the New York Produce Review and American Creamery, the price of milk delivered by producers in New York City was 3¾ cents a quart net to shippers in the 26-cent freight zone, or a cost of $1.81 per forty-quart can delivered in New York. This is the rate that went into effect October 1st and continued during the month.

At St. Louis, late in October, fancy little native heifers, 532 pounds average, sold at $6.75 per 100 pounds.

Animal Regulator

is just the tonic your horses and cattle need this winter—it will keep them in fine shape in spite of dry fodder and lack of exercise—will show you a handsome profit in the improved condition of your stock.

Pratts is a guaranteed grain saver (animals get every ounce of nourishment in the feed)—a sure preventive of serious illness because it keeps the bowels and digestive organs in perfect condition.

Mix a little *Pratts Animal Regulator* with the feed of all your live stock this winter, and you won't have to build them up next spring.

Satisfaction Guaranteed or Money Back

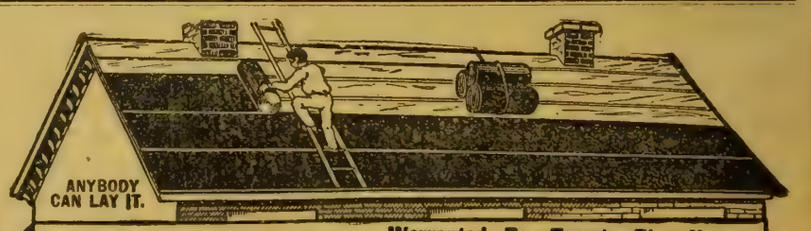
You don't risk a cent when you buy *Pratts Animal Regulator.* Every dealer is directed to promptly repay all dissatisfied customers the full amount of the purchase.

Get some Pratts Animal Regulator today. 25 lb. pail $3.50. Sold also in smaller packages and in 100 lb. bags.

Write for our FREE book on horses and cattle.

Pratts Poultry Regulator guarantees more eggs and prime holiday poultry.

PRATT FOOD CO., Dept. 54, Philadelphia, Pa.



Rubber Roofing

Warranted For Twenty-Five Years.

FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY . . . . Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY . . . Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept. 849, East St. Louis, Ills.

Flavors in Milk.

[By B. F. Kaupp, Pathologist, Colorado Agricultural College, Fort Collins.]

The abnormal or injuring flavors in milk are of two kinds: First, those due to feed eaten by the cows; second, those due to contamination.

The first kind is scientifically spoken of as food flavors and is due to the cow eating large quantities of turnips, onions, ensilage, beets, ragweed, etc.

This ill flavor is due to volatile oils contained in the strongly-flavored feeds. Such flavors leave the animal through the different secretions and excretions of the body.

When feeding is done immediately after milking, these feed flavors largely pass off through other channels, or secretions, than the milk and are not noticeable. It is also maintained that if some rough forage be fed along with such feeds that produce ill tastes in milk, it assists in obviating such flavors.

It is within the power of the dairyman to obviate the second flavor of contamination. This class of ill flavor is largely due to contaminating bacteria. Of these there are many, each giving its peculiar flavor. Another contaminating flavor is due to the absorption of certain strong odors.

The cause of the contamination of milk is largely due to lack of perfect cleanliness with the milking utensils, surroundings, methods of delivery and personal cleanliness.

The udder and adjacent parts should be washed with clean water and wiped dry with a clean, dry towel. The hands and the clothing of the milkman should be clean. Bottles, buckets, etc., should be sterilized with live steam and turned upside down so as to prevent the collection of dust, which always contains germs and mold spores. Small-top pails should be compulsory by law.

Improvement in Holsteins.

"The practice of officially testing dairy cows has proven to be an efficient factor in weeding out the unprofitable members of the herd. The Wisconsin Station has published during the year results of official testing in that state for the past ten years. During the first five years of the decade the average production of aged Holstein cows on a seven-days' test was 397.5 pounds of milk and 13.9 pounds of milk-fat, while in the last five years of the decade the average production of this class was 432.9 pounds of milk and 15.3 pounds of milk-fat. This gain was due in large part to improved breeding, feeding and selection of the dairy stock." This is from Farmers' Bulletin No. 465, issued by the United States Department of Agriculture.

English Milk Rules.

The National Health Society of England formulated some rules regulating the handling of milk, which are more humorous than they are practical, says the Chicago Dairy Produce. The following is a part:

"The milker must wash his or her hands, using a nail brush, before milking. Soap, towels and water must be provided in a convenient place for this purpose. A clean linen smock should be worn while milking, and then only. Persons who are poorly, or have sickness at home, should have nothing to do with the cows without the sanction of a medical man.

"The cow-shed should be so light that every part of it is easily visible in the daytime with the doors closed.

"The cow-shed should be so ventilated that the air in it will not feel close or have a disagreeable smell. * * * Cows, like human beings, will not suffer from ample ventilation if it is steadily maintained throughout the whole year."

The Milk-inspection Crusade.

In St. Louis the city authorities and Dr. W. P. Cutler, State Food Commissioner, have been systematically arresting and prosecuting the city people who violate the laws relating to the sale of milk and cream. The net result of the crusade is the statement by Dr. Cutler that the actual cost of pure milk will advance in the cities.

He has discovered that the prevailing retail price of watered milk over the counter is seven cents a quart, and his view of the subject is that the pure and unadulterated article will finally cost the consumer ten cents a quart. His idea is that this increase in price will be more than offset in a lessening of doctor bills and elimination of epidemics.

It may be put down as a fact that eighty per cent. of all the milk adulteration with water is done by the small retail distributers, and that the larger city distributing companies deliver a grade of milk direct to families that is up to the proper legal standard of fat and solids and which is sanitary as milk can be. When it comes to getting pure and unadulterated milk over the counter of the cheaper class of restaurants or in the cheaper boarding houses, that can hardly be done; the money the boarding-house and restaurant keepers receive will not justify standard milk; they would rather put up the sign "skim milk" than be arrested for dishing out three cans of milk whereas only two were bought in the first place.

The purer and better the milk has to be sold in the cities the better it will be for milk producers in the country, because the city water works have usually furnished at least 20 per cent. of all the milk finally reaching consumers in the big cities, and when we speak of a consumer we refer to the man, woman and child who drinks the milk, and not to him or her who buys the milk to sell again.

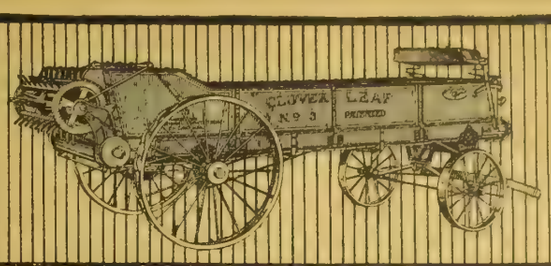
Export Grades of Butter.

Referring to the export trade in butter from New York City, a market authority states that the dealers do not buy the better grades of creamery. With the highest quality of butter selling at 28½ cents a pound the export grades of creamery cost the shippers 23 to 24 cents; then there are grades of process butter at 22½ to 23 cents, and ordinary factory butter at 18 to 19½ cents a pound. It appears to be a very good thing for all concerned that there shall be export outlets, but the export trade is more given to relieving low-priced, glutted markets than to causing advanced prices. when the prices are already at a high notch. It may as well be understood, however, that the highest scoring butter is consumed at home.

Dairy and Creamery.

It is estimated by competent authority that eight out of every hundred milch cows are boarding at the expense of the other ninety-two. Eight per cent. loss will put most any city business into bankruptcy.

At the Iowa State Dairy Show, held recently at Waterloo, in the whole-milk class the highest scoring butter was exhibited by G. Stuessi, of Manchester, the score being 97.5. In the gathered-cream class the highest score was 98.5, the exhibit being by Watson Shick, of Monona.



Don't Let The Soil Starve

YEAR after year, your crops take nitrogen, phosphoric acid, and potash out of the soil. These elements are absolutely necessary to the growth of plant life. What are you doing to replace them?

You can keep your soil from starving by spreading fresh manure, evenly, in proper quantities. Manure, spread in this way, puts back into the soil the very elements the crops have taken out. To spread manure evenly, you must use a manure spreader. When buying a spreader get a good one.

I H C Manure Spreaders

have proved their quality. Owners like I H C Spreaders because of their simplicity, strength, durability, and light draft. The superiority of these machines is due to the following constructive features:

The method of transmitting power from the wheels to the beater is simple and direct. There are no unnecessary parts to wear. The beater is larger in diameter and the teeth are long, square, and chisel-pointed. By using this style of tooth, the manure is thoroughly pulverized and is thrown out before it wedges against the bars. This reduces the draft.

The apron is supported by steel rollers and the slats are placed close together, so that manure does not sift between. The steel wheels have ample strength to carry many times the weight they will ever be called upon to bear. The rims are flanged inwardly to prevent cutting and rutting of meadows and accumulation of trash.

Corn King Cloverleaf Kemp 20th Century

are machines that will merit your heartiest approval. I H C manure spreaders are made in three styles and many sizes, for field, orchard, and vineyard.

Get complete catalogues and all information from the I H C local dealer, or, if you prefer, write direct.

International Harvester Company of America

Chicago (Incorporated) U S A

I H C Service Bureau

The Bureau is a center where the best ways of doing things on the farm, and data relating to its development are collected and distributed free to every one interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the I H C Service Bureau, Chicago, they will receive prompt attention.

"EVERYBODY"

Can Afford a Gasoline Engine With Galloway's New Low Prices

1½ HP $27.50

Other Prices in Proportion

You've never before heard of such startling values—I've never offered anything like them and you know full well that no one else has ever come anywhere near my regular prices. But this time I've a startling reason—*I want 10 men in every township in the county to own and operate a Galloway Engine*—I've decided to double my factory capacity by increasing the sales twice and sell two where I formerly sold one—this calls for unusual values—hence, the greatest offer I have ever made. I can save you from $25 to $300 on an engine according to the H. P. needed. It doesn't matter what sized engine you want I've got the one to fit your wants and do more work and better work at less actual cost than any other engine in the world. Write at once for full information of the Greatest Offer Ever Made To American Farmers—don't delay but send me your name and address now, before you do another thing. Let me prove to you in cold facts why I can put $25 to $300 in your pocket.

WM. GALLOWAY COMPANY
Wm. Galloway, Pres.
1285 Galloway Sta., Waterloo, Ia.

30 Days FREE Trial

Pump Jack $3.95

No Such Quality in any engine—no matter what price you pay—the Galloway price saves you $25 to $300

FARM AND RANCH LANDS.

ALABAMA. — BARGAIN FOR QUICK SALE. Splendid place for truck, chickens, etc. Easy drive Birmingham, Ensley, Bessemer and Corey, on car line. Good five-room house, poultry and pigeon houses, etc.; city water; plenty fruit and shade trees. Easy living can be made off place. Price, $5,500; about $2,000.00 cash; balance easy. Address, **Owner,** Ppstoffice Box 691, Birmingham, Ala.

ARKANSAS.—For Sale: 1,200 acre stock farm, situated in Arkansas, 68 miles south of Memphis, on the Mississippi river, with landing on the place; several houses and commissary. This is counted by cattlemen as being one of the best all-round stock farms in the South. We have 700 acres of open land, about 400 acres in grass, balance in corn, cotton, etc., the land being all level and very rich. There is a small lake, about 100 feet wide and about one-fourth mile long, on one side of this tract. There is heavy cane all around the open land, which gives good protection in winter and makes excellent winter browsing. A better stock farm could not be found. We are offering this place at a sacrifice price of $20.00 per acre. Address, **St. John & Olcott (Owners),** 46 Porter Building, Memphis, Tenn.

ARKANSAS.—We also own 350 acres in Arkansas, 18 miles north of Memphis, of which 200 acres are in cultivation—seven houses and barn. We can show over a bale of cotton an acre from this land this year and 50 bushels of corn per acre. Price on this place, $20.00 per acre. These farms are entirely out of the boll weevil district. Terms can be arranged to suit purchaser. Send for full particulars and come and see same at once. You will not find two better bargains in the South. Address, **St. John & Olcott (Owners),** 46 Porter Building, Memphis, Tenn.

ARKANSAS.—Lands on the Cotton Belt Route in Arkansas are offered for sale at remarkably low prices. All farmers and "intend-to-be farmers" should post themselves. Write for free books showing the best locations. Address, **E. W. LaBeaume,** G. P. & T. A., 1419 Pierce Bldg., St. Louis, Mo.

ARKANSAS.—LOOK! LOOK! BAXTER COUNTY, ARKANSAS. Thirty-five improved farms, $10 to $25 per acre. Write for Land List and Literature. **T. G. Higgins Land Company,** Box 335, Cotter, Ark.

ARKANSAS. — SOUTHEAST ARKANSAS is the best farming section of the state. I have for sale several good places near Eudora, in Chicot county. Owing to age and ill-health of my wife, I will sell my property at bargains. Address, **Dr. S. A. Scott,** Box 99, Eudora, Ark.

FREE Literature will be sent to anyone interested in the wonderful Sacramento Valley, the richest valley in the world. Unlimited opportunities. Thousands of acres available at right prices. The place for the man wanting a home in the finest climate on earth. No lands for sale; organized to give reliable information. Sacramento Valley Development Assoc'n, SACRAMENTO. **California**

TEXAS.—Many of the very best farms and farm lands are to be found on the line of the Cotton Belt Route in the state of Texas. A reference to that country will be found on page 20 of this paper. Send in your name to receive free books concerning the rich land bargains to be had on this line. Address, **E. W. LaBeaume,** 1419 Pierce Bldg., St. Louis, Mo.

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

The "Horse Protector"

Is indispensable for the well-being of your horses. No more sore shoulders. It is a benefit to the horses and saving for the owner. Write for catalogue.

TRENTON SPRING COMPANY,

TRENTON, N. J.

PATENT YOUR IDEAS

$8,500 offered for one invention. Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. Patents advertised for sale at our expense in Manufacturers Journals.

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Established 15 Years

953 F Street, Washington, D. C.

The Department of Justice is after a corner in wheat.

CHAMPION CAR-LOAD HEREFORD FAT CATTLE AT AMERICAN ROYAL. Bred by Adams & Robert in Meade county, Kansas, and fed by Horace G. Adams, Maple Hill, Kansas. Sold by Clay, Robinson & Co. at $9.40—average weight 1,376 pounds—to Armour & Co. for Weber, Kansas City's leading butcher; furthermore, Mr. Weber is the leading butcher in the United States.

Blooded Stock Notes.

At the Arkansas State Fair, most of the prizes for pure-bred breeding stock went to the exhibits of Texas cattle.

Mr. T. C. Kimber, of Pilot Knob, Mo., recognized the great demand for the bacon hog and hit upon Large Yorkshire swine as the breed which appealed to him as the best to raise for the prevailing market. His card is to be found with other breeders. He has pigs for sale.

Mr. Charles Ford, whose Tamworth swine advertisement appears in this paper, has returned to his home at Mortonsville, Woodford county, Kentucky, with 100 ribbons won in competition with the best herds of the United States and Canada. His aged stock won first and championship at every show. Mr. Ford has some 100 head of fine pigs for sale, including some aged stock. See his card.

Wilder Carpenter, of Marmaduke, Ark., is the owner of Master Meddler, 3d, 175,583, and we have a letter from the eminent breeder of Poland-Chinas, Frank D. Winn, who states that Master Meddler, 3d, is one of the best hogs he ever raised. Mr. Carpenter has the champion Poland-China sow at the Tri-State Fair at Memphis and a grand champion Duroc sow at Nashville, Knoxville and Memphis, Tenn. See his card. He has stock for sale of his own raising.

The Davis Jersey Farm advertising in this issue are located at Johnson, Washington county, Ark., on the St. Louis and San Francisco Railway, not far from the Oklahoma line. Prices are mentioned in this advertisement and the breeding of both hogs and cattle are superior, especially the Jersey cattle.

Charles Dorr, of Osage City, Kas., our ownly advertiser of Duroc-Jersey hogs in that state, has sold fifty pigs from a small advertisement in The National Farmer and Stock Grower. He is offering strong, healthy, pure-bred pigs for sale at farmers' prices during the next thirty days.

Mr. J. W. Kirby, breeder of superior Poland-China hogs at Marmaduke, Ark., writes as follows: "We have the best boars we ever offered for sale. Strictly big, long fellows with quality: also some very fine gilts that will weigh around 100 pounds that are the cream of our breeding; and then we have customers in almost every state who indorse the type of hog we send them."

Mr. J. P. Vissering, of Alton, Ill., formerly of Godfrey, is again advertising big-type, long-bodied, satisfactory Poland-Chinas. His stock is well known to our readers and his card will be found in the usual place.

Mr. E. L. John, of Broadway, Maries county, Mo., has fine, large-bone Berkshire hogs of his own raising for sale. He has advertised with us a number of years and he has the stock that has been well raised for robust constitutions and the breeding is up to high standards. Mr. John can ship on the Frisco System or the Rock Island Route. He is between the two and not far from either.

Barland, Miss., is named for Barland Bros., breeders of pure-bred Poland-China hogs of the best strains. The shipping point is Martin, in Claiborne county, on the Yazoo and Mississippi branch of the Illinois Central Railway, not far from Jackson or Vicksburg. Hogs can be shipped at reasonable expense to all points on all Southern railway systems. Fine hogs can be had cheap. See breeders' card.

Mr. H. H. Hofmann, of Route 1, Belleville, Ill., has fine Duroc-Jerseys for sale. They are spring boars that show their quality. He also has Wyandotte cockerels for sale that are well worth the price.

The Kerry Hill Flock Book, the record of a pure Welsh breed of sheep, is recognized by the United States Department of Agriculture. Recorded sheep of this breed can now be admitted into the United States for breeding purposes free of duty.

Mr. D. F. Beauchamp, of Meredosia, Ill., writes that he will not have any more Poland-China pigs for sale, but he wishes us to invite attention to his R. C. Brown Leghorns, also to his fine Rhode Island Reds. He has several hundred of his own raising for sale.

WANTED, RAILWAY MAIL CLERKS

Hundreds of Railway Mail Clerks, commencing at $800, with rapid advancement to $1,100 or $1,200, will be appointed from examinations to be announced everywhere January 15th, as it is a year and a half since the last examinations. Railway Mail Clerks usually have every second week off at full pay and very pleasant work, traveling continually.

Interested readers should write immediately to Franklin Institute, Dept. P 107, Rochester, N. Y., for examination schedule showing places, samples of previous examination questions, and for free coaching for coming examinations.

From Centralia, Ill., October 20th, it was reported that Timothy C. Dickerson, aged 75, was killed by a team of horses trampling him. Dickerson's body was found on his farm, north of Centralia. One of the horses, which had been attached to a plow, was lying beside him on the ground, entangled in the harness.

ALFALFA,

Shield Brand, 99½ Per Cent. Pure.

TIMOTHY, CLOVER, RED TOP, BLUE GRASS, WINTER VETCH.

SHIELD BRAND PASTURE,

HARDY, PERMANENT GRASS MIXTURE.

SEED WHEAT and RYE,

TURNIP SEED,
VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

Send For Golden Arrow Seed Catalogue.

A. W. Schisler Grain Co.,

708 and 710 N. Fourth St., ST. LOUIS, MO.

PEERLESS

SELF-RAISING GATES

raise themselves—you don't have to lift them up. They spring up free and clear the moment they are unlatched. No more sagging, dragging, cumbersome, unwieldy gates.

PEERLESS GATES

are perfectly reliable—they always work—no springs or toggle to get out of order. Filled with the famous Peerless fencing of all No. 9 wire, crossbars 6 inches apart; a heavier filling than is used on any other gate made.

Every part heavily galvanized. Cost no more than the common kind, and you get your moneys worth of gate

Your dealer can supply you. If he will not, write us direct.

Peerless Wire Fence Co. 242 Mich. St. ADRIAN, MICH.

BROWN FENCE

FREE SAMPLE — WE PAY THE FREIGHT

STOUT STRONG — DURABLE CHEAP

BROWN FENCES will outlast any other because of heavier wires and thicker galvanizing. 160 styles for all purposes. Also Lawn Fences and Gates.

Bargain Prices, 13c Per Rod Up

delivered at your railway station. Send today for catalog and free sample for test.

The Brown Fence & Wire Company
Dept. 45 Cleveland, Ohio

STRONGEST FENCE MADE

Made of Double Strength Heavily Galvanized Wire. Requires fewer posts and outlasts all others. Lowest prices ever quoted. 26-inch Hog Fence **15c.** 47-inch Farm Fence **23-5/10c.** 60-inch Poultry Fence **30c.** per rod. **Special Barb Wire $1.40** per 80-rod spool.

SOLD DIRECT TO THE FARMER ON 30 DAYS FREE TRIAL.

Our big free Catalog contains fence information you ought to know. Write for it today. It's FREE.

COILED SPRING FENCE CO. Box 256 WINCHESTER, IND.

KITSELMAN FENCE

A quality fence at a quantity price. Farm, Hog, and Poultry Fencing; both square and diamond mesh; light or heavy—

11½ CENTS

A ROD AND UP

Any style that you want.

EVERY ROD GUARANTEED

to be satisfactory, and our guarantee is backed by 27 years of selling direct to the farmer.

Kitselman Fence stretches well and wears well. Made from Open Hearth steel wire, thoroughly galvanized. Large Catalog free to you for the asking. Write for it today

KITSELMAN BROS. Box 261 Muncie, Indiana

LEARN TO BE AN AUCTIONEER — **EARN $15 TO $100 PER DAY**

Thoro, Scientific mail course. Catalog Free. **National Auctioneering School of America,** Dept. J, Lincoln, Neb.

Farm Products Exhibition.

An exhibition car of farm products raised upon the line of the Cotton Belt Railroad left the Union Station, St. Louis, Mo., Sunday, October 22, 1911. The first stop for the car was at Carlyle, Ill. The trip will occupy sixty days and will go through Southern Illinois, Indiana, Ohio, Kentucky, West Virginia, Western Pennsylvania, Western New York, Michigan, Iowa and Missouri, to show what is actually grown and produced in the country traversed by the lines of the railroad. The car is in charge of Guy L. Stewart, Agricultural and Industrial Agent of the Cotton Belt Railroad.

Pure-bred Stock to Cuba.

The Cuban government has had three representatives in Kentucky for the purpose of purchasing stock to improve the native herds of their country. After spending ten days in search of what they wanted they proceeded to the well-known establishment of J. F. Cook & Co., at Lexington, Ky. This firm succeeded in selling them six saddle stallions, two two-year-old Kentucky mammoth jacks, thirty head of Tamworth and Hampshire swine, six Jersey heifers and three bulls, a number of saddle mares which were for breeding purposes, and a number of geldings for plantation use. The Cuban government's agents were Dr. Honore Francis Laine, of the University at Havana, Cuba; Dr. Emilio L. Lucas, Chief of the Department of Agriculture, at the Goverment Experiment Station at Santigo de Las Vegas; and Senor Perres, Assistant Secretary of Agriculture of Cuba.

Messrs. J. F. Cook & Co. also secured poultry for the agents as follows: Thirty Rhode Island Reds, thirty Black Langshans, thirty Barred Plymouth Rocks.

The stallions purchased were an unusually well-bred lot and they should do much to improve the horseflesh of that country. The Cuban officials would not buy any stallion unless he would go the single foot, a good fox trot or running walk. These stallions were two-year-olds with the exception of one, which was a three-year-old. J. F. Cook & Co. are very proud of this deal, as they bred partially all of this stock on their farms.

Opportunity For Cattle Feeders.

The cattle feeders of Indiana and neighboring states will have an opportunity to hear Mr. Humphrey Jones, of Ohio, on November 16th, when the Fifth Annual Meeting of the Indiana Cattle Feeders' Association meets at Lafayette. Mr. Jones was among the first feeders of the corn belt to make extensive use of corn ensilage as a roughage for fattening steers. Since beginning the use of ensilage he has greatly increased the feeding capacity of his farm and has found through years of experience the advantages and difficulties of silage for fattening cattle. The opportunity to hear the experience of such an old and experienced feeder should not be neglected. A cordial invitation is extended to every interested person.

Centralization of Creameries.

According to the United States Census, the number of establishments engaged in the manufacture of butter and cheese was 8,479 in the year 1909 and 8,926 in the year 1904. The capital invested is increased 51 per cent., the gross output is increased 63 per cent., but in five years the total number of creameries and cheese factories decreased 5 per cent.

Daniel Webster Said:

"Deal with the man who does the most business. You will find there is a reason for it."

Experience and common-sense confirms his words. CLAY, ROBINSON & CO. are the largest live stock commission firm in the world. : : : :

"THERE'S A REASON FOR IT."

Not Best Because Biggest-- But Biggest Because Best.

CLAY, ROBINSON & CO.

LIVE STOCK COMMISSION

East St. Louis, East Buffalo, Chicago, Denver, Kansas City, Sioux City, South St Joseph, South St. Paul, Fort Worth, South Omaha

Sheep in Australia.

Our readers can get an idea of the extent of the wool-producing industry of Australia from a special report from the United States Consul in New Zealand to the Department of Commerce and Labor:

"The principal feature of the wool year of Australia was that a record clip was shorn, the oversea exports having amounted to 1,975,378 bales, or 646,838,877 pounds, from Australia, and 493,372 bales, or 173,173,572 pounds, from New Zealand, the total value being $150,377,380. The increase, as compared with the previous year, amounts to 34,107 bales. The size of the clip is all the more remarkable when it is considered that the 2,000,000-bale limit was reached for the first time in the year 1906-07, and the past year's figures are nearly double those for 1903-04. In fact, taking Australia separately, they are more than double. Considerably more wool was exported on the sheep skins than during the previous year.

"The flocks in Australia and New Zealand now total 116,034,173 head, having slightly increased during the past twelve months. A great many more sheep, however, are now depastured in Australia than at any period during the past seventeen years, the previous record having been in 1906, when the figures reached 124,991,920 head. The last clip was greater than that of any previous season.

"Dividing the number of sheep shorn into the net weight of wool produced, including that used for local manufacture, it will be seen that the average weight of wool produced per head works out at seven pounds and four ounces, which compares with previous years as follows: 1909-10, seven pounds and four ounces; 1908, six pounds and fourteen ounces; 1907-08, six pounds and nine ounces. The general demand for wool of all grades and descriptions for the past twelve months has been almost insatiable, although the United States, the greatest of all wool-consuming countries, bought very much less than usual on account of demoralization in its local trade, which was affected with uncertainty as to the continuation of the present tariff."

INDIAN RUNNER DUCKS.

A Few Facts Concerning Them by a Missouri Breeder.

Many farmers' wives and daughters want to make some money independently of the men of the family, and there is no way so sure and easy as through poultry.

Then the first question is, What is the best breed to take up? This question is asked perhaps oftener than any other. It is generally among the very first inquiries from beginners. Much depends upon the particular strain of any breed, also the location and fancy of the breeder. The poultryman should select the breed which suits him best in color and shape, for the reason that he will be more interested in it and will give it better attention.

In my opinion, the Indian Runner ducks are one of the best general or all-purpose breeds, for fancy, for market purposes and egg production. They are very popular and more extensively bred than they were a few years ago. They are comparatively a new breed and fast gaining friends wherever they are known.

They are hardy and easy to raise. They grow rapidly and are ready for market at nine weeks if properly cared for. They are great layers and the finest of table fowl.

The only time in the duck's life that it really demands close attention is from the time it is hatched until it is three weeks old. In the first place, there should be no feeding whatever for the first twenty-four hours of its life, as nature has amply provided for it for this period.

Feeding should be very light for about four days. They should be fed often, but little at a time. Feed hard-boiled eggs, cracker crumbs or bread crumbs moistened in sweet milk, also a little clean sand. Feed four times a day and give warm water to drink, especially when first turned out in the morning when young. The water should be deep enough in the fountain to enable them to plunge their heads entirely under. This is necessary to keep their nostrils open, which are otherwise liable to become clogged and closed, thereby causing death from smothering. When young, they should not be allowed to play in the water and get wet.

From five to twenty days feed wheat bran two parts by measure, corn meal one part, rolled oats 50 per cent., beef scraps five per cent. Mix with water or sweet milk to a crumbly state and feed four times a day just what they will eat up clean. They need a variety of feed and will thrive and grow faster by having it. Keep their bedding dry; don't allow them to sleep in damp quarters, as it is injurious.—W. M. Sawyer, Lancaster, Mo.

Caution For Hunters.

From the American Field: "As the time is near when the woods in several states will be filled with big game hunters and the fields and marshes with bird hunters, it is well for all hunters to bear these admonitions in mind: Never shoot at a moving object in the woods until you are sure it is not a human being. Never shoot when in the field with a companion without knowing where your companion is. Never point a gun at anything, whether loaded or not, unless you wish to kill said object. Never get over a fence with a loaded gun in your hands until you have placed the safety slide on your gun in a 'safe' position. Never draw a loaded gun through a fence with the muzzle toward you. Never put a loaded gun into a wagon, and never, no never, no matter what the excuse, carry a loaded gun into the house or camp. If these admonitions are respected and obeyed to the letter there will be few accidents to chronicle and few heartaches for having mutilated or killed a human being."

A Texas Corn Crop.

N. E. Tucker, a farmer of Hidalgo county, is reported to have gathered 636 bushels of corn from six acres of land near Mercedes, Texas, an average of 106 bushels to the acre. The Mercedes Times says it is also reported that this crop of corn was raised in ninety days.

Farm ALL Your Land —Pull the Stumps With the Hercules All-Steel Triple Power Stump Puller

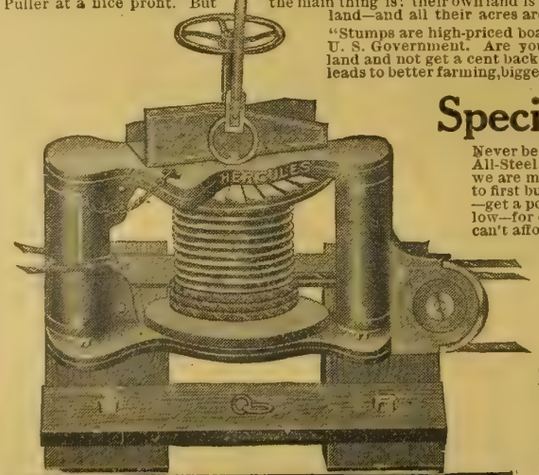
—30 Days' Free Trial—and 3 Years' Absolute Guarantee

Pull out every stump—roots and all—with the famous Hercules All-Steel, Triple Power Stump Puller, at the rate of an acre a day—so you can farm more acres and double the value of land now full of stumps.

The Hercules is the only puller that's **all steel.** It's 60 per cent lighter and 400 per cent stronger than any iron puller ever made. So strong and powerful, it pulls any size stump, green tree or hedge in 5 minutes, or less. And every part of the Hercules is guaranteed against breakage for three full years—all broken castings replaced free of charge whether the breakage is your fault or the fault of the machine.

Thousands of other progress men have pulled out the stumps on their land instead of buying new lands. They've taken advantage of the virgin soil that stumps kept away from cultivation. They've paid for their stump puller over and over again the first year with the profits from the extra crops and increased value of the land. And now they're doing contract stump pulling for their neighbors or renting their Hercules Stump Puller at a nice profit. But the main thing is: their own land is free from costly stumps—they farm all their land—and all their acres are at top-notch realty value.

"Stumps are high-priced boarders who never pay their board"—says the U. S. Government. Are you going to keep on paying taxes for stumpy land and not get a cent back? Or are you going to take the step **now** that leads to better farming, bigger profits and greater realty value of your farm?



Special Offer NOW

Never before have we made lower prices on the famous All-Steel, Triple Power, Hercules Stump Puller than we are making now on our special introductory price to first buyers in every locality. Don't wait another day—get a postal and mail to us at once—or the coupon below—for our price-proposition that will prove how you can't afford **not** to own a Hercules at once. Let us send you our fine free book that tells you the many advantages the Hercules has, not only over every other stump puller made, but also over every other known method of ridding fields of stumps. It tells about the dangers and inefficiency of dynamite—the expense and extra work. It tells how 40 acres of stumps can quickly be turned into $1330.50 net profit the first year and $750.00 profit every year after. There's a mint of information in the book that tells you how to

Boost Your Profits

and how to double the value of every stumpy field you have, and when you read about the materials, principles and construction of the Hercules, you won't wonder why so many thousands of farmers have made so many thousands of extra dollars by owning a Hercules. All-Steel, Triple Power, Self-Anchored or Stump-Anchored, Double Safety Ratchets, Perfect Turning and Machining of all parts, 3-year guarantee against breakage and our 30 days' free trial offer ought—at least—to induce you to

MAIL POSTAL FOR BOOK OF PROOF AND PRICE

This new special proposition of ours is going to get one Hercules Stump Puller in each locality, or we'll be sadly disappointed. We've cut the price to rock-bottom—taken off every cent of profit but a single small factory margin on 5,000 machines. We'll make our profit later, when your machine has introduced us in your locality and the other 4,999 have done the same in different parts of the country. Right now, all we want is your name and address so we can mail you all the facts and proof of how important it is for you to rid your fields of stumps—how necessary it is to your own profits—and then we want to prove how much better you can do it with the Hercules. Read, in this advertisement, what a few owners say and read the letters in our free book. Then ask yourself fairly and squarely whether or not you can afford to keep stumps when you can get such a wonderfully efficient, proven successful and economical machine at the price we are making now to introduce 5,000 Hercules Stump Pullers in 5,000 new localities—all sold on 30 days' free trial and backed by 3-year guarantee, the same as when these machines are sold at regular prices. Mail coupon or postal at once. Address

HERCULES MFG. CO.,
340 17th St., CENTERVILLE, IOWA

Read What Owners Say

John Rattler of Culpepper, Va., writes:
Hercules Mfg. Co.:
I think the Hercules All-Steel, Triple Power Stump Puller is the greatest machine that ever was put on the market. It is so easy to handle that my little boy twelve years old is handling it fine. The little boy and myself are clearing an acre a day of some of the thickest field pines and the land is being plowed. It certainly is a great machine.

D. S. Cade of Veedersburg, Ind., writes:
"We pulled about 400 stumps that had been cut about 7 or 8 years. We have raised almost enough corn on the field over other years to pay for it, as we could check the corn and plow with cultivator before we had to plow with double shovel."

W. O. Bodie of Batesburg, S. C., writes:
"I have pulled over 1,800 stumps in my spare time during the last month. It's a Hercules Triple Power for me every time."

W. J. Hatch of Grandy, Fla., writes:
"Many friends come from far and near to see my Hercules work. All are wonderfully pleased. Two men who came several miles to see it work went right back home and ordered one just like it for themselves. I pulled all the stumps in about 15 days. Some measured three feet in diameter. That was our first work and we were green hands with it. There were over 2,000 stumps, some tap roots measuring 15 and 16 feet."

Hercules Mfg. Co.,
340 17th St., Centerville, Iowa

Please mail me your free book and personal price proposition to first buyers in each locality for the Hercules, only genuine, All-Steel, Triple Power Stump Puller made.

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Address.....

State..... *R.F.D.*.....

National Horticultural Congress, St. Joseph, Mo., November 23 to December 2, Inclusive.

The National Horticultural Congress and big Apple Show will be held in St. Joseph, Mo., November 23 to December 2, 1911.

The National Horticultural Congress is an organization representing a national membership. It is national in its scope and permits entries of exhibitors from every state in the Union. Its organization was for the purpose of advancing and developing fruit growing and agricultural industries. States vie with each other in making agricultural displays, and the United States government participates to a large extent by sending representatives, lecturers and demonstrators from its Plant and Agricultural Departments.

Perhaps no Apple, Fruit or Agricultural Show ever held anywhere will equal this show, which occurs in St. Joseph, Mo., this month. Every fruit grower and agriculturist who attends these shows returns home far better equipped to produce greater results from his land than ever before. Each day of the show soil demonstrations, fruit-spraying demonstrations and demonstrations in the most modern ways of cultivation, constitute the largest part of the programme. The most prominent speakers, lecturers, demonstrators and experts, who are authorities on the agricultural and fruit-growing industries, will be heard throughout the show.

While the programme is not yet quite completed, it is expected that the majority of Governors of all the states of the Union will be present or represented by members of their State Agricultural Departments. Secretary Wilson, with representatives from the National Agricultural Department, is expected to be present, and such noted speakers as William Jennings Bryan, F. D. Coburn, Arthur Capper, of Topeka, Kas., Secretary Nagel, of the National Department of Commerce, Chief Galloway, of the National Bureau of Plant Industry, and many other men of national prominence.

One of the daily features of the show will be the demonstration for the prevention of diseases and the fight against insect enemies of vegetables, plants and orchards. This will be participated in by leading demonstrators from state and government institutions.

The women's interest in the show will center in a special department that will be arranged for a School of Domestic Science. Interest in this will be augmented by special premiums that have been provided for the best exhibits of preserved and canned fruits. Contests in the economical preparation of home dishes will also be a part of the School of Domestic Science.

Cash premiums aggregating thousands of dollars, besides numerous special premiums of valuable implements, etc., will be offered in the premium catalogue, which can be secured by addressing the Secretary of the National Horticultural Congress, St. Joseph, Mo.

Indian Crop of Cotton.

The first general memorandum on the East Indian cotton crop for the 1911-12 season, issued by the Director General of Commercial Intelligence, gives the total area in August as 11,360,000 acres, against 12,215,000 acres at the same date last year. This is exclusive of the United Provinces, which usually bear about 6.6 per cent. of the entire reported cotton crop of India. The condition of the crop is reported to be exceedingly bad in the Punjab and Rajputana, owing chiefly to drouth. Elsewhere the crop is reported to be fair.

Agriculture in Belgium.

The area of Belgium is only 11,373 square miles, about equal to that of the states of Vermont and Delaware combined, and with a population in 1900 of 6,693,548, equal to that of the six New England States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut. Of the entire area, there was in 1895 under cultivation 4,288,349 acres; in woodland, 1,288,092 acres; uncultivated, 470,396 acres; the remainder was in cities, roads, marsh land, rivers, etc.

About one-fifth of the people are engaged in agriculture. Their holdings are mostly small, varying from about one acre to 100 and over. In 1895 the number of holdings of less than 2½ acres each was 544,041; there were 190,833 ranging from 2½ to 12 acres; there were 50,065 from 25 to 50 acres; 12,951 holdings from 50 acres to 125; and 3,584 holdings of 125 acres and over. The agriculture of the country was in a much-neglected condition prior to 1885, at which time a method of improvement was adopted that has produced remarkable results. Under this system the average for wheat in Belgium has been raised from 24.54 bushels per acre in 1885 to 38.55 bushels in 1910, an increase of 14.01 bushels; the average for rye was increased from 23.86 bushels in 1885 to 36.69 bushels in 1910, an increase of 12.83 bushels per acre; oats from 49.75 to 81.48 bushels, an increase of 31.73 bushels; barley (winter) from 38.25 to 57.57, an increase of 19.32 bushels. The number of horned cattle increased from 1,382,815 in 1880 to 1,817,687 in 1907; hogs from 646,375 to 1,370,462. These figures are taken from a report issued by the United States Department of Agriculture.

A Butter Competition.

At the International Dairy Show held at Milwaukee, Wis., October 10th to 18th, eight states were represented in a butter contest. The state of Minnesota stood first, Iowa second and Wisconsin third. Each state was allowed to exhibit twenty of its best samples.

BE THANK-FULL

FOR THIS CHEER-FULL, HELP-FULL, MONEY-SAVING MESSAGE

The careful housewife can economize on her groceries and still get the best and purest supplies. Our spotless grocery department contains only the very best and purest goods. You can buy all your groceries here for two-thirds of the amount you are now paying. Write now for Book No. 11—the grocery book.

Madam, this fashion book will interest you. Your copy is here waiting for you. All the new fall and winter styles are shown and the low prices quoted will surprise you. Send for this book before you buy your winter outfit. It is book No. 30.

Every man needs a good, serviceable winter suit and perhaps an overcoat. Our catalogue 33 is the book that you must see. Whether you prefer ready-made or made-to-your-measure clothing, we will please you and save you money.

Perhaps you are among the host of good people who are saying at this season, "Yes, we have a lot to be thankful for, but I would be mighty thankful if it didn't cost so much to live. Everything is so high I hardly see what we shall do, another year."

We have a message for every man and woman who is in this frame of mind. We can and will solve this problem for you if you will let us. We have solved it for over 2,000,000 delighted and satisfied customers.

Let us clothe you, feed you, furnish your home and, in fact, supply your every need during the next year. We will do this and save you from twenty to fifty per cent on everything you buy. On *next* Thanksgiving Day (and probably this Thanksgiving Day, if you hurry) as you carve the turkey and the luscious aroma of freshly baked pumpkin pies reaches you from a busy kitchen, you will wear that "smile that won't come off."

Your Hardest Problem Solved

Your old, troublesome problem of "high cost of living" is successfully solved, and a peep at your bank book will show you that all we say about saving you money is the truest message you ever read.

Start in right now to save. Pick out the books from the list below, that interest you. We want you to have them, absolutely free of any cost to you.

CHECK THE BOOKS THAT WILL HELP YOU SAVE

Let us show you, free of all cost, how you can save money on everything you buy to eat or wear or use in any way.

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19th and Campbell Sts. KANSAS CITY — Chicago Avenue Bridge CHICAGO

Please send to my address below the books I have checked absolutely free of cost.

1 Paints	13 Tank Heaters	25 Automobile Supplies	
2 Pianos	14 Wire Fencing	26 Bicycles—Motorcycles	
3 Organs	15 Carpets, Rugs	27 Baby's Dress and Toilet	
4 Trunks	16 Building Plans	28 Women's Tailored Suits	
5 Roofing	17 Baby Carriages	29 Circular and Drag Saws	
6 Vehicles	18 Men's Fur Coats	30 Women's Fashion Book	
7 Furniture	19 Sewing Machines	31 Rain Coats, Rubber Coats, etc.	
8 Incubators	20 Gasoline Engines	32 Tombstones and Monuments	
9 Wall Paper	21 Cream Separators	33 Men's Clothing	
10 Typewriters	22 Building Material	34 Women's Furs	
11 Grocery List	23 Stoves and Ranges	35 Dry Goods	36 Muslin Underwear
12 Feed Cookers	24 Underwear Samples	37 Millinery	

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Our enormous furniture business enables us to offer the most unusual values. Whatever your needs may be—from a mahogany dresser to a kitchen table—we can supply you and save you money. You should have our furniture book. Book No. 7.

Mothers, you simply must see this Baby Book. It is overflowing with the sweetest, daintiest requisites for baby that you ever saw. No matter what you want to pay, this book, book No. 27, will solve your problem.

CARPETS AND RUGS

Carpets and rugs are a specialty with us. We are in constant touch with all the sources of supply and snap up every bargain that will enable us to offer you the finest qualities at the lowest prices. Book No. 15.

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For Church, Social Gatherings, and everyday wear this winter you will want stylish, serviceable furs. Our Women's Fur Book shows you some of the prettiest, most attractive furs you ever saw, the kind you are always glad to wear and proud to show your friends. Send for book No. 34.

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Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

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Write for market information.
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An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
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You don't need to experiment on a remedy for Spavin, Ringbone, Curb, Splint, Capped Hock, Swollen Joints, or any lameness of horse or man.

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has been the unfailing remedy for 40 years.
Silver Creek, N. Y., Apr. 8, 1909.
Dr. B. J. Kendall Co., Enosburg Falls, Vt.
I have used Kendall's Spavin Cure for the last 15 years, and it never has failed to do all that is claimed for it. Would not be without it. C. A. Dahlman.
$1 a bottle, 6 for $5. At all drug stores. Ask for free book, "Treatise on the Horse," or write to—
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will reduce Inflamed, Swollen Joints, Bruises, Soft Bunches. Cure Boils, Poll Evil, Quitor, Fistula or any unhealthy sore quickly; pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. $2 per bottle, delivered. Book 7 E free.
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Horse and Mule Notes.

In one of the circulars issued by the horse and mule dealers at the St. Louis National Stock Yards in the month of October they quoted Southern horses and cotton mules $10 to $15 per head lower than they were in September. It was also stated that no improvement was expected unless there is an advance in the price of cotton.

Abandoned the Horse Auction.

Messrs. Walcott, Beers, Grant & Co. have held regular auction sales of horses at an establishment on St. Clair avenue, East St. Louis, in connection with the purchase and sale of mules. The firm has announced their decision to discontinue the horse department at East St. Louis and to enlarge their facilities for handling mules. Messrs. Walcott, Beers, Grant & Co. are not located inside the National Stock Yards, where domestic horses are sold at auction four days in the week to the number of three to five thousand—Monday and Tuesday by Holland, Nugent & Maxwell Bros., and Wednesday and Thursday by Campbell & Reid and Western Sale Stables Company.

Native Steers at St. Louis.

At the St. Louis National Stock Yards, October 31st, J. R. Weesen, of Moniteau county, Missouri, marketed fifteen head 1,637-pound steers which sold at $8.75 per 100 pounds. On the same day thirty-five head of native steers, 1,496 pounds average, sold at $8.00; twenty-two head 1,061-pound steers at $7.50; twenty-seven head 914-pound steers at $7.25; forty head 1,076-pound steers at $6.50; and forty head 1,341-pound steers at $6.25.

Average Windmill Service.

The Eclipse Windmill is the durable one and the average life is twenty-five years. Of all the wind engines that have ever been sold by the manufacturers of the Eclipse none has ever failed to give satisfactory service. The particular windmill approved for farms and ranges is described in Catalogue D H 692. Be particular and write for it to Fairbanks, Morse & Co., at Chicago, or St. Louis, or Kansas City, or Omaha, or St. Paul, or Denver, whichever city is nearest to you.

Shorthorn Cattle at Auction.

Whenever a Shorthorn cattle sale is held at the International Live Stock Exposition the offerings are always choice selections from fine herds. This year the Shorthorn cattle sale will be held on Thursday, December 7th. For catalogue please write at once to Mr. B. O. Cowan, Assistant Secretary, Union Stock Yards, Chicago, Ill.

St. Louis Mule Trade.

At the St. Louis National Stock Yards, Holland, Nugent & Maxwell Bros. issued a circular Novemer 1st, continuing as follows:

"The mule trade is about the same as it has been the past two weeks; plain, thin, common, cotton mules are selling bad, and good cotton mules are not selling as well as they did. Miners, sugar mules and big draft mules are selling fairly well. All other kinds are a drug on the market. Dealers don't seem to be able to get an outlet for common, plain mules. They don't like to fill their stables up with that class."

Oklahoma Cattle at St. Louis.

On October 1st, at the St. Louis National Stock Yards, J. J. Page, of Osage county, Oklahoma, marketed twenty-two head of 1,143-pound steers at $5.25 per 100 pounds; also sixty-nine steers averaging 1,008 pounds, at $4.90. James Keese, also from Oklahoma, marketed twenty-six head, weighing 907 pounds, at $4.85 per 100 pounds, and 138 head, averaging 927 pounds, at $4.80 per 100 pounds.

Winfield Scott, of Texas.

Winfield Scott, a Texas cattle raiser of standing and reputation, died suddenly at Fort Worth, Texas, in October. He was born in Kentucky in 1847, and arrived in Texas at the age of 21 and went to work on a farm in Tarrant county. After his arrival in Texas in 1868 he became a "free-grass" cattle raiser, a cattle driver, later on a cattle feeder and cattle breeder. Probaby his fortune began to expand in the year 1880, when he bought several thousand cattle in Western Texas. Although many cattle men who had been used to the open range failed to become reconciled to land ownership, or jumped in too soon, Winfield Scott appeared to be on hand to do the right thing at the right time. He died wealthy. In his later life, as he became in a position to do so, he became a public-spirited citizen, doing his part towards the development of the state and for the live stock center in which he was most interested.

Horses Lower in the East.

According to the New York Herald, horses in general have declined sharply in New York City. Said Mr. J. D. Carroll, General Manager of the Fiss, Doerr & Carroll Horse Company: "Prices of ordinary horses are off $25 a head this fall. This applies to everything except the very toppers. Yes, fresh country horses as well as second-hand ones, are affected. You can buy an A 1 delivery horse at from $175 to $240 that a year ago would have cost you from $200 to $275. Prices for plain wagon horses range from $100 up to $175, and you can buy a blemished or a thin one for $50 or $100. Contractors, truckmen, manufacturers, retailers and everybody else are complaining of dull times, and whenever they suffer the horse market is bound to reflect the stagnation in lower prices."

The Chicago International.

The International Live Stock Exposition at Chicago will be held this year December 2d to December 9th. The opening day is Saturday, 2d, and the closing day is Saturday, 9th. All farmers and stockmen are entitled to attend this show. It is the greatest educational pleasure that farmers and stockmen can obtain. There are always reduced rates on railroads, and it is worth the money the trip will cost to take a look through the stock that is on sale in the Chicago market. The Chicago International Live Stock Exposition furnishes the grand clearing-house contest between the winners of the state exhibits and the American Royal Show. Remember, December 2d to December 9th.

Circular on Swine.

The Agricultural Experiment Station at Urbana, Ill., has issued Circular No. 153, containing facts in swine feeding, with special reference to developing swine for breeding purposes. It is by Prof. Wm. Dietrich, Assistant Chief in Swine Husbandry. The ration table on page 4 is worth sending for.

Evans-Montague Commission Company

THE MEASURE OF SUCCESS attained by a SHIPPER OF LIVE STOCK depends largely upon THE COMMISSION HOUSE to which he consigns his CATTLE, HOGS AND SHEEP.

If you wish to receive TRUSTWORTHY AND RELIABLE SERVICE, and have your consignments SOLD BY CAPABLE AND CONSCIENTIOUS SALESMEN, you cannot do better THAN PATRONIZE OUR HOUSE.

The Shippers' Interests ARE OUR INTERESTS, and our rapidly-increasing business IS THE STRONGEST TESTIMONIAL of our ability TO PLEASE OUR CUSTOMERS.

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Fakers Exposed!

In keeping with its policy of service to the farmer, Farm Journal is distributing broadcast a book which exposes the worst class of swindlers that prey upon the farmer.

"Horse Secrets"

by Dr. A. S. Alexander, famous veterinarian, is a complete give-away of all the slick tricks the smoothest horse-trading swindlers are up to. Exposes the "widow dodge," the "ginger" and "bishoping" tricks. Tells the secret of "plugging a roarer," "shutting a heaver" and affords absolute protection to the farmer against all such roguery. Besides, it gives the most expert advice for feeding and conditioning of stock, together with the best remedies for diseases and vices of horses. We want every farmer to have this valuable book, because

Farm Journal

is the sworn enemy of all fakers, quacks and swindlers. They are strictly barred from exploiting their grafts through our columns, and we take every opportunity of exposing them. Therefore, we are making it easy for everyone to own this book by offering it, with a four years subscription to Farm Journal, the most helpful, practical, widest-read and best loved farm paper in the world,

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and many of them are bad old cases that skilled doctors have abandoned. Easy and simple; no experience needed; no cutting to be done; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. Valuable information and full particulars given in
Fleming's Vest-Pocket Veterinary Adviser
Best veterinary book for farmers; 192 pages, 69 illustrations. Copy mailed free.
FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

WESTERN

RANGE HORSE SALES.

Horse raisers are advised that the regular sales of Western Range Horses conducted by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.,

Will close for the season of 1911 with a "Last Chance Sale" to be held on

Thursday or Friday, Nov. 16th or 17th.

Messrs. Campbell & Reid and the Western Sale Stables Company will hold Auction Sale of Domestic Horses on

Wednesday and Thursday, Nov. 15th and 16th,

And the Range Horses will be sold after the sale of Domestic Horses on November 16th or 17th, according to circumstances. This "Last Chance Sale" will close the most successful season in the Western Range Horse trade. Buyers who wish to have splendid Horses to finish up for the domestic sale ring should be sure to attend this sale.

Please address

J. J. SEARCY, Sale Manager,

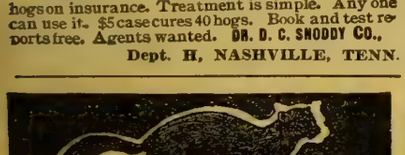
NATIONAL STOCK YARDS, ILL.

Hereford Cattle Sale.

Every year at the Chicago International Exposition there is an auction sale of Hereford cattle under the management of the Secretary of the Hereford Cattle Breeders' Association. This year the sale will be held on December 8th. Be sure to get a catalogue at once by writing to R. J. Kinzer, Secretary, Kansas City, Mo. The entries are sure to be good, and sometimes there are bargains.

SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. $5 case cures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. SNODDY CO., Dept. H, NASHVILLE, TENN.



TRAPPERS GET BUSY BIG MONEY IN FURS

Over ten million dollars will be paid to trappers of fur bearing animals during the coming winter. Any man or boy living in the country can add a goodly sum to his earnings by trapping during spare moments. We furnish ABSOLUTELY FREE a complete Trapper's Guide which tells you the size of trap and kind of bait to use for the different animals, how to remove the skins and prepare them for market. We also furnish the best traps and baits at lowest prices. We receive more furs direct from trapping grounds than any other house in the world, therefore can pay the highest prices for them. Our price lists, shipping tags, etc., are also FREE for the asking. If you are a trapper or want to become one, write to us today. We will help you.

F. C. TAYLOR & CO.

GREATEST FUR HOUSE IN THE WORLD

315 Fur Exchange Building, St. Louis, Mo.

Sale of Fine Horses.

The catalogue of the offerings at the sale of fine horses at Milan, Tenn., to be held on November 16th and 17th, can be had by writing for it. Most of the horses to be sold are registered in the American Saddle Horse Register and were bred by the best breeders of Kentucky. There will be sold at auction a number of stallions, mares, fillies and fine business horses and by reliable people who have been improvers of horse stock for many years. Address Barham Son & Butler, Milan, Tenn., for catalogue, and remember that Milan is in Gibson county, at the junction of the Illinois Central and Louisville and Nashville Railways.

Keep Brood Mares Working.

Breeders in France, says a correspondent of the Breeders' Gazette, not only make their mares perform all the work of the farm under the most trying conditions, but compel them to keep it up to foaling time. When the mare is nearing her time she is treated more gently, but there is no letting up in the work. This, in the opinion of this correspondent, is the chief reason why colts imported into the United States from Europe are larger than the home product. They possess that vigor and growthy quality which come from the fact that while in the foetal state they were nurtured by a strong circulatory system consequent to the rational regime to which the dam was subjected.

The Eastern Horse Trade.

Mr. T. H. Holland, of the firm of Holland, Nugent & Maxwell Bros., has just completed his third year at the St. Louis National Stock Yards. He has full charge of the horse auctions on Monday and Tuesday of each week. Mr. Holland came here from Kansas City and immediately took front rank in the horse market. Being interviewed in regard to the St. Louis horse market, he said: "I am more than satisfied with the market here, notwithstanding recent considerable decline in the price of all grades of horses. This is the best market on the continent, and the principal increase in business since I came here has been in the Eastern trade. This market is shipping more horses eastward every year, and the most gratifying feature of the business is that we send them horses that will sell again. If we are properly advised in regard to the class of horses that will suit a dealer's trade this market can furnish the goods. Just now is a fine time for Eastern buyers to open an acquaintance with the St. Louis market." Mr. T. H. Holland can be addressed care Holland, Nugent & Maxwell Bros., National Stock Yards, Ill.

Champion Draft Horses.

Mr. J. H. Truman shipped the eighth importation of draft stallions and mares for the year 1911 from London on October 23d. This shipment included several Shire stallions and mares that were bought expressly for exhibition at the International Show and also a few of the best Belgian stallions procured in Belgium. In addition to 100 imported stallions and mares exhibited by Trumans at the Bushnell Horse Show, it makes the largest and best supply of stallions and mares ever seen in this country, with Shires in the majority. For catalogues please mention this paper and address Trumans' Pioneer Stud Farm, Bushnell, Ill.

In a recent communication Messrs. Truman write as follows: "Surely we have again earned the title that we have held for the past thirty years of Champion Stud, as we have accomplished what no firm in America has ever done before, and that is, that we have won champion on both stallions and mares, with one exception, and that mare was imported by us, at the Iowa, Minnesota, Wisconsin, New York and Illinois State Fairs, and we have these champion horses on hand and they are all for sale, as we expect to exhibit practically a different lot of horses at the International Show. We have also been very successful at some of the leading Fairs with our Percherons and feel sure that we can show one of the most select lot of imported stallions from two to four years old to be found in the United States."

Last Chance For Range Horses.

The sales of Western range horses and mules by Campbell & Reid and Western Sales Stables Company at the St. Louis National Stock Yards are nearly over for the season of 1911. The last sale is scheduled for November 16th or 17th. This firm sell domestic horses at auction in the "bull ring" at the National Stock Yards on Wednesday, the 15th, and Thursday, the 16th, and if the sale of domestic horses occupies the two full days, the range horses will be sold on Friday, the 17th. In any event, the range sale will be held on Thursday, 16th, or Friday, 17th. There will be a fine lot of horses. They have already several hundred engaged for the sale with the probability of greatly increasing the number before the sale date arrives. Mr. J. J. Searcy is Sale Manager, and his post-office address is National Stock Yards, Ill.

A First-class Commission House.

In consigning live stock for sale at the St. Louis National Stock Yards, remember the Evans-Montague Live Stock Commission Company. It is a successful firm, highly competent and persevering in the interest of their customers. The Evans-Montague Commission Company solicit consignments of cattle, hogs and sheep for sale on the market, and desire stockmen to take notice that the company has special buyers who select and buy stock and feeding cattle for their customers. S. T. (Tom) Boothe, who has been on the market for fifteen years, is native cattle salesman. Colonel James H. Campbell is with this house as Vice-President, in charge of the Southern cattle department. His presence adds strength to the organization. The firm is equally well equipped to sell hogs and sheep. Stockmen requiring market information should address Evans-Montague Commission Company, Box 68, National Stock Yards, Ill.

St. Louis Prices For Hogs.

At St. Louis, October 31st, the best hogs, averaging 243 and 264 pounds, were sold at $6.50 per 100 pounds. In addition to the top loads, coarse to choice heavy hogs sold at $5.75 to $6.45 per 100 pounds. Mixed hogs sold largely at $6.00 to $6.35 per 100 pounds. Light-weight shippers, 100 to 150 pounds, sold at $5.20 to $6.00, and lots of little pigs at $5.00 per 100 pounds.

TOWER'S FISH BRAND REFLEX SLICKER

$3.00 EVERYWHERE — SATISFACTION GUARANTEED

MAKES WORK ON RAINY DAYS A PLEASURE

Our REFLEX edge (Pat'd) runs the entire length of coat and storm lap. — Guides all water to the bottom where it drops off

ABSOLUTELY NO POSSIBILITY OF GETTING WET

Practical-Serviceable-Economical

Ask your DEALER to show you THE FISH BRAND REFLEX SLICKER

A. J. TOWER CO. BOSTON MASS. — TOWER-CANADIAN LIMITED TORONTO.

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LOOK FOR THIS REFLEX EDGE — IT PROTECTS YOU

Opportunity For TRAPPERS

We pay HIGHEST MARKET PRICES for all raw fur skins because we use them for manufacturing. Sell finished article direct to public—*you* get middleman's profit. *Write for special Price List.*

FURS A. E. BURKHARDT Main st. cor. 3d, Cincinnati, O.

TRAPPERS WE BUY FOR CASH

And pay highest prices for **Coon, Mink, Skunk, Possum, Muskrat,** and all other **Furs, Hides** and **Ginseng.** Best facilities in America. Send for Free Price List and Shipping Tags. No commission charged.

ROGERS FUR COMPANY

309 N. Main St. St. Louis, Mo.

RAW FURS.

St. Louis is the largest and best market in the world for Raw Furs. This includes all Skins and Pelts of animals obtained by trappers in any section of the United States. All Furs require careful grading in the interest of the owner and shipper.

We Handle Furs and Pelts Strictly On Commission,

selling them to the best possible advantage. We grade to suit the requirements of buyers and sell for the highest quotations. Large or small consignments given careful attention. We solicit the Furs of hunters, traders and trappers. Reference: Any bank or merchant in St. Louis. Send for price list.

J. C. Crowdus & Company,

104 North Main Street, ST. LOUIS, MO.

Fine Live Stock Book Free!

Dr. David Roberts' Practical Home Veterinarian, 184 large pages, illustrated, is now Free to Live Stock Owners.

Gives symptoms, diseases and treatments for all live stock and poultry, the result of Dr. Roberts' life experience as veterinarian and live stock specialist. Apply at your drug store and get a copy free. If not there, send 10c in stamps for postage and we will send direct.

DR. DAVID ROBERTS VETERINARY COMPANY

90 Grand Avenue, Waukesha, Wis.

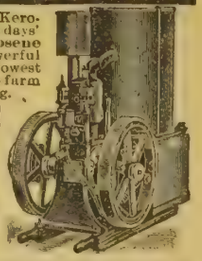
Free to Trappers

Send us your name and address and we will send you a supply of these tags free. Put them on your furs when shipping and you are guaranteed absolutely the best prices. We are the most liberal fur house in America. SEND TODAY FOR FREE PRICE LIST. We Charge no Commission as we are Direct Buyers.

LOTZ BROS. DIRECT BUYERS OF FURS ST. LOUIS MO.

Lotz Bros. 138 Elm St. St. Louis, Mo.

Use KEROSENE Engine FREE!



Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing.

Gasoline Going Up!

Automobile owners are burning up so much gasoline that the world's supply is running short. Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline. No waste, no evaporation, no explosion from coal oil.

Amazing "DETROIT"

The "DETROIT" is the only engine that handles coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Basic patent—only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Complete engine tested just before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric-lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate amazing, money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, we will allow you Special Extra-Low Introductory price. Write!

Detroit Engine Works 383 Bellevue Ave., Detroit, Mich.

Notes From the Poultry Yard.

Winter eggs are the most profitable. Some have tried to argue that summer eggs are the most profitable, because feed in summer costs much less than in winter. But this argument falls short when it is remembered that a hen must be fed winter and summer, whether she produces eggs or not. Therefore the earlier in the winter the hens can be induced to begin laying the larger will be the net yearly profit from the eggs.

The right kind of fall feeding helps the production of winter eggs. The feeding must be of a kind to prevent fat formation on the old hens and hasten the maturity of the last spring pullets. The time of beginning to produce eggs is a matter of maturity more than anything else. When a pullet has reached the point in her maturing process that is coincident with the development of the eggs within her she will begin to produce eggs and she cannot help doing so. The feeding of artificial stimulants, such as red pepper, cannot induce egg production if the required maturity has not been reached.

Little corn should be fed the fowls that are expected to do the laying, except in the coldest weather. Fowls being fitted for market may receive corn in large quantities, because the public is willing to pay for fat to throw away. To the eater it means tenderness of flesh and good flavor. But it will not serve the fowl that is getting ready for egg production. The writer has seen fowls so heavily fed with corn in the fall that they did not begin to lay till along into March.

As the fowls are thrown on dry feed, the matter of keeping off indigestion should be considered. Once a day soft feed should be given or the fowls should have access to green food, such as chopped cabbages, chopped carrots and the like. The fact is that most farmers do not supply their fowls with green stuff daily throughout the winter, and the next best thing is the soft food. This is easiest made by scalding ground grain at night and letting it cook in its own heat during the night. It will be cold enough in the morning and will be stiff enough for the fowls to eat it easily.

The great danger in the poultry house in the fall is the broken window that has not been repaired and that will permit wet drafts to blow on the fowls. Whether a dry cold draft will injure a fowl is a matter largely dependent on the temperature of the fowl, but a wet draft during a rainy night may begin troubles that it will be difficult to get rid of. It is the part of wisdom not to neglect the making of such repairs.

Damp poultry houses are always dangerous. Dampness is one of the conditions under which poultry cannot be successfully raised. Draining or filling in with coal ashes will help matters, but a naturally dry location is best.

Light is of great importance in the poultry house, especially in winter. It does not require much work to put in the necessary windows.

Missouri Fruit Exposition.

At Columbia, Mo., January 9-12, 1912, on the occasion of the Fifty-fourth Annual Meeting of the State Horticultural Society, there will be a great Fruit Show, at which about three hundred dollars will be offered in cash prizes. Premium lists are now being sent out by Secretary W. L. Howard, Columbia, Mo. Fruit should be selected and sent by express to the Board of Horticulture, care of A. J. Stillwell Cold Storage Co., Hannibal, Mo. It will be kept free of charge. Many persons prominent in the fruit business of the state will read papers and take part in the discussions. This is a good opportunity for beginners in fruit growing to acquire a lot of valuable information from experts.

Comfort Among Poultry.

It has been truly said that fine feathers do not make fine birds; but it is equally true that you cannot have really fine birds without the fine feathers. Show us the rough fowls and we at once suspect neglect, lack of cleanliness. And this means not only discomfort to the birds but lack of profit to their owner.

The expensive poultry house is unnecessary. It may even lack the warmth which we are accustomed to think necessary, and yet if it is dry and draughts can be avoided there will be a fair amount of profit. The muslin curtain is generally preferred to glass windows, as solving the problem of ventilation together with that of light. But do not think that any old piece of cloth will do, for light tends to rot cloth, and it will take a fair piece of muslin to last through the winter. Of course you do not want that so frail that the blustering winds will tear a hole in it on the very coldest night. To be compelled to repair at such a time costs more than good cloth in the first place.

Leaves have more value in the scratching shed than most people realize. If you save those raked from the yard instead of burning them there will be no blackened and bare spots on the lawn, telling the story of useless fires, and the hens will rustle among them, singing the lay which precedes the laying of the egg. The insect eggs they contain will be carefully hunted out by the fowls, and leaves do not gather moisture in the poultry houses like straw.

Oyster shell is so cheap that no one keeping poultry can afford to be without it in winter. The hens will leave corn every time for it, and it is a constituent which their systems demand. But do not think it a substitute for grit. They must also have gravel or some equivalent to thrive. And if we fail to cater to their physical necessities they will as surely fail to cater to ours.—Bessie L. Putnam.

Get Your Share of the Profits on Holiday Poultry

Millions of dollars are spent for poultry during the holidays. What will be your share depends on the condition of your fowls. Give Pratts Poultry Regulator to your turkeys, geese, ducks and chickens and you will have heavy fowls that bring top prices.

Pratts Poultry Regulator

aids digestion, thus enabling the fowls to get every bit of nourishment from their feed and to put on weight quickly. It also prevents and cures the common poultry ailments.

Satisfaction Guaranteed or Money Back

Our dealers will promptly refund purchase price if Pratts Poultry Regulator does not show you a handsome profit. Test it with all or part of your fowls, and remember that it is an unequalled egg producer also.

25 lb. pails $2.50; also in smaller packages and 100 lb. bags. If your dealer cannot supply you, write us.

Pratts Roup Cure *in 25c. and 50c. packages is a positive preventive and cure of this terrible disease.*

Our 1911 edition Poultry Book mailed free.

PRATT FOOD CO., - - Dept., 54, Philadelphia, Pa.

Pratts Animal Regulator *invigorates horses, cows, calves, hogs and sheep.*

The Bulgarian Exposition.

An International Exposition will be opened at Sofia, Bulgaria, next June and continue until the middle of September. It will embrace all products of industry, especially agriculture. Full particulars may be had on application to the Organization Committee of the International Exhibition, 1912, No. 5 Alexander Place, Sofia, Bulgaria, in Europe.

OF GREAT INTEREST TO HOG RAISERS.

A. J. Adams Drove Hogs Through Cholera-infected Hogs Without Ill Effect After Using Merry War Lye.

From Searchlight, Redding, Calif., September 1, 1911:

Editor Searchlight:—I read an article in your paper on August 30, 1911, relative to "Ravages of Hog Cholera Stayed," about the Government Experiment Station at Berkeley having, after years of study, finally found a hog-cholera serum that will prevent the spread of the farmers' dreaded disease, at an expenditure of $16,000.

Now, I wish to state to the public, and most especially to those who make hog raising a specialty, that it did not take many thousands of dollars for me to find a remedy that will prevent and cure the hog cholera. We have the Government Experiment Station skinned a mile, and it only takes 10 cents to accomplish the purpose. "Merry War Lye" will positively prevent and cure the worst case of hog cholera and we have good proof to that effect.

A. J. Adams, the hog raiser, drove a bunch of "Merry War Lye" hogs right through where the dead and dying hogs were laying thick along the road on his way up to Manton, and he has never lost a single hog, nor not even one has showed any signs of cholera. If you or anyone of your neighbors have any sick hogs, come to see us, and we will save every one of them for you.

D. B. NATHAN, of the Nathan Hay and Grain Co., Redding, Calif.

Merry War Powdered Lye is for sale by all dealers, everywhere, at 10 cents per can, and should be mixed one tablespoonful with slop for ten hogs, or one-half can with barrel of swill or barrel of drinking water. Stir well; feed night and morning.

The Farm Work Joke.

A farm hand had worked in the field from dawn till darkness, doing the chores by lantern light. "I'm going to quit," he said to the farmer at the end of the month. "You promised me a steady job."

"Well, haven't you got one?" was the astonished reply.

"No," said the man, "there are three or four hours every night that I don't have anything to do and fool my time away sleeping."—Success Magazine.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The

strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

WEATHER FORECASTS

For the Month of December, 1911, by the Famous Prognosticator, Prof. W. Wadsworth Marsh.

[Copyright, 1911, by W. W. Marsh.]

We publish the weather predictions by Prof. Marsh one month in advance. This is the November edition of The National Farmer and Stock Grower, and the following are the predictions for the month of December. The success of Prof. Marsh is phenomenal.

December, 1911.

This month will be quite tempestuous, quite heavy rains, sleet and snow storms, alternating, delaying traffic in all sections of the country.

December 1st and 2d.

General unsettled weather covering the greater portion of the country. Storm, cold wave and snow over Montana, Dakotas, Wyoming, Colorado, Northern Arizona, Utah, Idaho and New Mexico and covering the entire lake region, Upper Mississippi and Missouri Valleys, the West, Northwest, Southwest, Eastern and New England States, and along the North Atlantic coast and cities of the East, rain turning to snow.

Rain to frost over the South, and snow along the Rocky Mountain slope.

Cold, snowy weather covering the Ohio Valley, Ohio, Kentucky, Indiana, Tennessee, Pennsylvania and water sheds of the Ohio.

December 3d to 8th.

Between these dates storms will cross the country. Cold wave, high winds, rain, sleet and snow covering Central Valleys, delaying traffic, and in the Middle and Northern Districts, from the Missouri Valley eastward, covering the Ohio Valley, Tennessee, Ohio, Kentucky, Pennsylvania, Indiana, West Virginia, Alleghany region, Pittsburg, and water sheds of the Ohio, along the tributaries from the Alleghany Mountains to St. Louis, Mo., delaying traffic. High winds, damaging floating property, unless protected.

Storms, wind, sleet, rain and snow from Iowa and Nebraska southward to Texas. Rain and snow in Northern Texas and Northern Louisiana, and rain, sleet and snow, high gales from the Rocky Mountains to the Mississippi river, delaying traffic.

Storm, high winds, heavy rains overspreading the Gulf States and coasts, affecting the entire South. Damage done by wind and water in Mississippi, Georgia, Alabama, Texas, Louisiana, Arkansas, Virgina and Carolinas and coasts.

December 9th to 12th.

Between these dates there will be unsettled weather without much action.

December 13th to 17th.

Between these dates storm, rain, sleet and snow, followed by colder weather, throughout the entire country, quite severe from the Mississippi river eastward, covering the Ohio Valley and Tennessee, Ohio, Pennsylvania, Kentucky, West Virginia, water sheds of the Ohio, Western Pennsylvania and Ohio river tributaries.

Storm, heavy rain in the South, covering the Gulf States, coasts and cities of the South, followed by colder weather and frost. This storm will be severe, overspreading the Carolinas and Virginias and coasts.

Storm, rain, sleet and snow, followed by cold wave, covering the Upper Mississippi and Missouri Valleys, covering Kansas, Missouri, Iowa and Nebraska, also Oklahoma and Texas.

December 18th and 19th.

Generally fair weather in most sections.

December 20th to 24th.

During this period there will be storms, changeable temperatures, rain to snow, followed by cold wave, high winds, covering the Ohio Valley, Tennessee, Ohio, Indiana, Kentucky, West Virginia; also storm, high winds, heavy rains on the Gulf of Mexico, and from Tennessee to the Gulf, covering Gulf States, affecting Mississippi, Texas, Arkansas, Florida, Louisiana, Alabama and entire Gulf coast, followed by colder weather.

Storm, rain and wind changing to blizzard, cold wave and heavy snow, forming blizzard, over North and Central Texas and plains country in the Pan Handle of Texas, rain and snowfall quite heavy at Fort Worth, the cold wave causing low temperatures over the state of Texas as far south as San Antonio. Protect stock.

Rain, snow, cold wave forming a blizzard over the Upper Pan Handle and Southern Oklahoma.

December 25th and 26th.

Generally quiet, fair weather in the interior of the United States.

December 27th to 31st.

Between these dates cold wave, rain, sleet to snow storm forming blizzard, crossing the country. Blizard, cold wave, sleet and snow storm, quite severe, delaying traffic, covering the Upper Mississippi and Missouri Valleys, the Southwest, Kansas, Missouri, Iowa and Nebraska, storm extending into Oklahoma, the traffic delayed in all these states and cities, wire service badly crippled.

Storm over the South covering the Gulf States and coasts, Texas, Mississippi, Alabama, Louisiana, Georgia, Carolinas, Virginias, their cities, followed by colder weather.

PROF. W. WADSWORTH MARSH.

I Will Prove To You That Merry War Lye Will Cure Your Sick Hogs

E. Myers, President, E. Myers Lye Company

You, and every other Hog Raiser, know that if hogs can only be kept on their feet and on their feed and free from worms and cholera, there'll be no cause to worry about your hog profits.

When I, personally, say to you, Mr. Hog Raiser, that MERRY WAR LYE is the greatest Hog Remedy, Conditioner and Fattener, the world has ever known, I know whereof I speak, because I have spent more than 20 years with MERRY WAR LYE, making untold tests before I ever offered it to progressive Hog Raisers, and proved it the most remarkable Hog Remedy the world has ever known.

Hundreds of Hog Raisers write telling how glad they are that I ever told them that MERRY WAR LYE was the very best remedy they could find to kill worms, hog cholera and put pigs in prime condition quickly for highest market prices.

Read What Adam Schultz, a Kansas Hog Raiser, Writes

This is but one out of the big daily mail and it's mighty interesting reading for up-to-date Hog Raisers.

"Before I began feeding MERRY WAR LYE my hogs did not eat as they should. Some of them would not eat at all, but after I had fed MERRY WAR LYE about 8 or 10 days, I could see a marked improvement in my drove and they now look sleek and thrifty. I consider MERRY WAR LYE the best remedy I have ever used—and the cheapest. I have spent a good deal of money at times but I never got the results from any of the so-called Hog Cholera and Worm Cure Remedies as I have from MERRY WAR LYE."

And that's the general testimony of Hog Raisers—and I just want to say to you that the very best way you can insure big, fat pork profits is to

Feed Merry War Lye Every Day

—and feed it just as regularly as you do their daily ration—you will find it a profit-earning investment, because it not only prevents hog losses from Cholera, Worms, etc., but it will turn your golden grain into more golden dollars and more quickly than anything else you know of and it costs so very little, 10c a can.

Heed My Warning

It's mighty important for your hog profits that you don't make any mistake about this matter—because some makers of ordinary commercial lye are trying to persuade dealers and hog raisers that their product is just as good as Merry War Lye as a hog remedy.

Don't you be led astray by such talk—no other lye maker knows the secret process that makes Merry War Lye safe to use in your hog feed—they never will find out the combination in Merry War Lye that keeps your porkers right on the road everyday to a profitable market.

Save Directions—Follow Them

Mix one tablespoonful Merry War Lye with slop for 10 hogs, or a half can with barrel of swill. Stir well and feed EVERYDAY, night and morning. If your hogs are on a dry feed ration, mix a half can Merry War Lye to each barrel drinking water.

At All Leading Dealers

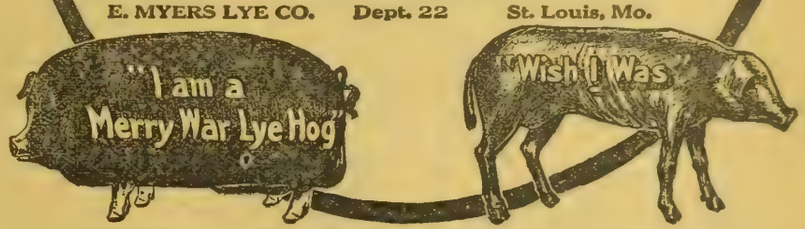
Most dealers handle Merry War Lye. If yours can't supply you, write us, stating your dealers' names, and we will see that you are supplied, and will also send you, free, a valuable booklet on, "HOW TO GET THE BIGGEST PROFITS FROM HOG RAISING."

Merry War Powdered Lye comes in 10c cans; full case of 4 dozen cans for $4.80, at Grocers', Druggists' and Feed Dealers'. There are no substitutes.

Kettle Powdered Lye For Soap Making

If you want the best lye, exclusively for Soap-Making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—BUT DON'T FEED IT TO YOUR HOGS. FEED ONLY MERRY WAR LYE TO YOUR HOGS.

E. MYERS LYE CO. Dept. 22 St. Louis, Mo.



The Profitable Litter.

In our herd of brood sows is one that has averaged to raise more than ten pigs to a litter, twice a year for three years. Another sow has averaged only seven. Now it would seem apparent to most readers that the first of these sows is the most profitable, yet this cannot be said to represent the fact of final profit and loss. The first sow is of the semi-razorback type, that can always be picked out at sight as prolific and motherly stuff. When fattened out in the same lot, from first to last, everything the same, the pigs of the second sow far outstrip the pigs of the first, and make the gains that cause the feeder to wish that his whole drove were the same blood.

This is not at all because they had a better start, owing to being a smaller litter, but is due to different blood. Both sows are of the same breed, but the type is entirely different. It is a regrettable fact to the writer that our most ideal sows that produce the very best litters for profitable fattening are not the most prolific nor the most careful mothers. Unqualified credit must not be given to the sow that raises the largest litter; on the other hand, there is a limit to be set for small litters. With us, the sow that farrows or raises less than six soon gets her start toward the slaughter-house.—George F. Williams, in the Ohio Farmer.

Horses' Cloudy Eyes.

White specks, bluish rings, ulcers in your horse's eyes all point to one thing—the fact that his sight is impaired and rapidly failing. If your horse has any of these symptoms, or any signs whatever of imperfect sight, don't neglect him a day longer, for the ailment may quickly become too acute to be cured. Write at once to the Visio Remedy Association, 2472 Calumet Ave., Chicago, and ask them about Visio—the wonderful eye remedy that has cured so many cases of blindness. This remedy has a startling record of success, and has cured many horses pronounced incurably blind. It is guaranteed to cure over 90 per cent. of the many ailments that attack a horse's eyes, and if it fails, the purchase price is promptly refunded by the makers. They have a most interesting advertisement on page 16 that tells more of Visio.

Fasig-Tipton Company will hold the annual "Old Glory" auction of fine horses at Madison Square Garden, New York City, November 27th to December 2d.

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

Ten big-bone, long-bodied ready-for-service Boars. You need one and the price is reasonable. Write.

KIRBY STOCK FARM, Marmaduke, Ark.

BLUE RIBBON HERD POLAND-CHINA HOGS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description. **JOHN McLAUGHLIN,**

R. F. D. No. 1, Marmaduke, Ark.

CARPENTER'S CHAMPIONS.

For Sale: Seventy-five Poland-China Pigs, sired by champion Boars; also champion Sows of my herd. Twenty-five Durocs sired by Mortgage Lifter and grand champion Sows bred to grand champion Boars. Write for prices and catalogue.

WILDER CARPENTER, Grand View Breeding Farm, Marmaduke, Ark.

REGISTERED DUROC-JERSEY BOAR PIGS, $7.00 EACH.

Gilts, $9.00 each. Fine Pigs; good color; from large, prolific Sows. If not satisfactory your money refunded. Best Duroc herd in the South. Satisfied patrons in seven states. Can please YOU, too. Thirty fine

BRED GILTS.

Weight about 200 pounds, now being bred to a grand prize-winning Boar. Price, $30 each; guaranteed safe with Pigs.

REGISTERED JERSEY BULL CALVES,

out of heavy producing Tormentor-St. Lambert Cows, three to four months old, $20.00 EACH, for a short time.

Write to-day—to-morrow never comes. You will get a better selection by sending cash with first letter, stating just what you want. **DAVIS JERSEY FARM, Johnson, Washington County, Ark.**

TRUMANS' PIONEER STUD FARM.

America's Largest and Oldest.

Importers of

SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for Catalogue.

Address,

J. G. TRUMAN, Manager, BUSHNELL, ILL.

POLAND-CHINA SWINE.

Best of breeding. Prices, $12.00 and up. R. C. R. I. Red and R. C. Brown Leghorn Fowls, $1.00 up. Write for particulars.

D. F. BEAUCHAMP, Meredosia, Ill.

POLAND CHINAS

Boars and Gilts by 1,000-lb Boars with a 10½-inch bone, out of stretchy Sows that farrow eight to ten and more.

J. P. VISSERING, Box 1, Alton, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

ROSE COMB RHODE ISLAND REDS, ROSE COMB BROWN LEGHORNS.

Fowls, $1.00 up.

Write for particulars.

D. F. BEAUCHAMP, Meredosia, Ill.

ELMER GIMLIN, Taylorville, Ill., White Wyandotte Specialist. Exclusive business. Duston strain. Stock, $2 each; 15 eggs, $1; $3 per 50; $5 per 100. Catalogue free.

PURE-BRED REGISTERED ANGORA GOATS

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

DUROC-JERSEY HOGS.

Have a few Spring Boars left at prices that will move them. Also a few Rose Comb White Wyandotte Cockerels, $1.50 each. **H. H. HOFMANN, Route 1, Belleville, Ill.**

---

50 Head of Pedigreed **DUROC RED SPRING PIGS** at farmers' prices.

CHAS. DORR, Osage City, Kansas.

TOP CHESTER WHITE AND O. I. C. HOGS

with quality and finish from First-premium Hogs at Illinois and Iowa State Fairs. Fine circular free.

W. A. HINKLE, R. R. 7, - Decatur, Ill.

Tamworths The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.

W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.

REGISTERED POLAND-CHINAS.

Splendid Pigs for sale, eight to ten weeks old, at $10.00, from best strains. Give us a trial and we will please you.

BARLAND BROS., Barland, Miss.

SUNSET JERSEY CATTLE HERD.

Two splendid full-blood Jersey Bull Calves for sale at $10.00 each. Cannot be registered, but are bargains for grade herds, and are offered at about veal price. Registered, big-boned, spotted Poland-China Pigs, either sex, $20.00 and up. Write for further descriptions.

ALBERT S. ENNIS,

712-21 Central National Bank Bldg., St. Louis.

A Few

SADDLE STALLIONS and FILLIES

For Sale, Both Chief and Denmark Breeding.

Address,

DR. S. MADDOX & SON P. O. Box 394, Monroe City, Mo.

LARGE YORKSHIRE SWINE.

THE BREAKFAST-BACON HOG.

Also produces finest quality of sweet, tender, juicy, fresh pork. Pure-bred.

HARDY, VIGOROUS, PROLIFIC, KIND.

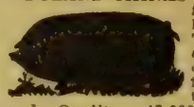
Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

T. C. KIMBER, P. O., Pilot Knob, Mo.

SAWYER'S INDIAN RUNNER DUCKS. Good enouh to win in any show. Drakes with light fawn heads. Also White Chinese Geese for sale. Write for prices.

W. M. SAWYER, Lancaster, Mo.

POLAND-CHINAS OF BEST STRAINS,



that have size and bone as well as quality. They grow fast and feed easy. Gilts and Boars of March and April farrow, that weigh 150 to 200 pounds, by Size and Quality, 47,889, Siefker's Mastodon, 55,755, and Master Meddler, 2d, 55,000, best lot I ever raised and priced to sell at once. Satisfied customers in thirty-six states. Come or write to **A. F. SIEFKER, Defiance, Missouri.**

CHOICE LOT OF BERKSHIRE PIGS

for sale. One good Herd Boar, a grandson of Masterpiece, 77,000. These are all the Large English Berkshires of the most popular breeding; also one extra fine Roan Shorthorn Herd Bull for sale. Some choice B. P. Rock Cockerels. Call or write **E. L. JOHN, Owner Broadway Stock Farm, Broadway, Maries County, Mo.**

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

Light and Heat on the Farm.

Some of our readers will be surprised to learn how simple a matter it is to have light and heat on the farm—light for the house and barn and heat for the cook stove. Our readers may also be surprised to learn that already 185,000 farms have been equipped with this light and heat and not one will ever think of giving it up again. We refer to acetylene light, which is generated from a gas-producing stone. It is a very interesting subject. Read about it on page 5.

Grass Seeds at St. Louis.

On October 31st, at St. Louis, Mo., quote (per 100 pounds): Prices were ruling comparatively high and firm. Timothy—Average run at from $14 to $15.50; high-grade worth up to $15.75, and inferior $10; clover at from $9.00 for weedy and poor up to $18 for clean—large purple pure grain at $20. Red Top sells on basis of $16 for fancy clean seed. Only a few small lots timothy and clover offered.

Death of George H. Morgan.

On October 31st, George H. Morgan, Secretary of the St. Louis Merchants' Exchange, ended his earthly labors and entered his rest. He was Secretary of the Merchants' Exchange forty-seven years. He was born in 1838, and as a man was never known to fail in the performance of his duty. The services which he rendered his fellow-man were too many to be recounted.

Pears by the Barrel.

In St. Louis, October 31st, 1911, pears were selling as follows: Illinois and Missouri Kiefer in barrels at $1.25 to $1.75 for sound (specked and inferior less); bulk at $1.00 to $1.25 per barrel measure, delivered; New York Kiefers, $2.00 to $2.25 per barrel, delivered; home-grown and nearby Kiefer at 25 to 35c. per half-bushel basket and 40 to 75c. per bushel box, as in quality; New York Bartletts at $1.50 to $1.75, and Duchess at $1.00 per bushel basket, delivered.

Golden Arrow Seed Catalogue.

The A. W. Schisler Grain Company, St. Louis, Mo., will send a catalogue of vegetable, flower, field and garden seeds to any of our readers who will write for it. It is called the Golden Arrow Seed Catalogue and is named after their Golden Arrow Seed Corn, after their very prolific yielder, and the cleanest and brightest yellow corn on the market. Quotations will be furnished on any and all seeds in season in any quantity. Address, A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo.

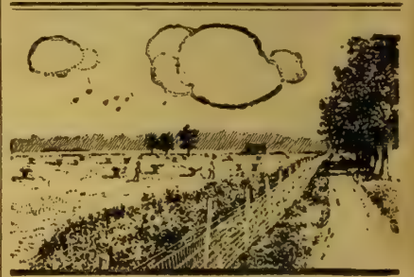
Cash Grain at St. Louis.

On October 31st, 1911, cash grain sold at St. Louis at the following range of prices:

Wheat—No. 2 red wheat, 98 to 99½c.; No. 3 red, 97 to 97½c.; No. 4 red, 95½c.; No. 2 hard, 99c. to $1.11½; No. 3 hard, 98c.; No. 4 hard, 95 to 98c.

Corn—No. 2 corn, 71½ to 72c.; No. 3 corn, 71c.; No. 2 yellow, 72c.; No. 3 yellow, 71c.; No. 2 white, 73 to 73½c.; No. 3 white, 72c.

Oats—No. 2 oats, 46 to 46½c.; No. 3 oats, 45½c.; No. 4 oats, 45c.; No. 2 white, 47¼ to 47½c.; standard, 47¼ to 47½c.; No. 3 white, 46½ to 47c.; No. 4 white, 46c.; No. 2 rye, 99c.



Rich, level land — $6 per acre!

G. W. Myers & Son, formerly of Litchfield, Ill., went down near Fordyce, Ark., and bought for $6 per acre land that *beat his $150 Illinois land.* They are raising fine crops of corn, milo, peanuts, potatoes, etc. Mr. Myers says that he likes this country because the *climate is better* and the land is *easier to work.*

Maybe you couldn't buy it quite that low now—land values have been going up in leaps lately—but, with your knowledge of farm values, you would be surprised at the *bargains* you can buy along the

Cotton Belt Route in Arkansas and Texas

Improved farms such as a man of small means couldn't touch in the older States can be had in that country for $2,000 to $3,000. A man can actually buy 160 acre farms at many points there for what he would have to *advance* for rent on some Illinois or Iowa farm.

There are many sections in Arkansas and Texas that are *just suited* for your line of farming—where you can buy *many* acres with the price of every *one* you now own—get the benefit of the *big* boost in land values sure to come—live in a mild climate where you can do money making work *every* month—without sacrificing *anything* in living conditions that you now have. Telephones, good schools, rural delivery, modern towns, close markets—you'll find them all through Arkansas and East Texas.

On the 1st and 3rd Tuesdays of each month there are very low round trip excursions to Arkansas and East Texas via Cotton Belt Route, allowing 25 days for trip and *free stop overs.* Plan to go on the *next* one.

Get our free books today!

(new)—they show examples of successes in Arkansas and Texas in your line of farming—by people from many states—some of them likely from your own State. Nothing will convince you like these statements from "home folks." Scores of illustrations. Write for free copies today.

E. W. LaBEAUME, G.P. & T.A., St.L. & S.W.Ry. 1419 Pierce Bldg., St. Louis

COTTON BELT ROUTE

THE UNIVERSAL DESK.

This elegant desk is a splendid subscription premium for club raisers. It is Golden Oak. The height is 41 inches, width 26½ inches, and in the shipping crate the weight is 52 pounds. It is packed in sections but easily put together.

The interior has two pigeonholes and two compartments. The picture is an exact reproduction of the desk. Anyone who desires to do so can earn one of these desks by taking a few subscriptions for our own publications, the Universal Magazine and The National Farmer and Stock Grower. For particulars address **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Great Jack and Jennet Exhibit.

The following article is from the Daily Herald of Columbia, Tenn., and it relates to the jacks and jennets bred and owned by our advertiser, Mr. Thos. H. Ezell, whose breeder's card has been in this paper for five or six years. The Herald says:

"Probably the finest and certainly the largest exhibit of live stock by any individual at the Fair is being shown by Thomas H. Ezell, proprietor of the Mill Creek Stock Farm, Nashville, Tenn. Some of the stock would take first money at any show in the country. Mr. Ezell has twenty head with him, fourteen jacks and jennets and six horses. The latter are entered in all the show rings.

In the jennet line Mr. Ezell has two of the finest in the world. For one of them he has refused $1,000, and values the pair at $2,500. Competent judges say that they are the best pair that has ever been on the Fair Grounds. One of them, Tennessee's best, is four years old and 15½ hands high. She has been shown thirty-nine times at different Fairs all over the South, and of this number she has won thirty-four firsts, sweepstakes and championships. Her mate, Annie May, is a five-year-old and stands 15 hands 3 inches under the standard. She has been shown only six times, but has gotten the blue ribbons every time she has stepped in the ring. He has two other jennets with jack colts at their sides. One of the colts is pronounced to be unbeatable. He has a seventeen-months-old jack colt that his owner thinks is the best jack of his age in the world. He measures 35 inches from ear to ear, and is 15 hands high. He calls him "the Leading Star."

"In the horse line he has several good ones. Red Sigler, a five-year-old trotter with a trial of 2:23, is entered in all the show rings of his class. One of the prettiest things to be seen in his stable is a cob mare that he calls Miss Bill Smith. She has been shown for three years and has never been out of the money.

"But the animal that attracted most attention from the large crowd that visited the stable was a four-months-old mare mule colt that was pronounced by everyone who saw it the best ever seen in this county, the home of the mule and mule colts. It is a bay, and without speaking too strongly, we do not believe that an artist could give wing to his imagination and paint anything that would do it justice. Wednesday afternoon Mr. Ezell sold it to Laurice Moore, of Glendale, for the sum of $200, possession to be given to him of her on October 1. She is entered in several Fairs, and Mr. Ezell does not want to part with her until he has filled all of his engagements."

For Better Crops.

We have received a copy of a new booklet entitled "For Better Crops," issued by the International Harvester Company. This booklet comprises 160 pages, and it contains contributed articles by the best authorities in the United States on such important subjects as "increasing fertility," "small grain growing," "the corn crop," "alfalfa culture in America," "the wheat crop," etc. This booklet is issued for free distribution, but it cost more money to secure the articles than would buy a farm. Each of our readers should write to the International Harvester Co., Chicago, Ill., and ask for a copy.

Hay Sales at St. Louis.

Sales of hay at St. Louis on November 1st: Sales on St. Louis Side—One car no-grade at $6.00; part car slough grass at $13; one car clover-mixed at $17; one car and part car do. at $18; four cars do. at $19, one delivered; four cars and three part cars light do. at $20; one car part clover at $18 and part clover-mixed at $19, and part No. 1 timothy at $22.50. Timothy—One car threshed at $13, delivered; part car No. 2 at $18; one car scant No. 1 at $20; two cars and part car No. 1 at $21; two cars do. at $22.50; one do. at $22; two do. at $22.50, one delivered. Clover—One car No. 1 at $17.50, delivered. Prairie—Two cars common at $9.00; one car do. at $10; part car No. 3 at $11; one car do. at $11.50; one car and part car No. 2 at $12; one car do. at $13; one scant No. 1 at $13.50; one car choice at $16. Alfalfa—One car No. 2 at $16; three cars No. 1 at $18; one good do. at $19. On East Side: One car light clover-mixed at $21, delivered to St. Louis. Timothy—Two cars scant No. 2 at $18, delivered to St. Louis; two scant No. 1 at $20 do.; one do. at $20.50 do.; three No. 1 at $21, two do.; one do. at $22 do.; three do. at $22.50, two do.; fifteen cars do. also at $22.50; three cars high No. 1 at $23, delivered to St. Louis.

Market For Potatoes.

On November 1st, the arrivals of potatoes at St. Louis were selling in car lots as follows: Choice Northern Ohios in bulk, 93 to 95c.; sacked, 95c. to $1.00, the latter price for extra fancy Red River stock; Wisconsin Rurals, 70 to 78c.; Michigan Rurals, 75 to 78c.; Burbanks, 75 to 80c.; bulk Minnesota, 65c. per bushel on track.

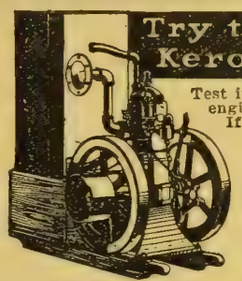
Cape Cod cranberries, early black, at $7.75 to $8.00 a barrel, is one of the recent market quotations at St. Louis.

SHERWIN-WILLIAMS PAINTS & VARNISHES

FOR THE FARM

Use Sherwin-Williams Roof and Bridge Paint for painting bridges, structural iron work, metal and tin roofs, barns, rough lumber, etc. It is durable, covers well and works freely under the brush. Sold by dealers everywhere. Ask for color cards.

Address all inquiries to The Sherwin-Williams Co., 689 Canal Road, N. W., Cleveland, Ohio



Try the Wonderful Columbia Kerosene Engine at our Risk

Test it out on your own place for fifteen days. Give it the hardest engine test you can think of. Compare it with any other engine. If the Columbia doesn't develop more power at less cost, send it back quick. No conditions. We are willing to let you be the judge and jury. Kerosene (common lamp oil) is by far the cheapest fuel today. The price of gasoline is climbing all the time, while kerosene remains the same, and in the right engine, it lasts longer and produces more power per gallon than gasoline. You get ALL the power when you use a Columbia, because it is the right engine. It is the one really simple and perfect kerosene engine. It never bucks when you need it most. It is always on the job.

Write for Particulars of Our Big Special Offer.

Size 2 to 16 H. P.

We are going to double our output for next year. We can do it easily. It is just a matter of getting engine users to test the Columbia for themselves. So we are making a great special money saving offer on Columbia Kerosene Engines. This offer is liable to be withdrawn at any time, so write today for full particulars, for it is a money saver you would hate to miss. **Free Book No. 84 full of engine facts you need to know, sent free.**

COLUMBIA ENGINE CO., 84 Fuller St., Detroit, Mich., U. S. A.

Sheep and Lamb Trade.

At St. Louis, opening day of November, on the St. Louis market, quite a number of strictly good native lambs sold at $6.00 per 100 pounds, which was the top of the market. Other good lambs went at $5.35 to $5.75; fair grades brought $4.75 to $5.25, and the culls $3.75 to $4.25. Mutton sheep sold at $3.35 to $3.50. On Thursday, the 2d inst., Clay, Robinson & Co. sold a car-load of seventy-two-pound Southwest lambs at $6.10. They were from Christian county, Missouri, and put another top on the market.

W. H. McMaster, of Clarksville,, Texas, is reported as having raised eight and one-half bales of cotton on four and two-fifths of an acre of ground. He obtained seven full bales. The cotton is of the Lone Star variety and the original seed was furnished by the goverment.

T. J. Coggin, of Merkel, Texas, recently purchased a 50,000-acre ranch in the state of Sonora, south of Douglas, and is now receiving 1,500 head of cattle to stock his range. D. Easterwood, of Oklahoma, and Jesse Scarborough, of Abilene, are closing a deal for a 50,000-acre ranch, also located in the state of Sonora.

In the census year the state of Mississippi raised only 4,670 bushels of wheat, but did produce 4,427,988 bushels of sweet potatoes.

HARRY'S
Steel Thresher Tanks
and Grain Bins—Are Better

No. 16 Gage Heads. No. 20. Gage Shell. Best Galvanized Steel.

Manufacturers of
CORRUGATED STEEL ROAD CULVERTS, TROUGHS, GRAIN BINS, HAY STACK COVERS.

Write for Catalogue and Prices.

O. K. HARRY STEEL CO., 2353 Papin St., St. Louis, Mo.

CASH OR CREDIT

Catalogue FREE.

ONLY $10.00

Cash, balance $5 per month, buys this 3-year-guaranteed buggy. Buggies $29.50 up; Surries $45.00 up; Farm Wagons $40.00 up. We trust honest people located in all parts of the world.

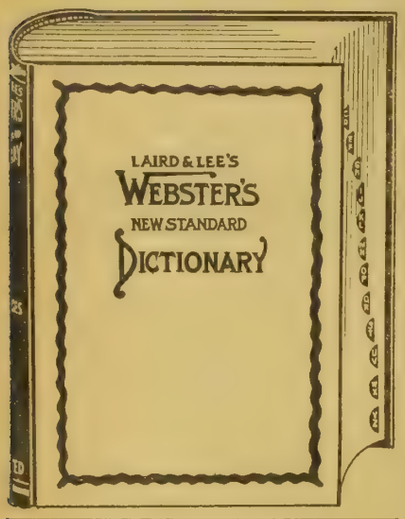
Write For FREE CATALOGUE.

Century Manufacturing Co.,

Dep't 850, East St. Louis, Ill.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English



word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Gowns of Suesine Silk.

The smartest evening gowns and dressy frocks for this fall and winter season are made of soft, clinging fabrics.

One of the most practical and beautiful materials for the development of gowns of this sort is Suesine Silk. Because of its light sheer texture, it lends itself gracefully to the charming draped effects now so much in vogue.

The home dresser can easily work Suesine Silk up into the most fascinating little frocks by using it in contrasting colors or combining it with chiffons, marquisettes or other veilings. The delicate colorings and beautiful lustre of Suesine Silk lends a richness and individuality which will make your gowns at once the envy and admiration of all your friends. And there is nothing pays better in matters of dress, after all, than a study of your own individual style. You can produce an admirably becoming gown of Suesine Silk in any of the up-to-date styles for very trifling cost. Ten to twelve yards at only 39 cents a yard produces a beautiful gown suitable for the most dressy occasions.

The economy of Suesine Silk is not alone in the low cost of the material, but in its durability as well.

No matter where you live, you can obtain samples of Suesine Silk free, forty-two shades, simply by writing to the manufacturers, Bedford Mills, 8-14 West 3d street, New York City, and mentioning this paper.

Save the Birds.

Recent legislation in New Jersey makes it unlawful to kill or have in the possession any except game birds, millinery goods being evidently uppermost in mind by the framers of the law.

One prominent naturalist has predicted that in ten years at the present rate of destruction this country will be birdless; and without the check of our feathered friends there would speedily replace them a reign of insects with which man could not cope successfully, despite the best insecticides. We positively need the birds for protection.

What do they do for us? Let us note the bill of fare of a few, remembering that there are many varieties in our midst, the very names of which we do not know unless we have given the subject special study; that many others would join them if we but give a bit of timely protection; and that some species have been hopelessly exterminated within a generation because of the cupidity of man.

Of the latter there is no more striking illustration than the fate of the passenger pigeon, the single living specimen now known to exist being in the Cincinnati Zoological Gardens. Large rewards are offered this year by a group of naturalists, including John Burroughs, for a single nesting pair with eggs or young, undisturbed, at any place within the limits of North America, with but little hope that even a stray pair may still be in existence.

Yet many of our older residents can recall the days when pigeon roosts covered vast acres, and large branches were broken from the trees by the mere weight of the birds. Yet, like the bison of the plains, they were slaughtered without mercy and the protecting hand probably lifted too late.

One scientist figured the value of each quail to the farmer at $5.00, but more recent computations have trebled this amount. Certain it is that as a destroyer of insects and weed seeds it does the farmer an inestimable amount of good. It is one of the few birds that eat the potato beetle, and as a destroyer of the moth which produces the cutworm it is certainly entitled to our protection.

The robin is an indefatigable worker from the time the first furrow is turned in spring unitl late autumn, and if it does demand a toll in cherries, has it not well earned them in providing for its youngsters, every one of which a specialist has found out requires sixty-eight worms a day while still in the nest? If you doubt this statement, watch for yourself the many daily visitations with the proverbial worm. And then, if not satisfied, recall the fact that most insects reproduce by the thousand!

Three-fourths of the diet of the bluebird is insects. The oriole, which builds its hanging nest in our orchards, feasts upon the six-footed which would devour our fruit. The swallows have a habit of catching insects when on the wing, and, when they have folded their wings for the night, the queer whip-poor-will, with its lonesome call, continues the work. The tabooed bee-bird or kingbird, condemned for its depredations about the hives, has been found to consume many noxious insects in addition to the few drones which it picks up about the hive.

No one can alone stay the elimination of our useful birds, but everyone can help both by protecting them on his own farm and in his own community. It is wonderful how rapidly certain species will increase locally when given a chance, and many of them return year after year to the same nesting spot.

A study of the habits of the birds in our own neighborhood is sure to prove interesting, beneficial. It can be done with little time or expense, the time being taken when at regular work, but with the eyes constantly alert; the expense, a good book on birds as a guide.—Bessie L. Putnam.

The Keystone Watch Cases.

We want to call special attention to the advertisements of The Keystone Watch Case Company which are now being published in this paper. These Crescent and Jas. Boss cases are the only gold-filled watch cases that are advertised to the men and women who buy them for their own personal use. It certainly does produce confidence in an article when the manufacturer comes right out over his own signature and prints the facts about his goods. See page 23.

Farm Boy's Own Room.

Too many times the boy's room is the last to be considered. Any corner that will hold a bed and a chair will answer, for "he isn't around the house much anyway, and what does he need of anything more?" may be one reason, perhaps, why he prefers the barn.

Sister's bright front chamber, with its new curtains, pretty carpet, and dainty furnishings, makes quite a contrast to the back bedroom fitted up with the lame-legged tables and decrepit chairs that have been retired from active labors, where Johnny spends his leisure.

This is manifestly unfair. Sister thinks she owns the parlor, too, and that ought to do for her. A boy usually feels that the only place in the house where he is free to do as he likes is his own room. Then let it be as bright and attractive and as much to his taste as possible.

A boy likes a large room. He may want to swing Indian clubs or even wrestle a little in a quiet way on a rainy day, and he wants plenty of space. "Flummadiddles," such as girls delight in, are in the way of such recreations and should be omitted.

But it is possible to have a tasty, cheery, homey room, without a surplus of ruffled cushions or such fancy trumpery.

A painted floor with a large rug is the ideal arrangement for any room. Any floor covering will do that is fresh, clean and not dark or dull colored.

The bed should be light and easily movable. A substantial iron bed, enameled to correspond with the rug or carpet, is best. As he is sure to abominate "shams" and fancy spreads, plain white slips and Marseilles covers are to be preferred. His initial embroidered on the slips is sure to please him.

The dresser should be roomy, but not loaded with trinkets. He will like it best to make his tie and collar boxes himself, and then if mother or sister understands pyrography, they may be finished in a dainty way. The use of initials on such articles always suit him best.

He may also make his own book shelves to fit any convenient space. If he does not choose to fit them with glass doors a pretty curtain will do.

Indian arrow heads and similar relics should always find a place in a boy's room.

A three-cornered cabinet that will fit into a corner is easily made and may be finished like the shelves.

In one boy's room an unused window was turned into a case for guns and fishing rods. It was backed with thin boards and lined with dark red calico fastened with a border of brass tacks. Glass doors were used for closing and it made a very pretty appearance when filled with the shining implements of sport.

A good-sized writing desk or table, a covered shoe box, a closet with books and shelves and plenty of good books and magazines will finish a room that any boy might be proud of.

If there is no place for his tools, of which every boy needs a supply, a neat chest may be added for these.

With such a room for his very own, what boy will want to spend his evenings away from home? He will be more likely to ask his friends in to help him enjoy it.—Kansas City Journal.

The Letter and the Spirit.

"These people obey the letter, perhaps, but they don't obey the spirit of the law."

The speaker, Commissioner Rhinelander Waldo, of New York, was discussing certain troublesome and wily transgressors. He continued:

"And they don't even interpret the letter of the law correctly. They and their attorneys quibble like the young man in Pike county.

"A young man and his girl were strolling in a Pike county meadow last month when a bull dashed down upon them."

"'Stay here and protect my retreat,' cried the girl. 'You know, Reggie, you've often said you'd face death for my sake.'"

"But Reggie, who had already sprinted fifty yards, called back over his shoulder:

"'Do you call that bull dead?'"

PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases.

DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

SOLID GOLD, 85c.

Send us your name and address with 85 cents in stamps and we will send you our new Illustrated Catalogue, "THE BOOK OF A THOUSAND WONDERS," and this solid gold collar pin, postpaid. It is Roman finished and well made.

Address, **E. B. COLEMAN & CO., Dept. A, Equitable Bldg., ST. LOUIS, MO.**

ELEGANT THIN MODEL 20 YEAR WATCH

Hunting case, beautifully engraved, gold finished throughout, stem wind & stem set, fitted with 7 ruby jeweled American lever movement, guaranteed 20 years; with long gold plated chain for Ladies or vest chain for Gents.

$3.95

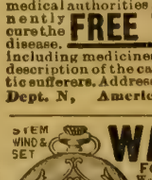
20 Year Guarantee

IF YOU SEE IT YOU WILL BUY IT—Let us send it without expense to you C. O. D. express charges paid by us, for examination at your nearest express office and if you think it a bargain and equal in appearance to any $15.00 gold finished watch pay the express agent $3.95 and it is yours. Mention if you want Ladies,' Men's or Boys' size.

M. C. FARBER, E35, 219 S. Dearborn St., Chicago, Ill.

ASTHMA CURED TO STAY CURED

No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease. **FREE TEST TREATMENT** including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.** Dept. N, American Express Building, Chicago.



STEM WIND & SET

WATCH RING & CHAIN FREE

FOR SELLING POST CARDS

We positively give FREE a STEM WIND, STEM SET BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 15 years, and a beautiful Ring for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch, Ring and Chain. GEM WATCH CO., DEPT. 1141, CHICAGO.

The Twice-a-Week ST. LOUIS REPUBLIC

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Democratic newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

The American Poultry Journal

Published at Chicago. The oldest, largest and best Poultry Journal in America. Beautifully illustrated. Issued on the first of each month.

Subscription Club.

SEND US ONE DOLLAR

and we will mail to your address

THE ST. LOUIS REPUBLIC TWICE-A-WEEK EDITION for one year.
THE NATIONAL FARMER AND STOCK GROWER for one year.
THE AMERICAN POULTRY JOURNAL for one year.

Address,
THE HALE PUBLISHING CO.,
3550 Vista Ave., - St. Louis, Mo.

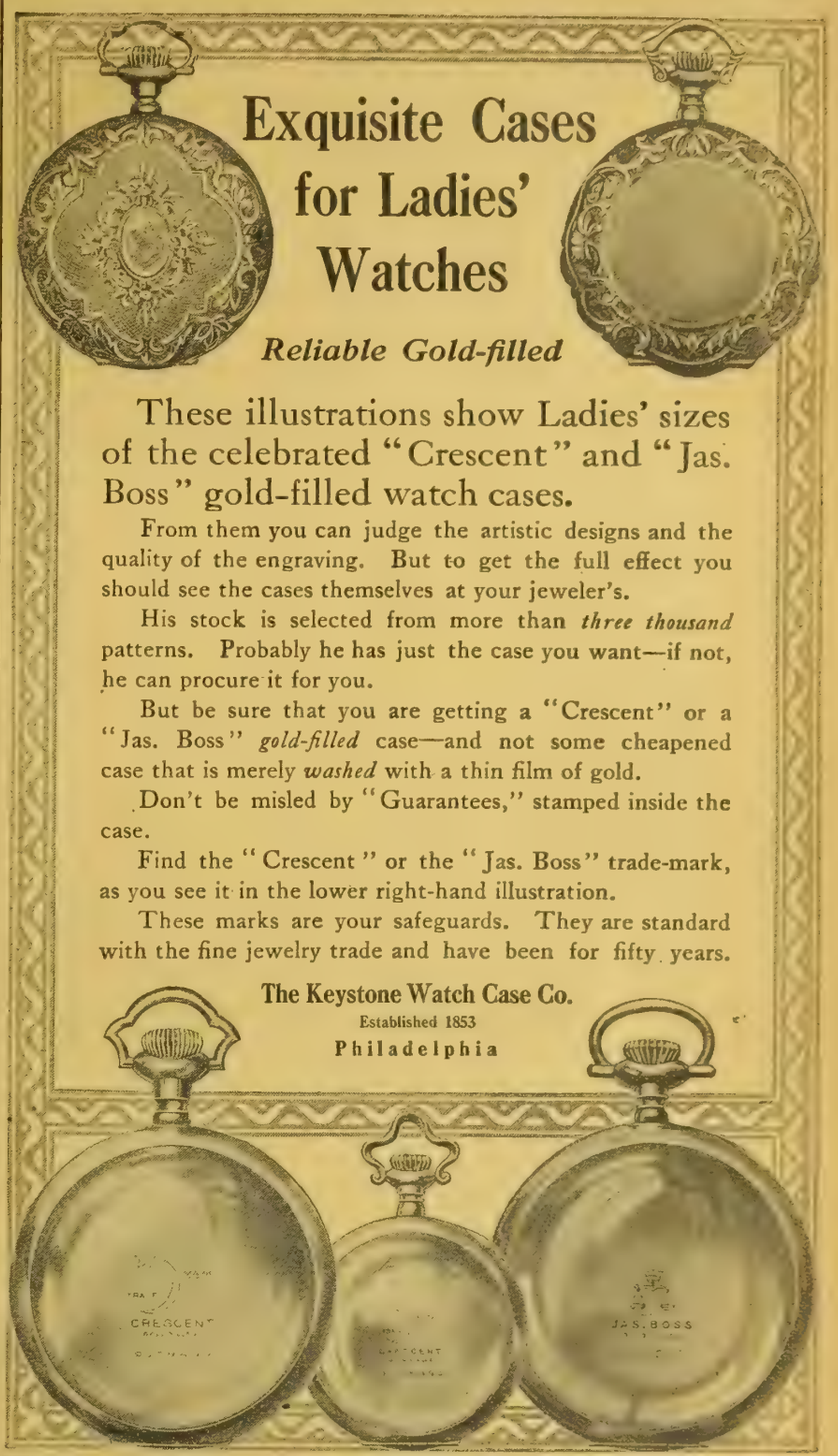
The Buffalo Days.

In an article upon the subject of the Santa Fe trail, written by Mr. Walter Williams, he mentions interesting stories relating to buffalo as follows:

"At Hutchinson, Kas., is the Bisonte Hotel, which takes its name from the Spanish word meaning buffalo. Where the hotel is built was formerly a pile of buffalo bones killed along the trail and collected there for shipment and sale. The Santa Fe trail ran through the very center of the buffalo's range. The figures given of the number of buffalo to be seen along the trail are so large as to stagger belief. These figures run up into the millions. In Kansas $2,500,000 was paid in thirteen years for buffalo bones at an average price of $8.00 a ton. It required the bones of 80 to 100 buffalo to weigh a ton. "I have walked miles on the carcasses of dead buffalo," said Capt. Smith H. Simpson, of Taos, N. M., "and never put my foot on the ground. I have seen ox-trains and even railroad trains compelled to wait for hours and sometimes days for great herds of buffalo to get off the trail. Buffalo were killed ruthlessly, slaughtered without cause. They were slain for their hides by the thousands. Buffalo wallows were to be seen all along the trail. Generally the buffalo went to their drinking places but once a day, and that late in the afternoon. Then they ambled along, following each other in single file, which accounts for the many trails on the plains always ending at some stream or lake. They frequently traveled twenty or thirty miles for water, so the trails leading to it were often worn to the depth of a foot or more. The huge animals would paw and lick the salty, alkaline earth, and when once the sod was broken the loose earth beneath drifted away under the constant action of the wind. Then, year after year, through more pawing and licking, rolling and wallowing by the animals, the wind carried more earth, and there was a hole in the prairie called a buffalo wallow."

An Enormous Herd.

"In May, 1871," said Robert M. Wright, pioneer merchant of Dodge City, Kas., "I drove in a buggy from old Fort Zarah to Fort Larned, on the Arkansas river. The distance is thirty-four miles. At least twenty-five miles of that distance was through an immense herd of buffalo. The whole country was one mass of buffalo, apparently, and it was only when actually among them that the seemingly solid body was seen to be an agglomeration of countless herds of from 50 to 200 animals, separated from the surrounding herds by a greater or less space, but still separated. Old plainsmen and the Indians aver that the buffalo never returned south, but that each year's herd was composed of animals which had never made the journey before and would never make it again. All admitted the northern migration, that being too pronounced for anyone to dispute, but they refused to admit one southern migration. Thousands of young calves were caught and killed every spring that were produced during this migration and accompanied the herd northward, but because the buffalo did not return south in one vast body, as they went north, it was stoutly maintained that they did not go south at all. The plainsmen could give no reasonable hypothesis of this 'no return theory' on which to base the origin of the vast herds which yearly made their march northward. The Indian was, however, equal to the occasion. Every plains Indian firmly believed that the buffalo were produced in countless numbers in a country under ground; that every spring the surplus swarmed, like bees from a hive, out of the immense cave-like opening in the region of the Staked Plains of Texas. In 1879, Stone Calf, a celebrated Indian chief, assured me that he knew exactly where the caves were, though he had never seen them; that the Great Spirit had provided this means for the constant supply of food for the Indian, and that, however recklessly the white man slaughtered the buffalo, they could never wholly exterminate them as long as there are here Indians to need them. Perhaps Stone Calf was right—for the Indians and the buffalo disappeared together from along the trail."


Exquisite Cases for Ladies' Watches
Reliable Gold-filled
These illustrations show Ladies' sizes of the celebrated "Crescent" and "Jas. Boss" gold-filled watch cases.
From them you can judge the artistic designs and the quality of the engraving. But to get the full effect you should see the cases themselves at your jeweler's.
His stock is selected from more than three thousand patterns. Probably he has just the case you want—if not, he can procure it for you.
But be sure that you are getting a "Crescent" or a "Jas. Boss" gold-filled case—and not some cheapened case that is merely washed with a thin film of gold.
Don't be misled by "Guarantees," stamped inside the case.
Find the "Crescent" or the "Jas. Boss" trade-mark, as you see it in the lower right-hand illustration.
These marks are your safeguards. They are standard with the fine jewelry trade and have been for fifty years.
The Keystone Watch Case Co.
Established 1853
Philadelphia
CRESCENT
JAS. BOSS

All-the-year-round Products.

The question that is agitating the cotton grower is also disturbing the fruit grower to a greater extent. A glut in the market for apples has cost the producer several dollars a barrel, because he must sell a perishable product before it perishes or place the apples in cold storage at considerable expense.

"Just think," says the apple dealer, "how easy it would be if all I had to store was cotton!"

To spread farm products over twelve months of the year in market is the difficult problem. Apples were plentiful in October, 1910, notwithstanding the Missouri crop was a failure, there arriving 105,790 barrels at St. Louis alone; but in June of the same year not one barrel arrived. In the year 1910 only sixty barrels of apples arrived at St. Louis by boat, yet seven steamers in October, 1911, dumped 22,000 barrels on the levee at St. Louis in two days.

There are many men who know all about everything in their minds who are able to settle the apple marketing in a few words, but year after year the conditions remain the same. Where they fixed up to hold apples last year they have but few this year, and the shipments that are so abundant this year come from where they had no apples last year. Yet in the end the entire control of all perishable crops will be secured by cold storage at or near the farm. The consumption of apples at St. Louis is not over 150,000 barrels a year, and sometimes that number arrive in one month. To regulate apple distribution in the interest of the producer it must be done on the farms or in owners' hands in nearby towns, and the sure way to do it in the interest of the speculator is to consign them at harvest time to be sacrificed in the big cities. The only way to provide all-the-year-round markets is to furnish the products from the farm in regular quantities all the year round to fit the market.

Conservation of the Soil.

The United States Department of Agriculture has issued in pamphlet form the address of President Taft before the National Conservation Congress at Kansas City, Mo. It contains a large amount of scientific data taken from the best authorities and prepared for the occasion; it is therefore a lesson in agriculture which any farmer can study to advantage. It is too long for us to reproduce in this issue, but is a handy pamphlet to carry in the pocket to read at convenient moments. Write to the Hon. Secretary of Agriculture and ask for a copy of Circular No. 38, entitled "Conservation of the Soil."

The poultry selling combination in New York City is being charged with offenses against the Sherman Anti-Trust law. There are twenty-nine commission merchants involved in the suit.

MAY MANTON EMBROIDERY.

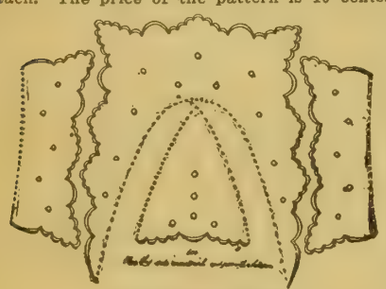
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.

For Blouse or Waist.

No. 603.—A conventional design for embroidering a blouse or waist. Patterns for stamping front, sailor collar and sleeves are given. The work can be done in Bulgarian embroidery or outline; or the design can be couched. The price of the pattern is 10 cents.

Attractive Panel Design.

No. 606.—A design for braided panels. The panels are fifteen inches deep and ten inches wide at the lower edge. Two transfers are included in each pattern. Ten and one-half yards of braid will be required for each. The price of the pattern is 10 cents.



Embroidered Collar.

No. 604.—Design for an embroidered collar with cuffs and shield. This combination is elegant in appearance. The price of the pattern is 10 cents.

Embroidery For Child's Dresses.

No. 605.—Design for embroidering the yoke, collar and sleeves of a child's dress. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Washing the Fannels.

It is a good plan to wash the flannels of the household in nice, clean suds prepared especially for them, and when they are washed by themselves it saves time on wash day, and no kind of undergarment can be kept nice and soft unless special care is given them.

Nice, soft flannels should never be trusted to the laundress unless you know she will launder them right, for when they are shrunk and discolored it is too late too save them. By doing the work intelligently it is not hard, and one is amply repaid for the small amount of labor expended by the soft, clean garmens.

Flannels will always shrink if they are washed and rinsed in water of different temperatures, and if they are not well stretched during the cleaning process. The temperatures of the waters in which they are washed and rinsed and of the place in which they are dried should be practically the same, and they should never be wrung or twisted, as this will cause the wool fibres to knot.

Stretch wool flannels thoroughly while wet and the fibres separate easily, then keep them well stretched until they are carefully pressed and they will keep soft as long as they last, retaining a new appearance and scarcely shrinking at all.

The woolen garments should be ironed on the wrong side over the fuzzy threads, which are so irritating to a tender skin.

Have ready a tub of warm, soft water and stir in enough dissolved borax soap chips to make a strong suds, then wash the woolen garments one by one, so they will not soak in the water, and the cleaning should be done by lifting up and down and pressing and squeezing between the hands. Rinse through water with a little of the dissolved soap chips added to make a light suds, then fold smoothly and put through a wringer, as this expels the water with the least possible friction, and dry in a warm room and pull them in shape several times while drying to keep them from shrinking.

There is nothing better than the Twenty-Mule-Team Soap Chips for washing the cotton and wool flannels, any color or quality, as they soften the water and a very light rubbing gets them clean and leaves them soft, and if the housekeeper wants the flannels of the household properly cared for she should have the work done under her direct supervision unless it is done with her own hands, and this is not a difficult task when one has learned how to do the work in the right way.—M. H.

Won the Bet.

It was a country tavern where a newly-arrived commercial traveler was holding forth.

"I'll bet anyone five dollars," he said, "that I've got the hardest name of any one in this room."

"An old farmer in the background shifted his feet to a warmer part of the fender.

"Ye will, will ye?" he drawled, "Well, I'll take ye on. I'll bet ye ten again your five that my name'll beat yours."

"Done," cried the commercial. "I've got the hardest name in the country. It is Stone."

The old man took a pull at his beer. "Mine," he said, "is Harder."—Ideas.

What the Cook Was Doing.

While a certain Richmond family were in Europe the dusky housemaid acted as caretaker, and more than once she received in the dining room an admirer in the person of one Henry Morgan, cab driver.

One evening, as the maid and the Jehu were making merry, there came from the kitchen a painful scratching sound.

"What's dat noise in de kitchen?" demanded the maid's admirer. "Must be a dawg tryin' to git in."

"Don't yo' worry," answered the maid; "dat ain't no dawg a-scratchin' at de do'. Dat's de cook a-writin' a love letter to her honeysuckle."—Lippincott's.

Too Fat, Refused to Work After 2 P.M.

Here is an interesting case. This good woman had become so fat that she was utterly exhausted after the midday meal. Her temper became so irritable that she finally refused to do any work after two o'clock in the day, feeling that she was rapidly becoming an invalid. If she climbed up stairs or had other slight exertion, it became almost impossible to get her breath. The doctor told her that she could do nothing unless she reduced her weight by some system of strenuous exercises and semi-starvation, but this she could not do, as she was already very weak.

Finally, a friend told her that she could obtain wonderful benefit by a simple home treatment. She was advised to write to Dr. H. C. Bradford, 287 D, Bradford Building, 20 E. 22d street, New York City, to obtain a very interesting, helpful book and a proof treatment, which the able physician sends completely free, postpaid, to all over-stout men and women who write and ask him for them. The woman in this hypothetical case did so and has lost 89 pounds speedily and easily. She walks sprightly now, feels as well and lively as a young girl and enjoys every moment of the day. If this should reach the eyes of any person who is over-stout, let him or her write to Dr. Bradford at above address and obtain, without cost, something which may do worlds of good.

What's Time to a Hog.

A Northerner riding through the West Virginia mountains came up with a mountaineer leisurely driving a herd of pigs.

"Where are you driving the pigs to?" asked the rider.

"Out to pasture 'em a bit."

"What for?"

"To fatten 'em."

"Isn't it pretty slow work to fatten them on grass? Up to where I come from we pen them up and feed them on corn. It saves a lot of time."

"Yaas, I s'ose so," drawled the mountaineer. "But, h—, what's time to a hawg?"

"It's a grand thing to find joy in one's work; if you have found that, you have found the heart of life."—James Buchanan

A GENUINE VICTOR-VICTROLA FOR $15.

GREATEST TALKING MACHINE ON EARTH.

Let us send you one on FREE TRIAL right to your home without a cent from you. No C. O. D. No obligations. If you think it is the greatest talking musical machine you ever heard, pay for same in small monthly payments, or return it to us. Buy your VICTOR from us on the installment plan and no one knows it. Buy from your nearest city on this plan and everyone knows it. If you have a VICTOR, get your records from us. You should. If you write we will tell you why. Write at once for catalogs of VICTORS and records. DO NOT LET THIS CHRISTMAS PASS WITHOUT A VICTOR IN YOUR HOME. **THE TALKING MACHINE CO., VICTOR DISTRIBUTORS, P. O. Drawer N, MIDDLETOWN, N. Y.**

YOU CAN SAVE $10 to $40.00
ON THIS HIGH GRADE "ELDORADO" SEWING MACHINE
30 DAYS FREE TRIAL
20 YEAR GUARANTEE
OUR PRICES $12.15 to $25.45
Why pay $65.00 to $85.00, at retail, for any Sewing Machine. Let us send you a high-grade, ball-bearing drop-head "Eldorado" guaranteed for 20 years at lowest wholesale price, 30 days' free trial in your own home without paying us a dollar. If you like the machine you select, and want to keep it, after you have tried it—simply pay our low cash price and save $10.00 to $40.00, which you can use to buy an elegant suit or winter outfit. "Eldorado" Sewing Machines have given satisfaction for 30 years. They have all the latest improvements and attachments. A $12.15 "Eldorado" equals many of the $45.00 retail machines and our $25.45 machine has everything that you would find on a $65.00 to $85.00 agents' machine. Fifteen Styles to select from.
Send for beautiful "ELDORADO" CATALOG of 48 pages, which tells about the best machine made—regardless of name, make or price—and how to get one on 30 days' trial.
JONES, POST & CO. Successor to JONES BROS. MERC. CO.
425 Liberty Street, KANSAS CITY, MO.

Heating Two by One.

There is no more important problem confronting the home-keeper to-day than that of home heating. The time is past when the farmer could go out into the wood-lot beyond the pasture and cut all the firewood he could burn during the cold winter weather. And no longer is it considered a necessity of rural life to shiver and freeze through the long winter months, having only the kitchen stove and the open hearth for warmth.

THE HOOSIER HEATER.

The picture presented herewith represents the perfect Base-burner manufactured by the Hoosier Stove Company, showing how the heat is conveyed to the room above. Any of our readers who wish to be informed on the best method of heating farm homes should write for catalogue of the Hoosier Stove Company, 169 State street, Marion, Ind.

A 32-PIECE DINNER SET FREE.

Anyone who desires to obtain a splendid 32-Piece Dinner Set free of charge, but in return for obtaining a few subscriptions for a farm paper or magazine, can get full particulars by writing to EVANS SUBSCRIPTION AGENCY, 3552 Vista Ave., St. Louis, Mo.

Coffee Going Up.

Coffee is not produced on farms in the United States, and is admitted free of duty. Coffee was cheap, but since coffee is admitted free of duty it has become dear. The import price of raw coffee by the ship-load has advanced from 6½ cents a pound in December, 1908, to 13½ cents a pound in January, 1911, and since January it has advanced again. Free trade in coffee is fattening all except the consumer, who is paying higher prices than ever. But very likely the consumer voted for free trade and is the innocent cause of his own troubles.

For Lovers of Flowers.

Park's Floral Magazine is the oldest and best floral monthly in the world. Forty-first year. Illustrated. Bright as a Marigold and published at 25 cents a year.

The **Universal Magazine** is a bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money; also published at 25 cents a year.

We have made arrangements whereby by clubbing these two papers together and adding twelve fine tulip bulbs we are enabled to make the combination for 30 cents. The tulips are imported from Holland; the bulbs are all blooming size, and if planted now or before the ground freezes will bloom in early spring. They are hardy and will remain in the ground, increasing in size from year to year. Send 30 cents and we will send both papers one year and the bulbs post free by mail. To Club Raisers:—Anyone sending us four subscriptions in accordance with this advertisement and $1.20 to pay for same will receive both papers one year and an extra dozen tulips for getting up the club. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Horse Dealers' Secrets.

The Farm Journal of Philadelphia is a publication that has stood the test of time until it is the most widely-circulated agricultural journal in the United States. The Farm Journal has also caused to be published a book entitled "Horse Secrets," which is the work of Dr.

A. S. Alexander, of Wisconsin, who is famous as a veterinarian. On page 16 will be found the offering of the Farm Journal and Horse Secrets on advantageous terms to the subscriber.

Hampshire Swine Auction.

The American Hampshire Swine Association will hold a public sale at the Union Stock Yards, Chicago, on Thursday, December 7th, at 1 P. M. The catalogues are to be had right now by writing to Mr. E. C. Stone, Secretary, Peoria, Ill. The Hampshires have a white band around the middle like Dutch Belted cattle, and no man who breeds them is ever ashamed of them. In all practical tests and competitions where the best hogs come together the Hampshire is to be found contending for championship honors and often getting the award. Don't forget the catalogue.

This is the experience of N. P. Hansen, a native of Denmark, who went to Fresno County, California an emigrant.

One *lives* in California, life is so pleasant out there.

When you have made up your mind to sell your farm in the East and go to Southern California and buy a small piece of ground, so that you may live in luxury and enjoy life while working your farm, travel on the Los Angeles Limited over the

Chicago & Northwestern (40)

Union Pacific

Electric Block Signals. Salt Lake Route Excellent Dining Cars.

If you want information on California write

GERRIT FORT, Pass. Traffic Mgr. Union Pacific R. R., 1430 Dodge Street, Omaha, Neb.

Annual Meeting of Stockmen.

The American-National Live Stock Association is called to meet at Denver, Colorado, on Tuesday and Wednesday, December 12th and 13th, 1911, at 10 o'clock A. M. Previously the annual session was held in January, but owing to the fact that Congress meets in December, it was decided to advance the meeting.

There are fourteen important subjects to come before the meeting, and the first one, which is "Import duties on live stock, meat products, wool and hides," is sufficient to occupy the whole session.

A copy of the call for the convention can be had of T. W. Tomlinson, Secretary, 909 Seventeenth street, Denver, Colorado.

WHY HE WENT TO COLLEGE.

"Why did you come to college anyway? You are not studying," said the professor.

"Well," said Willie, "I hardly know exactly myself. Mother says it is to fit me for the Presidency. Uncle Bill says to sow my wild oats. Sis says to get a chum for her to marry, and pa says to bankrupt the family."—National Monthly.

A DISCOURAGED AUTHOR.

"Why did you quit writing books on how to make a fortune raising chickens?"

"It didn't pay. So far as money is concerned, a man might almost as well raise chickens."—Washington Star.

The small steak at 15 cents at the cheap Chicago restaurants is now called "single sirloin" at 25 cents. This is going one better on the butcher who has raised the price without changing the name.

On October 1st, Fennewald Bros., of Audrain county, Missouri, marketed seventy-eight beef steers, 1,472 pounds average, at $8.50 per 100 pounds. This was at the St. Louis National Stock Yards.

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

International News Items.

Owing to the constantly-increasing number of entries in the car-lot division it was decided to divide the task of judging car-lot classes into two divisions, one judge to pass on the yearlings and another on the two and three-year-olds. These two judges will then jointly select the best load in their respective divisions and also award the grand champion prize. In case they should not find it possible to agree, a third one will be called in to act as referee.

Mr. Wm. Leavitt has this year been selected to pass on the yearlings and Mr. James Brown on the two and three-year-olds.

On account of the death of Richard Gibson, Robert Miller, of Stouffville, Ont., was selected to fill his unexpired term as a Director of the International Live Stock Exposition, and was also appointed Superintendent of the Sheep Department, with the power to select his own assistant.

The two Cattle Superintendents, Messrs. Clark and Forbes, were selected to constitute a "Sifting" Committee, whose duty it will be to pass on the single steers entered before the work of judging begins and to reject such animals as in their opinion may be unworthy of consideration.

I Cured My Rupture

I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today

Free Rupture-Cure Coupon

CAPT. W. A. COLLINGS, Inc.
Box 27 Watertown, N. Y.

Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name.....

Address.....

.....

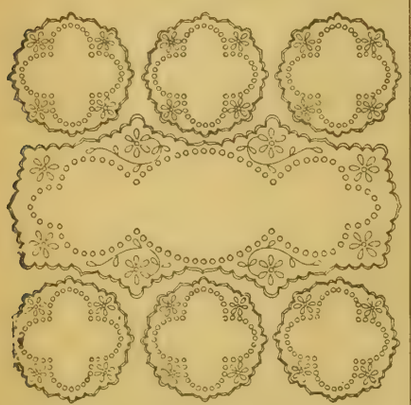
UNIVERSAL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated below shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us thirty cents and we will send you this dainty set for a short time only, absolutely safe delivery guaranteed, and the Universal Magazine for one year. The Universal



Magazine is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns, and has a number of original household articles. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone who will send in four subscriptions and $1.20 to pay for same will be credited with one-year's subscription to the Universal Magazine and one Embroidery Set.

Sherwin-Williams Paints.

On page 21 will be found the advertisement of Sherwin-Williams Paints and Varnishes. They issue a booklet entitled "Paints and Varnishes for the Farm." This booklet is a wonder; it gives instructions that you need in the business of painting implements, houses, vehicles, fences and outbuildings. In addition to helping you to use the right paints in an economical manner they will see that you are directed to the dealer who will furnish their guaranteed paints, and that is worth something, for country stores are full of trash in the disguise of paint that will not preserve the surface for thirty days after it is brushed on. The same firm furnish Paris green, arsenate of lead and lime-sulphur to kill insects in orchards, etc. Write for the paint book anyway, and address Sherwin-Williams Company, 690 Canal Road, N. W., Cleveland, Ohio.

The Profit in Bees.

According to a statement by the Statistician of the United States Reclamation Service, the average price of bees in the West is probably about $5.00 a hive. The manager of a large apiary on one of the irrigated tracts gives the average production of his hives as seventy-six pounds of surplus honey per annum. At 10 cents per pound the returns would be $7.60. In addition to that the increase averages 100 per cent. from year to year, doubling the original investment and making a total of about 150 per cent. profit each year on the original investment.

Christmas Preparations.

We once heard of a girl who said a big word when a letter came from a friend, stating that her name had been placed on the subscription list of a popular magazine as a Christmas present. On being questioned regarding her ungracious reception of the gift she replied: "Oh, just another dollar gone, for of course I shall have to get her something of equal value."

When the scheme of Christmas resolves itself into an affair of borrow and lend, a mere barter, it is high time to call a halt upon the whole practice. We hear the sound of reform in this matter. And certainly, when housewives are worked to the border of nervous prostration over Christmas preparations, reform is needed. But the great need is for the little things among those nearest which are lasting proof of loving thoughts. In the little home circle there will ever be a chance for remembrances which mean more than those of greater money value, just because they are proof of personal attention.

One dainty seamstress buys remnants of fine lawn and converts them into the daintiest of hem-stitched handkerchiefs, the hand work making them nice enough to carry on any occasion. The threads are pulled and the basting done with the utmost precision. Then when a few spare moments come or Milady wishes some light work for visiting, the hemming is done. And almost without missing the time she has a nice collection made. On the very nicest ones an initial is embroidered in one corner; and these she is not afraid to put beside the expensive store products. Besides, the recipient is sure to value the hand work of a friend.

The embroidery patterns in the papers which enter her home are all clipped out and saved for future use. The remnant of fine muslin with a graceful pattern transferred becomes a beautiful corset cover. A pair of fine pink lisle hose, picked up cheap at a bargain counter, with another of those transfer patterns, become more beautiful than the expensive ones in the store, and will make some girl friend happy, though representing comparatively little time or money.

Those handy with the crochet hook will find in the various forms of Irish crochet an abundance of material for dainty gifts. A small piece of fine cloth with a bit of this decoration is the delight of any woman of refinement. The fancy collar for the young girl has many forms, and there is unused material in almost every home from which to evolve one for school wear. Aprons come in so many forms that one can scarcely fail to get beautiful ones out of leftovers. And there are bags and bags, for many purposes, which will be acceptable gifts.

The farmer's wife is most afraid in serving her city friend that with scant means her gift may not be nice enough. If she could only realize how the little basket of fresh eggs or the can of fruit appeal, she would never worry again about what she would give. A roll of fresh butter will be welcomed if the work which lasts is not so convenient to give.

But do not slave yourself in making presents which do not carry with them the finer sentiments of the season. The round of gifts is in many instances burdensome. Cut out all but the nearest friends. The holiday season should cease to be one of mere drudgery. Give as you can afford and enter into the true Christian spirit. Take time in advance to evolve the neat remembrance for the real friend, and eliminate from your list names of those who will not appreciate these personal favors and for whom you have no special friendship.—Bessie L. Putnam.

SisterWoman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send you, your daughter, your sister, your mother, or any ailing friend, a full 50-cent box of Balm of Figs Compound absolutely free. It is a remedy for the treatment of **woman's ailments**, and I want to tell you **all about it**—just how to use it yourself—right **at home** without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—**let me prove it to you**, and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so **quickly** and **surely** cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with **any form of female weakness or diseases so common to women.**

This 50c box of Balm of Figs Compound will not cost you one cent

I will send it to you absolutely free, to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to **prove** my faith by sending out these **50-cent boxes** free. So, dear reader, irrespective of your past experience, write to me **at once — today** — and I will send you the treatment **entirely free** by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the **very best test** of anything is a **personal trial** of it, and I know a 50-cent box of Balm of Figs Comcound will **convince you** of its merits. Nothing is **so convincing** as the **actual test** of the article itself. Will **you** give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a **50-cent box of this remedy absolutely free.** Address,

MRS. HARRIET M. RICHARDS, Box C 223, JOLIET, ILLINOIS

$1.00 a month Buys this Machine

30 days free trial

We will sell you a high-grade, drop-head, Sew Easy Sewing Machine for $1.00 a month. We guarantee each machine for **25 years.** We ship direct from the factory. We do not sell to stores and we have no agents. We can save you some money. You get the machine at once and use it while you are paying for it and it only costs you about **3** cents a day. We have many special features in our machine such as short needles which don't break easily. Our shuttles hold half again as much thread as the old spring tension shuttle. We can't tell all the good points in this advertisement, and we couldn't afford to send you a machine on the small dollar a month plan unless we gave big value and low prices. We want you to write us today, saying: "Please send me circulars and full particulars about your dollar a month Sewing Machine offer." Write Today. Address

SHEFFIELD MFG. CO., Dept. 142 1421 Olive Street, St. Louis, Mo.

He Was Not Superstitious.

Scientists are not the only ones who occasionally lay the ghost of an ancient superstition.

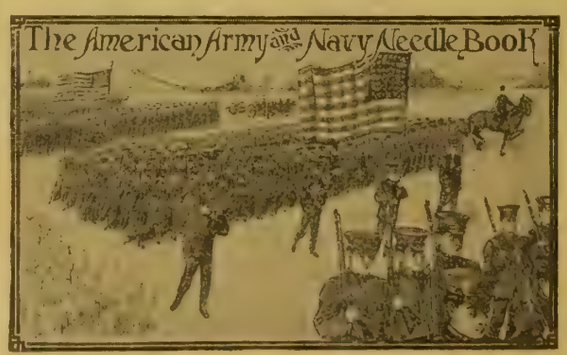
Bill Hicks, an unlettered but garrulous authority on all subjects, was discussing with some old cronies in the postoffice of a North Missouri town the best time to plant potatoes. One old fellow maintained that Good Friday is the right time.

"Now, I tell you, boys," said Bill positively, "there ain't nothing to this Good Friday superstition. I used to think I couldn't raise potatoes unless I planted them on Good Friday. But I remember one year Good Friday came on Sunday, so I had to plant the next day; and I raised as fine potatoes as you ever saw."—Mack's Monthly.

The automobile is used considerably in the delivery of farm products to families in St. Louis, the farm products referred to being mostly butter and eggs.

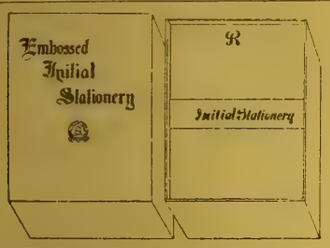
The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine,** our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Universal Magazine Initial Stationery.

One of the most refined and elegant subscription premiums ever offered. A box of elegant white, cloth-finish embossed initial stationery sent free, postpaid, and safe delivery guaranteed. This is a splendid subscription premium offer in connection with the interesting publication entitled the Universal Magazine. The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page,



Embossed Initial Stationery.

containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the Universal Magazine for two years, and they can select their own initial for the stationery, and we will send it as a free premium postpaid. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone sending in four subscriptions and $2.00 to pay for same will be credited with a two-year subscription to the Universal Magazine and one box of Initial Stationery.

Don't Wear a Truss FREE

STUART'S PLAS-TR PADS are different from the truss, being medicine applicators made self-adhesive purposely to hold the parts securely in place. No strap-, buckles or springs—cannot slip, so cannot chafe or compress against the pubic bone. The most obstinate cases cured. Thousands have successfully treated themselves at home without hindrance from work. Soft as velvet—easy to apply—inexpensive. Awarded Gold Medal. Process of recovery is natural, so no further use for truss. We prove what we say by sending you Trial of Plapao absolutely FREE. Write TODAY.

STUART'S ADHESIVE TRADE MARK PLAS-TR-PAD PATENTED SEPT-12 1908

TRIAL OF PLAPAO

Address—PLAPAO LABORATORIES, Block 57 St. Louis, Mo.

BRACELET AND RING FREE

We positively give FREE a fine Adjustable Signet Bracelet, guaranteed 5 years, also a beautiful Stone Set Ring for selling 20 packs high-grade art post cards at 10c a pack. Order 20 packs, when sold send us $2, and we will positively send you Bracelet and Ring. Write today.

Bracelet and Ring. WELLS MFG. CO., Dept. P 55, CHICAGO

SOLID STERLING SILVER 18c.

Send us your name and address with 18 cents in stamps and we will send you our new illustrated Catalogue, "THE BOOK OF A THOUSAND WONDERS," and this sterling silver thimble, postpaid; size, 5 to 11. Address, Dept. A, E. B. COLEMAN & CO., Equitable Bldg., ST. LOUIS, MO.

THE UNIVERSAL MAGAZINE ORGAN.

Any family, church, school, club or other association desiring to obtain a splendid, new, five-octave, Reed Organ without paying a cent of money can do so by taking subscriptions for a monthly magazine and a farm paper. It can be done in a few days. For particulars address, EVANS SUBSCRIPTION AGENCY, 3552 Vista Ave., St. Louis, Mo.

With the Nuts.

Once nut-gathering was considered only a nice amusement for children, and the results only for entertainment during the long winter evenings. We are fast learning that the food stored away to feed the forest tree in its beginning has also nutriment which is equally valuable to the human race, and that nuts are more than a source of enjoyment; they are nutritious and wholesome.

They admit of various combinations and uses, new forms being every day evolved, and the more they are used the more completely will we realize the possibilities in various directions. As a substantial part of the meal they serve well, while for desserts there are all sorts of appetizing and dainty foods using them as a basis.

As the sandwich is the foundation of the lunch, so are nuts a substantial filling for the sandwich. Hickory nuts ground with the finest food chopper attachment make a delicious butter, which, if too dry to spread easily, may be moistened with sweet cream; or, chopped with an equal amount of celery and used with French dressing, they make another substantial filling, a bit of salt being added in either case.

When baking bread, take out enough dough for one loaf, add a bit of lard, a teacupful of sugar and a teacupful of nuts ground fine. This is a cheap, nourishing addition to the school lunch. The little folks will enjoy preparing the nuts, and, this done, the extra work of making is almost nothing.

A teacupful of chopped nuts added to any plain cake renders it quite another dainty. The same added to frosting or cream filling is also an improvement. They are fine combined with fudge or other plain candies. And the nut habit is one which may be extended in many directions, gaining every time in the variety.—Bessie L. Putnam.

Ways With Vegetables.

A dainty way of canning tomatoes is to select those of small enough size that they will go into the can whole. Pour boiling water over and remove the skins in the usual way. Then place them in cold water enough to cover. Heat slowly until they reach the boiling point and then seal. It is said that they will keep as perfectly as though cooked in the old way,, and when one wants to serve a dainty salad, there are the whole tomatoes, almost as handsome as when picked.

Many do not care for the great pepper mangoes save as a can in which to store away cabbage, which will preserve its fresh taste much better for the protection. One woman whose taste for the pepper flavor exceeded the supply of this vegetable made her mangoes in the usual way, taking the stuffing out before serving it. Then when enough of the empty peppers had accumulated, she chopped them up fine and used as a flavoring for more cabbage pickle.

Baked hubbard squash has a rich flavor, quite beyond that possible when boiled. Cut the squash into halves, remove seeds and core and fill into the cavity of each piece a tablespoonful of sugar, a small piece of butter, salt and pepper to taste. Bake until so tender that it can be easily scooped out from the shell, basting frequently during the process with the butter and sugar. Treated in this way it is more mealy and closely resembles sweet potato.

Frosts usually catch some green tomatoes on the vines. These may be ripened in the house or worked up green. For a change, this way of cooking them is usually relished: Slice one small onion and three tomatoes into water enough to cook without scorching and boil until soft. Season with salt and pepper and add a tablespoonful of butter. Just before serving, put in one or two slices of bread and work it up fine. This method appeals to some who never touch ripe tomatoes in any form.—Bessie L. Putnam.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions**, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once. I would be pleased to send you the names of people who state they have been cured of various Stomach ailments and speaking the highest praise of this medicine. Just fill out the Coupon below—let me send you this wonderful treatment together with highly interesting literature, testimonials, etc. Don't suffer with agonizing pains—don't permit a dangerous surgical operation, which gives only temporary relief, when this medicine will permanently help you.

GEORGE H. MAYR, Mfg. Chemist

Mayr Building, 154-156 Whiting Street, Chicago

References:—Mercantile Agencies or State Bank of Chicago

Sign and Mail This Coupon To-day

Geo. H. Mayr, Mfg. Chemist, Mayr Bldg., 154-156 Whiting St., Chicago

Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy

Name.....

Address.....

City and State..... Write Plainly

Express Office..... 76

You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to benefit.

Absolutely harmless. Guaranteed by the Pure Food and Drug Act, Serial No. 25793

Rabbits in Market.

At St. Louis, towards the end of October, rabbits were selling at $1.35 per dozen. They are undesirable and little call for them as yet. The weather was not cold enough and the receipts were mainly of stock that hunters shot for sport.

Put a Rivet in Your Future

Go into business for yourself and insure your own success and comfort. Here are some fresh instances showing how to succeed on small investments. The facts given are substantiated by our agricultural commissioner, Mr. L. A. Markham, formerly with the United States Government as an expert on agriculture:

THE Oakland Fruit Company has 18 acres in Elberta peaches four miles east of Van Buren, Arkansas. Last year that 18 acres yielded 6,000 crates of peaches. Those peaches sold for $6,000. Mr. G. A. Howell, of Van Buren, Arkansas, had 3½ acres in cantaloupes last year. The yield was 472 crates. The 472 crates sold for $603.32. Then he followed the cantaloupes on 1½ acres with beans. The beans sold for $85. Total income from 3½ acres, $688.32.

Mr. J. G. Nordin, of Russellville, decided to plant 2 acres in Nancy Halls. Nancy Halls are a particularly luscious and succulent variety of sweet potatoes. He got 1140 bushels and sold them for $1 per bushel. That's his sworn statement. Now, what do you say? These instances are exceptional? Yes, they are, but surely you could do one-fourth as well. Then, how would you like to raise peaches at $83 per acre, cantaloupes at $50, and sweet potatoes at $142?

There are hundreds of just such opportunities for you in Eastern Colorado, Kansas, Arkansas and Louisiana on the

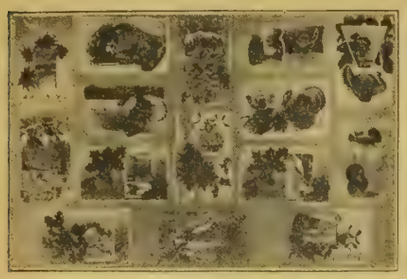
Missouri Pacific-Iron Mountain

Our Immigration Agent will help you find the right place and our Agricultural Commissioner will help you get right results. It's "your move" now. Send for our booklets and folders, "Eastern Colorado," "Western Kansas," "Arkansas Homebuilder" or "Louisiana Lands." They are free.

Address B. H. PAYNE
General Passenger Agent
ST. LOUIS

MISSOURI PACIFIC IRON MOUNTAIN

HOLIDAY POST CARDS FREE.



A beautiful set of 15 assorted Thanksgiving, Christmas and New Year post cards given free with a 3 months trial subscription to Farm Life for only 10 cents. Farm Life is issued monthly, handsomely printed in color with 4 page cover on heavy stock. Editorial contents unsurpassed. A grand spread of interesting reading each month. The cards are this season's latest designs, artistically embossed, lithographed in 12 to 14 beautiful harmonious colors on choice grade of cardboard. Just send 10 cents today for a 3 months trial subscription to Farm Life and ask for Holiday card series No. 106. If upon receipt of cards and first number of Farm Life you are not delighted with both, write us and your money will be returned. Address

FARM LIFE,
Dept. D,
1322 So. Wabash Ave. CHICAGO

The Great Majestic Range.

When it comes to a fine, lasting, superior range for a home in city, town or county, the Majestic Range is an example of practical range economy.

The Great and Grand Majestic is justly called "The Range with a Repuation," because it has a reputation of a reliable manufacturer behind it and because there are hundreds of thousands Majestic Ranges in use all over the country, each one of which is giving perfect satisfaction; some have been in constant use for more than twenty-five years and still give excellent results.

THE GREAT MAJESTIC.

Majestic Ranges are for sale in nearly every county in forty states. If our dealer doesn't handle them, you will do well to write the Majestic Manufacturing Company, Dept. 131, St. Louis, Missouri, for their interesting booklet, "The Story of Majestic Glory;" it is well worth reading. At the same time they will tell you where you can see and examine the Majestic and settle the range question.

Fall Work.

The approach of the fall hauling season suggests once more the advantages of the low, handy wagon. Thousands of farmers say it is emphatically the best in every way for all farm work. It is so much easier, for instance, to lift shocks of corn onto a low wagon than onto a high one. And why shouldn't the hauling be done the easy way?

Make this wagon matter a personal one this fall. The low-down Electric Handy Wagon, shown above, is the kind of wagon thousands of farmers are buying.

Figure how much labor it will save you. How much lighter it will make the work of the horses. How admirably it is hauling stones, earth, water, manure, fencing material, lumber, hogs to market, etc. Is there really any work for which such a wagon is not better suited than the high-wheeled wagon?

Take the matter up now with the Electric Wheel Company. If you don't care to purchase a wagon, they will supply you with low steel wheels to fit your old wagon and turn it into a handy wagon. Posting up on the matter will do no harm, at any rate. Lay the matter before them and get their free catalogue and particulars. Address, Electric Wheel Company, Box 40, Quincy, Ill.

Trapping as a Side Line.

Every year about this time we begin to understand that hunting and trapping is a good side line to farming. The dealers in furs begin to advertise in order to reach the source of supply.

Furs are not shipped to market in car-load lots very often or in regular standard packages, therefore the numbers and weight of furs received are not given in all Board of Trade reports. St. Louis is estimated to handle $8,000,000 to $10,000,000 worth of furs each year.

The Missouri Labor Commissioner will soon issue a bulletin on furs.

From advance sheets of this bulletin, which will appear in full in the 1911 Red Book, it is found that the professional trappers, as well as the small boy who works at this business on Saturdays to earn his spending money, had an unusually prosperous year in 1910.

There was trapped and taken to market in Missouri, in the year mentioned, 532,787 pounds of furs, valued at about $133,196, an increase over 1909 of something like 12,000 pounds.

Is No Mean Crop.

While this aggregate valuation is not large, as compared with many of Missouri's other immense productions, yet it nearly equals the combined value of the surplus shipments of barley, millet, cane seed and alfalfa, for the state for the year in question.

There are many trappers in the state who make this a business, yet it is estimated that the greater part of the vast production comes from men and boys who work this as a side line for a few weeks during the winter months.

In the production of furs McDonald county comes first, with a yield of 20,566 pounds. Then follows Saline, with 19,759; Pettis, with 17,206; Randolph, with 12,917; Cass, with 11,857; the smallest yield from any county being about 1,000 pounds.

Food Figures in, Too.

Missouri's fur-bearing animals consist, for the most part, of the mink, raccoon, skunk, o'possum, muskrat, fox, wolf, wild cat, civet and otter, although the mink, raccoon, skunk and o'possum produced most of the late catch, with the lowly o'possum far in the lead, so far as total number of pounds are concerned, while the tender, succulent meat of this animal, properly cooked, and flanked by the appetizing home-grown sweet potato, made many a savory meal for the hungry Missourians.

In the foregoing list, the fur of the mink brought the highest price, ranging from $6.00 for the large, dark kind, to $1.00 for the small, inferior skin. In point of value, the raccoon skin comes next, bringing from $2.00 for the large, extra heavy, down to a few cents for the ordinary kind. A prime, black skunk skin was worth about $1.75, while a large o'possum skin brought the owner in the neighborhood of 40 cents.

From present indications it is predicted that 1911 will far surpass any previous year in point of production and value of Missouri furs.

Agricultural School Premiums.

A unique plan which has aroused much interest and enthusiasm among the pupils of high schools in the state of Washington is the opportunity to win a silver trophy cup for their school. This cup was presented by the Great Northern Railway and is entitled: "To Be Presented to the High School Proving the Best Judge of Live Stock." This cup was won this year by the young live stock experts attending the Snohomish High School, and it was won at the Puyallup Valley Fair. This cup must be won three times before it becomes the property of the school.

Generally the only valuable trophies which have been retained by schools are banners and cups won in athletic or oratorical contests. The Great Northern cup is even more practical and valuable for self-evident reasons. The farm is the basis of all wealth. The agricultural and stock-raising opportunities are so many in the Evergreen State that the spreading of such practical knowledge among the high schools will have great and permanent value.

Old Tantalizer, the Squirrel.

Old Deacon Dockery, of Uplands, Nev., is letting out his wood lot to squirrel hunters again this fall, and is doing a pretty good business with city people.

The Deacon stocks his lot with squirrels in the spring and trains them just to show their noses and then to keep on the side of the tree away from the hunter.

If two hunters work together the squirrels crawl into holes and stay there.

The Deacon has one squirrel named Old Tantalizer that has been working for him five years and hasn't been shot yet.

Rambouillet Sheep Auction.

Mr. Dwight Lincoln, of Milford Ohio, advises us that he will take pleasure in sending a catalogue of the offerings at the auction of Rambouillet sheep to be held at the International Live Stock Exposition at Chicago, on December 5th. It is not often that such magnificent specimens of the breed are offered at public auction, but the breeders like to make a good showing at the International. If you are interested in the large Merinos that constitute two-thirds of the sheep in the range country, do not fail to write for the catalogue and attend the sale.

Clay, Robinson & Co.'s Prizes.

For the encouragement of live stock breeding, Clay, Robinson & Co., live stock commission agents, offer prizes amounting to one thousand dollars each year at the Chicago International Live Stock Exposition. The prizes are enumerated in the preliminary classification on page 137.

August Uihlein, of Milwaukee, Wis., died on October 10th on the island Heligoland, in the North Sea, which is owned by Germany. He had been visiting his relatives. He was owner of the world's champion trotting stallion, The Harvester, 2:01.

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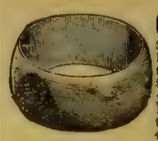

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12 Post Cards — Thanksgiving, Xmas, New Year's, Birthday, etc.; also your name in our Post Card Exchange and Catalogs and Premium List. Enclose 4c. stamps for return postage, etc. N. L. MUNRO, 24 Vandewater St., New York. **FREE**

Honest man or woman wanted in every town to take exclusive agency for supplying Ecktone Family Remedies in their territory. Good income for right persons. No previous experience necessary. Send no stamps—just write. Do not delay. ECKTONE MEDICINE CO., Dept. 13, 810 Olive St., St. Louis, Mo.

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NOT THE FARM PIG.

"The Humane Socety must be very active in Kansas," volunteered Miss Prim. "I read where a man in a small town was fined $50 for running a blind pig."—Judge.

MAY MANTON PATTERNS.

Very Elegant Pattern Service, With Full Instructions For Ordering and Making.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration twenty-one seasonable patterns absolutely up-to-date, with directions for ordering and quantity of material required.

DAINTY UNDERWEAR.

No. 6941.—Corset Cover With Straight Upper Edge. 34 to 44 bust.

No. 7068.—Corset Cover For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7170.—Princess' Slip. 34 to 44 bust; with round or square, low or Dutch, or with high neck; with long, three-quarter or short sleeves, or without sleeves; with circular or gathered flounce.

No. 7159.—Five-gored Petticoat. 22 to 32 waist; with or without yoke; with inverted plaits, gathers or habit back; with straight or circular flounce.

No. 6781.—Girl's Princess Slip. Six to twelve years; with round, square, V-shaped or high neck; with or without sleeves.

LADIES', MISSES' AND CHILDREN'S ATTIRE.

No. 7183.—Tucked Blouse or Shirt Waist. 34 to 42 bust.

No. 7168.—Girl's Dress With Straight Plaited Skirt. Eight, ten and twelve years.

No. 7160.—Middy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7154.—Six-gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years; with high or natural waist line; with inverted plaits at the sides; front and back gores to be stitched to any depth.

No. 7046.—Three-piece Tucked Skirt. 22 to 30 waist; with high or natural waist line.

No. 7165.—Child's Bishop Dress. Six months, one and two years; with short or long sleeves.

PRETTY MODELS.

No. 7176.—Semi-fitted Coat. 34 to 44 bust. Perforated for shorter length; with collar that can be made pointed or round at the back.

No. 7160.—Middy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7156.—Semi-Princess Gown. 34 to 42 bust; with or without chemisette and undersleeves.

No. 7173.—Boy's Russian Blouse Suit. Four to eight years; with separate shield.

No. 7166.—Six-gored Skirt. 22 to 30 waist; with double or single panels that can be made round or square at the lower edges; with high or natural waist line.

FASHIONABLE MODELS.

No. 7177.—Peasant Blouse. 34 to 40 bust; with or without gusset under the arms; with or without chemisette and undersleeves.

No. 7178.—Peasant Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years; with collar that can be square or round at the front, square or pointed at the back.

No. 7121.—Surplice Waist. 34 to 42.

No. 7083.—Circular Skirt With Adjustable Train. 22 to 32 waist.

No. 7179.—Girl's Dress in Peasant Style. Ten to fourteen years.

No. 7171.—Three-piece Skirt. 22 to 30 waist; in walking or round length; with high or natural waist line; perforated for two materials.

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The price of each pattern is 10 cents.

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I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that, it will cost you nothing to give the treatment a complete trial; and if you wish to continue, it will cost you only about 12 cents a week or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all old or young. To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in young Ladies, Plumpness and health always results from its use.

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THE MILL ON THE FARM.

Col. Creecy was once Chief of Police of St. Louis, but he retired to his farm in Missouri. He is some proud of his splendid farm, but the poetry of the old mill appeals to him strongly—much more than it does to some of the more practical natives of Pulaski county.

A few days ago a farmer who had moved into the neighborhood from some other part of the county took a bag of grain to the mill and was going to wait for it to be transformed into the finished product.

Finally his patience became exhausted.

"Do yer know," he said, "I cud eat that there meal faster than yer durned mill can grind it!"

"Yes?" remarked the miller, "but how long could you keep on eating it?"

"Well," replied the farmer, conclusively, "I reckon I cud keep on at that rate till I starved."

The Style Books and Samples.

Our lady friends should remember the Style Book issued by the National Cloak and Suit Company, as advertised on page 3. Stylish clothes, good material and easy prices go together here. You can also get samples of material used in made-to-order tailored suits by asking for them. Address, National Cloak and Suit Company, 280 West 24th street, New York City, N. Y.

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To Club Raisers:—Anyone sending us four subscriptions and $2.00 to pay for same will be credited with one two-year subscription to the Universal Magazine and one Stencil Outfit free.

Some Things About the Country School.

The most important of all country institutions is the country school. Poor as it has been in the main, yet it has given a certain amount of culture. Those that have been most helped by it have been those that have merely commenced to study in the country school. They have received their impetus there and have been fired by the country teacher with the love of learning. After dropping out of the country school they have gone on studying by themselves, often have gone to other institutions of learning, and so have reaped all there was of the benefits of the country school.

But those that, when they leave the country school, shut their books forever, get very little good from it. They go out into the world, having little ability to even read well, if they drop out before the higher grades are reached. The result is that in the battle of life they are poorly fitted to play their part. It must be remembered that the writer is speaking of the ordinary country school. There are some country schools that are exceptions, and may their number increase.

It is impossible in the ordinary country school to have any such curriculum as is found in the village and city schools. The work is too broken up by the constant change of teachers. Often the new teacher finds nothing by which she can tell what the school has been doing the previous year, and has to depend on the assertions of the pupil's relative to what they have done. This is especially true of the small schools, those having five to twenty pupils.

It is noticeable that parents of country children do not take an interest in the welfare of the schools. Once a year, when there is an exhibition or a school social of some kind or a picnic they turn out in large numbers and have a good time with the children, but that is the beginning and end of their interest in the schools. They seem to be fatalists and think that what is, is right; so they let the school take care of itself.

What is the reason why some of the little schools — schools with under ten pupils—were not long ago abandoned and the children transported to some other school, for in some of the states this has been possible by law. Illinois has just passed a law allowing schools of fewer than six pupils to be abandoned and the children transported at public expense to some other school. This costs less than hiring a teacher for such a small number and gives the children an opportunity.

The consolidation of small country schools and the transportation of pupils is the only possible solution of the country-school problem in many localities—in most localities. The transportation of the pupils at public expense is the key to the situation, for if the children are not transported at public expense the consolidation cannot be made, because the distances are too great for the children to walk, and farmers have something to do beside hauling their children to and from school. The money saved on teachers pays the cost of this transportation. This will not be accomplished till public sentiment in the rural localities is strong enough to demand it. In this, as in every other great reform, it is a question of public opinion.

Escape From Pirates.

Something happened in stageland the other day, and Lee Harrison, the theatrical manager, developed an acute need for Glenmore Davis, the best dressed agent on or off the stage, says the New York correspondent of the Cincinnati Times-Star. He called the Players' Club. "Mr. Davis telephoned that he would lunch up town to-day," said the office man. "No, he did not say where he would lunch."

Mr. Harrison began a tour at the Twenty-sixth street Martin's. He entered by the Broadway door and gave his hat to the check pirate. When he failed to find Davis he gave his check pirate a dime, thereby redeeming his hat, and walked on up the big street. He repeated this operation at twenty-five different restaurants. When he got to Churchill's he stopped at the door.

"Mr. Davis was there," said the doorman. "I think he is in the balcony now."

Therefore, Mr. Harrison checked his hat and invaded the balcony. Mr. Davis was not there. Mr. Harrison returned to the door and the check pirate was there with the ready palm and the brushed bonnet. Mr. Harrison felt in his pockets and began to figure on his fingers.

"That hat," said he, "cost me $2.00 originally, and I have paid out $2.75 on it in tips to-day. I may have to visit twenty more places before I find Davis. Keep the hat for the tip."

And he walked out bareheaded.

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"Prices paid to farmers in the United States on October 1, compared with October 1 last year, for barley, averaged 45.6 per cent. higher, potatoes 30.2 per cent. higher, hay 22.7 per cent. higher, oats 17.4 per cent. higher, corn 7.5 per cent. higher, buckwheat 2.4 per cent. lower, wheat 5.7 per cent. lower, chickens 6.0 per cent. lower, butter 9.2 per cent. lower, eggs 10.7 per cent. lower, and cotton 23.3 per cent. lower."

NEW THIN MODEL SIZE 16 STEM WIND SET WATCH

This watch is a beauty of a timepiece with several new features in watch making. Thin model, size 16, (about 1-2 larger than picture) stem wind, stem set, bright nickel case with gold-plated winding stem. White dial has Arabic numerals printed in gold on a maroon background decorated with silver, all inside a circle of gold and silver stars and dots. Case has new double back, protecting works from accident and dust. Each watch thoroughly tested at factory and just the watch to wear every day in the year and know what time it is. Just as good a time keeper as a very expensive watch, will wear for years and it costs you nothing.

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I will give you this fine watch and fob with your initial for just a few minutes of your time. New and easy plan, sure to win. Many friends have earned it in a half hour. Just send me your name and 4cts. postage for full free outfit of Post Cards, etc.

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I can say every time it is worth $10.00 to me. I can see cattle at 15 miles and a nickel 600 yds. T. S. Sepeda, Morgan Hill, Cal.

SELECTED POETRY.

THE BALTIMORE GREYS.

Ah! well I remember that long summer's day,
When round about Richmond our broken ranks lay;
Week in and week out, we had been at the front,
And borne without flinching the battle's fierce brunt,
Till, shattered and weary, we needed repose
Ere we met, in death struggle, our numberless foes.
Our knapsacks were empty, our uniforms worn,
Our feet, from long marching, were naked and torn;
But not a man grumbled in rank or in file,
Our hardships we bore with a joke and a smile,
For Stonewall was with us, and under his eye
Each soldier determined to do or to die.

That evening old Jack had us out on review,
When a glance down the line showed us all something new;
Eighty-seven young boys, from old Baltimore,
Who had run the blockade, and that day joined our corps,
Their clothes were resplendent, all new, spick and span,
'Twas plain that a tailor had measured each man.
When we learned who they were what a shout did we raise,
How we cheered our new allies, "The Baltimore Greys."
There were Lightfoots and Carters and Howards and Kanes,
The grandsons of Carroll, the nephews of Gaines;
And as the brave boys dressed up in a row,
You could see the pure blood of Huguenot proud.

But we were old vets of Stonewall's brigade;
We had been fighting so long that war seemed a trade,
And some of us laughed at the youngsters so gay,
Who had come to the battle as if coming to play,
And through all the camp you could hear the rough wits
Cry: "Hello, young roosters," and "dandified cits;"
But the boys took it bravely and heartily laughed
At the hungry Confeds, by whom they were chaffed,
Till one ragged soldier, more bold than the rest,
Fired off this rough joke, which we all thought the best:
"Boys, you had better go home, 'tis getting quite late,"
When the girlish-faced Captain spoke up and said: "Wait!"

They didn't wait long, for the very next day
We were ordered right off to the thick of the fray,
For early that morning we heard the dull roar
Of the guns of our foemen on Rapidan's shore,
And all of us knew, with old Jack in command,
If fighting was near, he'd at once take a hand;
And, sure enough, soon marching orders we got,
And we swung down the road in "foot cavalry trot;"
The boys were behind us. I fell to the rear
To see how the youngsters on march would appear.
Their files were close up, their marching was true.
I reported to Stonewall: "Yes, General, they'll do."

In a few minutes more the action began;
We met the first shock, for we were the van;
But we stood to our ranks like oaks of the field,
For Stonewall's brigade never knew how to yield;
Upon us, however, a battery played,
And huge gaps in our ranks were now and then made,
Till Jackson commanded a charge up the hill.
We charged. In a moment the cannons were still.
Jackson said to the "Greys:" "Such valor you've shown
You'll veterans be ere your beards are full grown;
The stand you have taken you will ever uphold:
In this, your first action, you've proved yourselves bold."

Then the girlish-faced Captain, so straight and so tall,
Saluted and said: "You'll here find us all.
For wherever stationed this company stays."
How we laughed, how we cheered the bold Baltimore Greys.
But the red tide of battle around us still flowed,
And we followed our leader as onward he rode;
Cried: "Good-bye" to the boys, "take care of your guns;
We'll relieve you as soon as the enemy runs."
Ah! Yes, indeed, soon the boys were relieved
But not in the manner we all had believed.
Alas! the sisters who weep and the mothers who pine
For the loved and the lost of the Maryland Line.

By some fatal blunder, our left was exposed,
And by thousands of Federals the boys were enclosed.
They asked for no quarter—their Maryland blood
Never dreamed of surrender—they fell where they stood.
We heard in the distance the firing and noise,
And double-quicked back to the help of the boys.
The guns were soon ours; but, oh! what a sight!
Every Baltimore boy had been killed in the fight,
Save the girlish-faced Captain, and he scarce alive,
When he saw us around him, he seemed to revive,
And smiled when we told him the field had been won,
And the Baltimore Greys had saved every gun.

Then Stonewall rode up and endeavored to speak,
But utterance was choked, and down his bronzed cheek
The hot tears were flowing as he gazed on the dead;
"God pity their mothers and sisters," he said.
Then, dismounting, he knelt on the blood-sodden sand,
And prayed, while holding the dying boy's hand.
The gallant young hero said: "General, I knew
That the Greys to your orders would always be true.
You'll not miss a Grey from our final roll-call;
Look around you, my General, you'll here find us all."
Blood gushed from his mouth; his head sunk on his breast,
And the girlish-faced Captain lay dead with the rest.

—War Poem.

THE DRAGON.

Ye men who think ye are strong and bold,
Who fain would go forth to the fray,
And battle with dragons, as knights of old—
There's a dragon for you to slay.

He ravages every sea and land,
And levies a toll on the work of each hand,
On the poor and the rich, on the humble and proud,
On the christening robe and the burial shroud,
On human hearts' hopes and human health,
On bodies of beasts, and on nature's wealth.

With a giant's strength and a demon's heart,
And the magic and skill of the alchemist's art,
This dragon pours into his mortar all
Of his victims and spoils, and he grinds them small,
And out of them makes he his drink and meat,
And he tramples the refuse under his feet.

The name of this dragon is Selfishness,
And he lives in a dismal den,
Amidst a mysterious wilderness
Hid deep in the hearts of men.

Ye men who think ye are strong and bold,
Who fain would go forth to the fray,
And battle with dragons, as knights of old,
There's a dragon for you to slay.

—Claude Elwood Remick.

BELIEF.

If I were asked what I believe, I could not help but say,
The gentle and the simple creeds of boyhood's yesterday;
The tender faith in Bible things, the truth, the way, the right,
The golden rule to live one's life according to the light;
And everywhere the thought of God, that we are everywhere
The children of one Father's love and of His heavenly care.

If I were asked what I believe, I know my thoughts would go
Back to a little child at prayer in the soft evenglow;
And I can think of nothing else so beautiful, so sweet,
As prayer beside a mother's knee who tried to lead our feet
In paths of righteousness and truth, where none could go astray
From that dear life of simple trust in childhood's yesterday.

If I were asked what I believe, I'd have to say, as then,
A simpler faith in God's commands, a manlier trust 'mong men,
A clear and more abiding course t'ward that which men might call
The straight-out-from-the-shoulder faith of Peter and of Paul;
The teachings, most of all, that came to us in Sunday school,
Way back in little childhood's land, the land of Golden Rule.

—Baltimore Sun.

THE MARKET MUSE.

You've heard of Yates & Shearman's store;
The name's enough—what need of more?
But lend your ear and let us tell
What Yates & Shearman have to sell.

Sweet corn, tomatoes, beans and peas,
Young harvest apples from the trees,
And country eggs so lately laid
As seldom venture into trade.

Uneeda Biscuit
Always Ready
Wise foresight should lead you to keep in the cupboard a half dozen or more handy packages of
Uneeda Biscuit
They won't get broken, musty, soiled or soggy like ordinary soda crackers because their crisp, clean freshness is protected by the moisture-proof and dust-tight package.
Never Sold in Bulk
5¢
In the moisture-proof package
NATIONAL BISCUIT COMPANY

..New white potatoes which invite
The chance acquaintance of a bite,
And rhubarb suitable for pies
On which the angels gourmandize.

All this is true, as you will own,
If calling there. They have a phone,
And, order anything you will,
They'll rush it up or down the hill.

—Monroe City (Mo.) News.

THE FARMER.

The farmer who is yy,
Enough to take his ee,
And study with his ii,
And think of what he cc;
He hears the clatter of the jj,
As they each other tt,
And sees that when a tree dkk,
It makes a home for bb.

A yoke of oxen he will uu,
With many haws and gg,
And their mistakes he will exqq,
When plowing for his pp.
He little buys, but much he sells,
And therefore little oo;
And when he hoes his soil by spells
He also soils his hose.

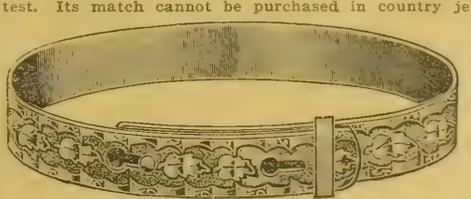
—Macon (Ga.) Telegraph.

"The riddle of the world is understood
Only by him who feels that God is good."

—Whittier.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



Universal Magazine Bracelet.

OUR WONDERFUL DOLL OUTFIT

ALL FREE

10 Different Presents — All Free

This is positively the most liberal and biggest Doll Offer ever made. Think of the endless amount of pleasure a little girl can have with this wonderful collection of presents. All are given **Absolutely Free** to advertise and introduce our business in your locality. All that is required is a few minutes—at the outside not over half a day of your time. Read below and send coupon and we will take care of the rest.

Doll's House Extra

Our handsome little Doll's House is decorated in colors, with painted chimney, windows, porch, etc. It is given extra and in addition to the other nine presents included in this offer, **just for promptness.** Send the coupon below **promptly**—at once, and get this nice little Doll's House as an extra present to complete the combination.

Send this coupon today

M. CLARK
Sec'y
107-111 So. Clinton St.
CHICAGO

CUT OUT ON THIS LINE.

Dear Sir: — Send me your twelve new all-gold illuminated text pictures to distribute on your new plan, which will entitle me to all your nine doll presents and the extra present for promptness. I am under no obligation to distribute pictures after receiving your plan and can return at your expense.

Name_____

Address_____

318_____

Description of Presents

Our life-size doll is bigger than the ordinary baby—nearly two feet high. She is beautifully and stylishly dressed from head to toe, including large picture hat, trimmed with plume, lace, etc., fancy sateen dress with yoke, complete underwear, stockings, slippers with buckles, etc. Bisque body, jointed arms and legs, long curly waxen hair; opens and closes her eyes.

Dolly's buggy or go-cart is substantially made and amply large enough for Dolly to sit in, as shown in the above picture. It is guaranteed to run smoothly. Dolly's little chatelaine watch looks just like a real watch, and she is very proud of it.

Our little baby doll is very sweet and lovely, with long hair.

The five piece furniture set is the cutest doll set you ever saw—regular dining-room table already set up and four upright dining-room chairs.

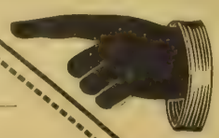
Just imagine the good times the little girl can have dressing dolly, making clothes for baby doll, and taking both out riding in the go-cart, serving dinner and tea, etc., etc.

Do not forget our little doll's playhouse, which is given extra for promptness, as explained elsewhere in this offer.

How to Secure All

If you want my ten grand doll premiums, simply sign your name on the coupon below and send to me promptly. I will then send you twelve of my new style, large, 16x20 inches, all **gold** illuminated text pictures, with decorations. These pictures are brand new and made especially for me; none like them on the market. You distribute these gold text pictures free on my special plan—collecting 25c. with each picture. Then you send me the $3.00 collected and the same day received I will ship you the big dressed doll, go-cart, five-piece dining-room set, baby doll, doll's chatelaine watch and also doll's house for promptness—not one, but **all ten presents.**

If you do not care to distribute my new gold text pictures on my easy plan, after receiving them, they can be returned at my expense. Nearly everyone, however, who sees my new pictures and hears about my new plan will jump at the offer, and you can do the distributing in a very little time. All you need to do now is to send the coupon without delay.



Just Send This Coupon

No Money Required My Company is a two and a half million dollar corporation, and I furnish highest references. Remember, if you do not care to distribute my new gold text pictures on my new plan—all well and good. I run all the risks, guarantee my presents and pay all postage. Don't fail to send the coupon at once and take advantage of this wonderful offer now. 1,000 grateful letters and large illustration of premiums in colors will be sent you.

M. CLARK, Sec'y, 107-111 So. Clinton St., Chicago, Ill.

National FARMER

Vol. XXVI. St. Louis, Mo., December, 1911. No. 6.

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JUPITER, 58,942—Belgian Stallion. Photograph was taken at the Minnesota State Fair, 1911, where he was champion; also first in class and champion at Illinois State Fair, 1911. Exhibited by Finch Bros., Verona, Ill. "A massive roan and outstanding winner." This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

Cash Grain at St. Louis.

Actual quotations for cash grain on the St. Louis market the last day of November, 1911:

Sample wheat, in bulk, on track—No. 2 red, 95½ to 97½c.; No. 3 red, 90½ to 96c.; No. 4 red, 90 to 93c.; No. 2 hard, 98c. to $1.01; Turkey, $1.05 to $1.06 (fancy worth more); No. 3 hard, 96 to 98c.

Sample corn on track—No. 2 corn, old, 74c.; No. 3 corn, new, 62½ to 63c.; No. 4 corn, new, 61 to 62c.; sample grade, new, 58 to 60½c.; No. 2 yellow, old, 75c.; No. 3 yellow, new, 64 to 64½c.; No. 4 yellow, new, 61½ to 62c.; No. 2 white, old, 74c., destination; No. 3 white, new, 64c. for good; No. 4 white, new, 60½ to 61½c. Cob corn—Yellow, 62c.; white, 65c.

Sample oats on track—No. 2 white, 50½c.; standard, 50 to 50½c.; No. 3 white, 49 to 49½c.; No. 4 white, 48 to 48½c.; No. 2 oats, 49c.; No. 3 oats, 48c.; No. 4 oats, 47½c. Rye—No. 2, 95c.

Recent sales of potatoes on the St. Louis market include Minnesota Burbank at 90 cents a bushel and Michigan Rural at 95 cents.

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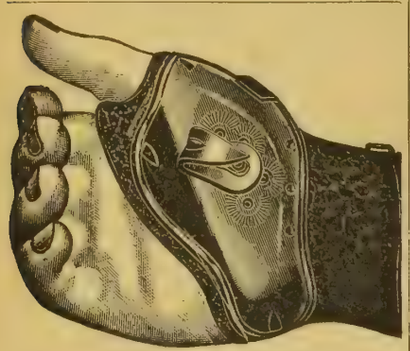
5 Cents a Copy. **Published Monthly by The Hale Publishing Co.** 50 Cents a Year.

and Stock GROWER

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions for palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The strap passes through the leather tongue and the first ring and over



the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone getting up a club of four subscriptions and sending in $2.40 will be credited with one book and one-year's subscription free.

Doubling the Value of Land For Crop Production.

It is said that there are in the United States about 1,900,000,000 acres of land. Of this about 950,000,000 acres can be used for tilling. Of this area about 873,000,000 are now in farms. The amount of land that can be wrested from the arid regions is now very small, and in the main we have reached our capacity for tillable acreage.

The great problem now confronting us is the increasing of the producing capacity of the land we now have. We speak of doubling its crop-producing capacity, but in reality its crop-producing power can be increased many fold. We have but just begun to make our land produce crops.

When we read the statistics of crop production we are reminded how very low the averages are. Many a good farmer produces a hundred bushels of corn to the acre, yet the average of all corn-producing land in the country is under twenty-five bushels to the acre. It is common for farmers to raise as high as forty or more bushels of wheat to the acre, but the average for the country as a whole is about one-third that. Oats are raised in excess of 100 bushels to the acre on some farms well managed and under proper conditions, but the averages drop to about one-third that. Moreover, we have not mentioned the high-water marks of production of even these three crops, for all of them have occasionally been produced in very much larger quantities per acre than the figures mentioned here.

Some years ago the writer was talking with a professor from one of the Southwestern Experiment Stations. He had been carrying on cultural tests with oats for some years. Asked as to how large comparative yields he had been able to secure, he replied that the yields were so big that they had not published them, as they did not believe it possible for farmers under existing farm conditions to get any such yields. He mentioned 170 bushels of oats to the acre as the results of the yields of certain plots. But it must be borne in mind that these plats were not acre plots, but very much smaller. They were so small that they had received perfect care in all things and had received all the water they could use during the growing season. This latter is an element that the common farmer cannot supply, for he cannot generally give an ideal water supply.

Nevertheless, it shows the possibilities in the increase of crops. Very few of our fields are being cultivated under ideal conditions. There is a marked contrast between the size of the crops grown from year to year on experimental farms and those grown on the average farms of the country, as told by the statistical tables. Even if the average of the country were up to that of the experimental farms, the crop production of the country would doubtless be doubled. And experimental farms are not for the purpose of making big records. They do, however, show the effects of good, sensible methods in farming.

We have yet a long way to go before we will have brought all our arable land under the highest possible culture.

Amount of Water Required For Crop Production.

Various investigators have found that it requires from about 400 to 1,000 pounds of water to produce a pound of dry matter of a farm crop. The water requirement increases with a higher temperature, a greater amount of sunshine and a dryer atmosphere. In the arid regions a moderately high temperature, a cloudless sky and a dry atmosphere prevail. Consequently the water requirements of plants naturally tend to be higher for the same kinds of crops. It is concluded that about 750 pounds of water are required in the arid regions for the production of one pound of dry matter of common farm crops.

The straw forms about one-half of the total weight of harvested grain. On this basis the total weight of straw and grain for every bushel of dry matter is 120 pounds. About 90 per cent. of this, or 108 pounds, is dry matter. Therefore, it will require 750 times 108 or 81,000 pounds of water to mature one bushel of wheat. This is equal to 40½ tons of water.

One inch of rainfall per acre weighs approximately 113 tons. It is estimated that under good tillage methods, about two-fifths of the total rainfall is available to the crop; therefore, about 45.2 tons of every acre inch of rainfall are used by the plants, and one inch of rainfall can produce about 1⅛ bushels of wheat. Under thse econditions, ten inches of rainfall would produce 11¼ bushels, fifteen inches 17 bushels. Where two-years' precipitation is stored in the soil it will be possible to produce about 27 bushels of wheat per acre on a twelve-inch rainfall.

Efficiency of conservation and actual water requirements of plants vary so much in different sections that for many localities the above figures must necessarily be suggestive rather than actual.—D. W. Frear, Agricultural College, Fort Collins, Colorado.

Butter Coming Back.

The New York Produce Review and American Creamery reports that 412 tubs of American creamery butter were exported to England last September and were returned to the United States to be sold on the the New York market because the American market is now high enough to justify the return of the goods, and the British butter market is not as high as it might be. The 412 tubs constitute a small fraction of 19,201 packages, but it is sufficient to show that the export trade is not all at guaranteed prices.

In order to make a point against the American meat packers and to bring about the admission of foreign meats into this country free of duty, representatives of the packers were quoted as saying that they sold meats cheaper in London than they did in New York. Whenever they do so it is for the same reason that the butter is returned, because they cannot sell at a profit. It is possible to correct an unfortunate shipment of butter by returning it to meet an advancing market, but when refrigerated meats are once on the hooks at the Smithfield market the sales have to be at the market price. Sometimes meat has to be sold at a loss.

Stolen Milk Bottles.

A car-load of glass milk bottles was seized on the tracks of the Burlington Railroad in St. Louis on Saturday, November 25th, which were claimed to have been stolen. The car contained 24,000 bottles, and the complaint was made by eight St. Louis dairy companies. It is asserted that the loss in bottles sustained by some of the larger dairy companies reaches amounts and value varying from $5,000 to $10,000 a year. It is claimed that an organized milk bottle stealing trust exists; that the stealing begins with children, tramps and rag pickers and ends with conniving syndicates, which interchange the bottles between different cities. It is claimed that in this instance the original thief gets about five cents a dozen, and the consumer pays five cents each. From this statement it appears there is a good-size opportunity for organized stealing in milk bottles, nevertheless it will be difficult to prove that the milk bottles were stolen.

Suppose you had time

to travel through 10,000 square miles of the richest sections Southwest, stopping off in every county and *investigating every* farm opportunity—think how *perfectly* you could locate the *one best* opportunity for you.

A *practical farm man* made just such a trip through Arkansas and Texas. He first stopped at Piggott, in northern Arkansas, went out and talked with Farmer Gray (who bought for $57 per acre a *better improved farm* than his Indiana place at $105 per acre.) He got the views and experiences of other farmers there, asking questions that an *experienced* farmer would ask who was planning to locate in that section; and took *actual* photographs of the stock and farms. Then he went to the *next* county—and so on, *clear* down to Lufkin, Texas., where J. E. Berry tells of starting with $12 capital and making $8300 in 6 years from dairying.

The result is two books with 115 *actual photo* pictures and 100 pages of plain farm facts, as given by *farmers themselves*, describing every kind of farm opportunity Southwest. They are the *next best thing* to an *actual trip* there, and will show you where *your* best opportunity is.

I will send you FREE

copies of these splendid books; I will also tell you about the low fare excursions Southwest twice a month via Cotton Belt Route. Write me *now*.

E. W. LaBeaume, General Passenger Agent
1419 Pierce Bldg., St. Louis, Mo.

The United States Department of Agriculture has issued a report of a preliminary soil survey of the Panhandle of Texas. Apply for it to the Secretary of Agriculture, Washington, D. C.

According to reports of the Department of Commerce, 7,421,836 pounds of sausage were exported n 1909.

Strychnine Poisoning in Dogs.

When the house dog comes home acting very strangely and frothy saliva driveling from the mouth, there are a number of things to be considered. Most people think first of rabies and secondly of poisoning. Since both are very common, the general public should be enlightened in regard to them.

Rabies cannot be easily diagnosed, but strychnine poisoning should be readily recognized by anyone.

The first symptoms of strychnine poisoning appear in from fifteen to sixty minutes after the drug has been administered; if it is carefully hidden in a large piece of meat, it may be an hour or more before any symptoms appear.

At first the animal acts extremely nervous; it cannot stand still and constantly lifts its feet as if the floor were hot. Rapidly the muscles become stiff and the dog assumes a position resembling a saw-buck; next spasms appear and last for a few seconds; then the muscles will partially relax and the animal will be able to breathe more freely.

Spasms will recur more and more frequently until death results.

What can the owner do for the patient until the doctor arrives? In the first place, do not waste valuable time trying home remedies before calling professional aid. Minutes are precious in cases of strychnine poisoning.

Lard, cream and all such agents are absolutely of no value, and the animal is only annoyed by attempts to administer them. The only household remedy that can be of value is mustard, and it is ordinarily too slow in action to accomplish any good. A teaspoonful in a cup of water may be given by means of a tablespoon. Other remedies are useless and are consequently worse than nothing. The doctor can produce vomiting in less than fifteen minutes or wash out the entire intestinal tract.

There is no danger of the animal biting and absolute quiet is good treatment.—H. E. Kingman, Colorado Agricultural College, Fort Collins, Colorado.

Wintering Horses on Pasture.

The custom of running horses out on pasture during the winter is the common one on the range in most sections of the South and to a certain extent in the corn belt. It is rare, however, in localities, such as New England, where the winters are cold. The greatest obstacle to profitable animal husbandry in New England is the necessity to feed and shelter live stock during the long winter period. The Department of Agriculture has found this to be a constantly increasing bill of expense at the Morgan Horse Farm near Middlebury, Vt., and is devising means to reduce it to a minimum. In 1910, cheap barns, costing $500 each, were built in three pastures, each barn having a door in each end and two having a door in one side, facing either south or east. Hay storage is overhead and grain storage at one end. A hay manger runs along the inside of the back wall and a grain trough is outside. One or all of the doors are open all the time, and plenty of bedding is provided.

The yearling fillies and the brood mares were given these accommodations during the winter of 1910, the brood mares being brought up to the main stables about three weeks before they were due to foal. The first winter's trial was completely satisfactory. The horses had a bed which was roomy, always dry and free from draughts, and were free to come and go as they wished. No colds or coughs were observed. The horses were undoubtedly better for their winter's outing. The cost of stabling was cut from $2.00 to $1.00 per head per month, and the cost attendance from $3.00 to $1.00 per head; it is possible still further to reduce the latter charge by increasing the number of animals on the pastures. The horses ate practically the same amount of grain that they would have consumed in stable and somewhat more hay.

During the coming winter the foals of 1911 will run out, having an open shed in an especially well-sheltered location. The barn for the brood mares has been enlarged and changed into an open L-shaped shed, facing south and east. A 100-ton concrete silo has been built in conjunction with this shed, and silage and timothy hay will make the ration of the brood mares during the winter.

The leading stallion at the farm, General Gates, has for a year been given the run of a tightly-fenced paddock of about three-fourths acre, to which he has access every day in winter and day and night during spring, summer and fall. In this time, he has never worn a blanket and has never been in better health or spirits or more easily handled.

The Department's experience thus far seems to indicate that horses may run out during the winter provided they have a dry bed, sheltered from storms, and are given enough to eat, and that the practice will result in a considerable saving in cost of stabling and attendance.

Secretary Wilson says that for twenty years a herd of horses has wintered outdoors on his Iowa farm. He puts the horses in at one year old coming to two. He built a shed for them when he put them out at first, but found they would not go into it, no matter how severe the weather was; they preferred to go into a heavily-timbered ravine, where they got all the shelter they seemed to want. A colt is never taken out until he is to be sold or broken for work. The hair of the animals grows long and thick and protects them. Unless the snow is too deep, horses paw the range for the blue grass, of which there is always an abundance in the pasture. It is well known that horses and sheep will paw the snow to reach grasses, while the bovine does not do this.

The June bulletin of the Missouri State Board of Agriculture, Columbia, Mo., was devoted to "Dairy Farm Management in the Ozarks," a very interesting bulletin. Bulletins are sent free on application.

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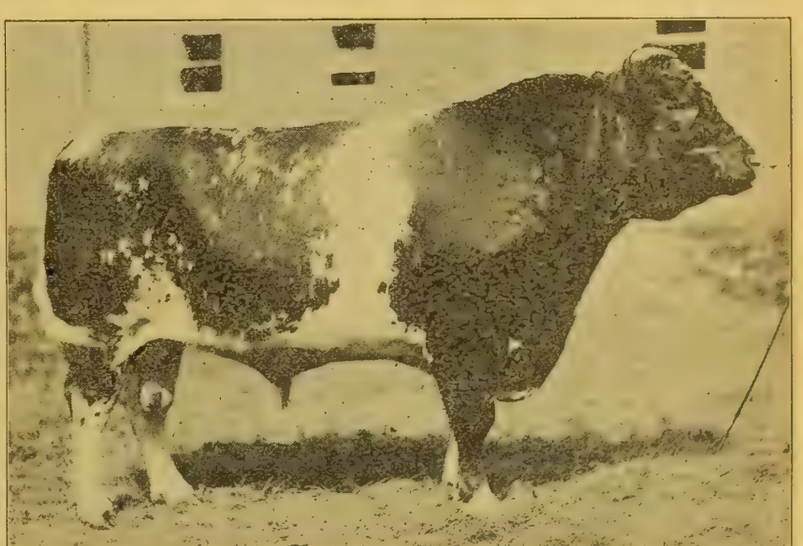

RINGMASTER—Illustrious Shorthorn bull. Grand champion of the breed at Missouri State Fair, 1911, when the photograph was taken. RINGMASTER was then winner of twenty-six grand championships. Bred and owned by White & Smith, St. Cloud, Minn. This is one of the sample pictures collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

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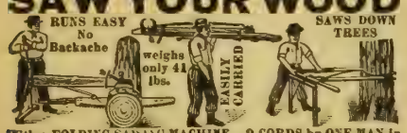

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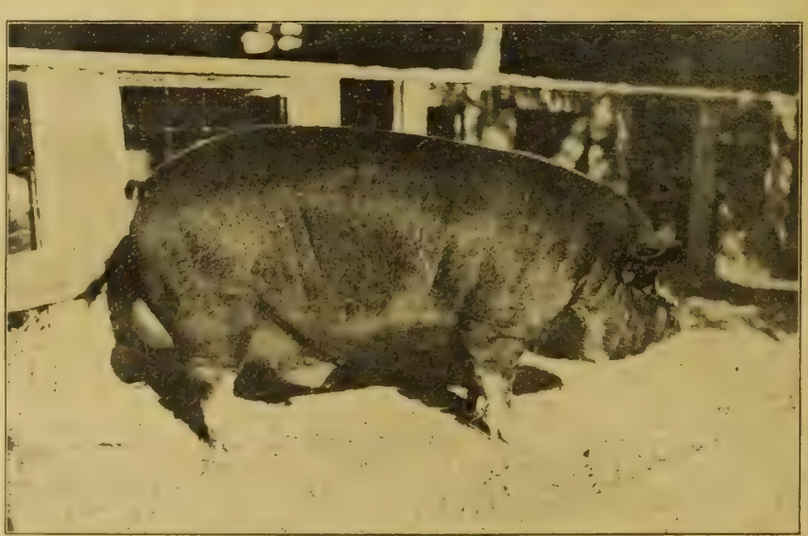
HEAD OF FIRST-PRIZE MISSOURI MULE. It is not easy to obtain a fine photograph of the head of a first-class mule, but in this instance the artist appears to have done so. The photograph was taken at the Missouri State Fair of 1911. The mule was one of a first-prize team owned and exhibited by Lee Feaster, of Windsor, Mo. This is a sample picture of famous animals colleeted for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

The Hay Market.

On the last day of November the following hay was sold at St.Louis: Timothy—One car threshed at $16; one car No. 2 at $21; one car and part car do. at $22; two cars No. 1 at $24; one do. at $24.50; one choice at $25.50. Clover—Part car at $19. Prairie—One car No. 3 at $12; one car No. 2 at $13; one good do. at $14.50; six cars scant No. 1 at $15; one car do. at $15.50; three cars do. at $16; one car do. at $16.50. Alfalfa—Two cars and part car No. 2 at $16.50; one car do. at $17. On East Side: Timothy—One car No. 2 at $21, delivered to St. Louis; one car No. 1 large-baled at $24.50; three cars No. 1 at $25, delivered to St. Louis. Alfalfa—Three cars No. 1 at $19; two cars choice at $19.50 per ton. A large consignment of wheat straw sold at $7.50 per ton.

The Home of Alfalfa.

Five crops of alfalfa in one season is the record of alfalfa in Sacramento Valley. California is the originator of alfalfa. One planter in California had 800 acres in alfalfa before the balance of the United States had half as much. See page 5 and write to Gerrit Fort, Pass. Traffic Manager U.P. Railroad, 1470 Dodge street, Omaha, Neb., for experience of farmers.



BARON DUKE, 62d, 154,052—Photograph taken at Missouri State Fair, 1911, where he was grand champion Berkshire boar. At the Fair his age was less than one year and his weight was 500 pounds. Bred and exhibited by N. H. Gentry & Son, Sedalia, Mo. This is a sample collected for publication in the Book of Live Stock Champions mentioned on page 8.

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The advertisement of Dr. D. C. Snoddy Company, of Nashville, Tenn., is on page 17. It is entitled "Sick Hogs Cured and Disease Prevented."

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lies in the wide territory traversed by the Southern Ry. System. From the high lands of the Appalachians, with their *dry, healthy climate*, to the Piedmont section, with its *heavy yielding lands*, on to the Atlantic and Gulf coasts, where *every crop thrives*—somewhere in this broad territory *you can find a place just suited to your needs and means.*

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125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
412 Merchants Loan & Trust Bldg., Chicago, Ill.

Depth of Root Penetration.

Much misapprehension exists among agriculturists regarding the depth to which roots penetrate the soil. It is a general belief that the roots of cultivated crops do not reach to a greater depth than one or two feet.

Corn roots have been found to penetrate four feet deep and to fully occupy the soil to that depth. On drier and deeper soils they went as deep as eight feet. Roots of small grains, such as wheat, oats and barley, penetrated the soil from four to eight feet, and even ten feet in depth. Perennial grasses have been found to go to a depth of four feet the first year and five and one-half feet the next year, and they probably go considerably deeper during succeeding years. Other crops have gone to the following depths: Potatoes, three feet; sugar beets, four feet; alfalfa, thirty to fifty feet. The buffalo berry penetrated the soil to the depth of fifty feet in Nebraska. In California grape vines went down twenty-two feet; figwort, more than ten feet; goosefoot, eleven feet; and hop plant, eight to ten feet

Most of the above results were obtained in humid or sub-humid regions. Soils and climate differ in such a way as to favor a somewhat deeper root penetration in arid regions, hence it is natural to expect to find roots at even greater depths than the above.

The conditions which encourage deeper rooting are drainage, limited supply of moisture and a soil porous and fertile to a great depth. Deep, early cultivation also forces roots to seek the lower depths. Deep-rooted plants are much more drouth resistant, due to the fact that they can draw on the lower water supply during the periods of drouth. They also have a larger feeding area and the fertility of the soil is not depleted so quickly.

Heavy irrigation in the early part of the season, when there is likely to be a deficiency of moisture later, is a bad thing, because it encourages surface rooting, which means that the plants are going to suffer later for want of moisture on account of their inability to draw on the supply in the lower subsoil.—D. W. Frear, Colorado Agricultural College, Fort Collins.

The Wheat Market Situation.

The closing day of November is not an eventful time in the grain market. Even on quiet days there must be a tremendous movement, otherwise the crops cannot be disposed of, for sooner or later every bushel of grain must pass from the producer to the consumer through the channels of trade, but the eventful days are selling days.

"The present conditions are on the hand-to-mouth order," said a grain dealer; "the wheat is passing into the hands of the miller, who is anticipating no boost in the price of flour, and the baker does not expect to get an advance on the price of bread.

At St. Louis, cash wheat sold as follows on the last day of each month: June, 1911, 86½ to 87½ cents a bushel; July, 84¾ to 86 cents; August, 88 to 89½ cents; September, 98½ to 99½ cents; October, 98 to 99½ cents; and November, 95½ to 97¼ cents. Here we have a decline of 2 to 2½ cents a bushel in thirty days, which is the usual result of hand-to-mouth business.

In the speculative trading at Chicago headquarters the December option, which is to be closed out December 31st, was quoted as follows during the last day of each month: June, 1911, 92¼ cents a bushel; July, 93⅝ cents; August, 94¼ cents; September, 98¼ cents; October, 96½ cents; November, 93⅜ cents.

The May wheat option is usually the most speculative of all options. It is at the end of one crop and before the new one arrives—an uncertain situation. Our readers are reminded that the May option of the year 1909 was closed out at $1.34 a bushel; in 1910 the May option closed at 94¼ cents a bushel; the May option was closed out this year (1911) at $1.04¾. The May option of 1912 was quoted July 31st at 98 cents; August 31st, at $1.00¼; September 30th, at $1.04¼; and on October 31st, at $1.02; but on November 29th (closing day of the month) the May option of next year (1912) was quoted at 99⅛ cents; and the July option of 1912 was quoted at 93⅞ cents.

The actual quantity of wheat available does not indicate a weakness in prices, but the chaotic condition of general business does, and that is what is responsible for the dull future outlook in wheat.

This review of the wheat market is designed to be read in connection with the current grain quotations which are published in every daily paper.

Poultry Profits and Farm Journal.

Read about poultry profits on page 18 and the book entitled "The Million Egg Farm," also the Farm Journal, a publication that the agricultural interests are proud of.

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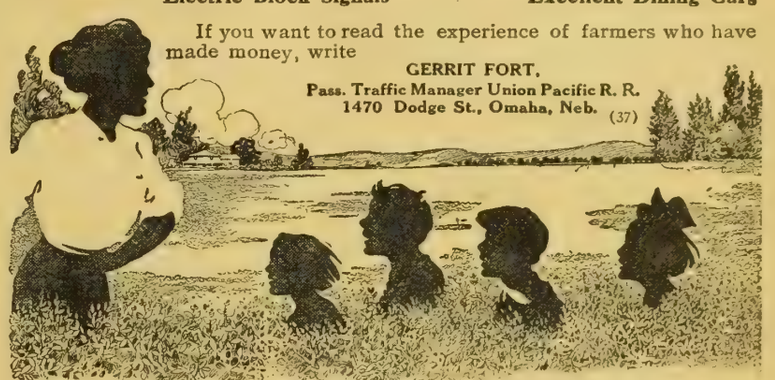

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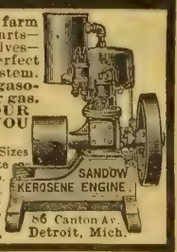
JAUNITA, 146,072—First-prize and junior champion Poland-China sow at the Missouri State Fair of 1911, where photograph was taken. Her weight at the Fair was 500 pounds. Owned by G. M. Curnutt, Montserrat, Mo. This is a sample of swine pictures collected for publication in the Book of Live Stock Champions mentioned on page 8.

Sandow $37.50
2½ H. P. Stationary Engine—Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil), gasoline, alcohol, distillate or gas. Sold on 15 days' trial. YOUR MONEY BACK IF YOU ARE NOT SATISFIED.



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Detroit Motor Car Supply Co., 86 Canton Av. Detroit, Mich.

Western Range Grass Cattle.

On Thursday, November 16th, at the Chicago market, Messrs. Clay, Robinson & Co. sold for Louis Heitman, White Sulphur Springs, Montana, seventeen head of grass-raised Shorthorn steers, 1,551 pounds average, at $7.60 per 100 pounds. These were the first range cattle to sell as high in two years. During the range season in Chicago, Clay, Robinson & Co. topped the market with car-load lots nineteen times.

According to calculations by the Department of Commerce and Labor, the United States will not be selling meat products to other countries in another five years.

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Will Pay a Big Bonus.

The United States Department of Agriculture has received a message from Minister of Agriculture Mackensie, of New Zealand, stating his government has announced an offer of a bonus of 12,000 pounds sterling ($56,700.00) for improved methods to be used in connection with the preparation and utilization of New Zealand hemp. Minister Mackenzie requested Secretary Wilson to give the offer publicity, as the circulation of this information will be for the benefit of American inventors and others in the United States. The offer is open to applicants until November 30, 1913. The conditions of the offer are "the extraction and dressing of fiber from the New Zealand hemp-plant; the utilization of the products obtained during the processes of extracting of the fiber, on condition that the machine or process, in regard to which the whole or any part of the bonus is to be paid, shall be recommended by the New Zealand Flax Millers' Association and approved by the government."

Minister Mackenzie has furnished Secretary Wilson with a leaflet giving giving full particulars on the subject.

The Range Sheep Exhibit.

Secretary Wilson ordered twelve yearling sheep, bred and owned by the Department of Agriculture, to be exhibited at the International Live Stock Exposition held at Chicago, December 2—9, and at the National Mid-winter Sheep Show in connection with the National Wool Growers' Association Convention at Omaha, December 13—16. This will be the first opportunity sheepmen have had to observe the progress of the experiment in breeding range sheep started by the Department in 1906, and still in progress at Laramie, Wyoming. The foundation stock experimented with was partly Delaine but largely Rambouillet. The aim has been to develop a range sheep of good size, at least 150 pounds at maturity, shearing a heavy fleece of combing wool and with enough constitution to thrive under range conditions.

A Bulletin on Emmer.

Emmer is a subspecies of wheat that is known as a profitable stock-feeding crop and a drouth resistant. It is commonly called "Speltz," but true Speltz is not Emmer. Emmer withstands extremes of climate much better than any other cereal. The United States Department of Agriculture has issued Farmers' Bulletin No. 466, entitled "Winter Emmer," by Mark Alfred Carleton, the cerealist in charge of the office of Grain Investigations Bureau of Plant Industry. All who are interested should write to the Hon. Secretary of Agriculture, Washington, D. C.

General Farm Notes.

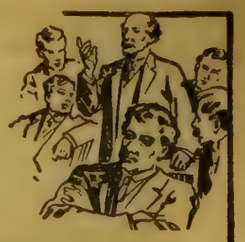
Pennsylvania raised but 70,597,000 bushels of corn in the year 1911, but led the United States with an average of 44½ bushels to the number of acres planted.

The average weight per measured bushel of this year's crop of wheat is 57.8 pounds, against 58.5 pounds in 1910 and 57.6 pounds the ten-year average.

The average weight of oats per measured bushel is 31.1 pounds, against 32.7 pounds in 1910 and 31.2 pounds the ten-year average.

It is reported from Western Kansas that in the short-grass country the Russian thistle is a boon to stockmen. By cutting the thistles before the thorns or spines develop they make good feed.

New Times, New Things



The old fertilizer formulas are giving way to the new. At every farmers' meeting one subject should be the fertilizer formula that will furnish a balanced ration to the crop and keep up the fertility of the soil. To do this the fertilizer should contain at least as much

POTASH

as Phosphoric Acid. Our note book has condensed facts essential in farmers' meetings and plenty of space to record the new things that you hear. Let us send one to you before your Institute meets.

A supply of these is furnished by request to every institute held in several states. We will be glad to send a supply delivered free of charge to every Institute, Grange or Farmers' Club Officer on request. It contains no advertising matter.

GERMAN KALI WORKS, Inc.
Continental Building, Baltimore, Md. Monadnock Block, Chicago, Ill.
93 Nassau Street, New York

CHAMPION SHROPSHIRE RAM at Ohio, Indiana, New York and Michigan State Fairs of 1911. Sold for $600, the record price for a sheep of the English mutton breeds. Owned and exhibited by Geo. McKerrow & Sons, Pewaukee, Wis. This is a sample of the pictures of champions collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

Let Galloway Save You $25.00 to $40.00 on a Manure Spreader

If you'll send a postal for my Special 1911 Spreader Offer, I believe we can make a deal. If we do, you'll save at least $25.00, perhaps $40.00, according to size and style you want. And you get a free trial and a guarantee that would break me if my Spreader wasn't *right*. I know I *have* to go *high on quality* and *low on price*, because I sell by mail. The other fellow is right on the ground to *persuade* you personally. My *quality* and price has to do all *my* persuading. Let me try it. Our capacity is 42,000 spreaders this year in order to quote the low prices I do—30 to 365 days free trial and my long time binding guarantee in writing. $25.00 to $40.00 saved—think of it! That's fair, isn't it? If you can think of a fairer proposition than I'll make you, I'll print it in my next advertisement.

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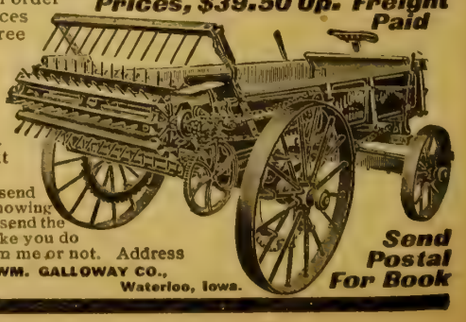

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WM. GALLOWAY, Pres., THE WM. GALLOWAY CO., 1289 Galloway Sta., Waterloo, Iowa.

Send Postal For Book

Foreign Crop Conditions.

The United States Department of Agriculture has received the following cablegram, dated November 18, 1911, from the International Institute of Agriculture, Rome, Italy, regarding areas and production, this year, of the crops specified in the principal producing countries of the Northern Hemisphere, and in the countries named, and the conditions attending the sowing and germination of winter cereal crops in the Northern Hemisphere:

"All wheat. — Single numerical statement of production 100.2 per cent. of last year's production, indicating a total production of 1,637,000,000 cwt., or 3,055,732,000 bushels of 60 pounds.

All rye.—93 per cent. of last year's production, indicating a total production of 662,000,000 cwt., or 1,324,000,000 bushels of 56 pounds.

Barley.—99.4 per cent. of last year's production, indicating a total production of 518,000,000 cwt., or 1,208,667,000 bushels of 48 pounds.

Oats.—90.8 per cent. of last year's production, indicating a total production of 967,000,000 cwt., or 3,284,500,000 bushels of 32 pounds.

Corn.—The estimated production in Hungary is 62,032,000 cwt., or 138,064,000 bushels of 56 pounds.

Rice.—The area probably harvested in British India is 52,792,000 acres.

Cotton. — The estimated area planted in British India is 17,331,000 acres.

All wheat.—The estimated area sown in Argentina is 17,043,000 acres; in Chili, 1,853,000 acres; and in Australia 7,905,000 acres.

Oats.—The estimated area sown in Argentina is 2,547,000 acres; and in Australia 689,000 acres.

Winter cereal crops.—The sowing is approaching completion; the work preparatory to sowing, and the sowing, was accomplished under good conditions, and germination is regular."

Approved: W. M. Hays, Acting Secretary, November 20th, 1911.

Up-to-date Machinery.

"Departmental reports from our field men show that during the last year more up-to-date and modern machinery has been purchased and installed on the farm than during any previous ten years."

So declared Secretary Wilson in discussing the results of a recent investigation of the Department as to the extent the farmers were using modern tools and machinery for farm equipment.

The statement of Secretary Wilson is based on personal observation and by reports of sales of farm implements by the large dealers throughout the country. The Department has been urging the use of the latest tools and machinery for agricultural purposes, and reports show that not only such improved implements as disc plows, two-horse cultivators, disc harrows, twenty-foot drag harrows, and two-horse steel-beam plows, are used, but the latest improved gasoline plows are in considerable demand.

"The most striking feature of our reports is that they show that the sales to Southern farmers have been enormous and greater than in any other section of the country."

A report from Arkansas is a fair sample of the letters received by the Department: "Regarding your request for a word from us as dealers: We have sold more sectional harrows, divers cultivators, fourteen-tooth harrows and side harrow attachments for cultivators in the two years we have been pressing the farm-demonstration work in this county than we did during the whole of eighteen years we have been selling agricultural implements here. We are selling more and better breaking plows; in fact, a higher grade of agricultural implements than before."

Skill in Selling Crops.

Many a farmer remains poor because he never learns how to sell his crops to advantage. It is not necessary for a farmer to get high prices to do well, but it is necessary for him to get fair prices. What some farmers gain in skill in growing crops they lose in lack of skill in disposing of them. The sharp fellows from the commission houses in the cities are looking always for the men that are unsophisticated in the methods of disposing of crops.

One buyer of apples was boasting to some other men of the good bargain he made in the purchase of the apples in a small apple orchard. It was a year of short apple crop, but the owner of the orchard in question did not know that. He and his neighbors had good crops on their small orchards, and he imagined the whole country was full of apples. He evidently was not a reader of agricultural papers or he would have known more about the prospect for the apple crop. The buyer in question rode up to the farm house and casually mentioned that he was a buyer for a fruit commission house. But he said apples were so plentiful that he could not afford to give much for them. The apple grower became anxious to dispose of his, but the buyer thought he did not want to buy any more. However, if the farmer was willing to take ten cents a bushel for the apples on the trees, the buyer to do the picking at his own expense, he would take them. The farmer regarded this as his last chance and sold the crop. Result, the buyer ahead on the deal, and the farmer, who had nurtured his trees for years, the recipient of an absurdly low price for his produce.

More attention needs to be paid to the marketing of all kinds of farm produce. We have at the present time a good deal of help from numerous Experiment Stations on how to grow produce of various kinds, but as yet very little or no help has been given in the selling of what the farmer raises, and that is half of the game.

We have all kinds of conventions on how to produce, but very little is said on how to market. Science has not yet stepped in to do much in this important field.

As long as this condition exists so long will the farmers here and there be plundered by the men that are looking for bargains, and are not too conscientious to take advantage of a man that does not know as much about the market conditions as they do. The buyers that make a business of buying are always fully informed of the market conditions of the country at large. If there is a short crop, they know it, but always talk a big crop to the men from whom they are trying to buy.

Skill in marketing has many phases. One kind of skill is to know what the market conditions really are. Another kind of skill is shown in the form of marketing produce. Another kind of skill manifests itself in an ability to hold a crop till a fair price can be obtained for it.

A lot of 10,000 pounds of poor butter came to a big city market and was sold on the open board as "grease." The buyer said to the writer of this that ten per cent. would prove to be good butter and could be resold at the price of good butter. Good butter was sold at grease prices because the maker did not know how to protect himself from such a deal.

The Howard Watch

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It means more to a man than any other thing you could choose for him.

It is a solid investment for his convenience and service. It will serve him as long as he lives—and then have a substantial value.

It is a compliment to his character—a recognition of him as the kind of man who will appreciate such a timepiece.

The HOWARD has a class and quality that no other watch in the world can equal.

It has a history—it has associations.

It was the first American watch—brought out in 1842.

It was the first watch in the world *adjusted to modern conditions.*

For sixty-nine years it has been the favored timepiece with the leaders of American affairs—and with well-to-do private citizens.

A HOWARD Watch is always worth what you pay for it.

The price of each watch—from the 17-jewel (*double roller*) in a Crescent or Boss gold-filled case at $40 to the 23-jewel in a 14K solid gold case at $150—is fixed at the factory and a printed ticket attached.

Find the HOWARD jeweler in your town. When a man makes a permanent investment like the purchase of a HOWARD Watch he naturally wants to *see* what he is buying—he wants to get the dealer's expert advice. The HOWARD Watch is sold only by legitimate jewelers—and not every jeweler can sell you a HOWARD. The jeweler who can is a representative merchant—a good man to know.

Send us your name on a postal card and we will send you—FREE—our pamphlet, THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

E. HOWARD WATCH WORKS

Dept. No. 122, Boston, Mass.

The Very Simple Boy.

A rather simple-looking lad halted before a blacksmith's shop on his way home from school and eyed the doings of the proprietor with much interest.

The brawny smith, dissatisfied with the boy's curiosity, held a piece of red-hot iron suddenly under the youngster's nose, hoping to make him beat a hasty retreat.

"If you'll give me half a dollar I'll lick it," said the lad.

The smith took from his pocket half a dollar and held it out.

The simple-looking youngster took the coin, licked it, dropped it in his pocket and slowly walked away whistling.—Sunday Magazine.

Maine leads the United States in potato growing with an average of 190 bushels per acre, but New York state with larger acreage leads in the production of potatoes.

The St. Louis produce market is being supplied with cauliflower from Western New York, Long Island and the state of California.

FRAZIER'S DISTEMPER CURE

Most for Money

$1.00 size bottle of Frazier's Distemper Cure holds 8 ounces (other so-called distemper cures hold 6 ounces). We authorize your druggist to refund the purchase price if "Frazier's" fails to give satisfaction in all cases of Distemper, Influenza, Coughs, Colds, Shipping Fever, Catarrhal Fever and all nose and throat diseases. Two sizes, 50 cts. and $1.00. Send for free horse booklet.

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Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service, and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth or other unavoidable influences the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

During Thanksgiving week, the rabbits shipped to the St. Louis market brought $1.00 per dozen, and jack rabbits $1.50 per dozen. Opossum sold at 15 to 25 cents each.

The Buttercup Cream Separator is advertised on page 8 in the Waterloo Gasoline Engine advertisement. Don't fail to read about it and write to the Waterloo Gasoline Engine Company, 228 West Third Ave., Waterloo, Iowa.

THE BOOK OF LIVE STOCK CHAMPIONS.

We are actively engaged in preparing the new edition of the Book of Live Stock Champions for publication.

We have published several editions of this valuable book and intend to make the new edition far superior to all others. To this end we have waited for the list of champions at the International Live Stock Exposition of 1911.

We already have illustrations of seven hundred different champions, and in each case the picture occupies a half page of the book. We are now gathering the remaining three hundred pictures.

Each illustration is a special demi-tone engraving from a photograph taken from life. No drawings or fancy pictures appear in the book.

First and second-prize winners are not eligible unless they have also won championship prizes. It is a Book of Live Stock Champions, not simply a book of ordinary prize winners.

Champions of the beef cattle breeds are admitted by their showring honors. We have enough pictures of beef cattle champions to make a book by themselves.

Dairy cattle are admitted by showring honors, also by officially tested dairy records. We have the finest selection of dairy cattle in the world.

Dairy cattle are admitted by showring honors. Trotters and pacers are admitted on track records or as noted sires. We have all the famous horses, going back thirty years.

Thoroughbred horses are admitted on account of track honors or as sire or dam of champions. Saddle horses and ponies are admitted as championship winners.

Jacks and jennets, also mules, are admitted on show-ring or market honors.

Hogs, sheep and Angora goats are admitted as winners of sweepstakes prizes at State, National or International Fairs.

Numbers of famous car-loads of cattle, horses and sheep which have won show-ring and market honors will be published in the book.

Every live stock champion is entitled to entry providing a first-class photograph can be obtained. We do not intend to disfigure the book with poor pictures. It is better to leave out the poor pictures than to apologize for an inferior book.

A number of live stock champions appear in this edition of The National Farmer and Stock Grower to show the character of the Book of Live Stock Champions.

We do not charge the owner for publication of his animal, but we do ask his co-operation in furnishing first-class photographs and the records of said animals.

It is worth something to a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at one dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer. After publication the cloth-bound copies will cost two dollars a copy without the subscription. This is the last time the Book of Live Stock Champions will be offered before publication.

HERE IS A SUBSCRIPTION BLANK.

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Gentlemen:—Herewith plase find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Book of Live Stock Champions, cloth-bound edition of 1912, immediately after publication.

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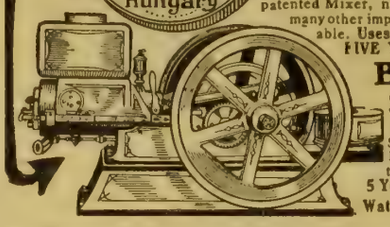

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Waterloo Gasoline Engine Co., 228 W. 3rd Ave Waterloo, Iowa

HOWIES EMERALD—Junior champion Ayrshire female at Minnesota State Fair; also junior and grand champion female at Wisconsin State Fair, 1911. Exhibited by Adam Seitz, Waukesha, Wis. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world. "Give him a Howard for Christmas."

American Galloway Herd Book.

Mr. R. W. Brown, Secretary of the American Galloway Breeders' Association, 817 Exchange Ave., Union Stock Yards, Chicago, Ill., advises us that Volume 18, American Galloway Herd Book is ready for distribution. Each member of the society is entitled to one copy free at the office of the association, or sent prepaid on receipt of 25 cents to pay cost of transportation. To non-members the books are sold at $1.25 each. Volume 18 contains the pedigrees of 3,000 Galloways, also the names and addresses of the breeders and owners.

Chicago has received over five millions and a quarter of sheep this year.

RICE, New Crop, 100 lbs., FREIGHT PREPAID your station, $3.50 to $5.80; free samples. **BEAUMONT RICE EXCHANGE**, Box 765, Dept. 12, Beaumont, Texas.

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PATENTS BRING WEALTH. Write for proof. YOUR IDEA, no matter how simple, entitles you to a patent. Total Government fees $35. My fee low. **A. J. WEDDERBURN, Atty., Dept. A K, Washington, D. C.**

ATTENTION! Two Gentlemen's Fur-lined Overcoats, lined with finest Australian Mink, broadcloth outside, beautiful Persian lamb collars; sizes 38-40 and 42-44; cost $90 each; never worn; will sell for $35 each. Two elegant Cinnamon Bear Robes, cost $75; will sacrifice pair for $30; also Lady's handsome, long, stylish Fur Coat, satin lined; never used, $35, value, $90. Call or write. **E. ROBERTS, Room 7, 160 West 119th St., New York.**

STOCK AND DAIRY BARN

Recently Constructed on the Farm of Dr. David Roberts, near Waukesha, Wis.

Our readers ought to be very well acquainted with Dr. David Roberts, D. V. S., who has an office at Waukesha, Wis., for the sale of his live stock remedies which are advertised on page 17. He is the Dr. Roberts we read of as Veterinarian of the state of Wisconsin and of the National Dairy Show.

Dr. Roberts is also a farmer, a dairyman and a live stock breeder. He recently invited the readers of The National Farmer and Stock Grower to attend a barn warming at his place and partake of his hospitality. As we could not all attend, he has kindly sent us a full description of the barn, also photographs, for which we are very thankful.

Dr. David Roberts' farm is located six miles east of Waukesha, twelve miles west of Milwaukee, on the Chicago and Northwestern Railroad and Milwaukee-Waukesha Interurban Car Line, eighty miles north of Chicago.

The dairy barn is located 500 feet from the Northwestern Depot and Electric Line Station.

The size of the barn is 36 feet by 115 feet, feed rooms and silos attached, making all 147 feet long.

The barn is of plank construction, balloon frame; foundation wall of broken hard-heads or field stone, and extends five feet above grade line.

The ceiling and inside of basement down to stone foundation is of yellow pine ceiling.

There is a driveway through the entire length of barn, making it possible to remove litter by team if desired.

The barn is equipped with a double overhead track and litter carrier.

In the east end of barn, on each side of center driveway, is a room 6 feet by 8 feet; one used for weighing milk, with lavatory and running water; the other, a hallway to second floor and coat room. Also a stairway in the addition at west end of barn.

Seventeen windows on each side of barn, size 30 by 54; size of glass, 6 by 12 inches. Windows double glazed with air space between glass, making them frost-proof. Windows rest on top of stone wall.

Windows hinged at bottom, permitting them to tip inward and are held at top by two eight-inch chains.

First floor equipped for housing sixty head of cattle; stanchions for forty-four head; cattle facing out; three bull stalls, and the remainder calf pens.

All floors under cattle built of cork brick with cement gutters and curbs and galvanized partitioned mangers.

The bottom of mangers is of cement and connected with water system, making it convenient for watering stock.

Gutters and watering mangers are connected with sewer.

The stanchions, bull and calf pens and partitions between cows are built of tubular iron pipes, making it more sanitary.

Bull pens as well as calf pens are provided with stanchions. Bull pens are equipped with metal spring mangers.

Fresh air is taken in through fourteen registers that are placed just above stone wall on outside of building. The air passes upward and enters four feet higher through fourteen adjustable registers near ceiling, distributing fresh air in front of cattle.

Foul air is taken from floor at both ends of barn by four chutes, size 18 by 24 inches each, and running directly out through roof and capped with galvanized ventilators. The chutes are built of double matched flooring with building paper in between, making them frost-proof.

The barn equipment includes hay carrier.

The barn is lighted by individual electric lighting plant.

In west end of hay loft are two large grain bins.

In building connecting main barn with silos on first floor are two feed rooms; on second floor are two rooms for storing and mixing feed, and hoppers connected with chutes to the first floor.

Two silos, of brick construction, 16 feet by 35 feet, with shingle roof, connected to west end of barn.

The barn and silos are rodded with woven copper-wire lightning-rods, with numerous points.

Milk house, one story high, located just east of dairy barn; size, 19 feet by 30 feet. East half of this building used for office purposes. West half of building equipped with cement floors, cement water tank, etc.

A gasoline engine is used for pumping water, running cream separator and dynamo which charges battery for lighting the buildings.

The water supply is from a well drilled into the rock and is located inside of milk house, and is equipped with a force pump and water system, which forces water to all parts of the buildings.

The feed to be stored in grain bins on second floor is to be hauled in wagons on driveway in the center of the barn direct under the feed bins, and with rope tackle to be drawn through straw chute to a point above the grain bins and then swung to the trap door in the center of the top of each bin. In this way it can be emptied into the center of the bins with the least possible work.

To make the exterior of the barn look right architecturally the hay loft is so high that it will accommodate a large amount of fodder.

The bull and calf pens are at one end of the barn, three bull pens on one side and opposite them the three calf pens. The cattle face out. All the cow stalls are 3 feet 4 inches wide. On one side of the barn they are 4 feet 8 inches long and on the other side 4 feet 10 inches long. The bottom of the mangers is 2 inches higher than the floor of the stalls. The sides of the gutters next to the stalls are 10 inches deep and next to the center driveway 4 inches deep.

In further explanation, in response to a letter of inquiry, Dr. Roberts states as follows:

"The stock farm contains one hundred acres of land. We sell half of our dairy product in the shape of whole milk to the Gridley Dairy Company, Milwaukee, Wis. The other half we separate and make butter and feed the skim milk to calves and pigs on the farm. We have a delivery wagon which is used in delivering the dairy products to the railroad station, which is within five hundred feet of the dairy barn.

"The cost of the barn is approximately $6,500. The monthly pay-roll should not exceed $100 so long as the stock on this place can be handled by two men. The barn now contains about thirty-five head of cows and young stock, and for the present milk but fifteen head. We do not use milking machines for the reason that I have seen so many of them discontinued.

"The milk is cooled in eight-gallon cans in a large cement vat. The milk house is so arranged and equipped with a gasoline engine which pumps water from a deep well drilled into the rock into this vat. It also runs a dynamo and the cream separator during milking hours. In this manner the expense of pumping water, lighting the barn and separating the milk is performed at practically the same expense as it requires to operate one.

"As the milk cans are placed in the vat to be cooled they very soon warm the water, so that when the cans are as cool as they should be, the water has become sufficiently warmed for the cattle, and by turning a faucet this water is turned into the cement mangers of the cattle. In this manner each cow is enabled to warm her own drinking water at practically no expense.

"It would require from three to four men to properly handle this barn filled with cattle if forty-four head were milking. The dynamo does not run excepting when water is pumped or cream is separated. We arrange to do the water pumping and the separating of cream during the milking hours, so that the dynamo furnishes light at the same time.

"When the dynamo is not running, and we only run it during milking hours, the lights are taken off the storage batteries; but if the dynamo is run during the daytime these batteries are recharged.

"The average dairy farmer owning one hundred acres of good land can afford to build a barn of similar construction, even when he is netting but twelve to fourteen cents per gallon for his milk.

"I have at the present time twenty head of pure-bred Holsteins and fifteen head of pure-bred Ayrshires. I sell bulls to breeders but no calves to butchers. I endeavor to raise all of my pure-bred heifers and give them official records. I have recently given a two-year-old Holstein heifer an eighteen-pound record in seven days. Am just starting a bunch of Holstein heifers in a seven-day test, also a yearly test."

Exterior view of Dr. David Roberts' barn near Waukesha, Wis. The photograph was taken on the day of the barn warming, when the subscribers of The National Farmer and Stock Grower were invited to attend.

Interior of dairy barn owned by Dr. David Roberts Veterinary Company, six miles east of Waukesha and twelve miles west of Milwaukee, Wis., with stanchions for forty-four dairy cows. See article and description.

BETTER CISTERNS --- WHY?

To protect the health of every member of your family. Medical experts have pronounced the brick and wood cistern to be the cause of many cases of sickness.

A Cistern to be perfectly sanitary must be made so tight that no impurities can possibly get through. This can only be accomplished by using the Steel Cistern.

STEEL ROOFING Of All Kinds,
Stock and Storage Tanks, Wagon Tanks, Etc.

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Your horse will relish his feed,—get every ounce of benefit from it and keep in better condition this Winter, if stomach, blood and bowels are kept in good order with

Pratts Animal Regulator

It is a sure preventive of constipation due to dry fodder and lack of exercise. It is a necessity for keeping horses and cattle right up to the mark. Mix it every day in their feed and you won't have weak, rundown animals.

There is not a month in the year that you will not find Pratts Animal Regulator making money for you, both in saving feed and in increasing the efficiency of your horses, cows and hogs.

Satisfaction Guaranteed or Money Back

You do not risk a cent when you buy Pratts Animal Regulator, the 40 year old conditioner, tonic and digestive. If you tell your dealer that you are dissatisfied, he will promptly refund purchase price without a question. Start saving *now.*

25 lb. pails $3.50; also in smaller packages and 100 pound bags.

If your dealer can't supply you, write us. Ask for our valuable FREE Live Stock Book.

PRATT FOOD CO., Dept. 54, Philadelphia, Pa.

WISDOM FROM INDIANA.

A Cow Census the First Necessity in Starting a Creamery.

The successful organization of a co-operative creamery should not start with the selling of stock, but with an accurate cow census, writes H. C. Mills, of Purdue Experiment Station. It should be determined by those interested in the success of the creamery how many cows can be depended upon to furnish milk for the creamery when started. The creamery should not be started unless between 350 and 400 dairy cows are available.

The location of the community with respect to large dairy markets should be considered. If located within shipping distance of city milk plants or large private creameries, the success of the co-operative creamery may be doubtful. In fact, the co-operative creamery is really unnecessary in such cases because the competition of two private creameries will insure the highest price possible.

If a sufficient number of cows are available and the creamery seems to be needed, the next step is the selling of the stock. A dairymen's picnic or meeting may be held and some successful farmers or members of the Dairy Department of the Experiment Station asked to explain the advantages of the creamery and of dairy farming. At this meeting a committee may be appointed for selling stock. When sufficient stock is sold, a meeting of stockholders may be held and officers elected. The officers should be elected because of business ability along dairy lines.

The manager should be a man knowing something about creamery operation, if possible, and in a position to give much of his time to creamery work. The manager should be allowed to visit other creameries at the company's expense and learn how they are run.

The buttermaker should next be secured, and much depends upon his selection. He can best be secured through the assistance of a dairy school. An efficient man should be secured, although a higher salary must be paid than for some one with fewer recommendations. The buttermaker may assist in the planning and building of the creamery and the purchasing of the creamery machinery.

Co-operation of stockholders and patrons of the creamery should be secured by occasional creamery picnics and dairy meetings. Every stockholder should be made to feel that his help is needed and that a part of the creamery belongs to him. The success of the creamery depends upon hearty co-operation, which can only be secured where the farming community is composed of courteous, neighborly people.

The Live Stock Census.

Many people cry aloud for immediate statistics to find afterwards that all statistics require time to collect and to publish. The United States Census of Live Stock for the year 1910 reached us early compared with the time usually required; but for all that, there are lambs enumerated that were unborn when the census was taken that are now yearlings; thirty millions of pigs and hogs have been marketed since the census was taken and replaced by a new crop of pigs, and the cattle and horse ages have all advanced a full year, if the animals are still living, and the figures that are of the most value are the totals.

Last month we published the summary as written by the census officials; this month we show comparisons of the last two enumerations, also giving the total population in each census year. This is handy to be cut out and carried in a pocketbook.

The Live Stock Census.

Census of	June 1, 1900.	April 15, 1910.
Dairy cows	17,139,674	20,580,845
Other cattle	50,682,662	40,644,946
Calves not counted	.....	10,000,000
Total cattle	67,822,336	71,225,791
Horses enumerated	18,280,007	19,731,060
Colts not counted	.....	3,000,000
Total horses	18,280,007	22,731,060
Mules enumerated	3,271,121	4,183,572
Colts not counted	.....	500,000
Total mules	3,271,121	4,683,572
Jacks and jennets	95,603	101,392
Sheep and lambs	61,605,811	51,809,068
Lambs not counted	.....	10,000,000
Total sheep and lambs	61,605,811	61,809,068
Swine enumerated	62,876,108	58,000,632
Pigs not counted	.....	10,000,000
Total swine	62,876,108	68,000,632
Goats	1,871,252	2,798,160
Population	75,994,575	91,972,266

Whenever these figures are considered, it must be remembered that the 1910 enumeration is short the calves, lambs, colts and pigs that were dropped during the period of forty-five days between April 15th and June 30th. In the previous census they were counted up to June 30th.

The reason why the date of enumeration was changed has not been mentioned in our hearing, but we have already noticed that the figures of 1910 are misused. For instance, sheep are entitled to a credit of lambs dropped between April 15th and June 1st, and yet the census comparisons are made by politicians without explanation given by the Census Bureau. Our figures as given will enable a stockman to study the census enumeration in connection with the census.

Increase in Dairy Cows.

Wherever there is a city growing up there will be found an increase in the number of dairy cows for the simple reason that it requires more cows to satisfy the demand for milk and cream.

It is not surprising, then, that a gain of 20 per cent. has taken place in the number of dairy cows in the United States during the ten years from 1900 to 1910, because there has also been an increase of 21 per cent. in the population. In the year 1900 the number of milch cows was 17,139,674, and the population of continental United States was 75,994,575, and in the year 1910 the number of milch cows was increased to 20,580,845, and the population to 91,972,266. At the same rate of progression there will be 24,697,004 dairy cows in the year 1920, and 110,366,719 people in continental United States.

U.S. The United States Cream Separator for 1912 U.S.

Embodies Four Separator Requisites to a Degree Unequaled by any other Cream Separator

Close Skimming: The U. S. holds the World's skimming record — an ironclad fact.

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Durability: The same sterling workmanship which has made the U. S. famous for long life with fewest repairs.

The United States Cream Separator for 1912 is sold at the lowest price at which an *efficient Separator* can be sold — and this is the only basis of true economy.

Send for Catalog — or get quickest action by asking us for name of local agent nearest you, who will demonstrate right on your own dairy floor. Do it today.

Vermont Farm Machine Co.
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ANYBODY CAN LAY IT.

Rubber Roofing

Warranted For Twenty-Five Years.
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
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TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 929, East St. Louis, Ills.

The Slaughtering Surprise.

According to the Census of Manufactures, which takes place every five years, the number of packing plants in the United States increased from 1,221 in the year 1904 to 1,641 in the year 1909. The census authorities specially mention that these are all distinctively wholesale plants and does not represent the small slaughterers who are retailers.

In the five years from 1904 to 1909 the number of establishments increased 34 per cent.; capital invested, 59 per cent.; the gross value of products, 49 per cent.; cost of materials, 48 per cent.; value added by manufacture, 53 per cent.; average number of wage earners employed during the year, 19 per cent.; amount paid for wages, 26 per cent.; number of salaried officials and clerks, 43 per cent.; amount paid in salaries, 49 per cent.; miscellaneous expenses, 38 per cent.; primary horse power, 75 per cent.

The actual increase in wholesale slaughtering establishments amounts to eighty a year for five years. The census has given us the grand total but not the details. We cannot make a list of them by states from census information, neither can a complete list be had from the Department of Agriculture, because there are some wholesale slaughterers that do not have government inspection, for the reason they are not engaged in interstate trade. The meat-packing industry is surely expanding and the increase in the number of wholesale slaughtering establishments is quite a surprise.

Holstein Cattle Averages.

The average production of seventy-two Holstein cows and heifers being tested officially for seven days for admission to the advanced registry was 55.3 pounds of milk, which is equal to 26.3 quarts per day, and the butter-fat content amounts to 15.37 pounds of commercial butter per week. The average butter-fat content was 3.40 per cent.

Another lot of sixty-four Holstein cows and heifers being tested 325 consecutive days gave a total of 821,052.2 pounds of milk, containing 28,653.83 pounds of butter-fat, thus showing an average of 3.49 per cent. fat. The average production for each animal during the average period of 325 days was 12,828.9 pounds milk, containing 447.72 pounds of butter-fat, equivalent to 522.34 pounds of he best commercial butter. The average production per day for each animal for the entire test was 39.47 pounds milk, or 1.6 pounds of commercial butter. In this herd, in addition to the milk and fat, nineteen animals were tested for total solids. These nineteen animals produced 271,386.8 pounds milk, containing 9,479.72 pounds of butter-fat and 32,756.35 pounds of solids; the average production for each animal being 14,283.5 pounds milk, containing 498.93 pounds of butter-fat and 1,724.02 pounds of solids. The average per cent. of fat was 3.49, and the average per cent. total solids, 12.07; the proportion of fat to the solids not fat being as 1 to 2.46. That is, these cows produced 2.46 pounds of digestible food other than fat for every pound of fat produced.

Clipping Machines at Dairy Show.

At the Dairy Show in Chicago last month it was interesting to note the number of clipping machines used. No less than a dozen of these machines were in operation part of the time. The neat, clean and trim appearance of the cattle after clipping contrasted forcibly with the long and more or less unkept appearance of those not clipped. Clipping as a custom seems to be growing in favor rapidly.

A Troublesome Law.

The butter dealers of Boston are in trouble. It is reported that the Internal Revenue Commissioner is going through the storage houses to ascertain how much butter in storage contains over 16 per cent. of moisture. Under the law, such butter is classed as adulterated. Furthermore, as the law now reads, every dealer found handling butter with an excess of moisture is required to take out a license for handling adulterated butter, and also pay a tax of 10 cents per pound. Dealers claim that they should not be held responsible for excess of moisture in their consignments, which are sent to them as first-class butter, and that when the excess moisture is found, the makers should be held responsible and pay the penalty.

Dairy and Creamery Notes.

In the state of Iowa, 468 creameries were furnished milk by 110,918 patrons. The butter output was 96,695,584 pounds. The cheese sales amounted to 224,424 pounds, and ice cream to 250,000 gallons.

At the Texas Try-State Fair, the grand champion butter exhibit of the show was made by A. A. Low, of Dallas, score 95¾; this was classed as dairy butter. The sweepstakes creamery butter in twenty-six-pound tubs was exhibited by J. R. Donnell, of Belton, score 95½. The award for best butter in ten-pound tubs went to Edward Johnson, of Falfurrias.

At the last session of the Tulare County Dairymen's Association of California it was decided by the managers of the various co-operative creameries throughout that section that a grading system for cream will be adopted. There will be three classes, the divisions being based on the flavor and quality of the cream, a difference of four to five cents being made in the price returned per pound of fat in first and third grade.

At the New York Land Show, a giant cheese made by H. A. Rees, of Lowville, N. Y., was on exhibition. It weighed 6,296 pounds and required 62,285 pounds of milk to make it.

On November 15th, at New York City, the shippers in what is called the 26-cent freight zone, the milk producers, were receiving four cents a quart net and the cost delivered in New York City was $1.91 per forty-quart can.

On Friday, November 10th, at New York City, the best butter "creamery specials" touched high-water mark at 35 cents a pound wholesale, being 1½ cents a pound higher than the best price of last year.

At the middle of November this year, in New York City, the stock of butter in cold storage was 154,000 packages. Last year, at the same time, 299,000 packages, and the year before 200,000 packages.

"There is one feature of the poultry business that should appeal to more farmers than it does, which is, poultry yields an all-year-round income. The same may be said of the dairy business. Both dairying and poultry raising are always in season, so far as income is concerned."—Connecticut Farmer.

In the state of Wyoming 1,133,302 acres are irrigated out of a total of 1,256,160 acres in improved farms.

Keep Your Soil at Top Notch Producing Power

THE utmost care and attention given to plowing, harrowing, seeding, cultivating, and harvesting cannot make up for lack of fertilizer, which is necessary to keep the soil at the top-notch of its producing power. In fact, fertilizing is of first importance.

Of all fertilizers, manure is best, because it replaces just the elements the crops have extracted, and is most economical.

But to get its full value, manure must be spread evenly, in proper quantities. Only a good manure spreader will spread it this way. Get an I H C if you want to be sure of the greatest value for your money.

I H C Manure Spreaders

Corn King, Cloverleaf, Kemp 20th Century

are simple, strong, and perfect in design and construction. They are light in draft and durable. Here are some of the features and advantages that make I H C spreaders the best investment for you.

The method of transmitting power from the wheels to the beater is simple and direct. There are no unnecessary parts to wear. The beater is large in diameter, and the teeth are long, square, and chisel-pointed, so that the manure is thoroughly pulverized and thrown out before it wedges against the bars, thus reducing the draft.

The apron is supported by steel rollers, and the slats are placed close together, so that manure does not sift down and interfere with the movement of the rollers. The steel wheels have ample strength to carry many times the weight they will ever be called upon to bear. The rims are flanged inwardly to prevent cutting and rutting of meadows and accumulation of trash. There is no reach to prevent short turning.

I H C Manure Spreaders are made in several styles and sizes for field, orchard, and truck farm use. See the I H C local dealer for catalogues and complete information, or, write direct.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
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I H C Service Bureau

The Bureau is a clearing house for agricultural data. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problems to the I H C Service Bureau.

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1½ HP $27.50

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You've never before heard of such startling values—I've never offered anything like them and you know full well that no one else has ever come anywhere near my regular prices. But this time I've a startling reason—*I want 10 men in every township in the county to own and operate a Galloway Engine*—I've decided to double my factory capacity by increasing the sales twice and sell two where I formerly sold one—this calls for unusual values—hence, the greatest offer I have ever made. I can save you from $25 to $300 on an engine according to the H. P. needed. It doesn't matter what sized engine you want I've got the one to fit your wants and do more work and better work at less actual cost than any other engine in the world. Write at once for full information of the Greatest Offer Ever Made To American Farmers—don't delay but send me your name and address now, before you do another thing. Let me prove to you in cold facts why I can put $25 to $300 in your pocket

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30 Days FREE Trial

Pump Jack $3.95

No Such Quality in any engine—no matter what price you pay—the Galloway price saves you $25 to $300

FARM AND RANCH LANDS.

ALABAMA.—BARGAIN FOR QUICK SALE. Splendid place for truck, chickens, etc. Easy drive Birmingham, Ensley, Bessemer and Corey, on car line. Good five-room house, poultry and pigeon houses, etc.; city water, plenty fruit and shade trees. Easy living can be made off place. Price, $5,500.00; about $2,000.00 cash; balance easy. Address, **Owner,** Postoffice Box 691, Birmingham, Ala.

ARKANSAS.—For Sale: 1,200 acre stock farm, situated in Arkansas, 68 miles south of Memphis, on the Mississippi river, with landing on the place; several houses and commissary. This is counted by cattlemen as being one of the best all-round stock farms in the South. We have 700 acres of open land, about 400 acres in grass, balance in corn, cotton, etc., the land being all level and very rich. There is a small lake, about 100 feet wide and about one-fourth mile long, on one side of this tract. There is heavy cane all around the open land, which gives good protection in winter and makes excellent winter browsing. A better stock farm could not be found. We are offering this place at a sacrifice price of $20.00 per acre. Address, **St. John & Olcott (Owners),** 46 Porter Building, Memphis, Tenn.

ARKANSAS.—Lands on the Cotton Belt Route in Arkansas are offered for sale at remarkably low prices. All farmers and "intend-to-be farmers" should post themselves. Write for free books showing the best locations. Address, **E. W. LaBeaume,** G. P. & T. A., 1419 Pierce Bldg., St. Louis, Mo.

ARKANSAS.—LOOK! LOOK! BAXTER COUNTY, ARKANSAS. Thirty-five improved farms, $10 to $25 per acre. Write for Land List and Literature. **T. G. Higgins Land Company,** Box 335, Cotter, Ark.

ARKANSAS.—Rich bottom farm, 524 acres, 300 in cultivation; ten houses; rents for $6 acre. Price, $25 acre. Terms. **Ross-Moore,** Searcy, Ark.

ARKANSAS.—SOUTHEAST ARKANSAS is the best farming section of the state. I have for sale several good places near Eudora, in Chicot county. Owing to age and ill-health of my wife, I will sell my property at bargains. Address, **Dr. S. A. Scott,** Box 99, Eudora, Ark.

FREE Literature will be sent to anyone interested in the wonderful Sacramento Valley, the richest valley in the world. Unlimited opportunities. Thousands of acres available at right prices. The place for the man wanting a home in the finest climate on earth. No lands for sale; organized to give reliable information. Sacramento Valley Development Ass'n. SACRAMENTO. **California**

FLORIDA FARM SACRIFICE.

To close estate at once I must sacrifice beautiful 26-acre Florida home, six-room cottage, modern improvements, barn, outhouses, all necessary live stock, poultry, machinery and equipment. Will yield over $4,000 a year if properly cared for. Price complete, $1,500. Terms, $50 cash; $25 quarterly, if desired by responsible party. Possession March 1. **Owner, care of A. Jordan,** Glidden, Wisc.

TEXAS.—Many of the very best farms and farm lands are to be found on the line of the Cotton Belt Route in the state of Texas. A reference to that country will be found on page 2 of this paper. Send in your name and receive free books concerning the rich land bargains to be had on this line. Address, **E. W. LaBeaume,** 1419 Pierce Bldg., St. Louis. Mo.

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116 Market Street, Salisbury, Md.

BARON VOUCHER—First-prize aged Clydesdale stallion at Minnesota State Fair of 1911. Exhibited by John R. Campbell, Utica, Minn. "A nobly-crested horse with strong thighs and free, straight action." This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

One of Our Premiums.

Mr. I. L. Haile, of Linville, La., is a regular prize winner with corn raised by himself from seed furnished by The National Farmer and Stock Grower as a subscription premium. Last year he won the sweepstakes prize, but this year he only won a second. We paid him $10.00, according to our advertised proposition.

Eastern cabbage is selling on the St. Louis market at $28 to $32 per ton.

PICADOR—A famous Percheron stallion. Winner in many contests. Owned by Oaklawn Farm, Wayne, Ill. This is a sample of the pictures of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

ALFALFA,

Shield Brand, 99½ Per Cent. Pure.

TIMOTHY, CLOVER, RED TOP, BLUE GRASS, WINTER VETCH.

SHIELD BRAND PASTURE,

HARDY, PERMANENT GRASS MIXTURE.

SEED WHEAT and RYE,

TURNIP SEED, VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

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A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

Strongest FENCE Made Made of DOUBLE STRENGTH Coiled Spring Wire. Requires fewer posts. Always tight. Is heavily Galvanized with PURE ZINC.

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WE SELL DIRECT TO THE FARMER AT DEALER'S PRICES.

Be your own merchant and put the Dealer's Profit in your own pocket where it belongs. Prices the lowest ever quoted for a first-class fence.

26-inch Hog Fence, - - 15c. per rod.
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Special Barbed Wire, $1.40 per 80-rod spool.

Biggest values ever offered and sold under our 30-DAYS-FREE-TRIAL-MONEY-BACK GUARANTEE-CONTRACT. Our big Catalogue contains information you ought to know. Write for it today. It's FREE.

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STOUT STRONG — DURABLE CHEAP

BROWN FENCES will outlast any other because of heavier wires and thicker galvanizing. 160 styles for all purposes. Also Lawn Fences and Gates.

Bargain Prices, 13c Per Rod Up delivered at your railway station. Send today for catalog and free sample for test.

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A quality fence at a quantity price. Farm, Hog, and Poultry Fencing; both square and diamond mesh; light or heavy—

11½ CENTS A ROD AND UP

Any style that you want. **EVERY ROD GUARANTEED** to be satisfactory, and our guarantee is backed by 27 years of selling direct to the farmer. **Kitselman Fence** stretches well and wears well. Made from Open Hearth steel wire, thoroughly galvanized. Large Catalog free to you for the asking. Write for it today

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WHIP PEAS

FOR SALE.

BUY EARLY.
GET LOW PRICE.

JOHNSON BROS., Trenton, Tenn.

Jones, Post & Co., 425 Liberty street, Kansas City, Mo., will send a catalogue of the famous Eldorado Sewing Machine, which is furnished on thirty-days' free trial. There are fifteen styles to select from.

Hog Cholera Raging.

One would naturally suppose from the amount of work done to prevent the spread of hog cholera by the United States Department of Agriculture and the state veterinary authorities that outbreaks of hog cholera hereafter would be confined to small districts. It appears, however, that hog cholera has wider territory than before, and reports continue to be alarming.

In a crisis such as this every man who raises hogs should exercise the most vigilant watchfulness and use every precaution to protect his herds from the contagion. Thousands of farmers are to-day keeping their hogs in a fine, healthy condition by the simple and inexpensive expedient of mixing a little Merry War Lye with their hog feed and feeding it twice each day. If the hogs are on a dry ration, the Merry War Lye is mixed with the drinking water. The proper proportion for mixing is one tablespoonful of Merry War Lye to swill for ten hogs, or one-half can to a barrel of swill. In drinking water one-half can should be added to each barrel and thoroughly stirred. This not only prevents an outbreak of hog cholera in a herd by rendering the hogs immune to the contagion, but it also effectually kills hog worms, keeps the hogs on their feed and in prime condition and adds materially to their weight.

The use of Merry War Lye as a hog conditioner and as a preventive of hog cholera is by no means an experiment among hog raisers. It is manufactured by the E. Myers Lye Company, who state that it is prepared especially as a hog remedy by a process exclusively their own, and claim that it is the only powdered lye on the market that can be administered to hogs with absolute safety. Read the card on page 19 and write to E. Myers Lye Company, Dept. 22, St. Louis, Mo., asking for their booklet on hog raising.

The Corn Market Situation.

As we have intimated several times in The National Farmer and Stock Grower, the corn market is not so bad. To give an idea of the strengthening of corn prices we will give the closing cash prices at St. Louis each month of the year 1911: January, 44½ cents; February, 44 cents; March, 45½ to 46 cents; April, 52¾ cents; May, 52½ cents; June, 60 to 60½ cents; July, 60½ to 65 cents; August, 63¼ cents; September, 68½ cents; October, 72 cents; and on the last of November old No. 2 corn sold at 74 cents and new at 62½ and 63 cents. All these quotations have no particular bearing on the future. For the future we must look to Chicago.

The next option to be closed out is December. On June 30th, December corn was quoted at 60⅛ cents; July 31st, at 61½ cents; August 31st, at 63¼ cents; September 30th, at 64 cents; October 30th, at 63 cents; and on the last day of November at 63 cents. These figures compare favorably with 46½ cents, the price at which the December option was closed out last year.

Now we come to the May option, which closed out last year at 52½ cents. The May corn option of 1912 was quoted at 63¾ cents on July 31st, and on the last day of November the quotation was 64¼ cents, and the July option was quoted at the same price.

The reason corn is keeping up in price is because the hog is also a good buyer of corn. If the corn is slow sale in town the hog demand is active in the country.

Clay, Robinson & Company's LIVE STOCK REPORT WILL HELP YOU IN YOUR BUSINESS

Mr. F. E. Ertel, Haddam, Kan., was on the market recently and purchased three cars of Feeders through us. While there he took occasion to speak of the "Live Stock Report" as follows:

"I don't know where you got hold of my name, but the paper arrived at my house one day. I opened it and read one of the articles, a fine one, too, advising the immediate purchase of Feeders. I took the hint and went and bought. Everything happened just as predicted in the "Report." I decided that a paper like that was just the kind for men like me, and that the firm publishing it was worthy of my patronage. I consider "The Live Stock Report" the most valuable paper of the kind published in this country."

Above letter speaks for itself. The "Report" is a 16-page weekly ILLUSTRATED market and general stock paper published by us from Chicago, but covering all the leading markets. Any person who ships one or more cars of live stock per year can have the paper for merely the cost of postage, viz.: 50c. per year. We do not solicit nor desire subscriptions from persons who market no live stock, as the paper costs us three times the amount charged. In other words, subscribers receive $1.50 value for 50c. We guarantee to refund the price upon request of any subscriber who does not find the paper worth to him many times the amount paid. SEND YOUR NAME AND ADDRESS TODAY, WITH 50 CENTS, AND RECEIVE THE PAPER FOR 12 MONTHS.

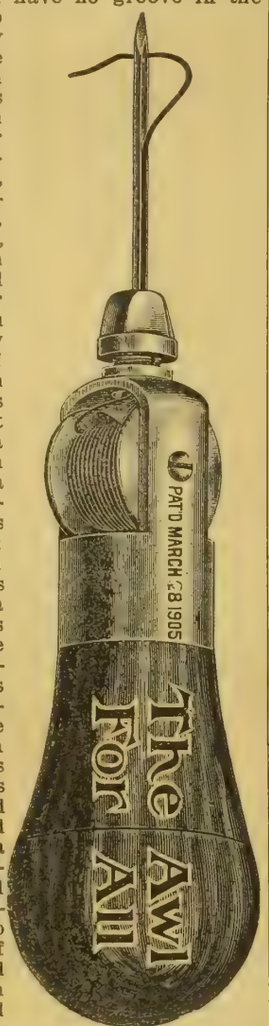
Address all Subscriptions as follows: Report Dept., CLAY, ROBINSON & CO., Union Stock Yards, CHICAGO.

Clay, Robinson & Co.

Leading Live Stock Commission Salesmen at the Ten Principal Markets.

THE SEWING AWL.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.



Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone sending us four subscriptions and $4.00 to pay for same will be credited with two-year's subscription and one Sewing Awl free.

BREEDING TIMOTHY.

Remarkable Results Obtained by the New York College of Agriculture in Breeding Timothy.

The following is taken from The Announcer, official organ of the New York College of Agriculture:

"Timothy has never been subjected to careful breeding and varieties have not been differentiated. As yet we grow simply timothy. Practically all other agricultural crops widely cultivated have been carefully bred and differentiated into numerous distinct varities. Hence we might expect great advances from carefully conducted breeding experiments with timothy.

"The timothy breeding experiments that have been under way at Cornell University since 1903 are now giving particularly interesting results. In beginning these experiments, timothy heads were obtained from 231 different places in various parts of the world, twenty-one states, Canada, Japan, and nine European countries being represented. From these seeds and from locally obtained seed, somewhat over 20,000 different plants were grown, from which selections were made to secure better yielding varieties.

"In the course of our experiments a large number of distinct varieties have been originated, many of them of interest, simply from a scientific standpoint, but others apparently possessing great value for general cultivation. For five years tests have been made of the comparative yields of different types when grown in rows, and for two years similar comparative-yield tests have been made with seventeen new varieties in plats sowed broadcast. The possible value of the results is clearly suggested by the yields of the broadcast plats. In testing these seventeen new sorts, they were planted in comparison with check plats sowed with the best timothy seed that could be purchased on the market, there being seven check plats equally distributed among the seventeen new sorts.

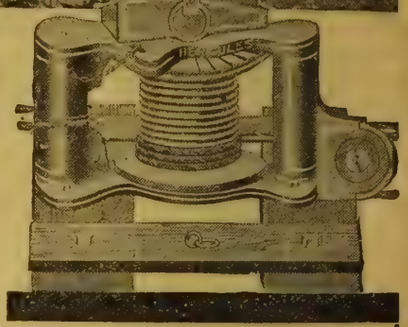
"The average results are shown by the following records: In 1910, the seventeen new sorts gave an average yield per acre of 7,451 pounds, and the check plats for the same year gave an average yield per acre of 6,600 pounds. The seventeen new sorts in this year thus gave an actual average increase per acre of 851 pounds for all seventeen selections. In this year three of the new sorts did not show their superiority, not getting well started, and gave yields below their corresponding checks. They served to keep the average increase in yield down to a comparatively low figure. The best and most vigorous of the new sorts gave very much higher increases, the highest increase being 2,120 pounds per acre, and the second highest 1,920 pounds per acre.

"The season of 1911 was very dry and severe and the timothy crop as a whole suffered considerably as a result. The plats of the seventeen new varieties gave an average yield of 7,153 pounds per acre, which is only slightly less than the yield of 1910 and which, considering the season, should be regarded as a larger yield. The seven check plats, however, gave an average yield of only 4,091 pounds per acre, a very material decrease from the yield of 1910. The average increased yield of seventeen new sorts in 1911 was 2,062 pounds per acre, which is an astonishing figure, being an increased yield of over 1½ tons per acre. Four of the high-yielding sorts in 1911 gave an increased yield of over two tons per acre, or practically double the average yield of the checks."

A Fine Animal Regulator.

Live stock and poultry books of useful quality are to be had free by addressing Pratt Food Company, Dept. 54, Philadelphia, Pa. Our readers will remember a few years ago the many stock foods, tonics and regulators that were advertised. Under close government scrutiny many of these have "petered" out because there was no merit in them. To-day Pratts Animal Regulator is a stronger proposition than ever. Read about it on page 10.

Money-Making Crops—Instead of STUMPS



THERE is no profit in raising stumps—unless you raise them out of the ground altogether. It doesn't pay to keep on paying taxes on stumpy land, year after year, without getting a single penny's profit back from it. Thousands of farmers have realized this already and have pulled out the stumps with the Hercules All-Steel, Triple Power Stump Puller. It is guaranteed to pull up any green tree, stump or hedge you hitch it to—and we will replace any broken castings any time within **three years,** whether the fault is yours or the machine's. You can pull an acre of stumps a day in your spare time and then pull stumps for your neighbors on contract jobs or rent the stump puller.

Hercules Stump Puller

All-Steel—Triple Power—30 Days' Free Trial
3-Year Guarantee—Special Price Proposition Now

That's our selling plan in a nutshell. We want you to own a Hercules Stump Puller and we are making the proposition that will get your order if you have stumps in your fields. Mail a postal now for this

Special Price Offer

—a price that is astounding thousands of men who are writing in to us now for this very same offer. We have only 5,000 Hercules Stump Pullers to sell at this remarkable introductory price, so send the postal now. Let us tell you about the double safety ratchets that insure the safety of you and your team; let us tell you about the careful machining and turning of each part of every Hercules.

Write Postal Now

Simply your name and address on a postal is all we want to send you our book and proposition. Study it over carefully; then decide whether or not you are going to have stumps in your field—or whether you are going to pull them out now quickly with the Hercules Address

Hercules Manufacturing Co. 2401 7th St., Centerville, Iowa

"Every great man is always being helped by everybody, for his gift is to get good out of all things and all persons."—Ruskin.

"The combination of cash crops with annual products pays better than either one alone."—New York College of Agriculture Announcer.

CHAMPION OXFORD DOWN EWE at State Fairs of Indiana, New York, Mchigan and Illinois, also at the American Royal Show of 1911. Owned and exhibited by Geo. McKerrow & Son, of Pewaukee, Wis. This is a sample of pictures collected for publication in the Book of Live Stock Champions mentioned on page 8.

Take Your Choice of these 32 Special Books

Let us show you free of all cost or obligation exactly how you can save money on everything you buy to eat or wear or use in any way.

Here are a number of the special books we issue. In the entire list there may be but one or two or three that will interest you at this time. But by all means get that book or books in which you are interested.

You owe it to yourself, to your family to at least investigate this big opportunity for saving.

Check Over the List Now

1 Paints	17 Baby Carriages
5 Pianos	18 Men's Fur Coats
8 Organs	19 Sewing Machines
4 Trunks	20 Gasoline Engines
5 Roofing	21 Cream Separators
6 Vehicles	22 Building Material
7 Furniture	23 Stoves and Ranges
8 Incubators	24 Underwear Samples
9 Wall Paper	25 Automobile Supplies
10 Typewriters	26 Bicycles—Motorcycles
11 Grocery List	27 Baby's Dress and Toilet
12 Feed Cookers	28 Women's Tailored Suits
13 Tank Heaters	30 Women's Fashion Book
14 Wire Fencing	31 Raincoats—Mackintoshes
15 Carpets, Rugs	33 Men's Clothing
16 Building Plans	34 Women's Furs

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The Future of Agriculture.

For a hundred years some men have been making the prediction that the time was or is at hand when the world would fail to supply enough food for its people. Where these alarmists get the figures on which to build their predictions it is hard to say. All things known generally to the public point in the other direction The more the population of the world increases the more is the world able to produce in the way of food for its people.

There was a time when this vast country, now included in the United States, was roamed over by scattered tribes of Indians They did some cultivating of the soil, and yet famine often stalked among them. Yet they had the whole vast land from which to gather food and on which to grow food. The number of those Indians in the whole United States is thought to have been far less than a million. Now we have 80,000,000 of people, and no one dreams of the food supply failing. That is because the present inhabitants know better than the other ones did how to make the soil produce food.

We are as far from the ultimate possibility of food production as the Indian was from the present method of producing food. The earth, as a whole, is as yet little used for food production, and much of what is produced is wasted or lost to man because of lack of market facilities. As yet vast areas of the earth are given over to deserts, many of which will ultimately be irrigated. The Desert of Sahara will yet grow green under the application of water and its fruits will enrich the markets of the world There was a time when the "Great American Desert" really existed, but it long ago went out of the newspapers, for where it once was are now rich farms and profitable ranches and a thousand industries. Every year what is still left is being narrowed, and the irrigator promises to take possession of all of it.

The future of agriculture is a bright one. The raising of crops is just passing out of the chaos of the dark past, and science is lending her aid. The trouble at the present time almost everywhere is not how to produce crops, but how to dispose of them. Oversupplied markets are very common, even when it is a fact that much of the world's produce cannot get to market on account of having no access to transportation. Millions of farmers in out-of-the-way localities are producing less than they would if they only knew how to get rid of it at a fair price.

The problem of the world's food supply is more how to market than how to produce. The whole tropical world is waiting for a way to send their fruit to market before swamping the world with bananas, oranges and other southern fruits.

The future prosperity of agriculture depends on transportation and methods of marketing. When every person in the world that grows things to eat can sell his product we will be at the point where we can really consider the great problem of irrigating deserts and producing more.

The world has a good reason for fearing that population will outstrip the food supply. The only fear is that population may outstrip the facilities for distributing among the people the food that is produced. And yet the genius of the ages discourages even that thought.

Virginia Corn Wins United States Championship Cup.

The $1,000 silver cup, offered by the International Harvester Company for the best thirty ears of corn grown in the United States, was awarded to William H. Dorin, of Clover, Halifax county, Virginia, whose exhibit of thirty ears of Boone County White at the American Land and Irrigation Exposition in New York City was pronounced by the committee of competent judges to be the best among hundreds of specimens sent in from corn growers in nearly every state of the Union.

This corn, thus stamped with the highest seal of approval known to the American agriculturist, was grown in the south central portion of Virginia, on a farm of some five hundred acres lying along the Southern Railway, whose territory in this section offers the finest lands obtainable for general farming purposes. Despite the bad drouth of midsummer, the yield averaged 137 bushels to the acre, as against a yield in 1910 of 136 bushels to the acre on the same land.

Mr. Dorin, the owner of the most coveted trophy offered the American farmer, is a man of the most progressive type. For a number of years he has been breeding up this variety of corn, entering all competitions with his superb yields and perfect ears, until at last he has carried off the Grand Sweepstakes for the United States. In competition with the Dorin exhibit at the Madison Square Show were ears grown by the foremost corn breeders in the country, notably L. D. Clore, of Indiana, who won the International Cup last year.

The farm on which this prize corn was produced differs not much from surrounding lands in the Southeast. Mr. Dorin purchased the place about five years ago for the sum of $8.00 per acre for 560 acres. To-day lands in the same region are worth from $15 to $35 per acre, and Mr. Dorin has refused an offer of $100 per acre for a certain portion of his farm. These figures are indicative of the possibilities of the vast acreage of available Southern lands to be had to-day at such low prices, as the winning of the Grand International Cup is illustrative of the yields which may be made from these same lands with proper methods and an intelligent system of agriculture.

Canadian Farms

Do you want a farm in Western Canada where the crops this year are in advance of anything grown on this continent? For wheat-growing, dairying, mixed farming and cattle-raising, the Province of Alberta is unsurpassed. Lands are now offered by the **Canadian Pacific Railway Company** at prices ranging from

$10 to $30 an Acre on Long Terms of Payment or on the Crop Payment Plan

—that is, paying for your farm with a portion of your crop each year. Land values have increased 30 per cent in two years. Great opportunities for the Homeseeker. Call or write for full particulars, booklets, maps. etc.

C. M. THORNTON, General Agent,

Alberta Land Dept., Canadian Pacific Railway, 112 W. Adams St., Chicago

MR. WILLIAM H. DORIN,
Winner of the corn championship at the American Land and Irrigation Exposition, New York City, 1911.

With the immense corn crop made in 1910 by the Southeastern States the Corn Belt had begun to be changed from its time-honored position. The capture, by a Southern farmer, of the International trophy, and the record made last year by Jerry Moore, of South Carolina, who grew 226 bushels of corn to the acre, combined with the tremendous crop of corn harvested last season in the South, still further demonstrates the truth of the claim that the Southeast is the ideal general farming section.

Seven Miles Down.

A traveling man who drove across the country to a little town in Western Kansas, the other day, met a farmer hauling a wagon-load of water.

"Where do you get water?" he asked.

"Up the road about seven miles," the farmer replied.

"And do you haul water seven miles for your family and stock?"

"Yep."

"Why in the name of sense don't you dig a well?" asked the traveler.

"Because it's just as fur one way as the other, stranger."—Argonaut.

In Texas, 52,985 tons of commercial fertilizers were purchased between September 1st, 1910, and May 1st, 1911. In six years the use of commercial fertilizers has been multiplied by four.

MISSOURI GIRL, 290,794—Grand Champion Duroc-Jersey sow at Missouri State Fair of 1911. The photograph was taken September 8th, 1911, when she weighed 450 pounds. Exhibited by McFarland Bros., Sedalia, Mo. This is a sample of pictures collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
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Write for market information. Address,

HOLLAND, NUGENT & MAXWELL BROTHERS,
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"VISIO"

An Absolute Cure for Moon Blindness (Opthalmia), Cataract and Conjunctivitis

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"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

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Not a CHEAP, but a VALUABLE Book with pictures of all animals, their tracks and signs, game laws and valuable information FREE. Don't go through another season without it, as it will mean dollars to you. Our "BEST" BAITS, recommended by the U. S. Forestry Service, will increase your catch. We are the originators of sending circulars to Trappers direct.

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Old Reliable (35 yrs.) and Largest Dealers in the Northwest. Pay High Prices. Quick Returns. Satisfaction.

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The first remedy to cure Lump Jaw was

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and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with full information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Contains 192 pages and 69 illustrations. Write us for a free copy.

FLEMING BROS., Chemists,
21 Union Stock Yards, Chicago, Ill.

INCLUSE—Grand champion Percheron stallion at the Missouri State Fair, 1911, where photo was taken. INCLUSE was three years old when exhibited and weighed 2,200 pounds. Owned by Percheron Importing Company, South St. Joseph, Mo. This is a sample of horse pictures collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

The Keystone Watch Cases.

When you buy a watch, think of the value of the case as well as of the works. As the Keystone Watch Case Company points out (see our advertising columns) there are many ways in which a gold-filled case can be debased without arousing the suspicions of the purchaser. Your only protection, as a consumer, is to see that the case of your watch bears the Crescent or the Jas. Boss trademark, endorsed by the responsible jewelry trade. Every representative jeweler in this country carries the Crescent and Jas. Boss gold-filled watch cases. See page 23.

Missouri Mules For Africa.

The fifth shipment of mules to South Africa by Messrs. Joseph A. Maxwell Mule Company, of the St. Louis National Stock Yards, consisted of 125 head, averaging 14½ to 15 hands, left the National Stock Yards on November 14th and arrived at Montreal, Canada, November 22d, whence they go by ship to Cape Town, thence up the country to the mines. The shipment is in charge of Kenneth Maxwell and Ira Pendleton, two young men who are experienced in handling mules. The shipment of mules to South Africa is becoming a regular incident to the business of the Joseph A. Maxwell Mule Company.

Sheep Sales at St. Louis.

Mr. Oscar A. White, sheep salesman at the St. Louis National Stock Yards with the firm of Clay, Robinson & Co., reports that the sheep and lamb trade of the National Stock Yards is picking up. Receipts so far this year are a quarter of a million larger than during the same period last year. During the last week in November prices advanced from $3.10 to $3.50 per 100 pounds for the best sheep, and fed Western wethers sold up to $3.90. The best lambs sold at $5.85, and real choice lambs would have sold for $6.00 per 100 pounds. Quotations can be had on short notice any day by asking Clay, Robinson & Co., National Stock Yards, Ill.

U. S. Cream Separator.

A very good picture of the U. S. Cream Separator will be found on page 10, also some very strong points in regard to the merits of the implement. When you write for catalogue, address Vermont Farm Machine Company, Box 125, Bellows Falls, Vermont. You will then get the name of the nearest representative of the company where you can see the U. S. Cream Separator in use.

At Chicago, December 1st, a load of 1,034-pound yearling steers sold at $8.35 per 100 pounds.

KENDALL'S SPAVIN CURE

"ONLY SURE REMEDY"

Gadsden, Ala., Apr. 26, 1909.

Dr. B. J. Kendall Co.

Gentlemen: Please send me copy of your TREATISE. I have been using your Spavin Cure for 20 years, and find it is the only sure remedy. It is the best liniment I can get for horse and man. Yours truly, W. J. McBee.

That tells the whole story, and it is the experience that hundreds of thousands have had in the past 40 years, and it's the experience you will have—"It is the only sure remedy"—

For Spavin, Ringbone, Curb, Splint, Swellings and All Lameness

Sold By Druggists—$1.00 a Bottle, 6 bottles for $5.00. Keep it on hand always. Be ready for the emergency. Kendall's stops the pain, starts the circulation, penetrates and removes the cause of the disorders. Ask for a free copy of "A Treatise on the Horse." If not at dealers write to—

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Before After

Seldom See

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle Knee or Throat.

ABSORBINE

will clean them off without laying the horse up. No blister, no hair gone. $2.00 per bottle delivered. Describe your case for special instructions and Book 8 E free.

ABSORBINE, JR., liniment for mankind. Removes Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Price $1 and $2 a bottle at druggists or delivered. Manufactured only by

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are now in season. They are quickly eradicated by

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Thirty Years' Popularity; Dead Shot every time; Largest Sale. 7-lb. pkg., $1.; 3-lb pkg., 50c. Of all Druggists or

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10,000 High Lifts Saved

Electric

Easy work for you, light draft for horses. The one unbreakable, low-down handy wagon. Steel wheels, all heights and tire widths. Save rutting. Send for free book on labor saving farm hauling.

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Know How Much You Make Next Year

No one shall pay a cent for Bickmore's Farm Account Book. It will be sent free to any farmer who will be good enough to tell who and where he is. The cost of a crop never demanded closer attention. Business farming puts money in the bank This book is arranged to keep all accounts in simple form—more simple, and certainly more practical, than trying to remember them; shows what to charge against crop production; has a laborer's time record; and section for personal accounts. 64 pages; for ink or pencil. Not a cheap affair. It is meant for business. Its quality is in keeping with

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Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. $5 case cures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. SNODDY CO.,
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The "Horse Protector"

Is indispensable for the well-being of your horses. No more sore shoulders. It is a benefit to the horses and saving for the owner. Write for catalogue.

TRENTON SPRING COMPANY,
TRENTON, N. J.

IMPROVER—Poland-China boar. Junior champion of the breed at Missouri State Fair, 1911, where photograph was taken. His weight was 400 pounds. IMPROVER was exhibited by D. B. Rightmire, of Monticello, Mo. This is a sample of pictures collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

A GUIDE TO SUCCESS.

Legal Instruction in Regard to Land Ownership, Transfers, Mortgages, and Rights of Landlord and Tenant.

A course of instruction in real estate matters is an essential part of the education of a farmer. We have had such a course prepared for our patrons.

An attorney of eighteen-years' experience has written a course of study. It is in lessons. The first relates to sale of lands, buildings, trees, growing crops, also question of fixture, then personal property, title deeds, etc.

Lesson Two is devoted to landlord and tenant, liens, mortgages, looking up records, notice to quit, etc.

Lesson Three is devoted to fee simple estate, conditional titles, examples of deeds, exemption laws.

There are twenty-five lessons in all. For instance, Lesson Six considers the dower rights of the wife, also the rights of the husband in the property of the wife; also, divorce.

Lesson Seven relates to the rights of parents in the joint property; also the dower rights of the wife in partnership property.

Lessons Eight and Nine concern chattel mortgages; and Ten and Eleven discuss real estate mortgages. The remaining numbers are devoted to easements, possession, fences; who can convey or make deeds and mortgages; corporations, promissory notes, commissions, water rights, insurance, wills, settlement of estates of deceased persons, Lesson 25 being devoted to the question of making money in the real estate business.

Anyone who will send us one dollar to pay for two-years' subscription to The National Farmer and Stock Grower can select this Real Estate Course as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

St. Louis Hog Trade.

At the St. Louis National Stock Yards, on December 1st, the light to medium-weight hogs, 160 to 210 pounds, sold from $5.75 to $6.40 per 100 pounds; choice mediums to heavies, 225 to 250 pounds, sold from $6.45 to $6.50; good heavies, 275 to 350 pounds, sold from $6.45 to $6.52½. The bulk of the lightweights sold from $5.90 to $6.15; and the bulk of the heavies sold from $6.35 to $6.45. Pigs weighing 100 to 140 pounds were selling from $4.75 to $5.40 per 100 pounds. We have had these figuers revised by the hog salesmen of Clay, Robinson & Co., live stock commission agents at the National Stock Yards.

Great Horse and Mule Trade.

Mr. T. H. Holland, of the firm of Holland, Nugent & Maxwell Bros., horse and mule commission salesmen at the National Stock Yards, reports the largest and best horse and mule business in the history of the trade. Receipts at the market nearly fifty thousand larger than last year and more buyers on the market than ever before. Mr. Holland expects very active business immediately after the holidays.

Breeders' Sale of Horses.

In the Coliseum at Bloomington, Ill., January 23d, 24th, 25th and 26th, 1912, will be held one of the greatest of horse sales. There will be sold 300 head of imported and native-bred Percherons, Belgiums, French Draft, English Shires and Clydesdale stallions and mares, also 100 head registered trotters, grade draft, saddle and all-purpose farm horses, and 100 head of the best Shetland ponies. Entries close December 15th, and the catalogue will be issued January 8th. D. Augstin is President of this organization, and most successful sales have been held under his leadership. Those who desire to furnish horses for this sale should act quick and address C. W. Hurt, Manager, Arrowsmith, Ill.

Coal Dealers Buying Draft Horses.

The New York Herald says that coal dealers have been uncommonly large buyers of high-grade draft horses this season, drawing most of their supplies from the Fiss, Doerr & Carroll Horse Company. In speaking of this trade Mr. Carroll said that some of the leading coal dealers were nowadays buying about as good horses and paying about as much for them as any of the New York brewers or contractors. They buy a stocky, close-built horse, weighing from 1,650 to 1,800 pounds, and they want finish and quality as well as weight in their drafters.

The Twice-a-Week GLOBE-DEMOCRAT

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Republican newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

The American Poultry Journal

Published at Chicago. The oldest, largest and best Poultry Journal in America. Beautifully illustrated. Issued on the first of each month.

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SEND US ONE DOLLAR
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THE ST. LOUIS GLOBE-DEMOCRAT TWICE-A-WEEK EDITION for one year.
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TRAPPERS WE BUY FOR CASH

And pay highest prices for **Coon, Mink, Skunk, Possum, Muskrat,** and all other **Furs, Hides** and **Ginseng.** Best facilities in America. Send for Free Price List and Shipping Tags. No commission charged.

ROGERS FUR COMPANY
309 N. Main St. St. Louis, Mo.

RAW FURS.

St. Louis is the largest and best market in the world for Raw Furs. This includes all Skins and Pelts of animals obtained by trappers in any section of the United States. All Furs require careful grading in the interest of the owner and shipper.

We Handle Furs and Pelts Strictly On Commission,

selling them to the best possible advantage. We grade to suit the requirements of buyers and sell for the highest quotations. Large or small consignments given careful attention. We solicit the Furs of hunters, traders and trappers. Reference: Any bank or merchant in St. Louis. Send for price list.

J. C. Crowdus & Company,
104 North Main Street, ST. LOUIS, MO.

Fine Live Stock Book Free!

Dr. David Roberts' Practical Home Veterinarian, 184 large pages, illustrated, is now Free to Live Stock Owners.

Gives symptoms, diseases and treatments for all live stock and poultry, the result of Dr. Roberts' life experience as veterinarian and live stock specialist. Apply at your drug store and get a copy free. If not there, send 10c in stamps for postage and we will send direct.

DR. DAVID ROBERTS VETERINARY COMPANY
90 Grand Avenue, Waukesha, Wis.

December 1st, at St. Louis, No. 2 rye was selling at 95 cents a bushel.

LET Me Send You Proof

There is nothing like being sure. I will prove that my famous incubator—price only $7.55, freight prepaid, sold on 1, 2, or 3 months home test—will out-hatch any machine made, no matter what kind or price. Don't you want to be sure? Why pay more than my price for any machine defeated by my

World's Champion

140-Egg Belle City Incubator $7.55 Freight Paid East of Rockies

which is easiest to operate, surest of results. Let me send you proof in my big portfolio, "Hatching Facts"—it carries all the evidence—tells you how to start in the poultry business on a profit-making basis at a small outlay. Has double walls and door—and dead air space all over, copper tank, hot water heater, self-regulator, "Tycos" thermometer, egg-tester, safety lamp, nursery, high legs.

My 140-chick Brooder double wall, hot water, top heat $4.85 Guaranteed best brooder made. $11.50 gets complete outfit when ordered together, freight prepaid. My portfolio proves all. If in a hurry order right from this ad on Home Test Plan—thousands do. I guarantee satisfaction or return money.

$4.85
140-Chick Brooder

JIM ROHAN, President
Belle City Incubator Company
Box 74 Racine, Wis.

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244 pages practical, money making suggestions and advice—latest methods, most approved plans fully explained—hints to beginners, etc. It also pictures and describes in detail

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Original non-moisture machines—self-regulating, self-ventilating—fireproof, insurable. "Cyphers Company Service" means that we stand back of our customers after they have bought their goods, with personal letter and free bulletin help, advice and suggestions—insuring best possible success. This Service is absolutely free. Cyphers Company's customers. It is fully described in our big free book. Send for your copy today.

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SUCCESSFUL Poultry Lessons FREE

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Start right for biggest profits. Write to

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Des Moines Incubator Co., 161 Second St., Des Moines, Ia.

The Egg-laying Contest.

In the Missouri National Egg-laying Contest, 655 hens in pens and 131 substitutes constitute the fowls received at the State Poultry Experiment Station at Mountain Grove, Mo. There are five hens to the pen.

Twenty-five different states and Canada are represented. It is too soon to go into particulars of the egg-laying results, but it is interesting to know that at the end of the second week the leading pen had laid forty-one eggs. Seven other pens had laid over thirty eggs each. 543 eggs were laid the first week and 698 eggs the second week, making a total of 1,241 eggs for the two weeks. This does not include fifteen eggs that were laid on the floor and dropping boards at night, which could not be placed, nor soft-shelled or undersized eggs. This is an exceptionally good record, considering the fact that the birds were just recently shipped from all climates, the bad weather with which they had to contend with and everything being new and strange to them.

At the close of the first two weeks six pens were neck and neck. A pen of Cornish Indians, owned by Peter Erickson, of Cabool, Mo., and one of S. C. White Orpingtons, owend by Dr. Thos. Dietrich, of Washington, N. J., have made the best record the first two weeks. Only an egg or two behind follow the S. C. Rhode Island Reds entered by M. J. Ward, of St. Louis, Mo.; S. C. White Leghorns entered by E. L. Neel, of Asheville, N. C.; Barred Plymouth Rocks by Brooks Sanitary Hennery, Morgan Park, Ill.; and S. C. Black Orpingtons owned by E. A. Berg, of Dune Park, Ind.

Three hens laid every day for the first two weeks since the contest began—a Columbian Plymouth Rock entered by Clyde Patterson, of Sedalia, Mo.; a Barred Plymouth Rock by Brooks Sanitary Hennery, of Morgan Park, Ill.; and a S. C. Rhode Island Red by M. J. Ward, of St. Louis, Mo. Fourteen other hens have laid every day but one. A Cornish Indian, No. 820, laid two eggs in one day, one in the morning and one in the afternoon.

The largest hen entered in the contest is a White Langshan owned by Henry Brockschmidt, of Froistatt, Mo., and the smallest hen is a Silver Spangled Hamburg, which weighs 1¾ pounds. One of the largest hens in the contest lays one of the smallest eggs, and one of the smallest hens lays one of the largest eggs.

The weather for the first two weeks was not ideal for starting such a contest. It was cold and damp, and the day it opened the thermometer registered 18 degrees above zero. Snow fell for half a day, and the ground was covered a few days previous to the contest. On the eleventh day of the contest the thermometer registered 80 degrees above zero, and in less than twelve hours it had fallen to 4 degrees above zero, a drop of 76 degrees. About fifty head of young stock were frozen to death, and Mr. Quisenberry and a force of men worked half of the night in sleet and snow trying to save the poultry.

The houses used are of the colony type, shed roof and open front, protected by an old-fashioned window shutter. They are original and of a different construction from the ordinary colony houses used at the present time, differing from them principally as to ventilation, light and arrangement. These houses were built with a view to simplicity, economy, comfort and health of the birds at all seasons of the year. Some houses are comfortable in the winter, but are bake ovens in hot weather. Others are exactly opposite. These, with their shutters, windows and ventilation leave the comfort of the fowls largely under the control of the poultryman in charge.

The grain to be used consists of wheat, cracked corn and oats. Hoppers are also used in each house, and the hens have free access to a dry mash consisting of bran, wheat middlings, corn meal, Old Process oil meal, gluten meal, alfalfa meal, dry beef scraps, rolled oats, charcoal and salt.

Each house is provided with sufficient trap nests of the most improved and up-to-date kind. Each hen has a separate band number, running from No. 1 up. The nests are visited three times a day, and the egg from each hen is recorded. The eggs from each pen are weighed and all feed is weighed and charged to the pen consuming same. Later on there will be much interesting information to publish concerning this contest.

Shrinkage in Dressing Chickens.

In writing of the shrinkage in dressing poultry, A. R. Lee says in Bulletin 140, United States Department of Agriculture, which gives results from extended experiments, as follows:

"The loss of weight or shrinkage in dressing (without drawing) for the different classes of birds varied as follows: Hens, 13.4 to 14.9 per cent., average 14.4 per cent.; roosters, 13.7 to 16 per cent., average 14.7 per cent.; springs, 9 to 14.5 per cent., average 12.1 per cent.; and broilers, 14 to 14.7 per cent., average 14.3 per cent. The chickens at the different stations were fed a mixture of fine sand and very thin feed, or were first given a light feed and then sand and water for the last feed of the day before they were killed. Several of the pickers claimed that the chickens picked easier if the birds were watered freely before killing, and this practice was prevalent, although there was some difference of opinion as to the effect of the water."

Poultry Notes.

The incubator season has come again. Incubators are just as necessary as hens in poultry-raising as a business. The best makes of incubators are advertised in this publication.

The Iowa Agricultural Experiment Station at Ames, Iowa, has issued Bulletin No. 125 by Wm. A. Lippincott, poultryman of the Station, entitled "Trussing and Boning Chicken For Fancy Trade." It is splendidly illustrated, showing every operation, from the dressed chicken for the general market to the boned chicken ready to be stuffed and roasted.

Five Single Comb White Leghorn pullets at the Oregon Agricultural College lay 538 eggs, which sold for $12.66, at a cost of feed of $3.92½. It was a six-months' test, from November until May.

Unvarnished, *Cashable* Facts About Poultry Profits

If there ever was a straight-from-the-shoulder statement of facts, you'll find it in JOEL M. FOSTER'S book "THE MILLION EGG FARM."

Mr. Foster owns the famous Rancocas Poultry Farm, and in his book he tells his methods for producing upward of *eleven hundred thousand eggs a year,* and piling up a clean annual profit of close to $20,000.00.

We *know* that the statements in this book are cold facts—because we proved them before publishing

"The Million Egg Farm"

We have sold many thousand copies of this book, and we *know,* from the actual experiences of those who have read and followed it, that these facts can be profitably applied by *you*—whether you have a dozen hens on a back lot, or number your fowls by the thousands.

Up in Scranton, Pa., a clerk, Robert Liddle by name, read this book, followed its directions, and at last reports was cleaning up $17.00 a day profit on eggs.

In the light of such experiences, we *know* that farmers need this book. That's why we published it and are trying to put it into the hands of every poultry owner.

To *serve* the farmer is the whole purpose of FARM JOURNAL. To serve him with sound advice regarding every branch of farm work.

To enable him to profit by the labor-saving and money-making discoveries of other farmers. To serve the farmer's wife with helpful housekeeping suggestions. To serve the farmer and his entire family with clean, wholesome entertainment.

Upward of four million readers welcome its monthly visits.

You need this paper and *you need* the MILLION EGG FARM book, and you can have

Farm Journal every month for four years and "The Million Egg Farm" at once, postpaid, for only $1.00

Do yourself and family the favor of sending in the dollar to-day.

FARM JOURNAL, 257 N. Clifton St., Philadelphia

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Automobile construction was the principal purpose of 178 establishments in 1904 and increased to 743 in 1909.

The 1911 crop of apples was 62.4 per cent. of a full crop.

THOUSANDS BUYING ALBERTA LAND.

Thousands of city folks who are tired of earning a bare living, and farmers who are sick of raking and scraping for just enough to buy the necessities of life, are accepting Canadian Pacific Railway offer of land in Sunny Alberta, at $12 to $25 per acre, on easiest terms, six or ten years to pay or on half-crop payment plan.

Why not write to-day for free books and maps? Address postal to C. M. THORNTON, General Agent, 112 West Adams street, Chicago, Ill.

Use KEROSENE Engine FREE!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing.

Gasoline Going Up!

Automobile owners are burning up so much gasoline that the world's supply is running short. Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline. No waste, no evaporation, no explosion from coal oil. Cylinders can not carbonize

Amazing "DETROIT"

The "DETROIT" is the only engine that handles coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Basic patent—only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Complete engine tested just before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric-lighting plant. **Prices (stripped), $29.50 up.**

Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate amazing, money saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, we will allow you Special Extra-Low Introductory price. Write!

Detroit Engine Works, 383 **Bellevue Ave., Detroit, Mich.**

With the Meats.

In olden times butchering time was attended by so much rich food that the family were usually the worse for it, and after the first welcome of fresh meat came a reaction in which it was about the last thing to be desired. There was so much that must be eaten fresh or lost, that people felt forced, as it were, to play the glutton act.

But all this has been modified, and with so many ways of putting aside the choice portions and knowing so much better how to serve the remainder, there is small excuse for anyone being inconvenienced or seeing anything go to waste.

Canning has become the great storehouse for meat as well as fruit and vegetables. Sausage, tenderloin and mincemeat are partly cooked, covered with lard or the fat in their own substance and sealed. Even the ribs and backbones may be kept for a time in crocks and covered with lard. Just why the meat could not be separated from the bone and packed away in cans, we cannot see, nor have we given it a trial, though it seems worthy of one.

If you have no beef for mincemeat, a very god substitute may be obtained by using the pigs' legs and hearts, two parts which many do not care for in any other way. Scald the legs and reclean, carefully removing every bristle and defect. Cook with the hearts until tender. Separate all gristle and run the meat with the skin through a food chopper or chop fine in bowl. Add equal quantity of chopped apples with the other usual ingredients.

When making sausage, some prefer to add sage and other herbs. These in time tend to give the meat a bitter taste. Besides, some do not like them, and the custom is growing of keeping the herbs on hand to flavor as desired when cooking. Then one can have a variety, with only a single herb used at a time.

Study variety in serving the meats. The roaster is a great improvement over the old-fashioned dripping-pan, not only dispensing with the necessity of basting, but the steam confined cooks more evenly and thoroughly, besides allowing none of the rich flavor to escape. If you like stuffing, try for a change packing some of it among the pieces of spare rib, which may be placed together in a way to hold quite a quantity. Parsley will be found the choicest flavoring for this, while summer savory or sweet basil will be relished in the ordinary roast.

Be sure to sprinkle plenty of flour over the meat before placing it in the roaster. This well browned will insure an abundance of richly-colored gravy, which is quite as much relished as the meat. And if the gravy cannot all be used at the time, we have canned it for a short time until the fresh meats were disposed of.

If you do not like head cheese or "souse," and these pieces spoil the sausage for you, do not think for reasons of economy that you must still try to use them when they go against the taste. The cat and dog will be helpful at this stage. And since both are of use to you, they are entitled to their share of what is going. If these fail, the chickens will convert the discarded meats into high-priced eggs.

To prevent sameness, vary the vegetables as carefully as the meats. Cabbage with a touch of vinegar is a good relish. Baked squash served with a bit of pork instead of butter will be found a toothsome dish. Those liking kraut are sure to keep it on hand to accompany the fresh meat.

Then there are the various combinations of the tomato, including catsup and Chili sauce, which should not be forgotten. Never are they quite so appetizing as when served with fresh meat. The stuffed mangoes which seemed so fiery are now just the thing. And do not forget to have plenty of apples and apple sauce.—Bessie L. Putnam.

Prize Cattle Clipped at Show.

Not less than a dozen clipping machines might be seen being operated at the same time by the care-takers of the cattle exhibited at the National Dairy Show in Chicago last month. The cattle seemed to enjoy the sensation of being clipped and the clipped animals certainly presented a much better appearance than those not so fortunate as to be clipped. The men in charge of the cattle were unanimous in saying that the clipped ones were easy to keep clean and were much benefited by the operation.

Ensilage Corn Yields.

Ross Bros. Co., of Worcester, Mass., offered prizes for the heaviest yields of ensilage raised from their Eureka Ensilage Corn upon one acre.

The first prize was won by Mrs. H. Will Harris, of Adrian, Mich. Her wonderful yield, which was 68 tons and 800 pounds, is sufficient feed to keep seven head of cattle one year and then have enough left over for 181 days. Other yields were: Rudolph Hess, Washingtonville, N. Y., 22 tons, 1,120 pounds. R. T. Tooke, Hubbardsville, N. Y., 32 tons, 1,600 pounds. William Barron, Worcester, Mass., 35 tons, 720 pounds. B. W. Wilcox, New Albany, Pa., 36 tons. Herbert F. Hammond, Whitinsville, Mass., 40 tons, 360 pounds. L. J. Kendall, Worcester, Mass., 42 tons, 860 pounds. Briggs G. Blake, Williamstown, Mass., 47 tons, 76 pounds.

Consumption of Cotton.

The world's consumption of all the varieties of cotton for the twelve months closing with August 31st, 1911, amounted to 17,819,070 bales, distributed as follows: The United States, 4,696,000 bales; Great Britain, 3,384,480 bales; Russia, 1,751,619 bales; Germany, 1,685,192 bales; India, 1,479,803 bales; and Japan, 1,254,078 bales. The total consumption of American cotton was 11,559,401 bales; East Indian, 3,647,714 bales; and Egyptian, 664,822 bales. The total stocks of cotton held by spinners throughout the world on August 31st amounted to 2,619,052 bales, of which nearly one-half were American. This information is furnished the Department of Commerce and Labor by United States Consul-General Jno. L. Griffiths, of London, England.

The census reports that the state of Texas owns 672,781 mules, against 342,086 in Missouri. Mature mules in Texas are valued at $114.98, and in Missouri $141.89.

In Colorado out of 4,302,101 acres in farms, 2,792,032 acres are irrigated.

Let Me Show You How Feeding Merry War Lye Cures Your Sick Hogs

E. Myers, President, E. Myers Lye Company.

All the talk in the world won't kill one single hog worm—won't cure one single sick hog—but if I, by personally presenting these facts to you, can but persuade you, Mr. Hog Raiser, to give MERRY WAR LYE a fair, common sense feeding trial, I will have done you the greatest favor any one man can do another by putting you in touch with the best hog conditioner, cholera and worm cure the world has ever known.

This sounds like "big talk", but I know whereof I speak because I have spent years in untold experiment and test after test has resulted in unanimous, enthusiastic praise from thousands of farmers and Hog Raisers all over the United States who have fed MERRY WAR LYE regularly every day with their hog rations—and with wonderful results—proving beyond all shadow of doubt that MERRY WAR LYE WILL DO THE WORK—AND THAT NOTHING ELSE WILL.

The Cost is But a Trifle

Merry War Lye is NOT ONLY THE BEST protection against hog losses ever discovered—preventing Hog Cholera; killing worms; rendering hogs immune from infectious diseases; keeping them on their feed, with hearty appetites; toning them up; making them fat and sleek; insuring prime condition in the shortest possible time for top notch prices—BUT it is the LEAST EXPENSIVE AS WELL.

For Hog Cholera

The following letters are but samples of hundreds that come every week, telling how glad farmers and hog raisers are that they know about Merry War Lye.

Mrs. B., Aholt, Mo., writes as follows: "Fed Merry War Lye twice a day. It prevented our hogs from getting cholera, while our neighbors lost all of theirs."

H. G. Acker, Chickasha, Okla.: "I have been feeding Merry War Lye some two months, and it expelled worms after the first few feeds."

I can show you all the proof you want—as many letters like these as could be desired.

Feed Merry War Lye Every Day

—and begin today—for the sooner you begin, the sooner I will be able to prove to your complete satisfaction that Merry War Lye makes good every claim—and 10c will make the test.

Important Warning

Some commercial lye makers are trying to persuade dealers and hog raisers that any lye will do what Merry War will for hogs—but it will not, it can't—because no other lye maker knows the secret process that makes Merry War Lye safe to use in Hog feed—they don't know the combination in Merry War Lye that produces the fat, healthy hogs.

Merry War is the only Lye which is absolutely safe to feed your hogs—the greatest Hog Remedy the world has ever known, and Hog Raisers who make the mistake that any lye will do the work which is claimed for Merry War Lye—fail to obtain results—pay the penalty in loss of hog profits and are sorely disappointed.

Merry War Lye comes in 10c cans; full cases of 4 dozen cans for $4.80—at Grocers', Druggists' and Feed Dealers'. Don't allow yourself to be talked into a substitute for Merry War Lye—because there are no substitutes.

Follow These Directions

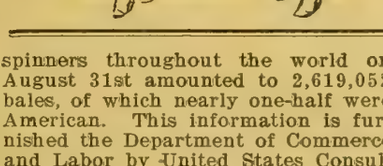
Follow these directions carefully: Mix one tablespoonful Merry War Lye with slop for ten hogs, or a half can with barrel of swill. Stir well and feed EVERYDAY, night and morning. If your hogs are on a dry feed ration, mix a half can Merry War Lye to each barrel drinking water.

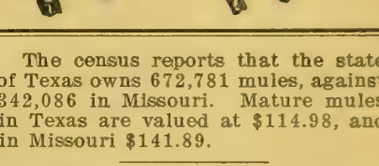
Kettle Powdered Lye For Soap Making

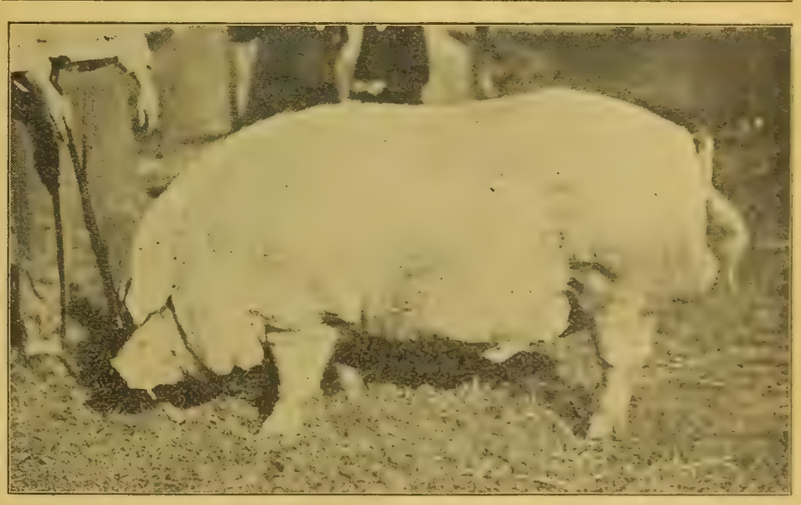
If you want the best lye, exclusively for Soap-Making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—but DON'T feed it to your hogs. FEED ONLY MERRY WAR LYE TO YOUR HOGS.

At All Leading Dealers Most dealers handle Merry War Lye. If yours can't supply you, write us, stating your dealer's name—we will see that you are supplied and will also send you, free, a valuable booklet on, "How to Get the Biggest Profits From Hog Raising."

E. MYERS LYE COMPANY, Dept. 22 St. Louis, Mo.







SCOTTLEA CREDITOR, 24,637—Grand champion O. I. C. boar at the Missouri State Fair of 1911, where the photo was taken. When exhibited, SCOTTLEA CREDITOR was three years old and weighed 916 pounds. Owned and exhibited by L. W. and R. H. Scott, of Nelson, Mo. This is a sample of swine pictures collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

Ten big-bone, long-bodied ready-for-service Boars. You need one and the price is reasonable. Write.

KIRBY STOCK FARM,
Marmaduke, Ark.

BLUE RIBBON HERD POLAND-CHINA HOGS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description.

JOHN McLAUGHLIN,
R. F. D. No. 1, Marmaduke, Ark.

CARPENTER'S CHAMPIONS.

For Sale: Seventy-five Poland-China Pigs, sired by champion Boars; also champion Sows of my herd. Twenty-five Durocs sired by Mortgage Lifter and grand champion Sows bred to grand champion Boars. Write for prices and catalogue.

WILDER CARPENTER,
Grand View Breeding Farm, Marmaduke, Ark.

TRUMANS' PIONEER STUD FARM.

America's Largest and Oldest.

Importers of

SHIRE,
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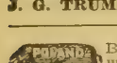
STALLIONS.

Write for Catalogue.

Address,
J. G. TRUMAN, Manager, BUSHNELL, ILL.



Boars and Gilts by 1,000-lb Boars with a 10½-inch bone, out of stretchy Sows that farrow eight to ten and more.

J. P. VISSERING, Box 1, Alton, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

ROSE COMB
RHODE ISLAND REDS,
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BROWN LEGHORNS.
Fowls, $1.00 up.

Write for particulars.

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TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD,**
Mortonsville, Woodford County, Kentucky.

ELMER GIMLIN, Taylorville, Ill., White Wyandotte Specialist. Exclusive business. Duston strain. Stock, $2 each; 15 eggs, $1; $3 per 50; $5 per 100. Catalogue free.

DUROC-JERSEY HOGS.

Have a few Spring Boars left at prices that will move them. Also a few Rose Comb White Wyandotte Cockerels, $1.50 each. **H. H. HOFMANN, Route 1, Belleville, Ill.**

50 Head of Pedigreed **DUROC RED SPRING PIGS** at farmers' prices.
CHAS. DORR, Osage City, Kansas.

Tamworths The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.
W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.

JACKS AND SADDLERS.

Eighty-five registered Kentucky Mammoth Jacks and Jennets; fifty registered Saddle Horses (Stallions, Mares, Geldings and Colts, of the best Denmark and Chief families). Tamworth and Hampshire Swine and big Black Pigs. We would be glad to have you visit our farms or write for catalogue.

J. F. COOK & CO.,
Box No. 436 B, Lexington, Ky.

REGISTERED POLAND-CHINAS.

Splendid Pigs for sale, eight to ten weeks old, at $10.00, from best strains. Give us a trial and we will please you.

BARLAND BROS., Barland, Miss.

REGISTERED POLAND-CHINA PIGS.

Either sex, of the half-ton kind. The very best breeding. They are beauties. Special prices for thirty days.

ALBERT A. NIEWEG, Lois, Maries Co., Mo.

ENNIS FARM—GOLDEN SUNSET POULTRY.

Single Comb Buff Orpington and White Leghorn Cockerels, $2.00 each; trios, $5.00. Buff Drakes, $3.00 each. Eggs in season: S. C. Buff Orpington, Rhode Island Red and White Leghorn. Buff and Indian Runner Ducks. Bourbon Red Turkeys. "Remember the Golden Sunset Strain Poultry."

ALBERT S. ENNIS,
712-21 Central National Bank Building, St. Louis, Mo.

A Few
SADDLE STALLIONS and FILLIES
For Sale, Both **Chief** and **Denmark** Breeding.

Address,
DR. S. MADDOX & SON
P. O. Box 394,
Monroe City, Mo.

LARGE YORKSHIRE SWINE.

THE BREAKFAST-BACON HOG.

Also produces finest quality of sweet, tender, juicy, fresh pork. Pure-bred.

HARDY, VIGOROUS, PROLIFIC, KIND.

Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

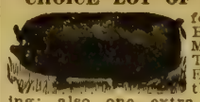
T. C. KIMBER, P. O., Pilot Knob, Mo.

SAWYER'S INDIAN RUNNER DUCKS. Good enouh to win in any show. Drakes with light fawn heads. Also White Chinese Geese for sale. Write for prices.
W. M. SAWYER, Lancaster, Mo.

POLAND-CHINAS OF BEST STRAINS,

that have size and bone as well as quality. They grow fast and feed easy. Gilts and Boars of March and April farrow, that weigh 150 to 200 pounds, by Size and Quality, 47,889, Siefker's Mastodon, 55,755, and Master Meddler, 2d, 55,000, best lot I ever raised and priced to sell at once. Satisfied customers in thirty-six states. Come or write to **A. F. SIEFKER, Defiance, Missouri.**

CHOICE LOT OF BERKSHIRE PIGS



for sale. One good Herd Boar, a grandson of Masterpiece, 77,000. These are all the Large English Berkshires of the most popular breeding; also one extra fine Roan Shorthorn Herd Bull for sale. Some choice B. P. Rock Cockerels. Call or write **E. L. JOHN, Owner Broadway Stock Farm, Broadway, Maries County, Mo.**

MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

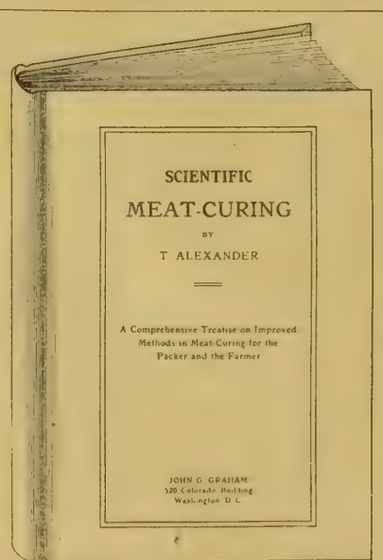
Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

SCIENTIFIC MEAT CURING.

A Booklet For All Farmers, Stockmen, Butchers and Packers.

There is a book on meat curing. It is descriptive of the methods used by the most expert of all the butchers and packers. It is actually a text book for the curing of all meat products. It includes elimination of animal heat, difference between weight alive, dressed and cold, with shrinkages; table for making different strengths of pickle, mild and strong cured meats, temperatures,, pumping, pumping pickle, pumping of hams, calas, picnics etc. Time in pickle for different weights, curing pickle for hams, etc.; sweet pickle bellies, time for smoking, number of days in cure per pound, overhauling, handling old meats, soaking, washing, soaking first-grade bellies, soaking beef hams, long and short cut tongues, dry salt meats, temperature of smoke house, time for smoking to prevent skippers, kind of wood to use, use of sawdust for color, smoking S. P. meats, summer schedule, smoking colored and uncolored meats, first-grade hams, beef hams, No. 1 pork hams, picnics, No. 1 bacon wide, No. 1 bacon narrow, with shrinkage, smoking tongues, firing house for S. P. meats, coloring, use of liquid smoke, and insect proof covering. Instructions for preparing



mess beef for curing, chopping and scoring, mess chucks, mess rumps, curing mess beef, packing for curing, S. P. beef hams, beef rump butt cure, Antwerp beef hams, overhauling, packing mess beef for shipment, weights summer and winter, amount of capping salt to be used for Northern and Southern points, Scotch buttock cure, dry cure shoulder clods, dry cured boneless beef, beef tongue cure, weights and strengths of pickle to use in shipping, beef tongue smoking ages, for export shipment, handling and curing of lamb tongues and tables showing the strengths of pickle from day to day from which the amount of solids taken up by the meat can be computed. The book includes table giving average weights of the various cuts of pork, veal and mutton, lists of the different standard brands of sausages, giving per cent. of beef and pork used, parts of the carcasses and the amounts of cereal used, and the constituents of the cereal used in sausage, etc.

We have adopted the booklet "Scientific Meat Curing" as a subscription premium to be furnished subscribers to The National Farmer and Stock Grower. Send us sixty cents by money order and we will send you The National Farmer and Stock Grower for one year and you can select one copy "Scientific Meat Curing" as a premium, to be sent postpaid, safe delivery guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Weekly Live Stock Report.

The Live Stock Report issued by Clay, Robinson & Co., Union Stock Yards, Chicago, Ill., and advertised on page 13, is by far the best weekly live stock market report; in fact, it is the only weekly report covering transactions of ten principal markets. Clay, Robinson & Co. are leaders in the commission business and do not issue the Live Stock Report for a profit, and all they require a shipper to do is to pay the postage on it as an evidence that they are interested in live stock markets.

Obtain Strawberry Catalogue.

It is early to plant strawberries, but not too early to obtain and study a reliable catalogue. Mr. W. F. Allen, of 116 Market street, Salisbury, Md., has 120 acres planted in Strawberries, and he will furnish plants true to name. See his advertisement in this edition.

Concerning the Hercules Stump Puller

We have received a letter from Mr. Chas. Smith, proprietor of the Meadow Valley Stock Farm, Edholm, Nebraska, who is a breeder of Aberdeen-Angus cattle and Poland-China hogs. It relates to a Triple-power Stump Puller purchased by him last year. He said as follows:

"To the Hale Publishing Co., St. Louis, Mo.: Gentlemen:—Your letter of inquiry of November, 1911, at hand, and in reply would say last spring I purchased a Hercules Stump

Puller, which I shipped in to Canada, where I have a large farm in what they call scrub land. I also purchased what they call a grub hook, and would say this small puller pulled out roots five and six feet out of the ground of burr-oak and the hook where the grubs were burned off or cut off would hold on like a bull-dog, and both hook and stump puller worked admirably. I am sorry I have no photographs of our work; would say the company dealt fair with me in every respect. Respectfully Yours, (Signed) Chas. Smith."

Home-grown horseradish at St. Louis was selling at $4.25 to $4.50 per barrel on December 1st.

LOVELY PICTURE FREE

Your choice of a beautiful Motto Picture sent free when 2 cent stamp is sent for postage. Home Sweet Home. God Bless Our Home. What Is Home Without a Mother. Size 12x16 and printed in beautiful colors.

A. PORTER
107 Clinton St., Chicago
Dept. 735.

BEACON LAMP BURNER FREE

100,000 satisfied users
Incandescent. 100 Candle Power. Burns common coal oil. Gives better light than gas, electricity or six ordinary lamps at one-sixth to one-tenth the cost. Fits your old lamp Unequaled for fine sewing or reading.

COSTS ONLY ONE CENT FOR SIX HOURS

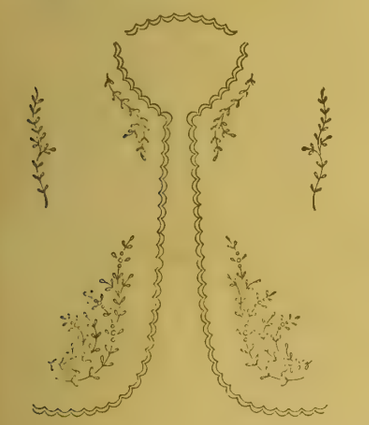
We want one person in each locality to whom we can refer new customers. Take advantage of our Special Offer to secure a Beacon Burner, FREE. Write today. Agents Wanted. HOME SUPPLY COMPANY, 419 Home Building, Kansas City, Mo.

Eight Games for 10c

Chess, Checkers, Fox and Geese, Nine Men Morris, Authors, Introduction Game, Spanish Frison, Dominoes; a whole year's amusement and the whole thing for only Send 10c. today and get all eight games **10c**
J. MANNE, 449 Sullivan St., Chicago.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.



Elegant Sacque Design.

No. 612.—Design for embroidering a child's sacque. Especially adapted to May Manton's Pattern No. 7191. The price of the pattern is 10 cents.

Design For Motifs.

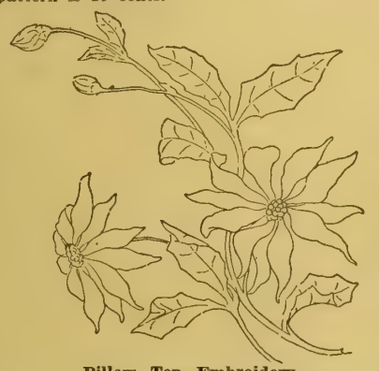
No. 609.—Design for motifs to be used in various ways. Adapted to braid, beads, French knots, outline and solid embroidery. One large and six smaller motifs are given. The price of the pattern is 10 cents.

Scarf Design For Table.

No. 610.—A design for an embroidered table or dresser scarf. Two ends, fourteen inches wide, are given. The price of the pattern is 10 cents.

Embroidered Wreaths.

No. 608.—A design for embroidered wreaths. Transfers for one wreath nine inches in depth and for two wreaths six inches in depth are given. The price of the pattern is 10 cents.



Pillow Top Embroidery.

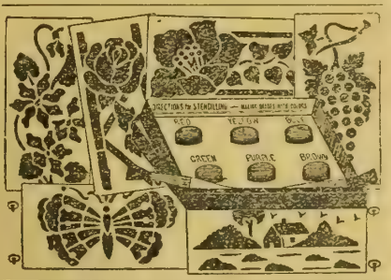
No. 611.—Design for an embroidered pillow top seventeen inches square. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

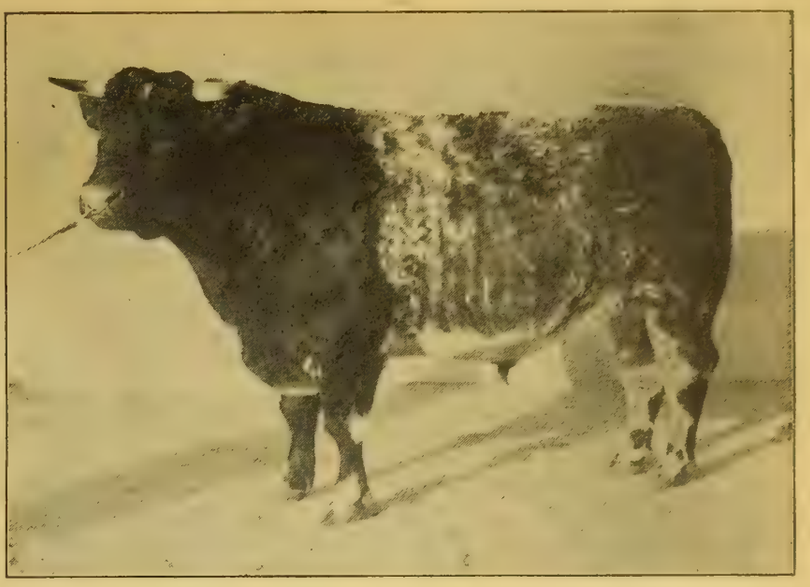
SPLENDID SUBSCRIPTION PREMIUM.

Beautify Your Home With This Popular Stencil Outfit.

Stenciling has long been a popular form of home decoration and is today used more extensively than ever. Ladies are particularly apt at this work, and anyone can produce beautiful effects. From every standpoint stenciling is a very fascinating art of extreme usefulness. You can make



the most artistic pillow tops, curtains, portieres, centers, etc., in colors for yourself or for sale, without having any knowledge of painting, by using this up-to-date outfit. In fact, stenciling is so simple with this outfit that a child ten years old can do it.



ROYAL SULTAN, 223,948—A grand champion Shorthorn bull at the International Live Stock Exposition. He was exhibited by Herr Bros. & Reynolds, Lodi, Wis. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

This outfit is just the thing for beginners. It consists of six cut stencils on special oil board, six cups of water colors (something new, that will not spread, but dries instantly), two bristle stencil brushes, four thumb tacks, also full and explicit directions for mixing colors and using stencils.

Our Subscription Proposition.

Send us fifty cents by postoffice money order and we will send you the Universal Magazine for two years and you can select the Popular Stencil Outfit as a free premium.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

To Club Raisers:—Anyone sending us four subscriptions and $2.00 to pay for same will be credited with one two-year subscription to the Universal Magazine and one Stencil Outfit free.

New York Egg Quotations.

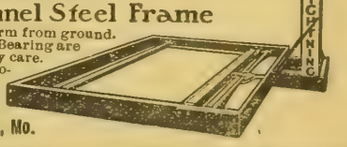
On the last day of November, eggs were selling in New York as follows: Refrigerator dirties, 14 to 19c.; New York state, Pennsylvania and nearby hennery white fancy new laid, 53 to 57c.; do. selected whites, fair to good, 45 to 52c.

In November, the 'Frisco System delivered 1,377 cars of live stock at the National Stock Yards.

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.

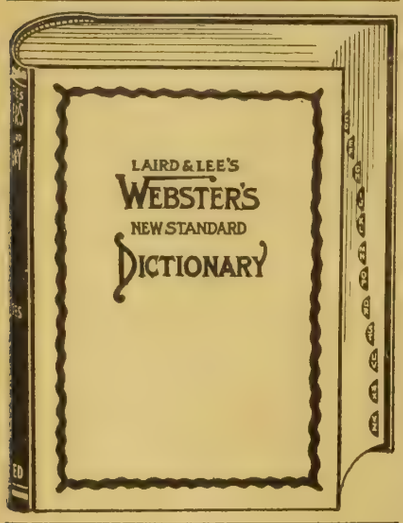


KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

SIR BEETS CORNUCOPIA NETHERLAND, 38,460—Grand champion Holstein bull at the Minnesota State Fair, 1910; Iowa Dairy Show; National Dairy Show, etc. Owned by W. S. Moscript, North St. Paul, Minn. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, special thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new



words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave.. St. Louis, Mo.**

Christmas Presents That Boys and Girls Can Make.

In the few weeks that remain before Christmas the boy and girl readers of this department will be as busy as bees using their nimble fingers and their ready wits in making Christmas gifts. Perhaps a few suggestions along this line may give some new ideas which they will be glad to use.

Spoolholder. — For mother's or somebody else's work table, select a smooth board about 10x8 inches; if the board is rough, rub it smooth with sandpaper; paint the board, then drive into it nails just far enough apart to allow space for spools; the heads of the nails will be at the under side of the spoolholder and the spikes projecting through the right side will serve as the spool rests. It will make the sewer's tasks much easier if the spools are all in sight on this holder instead of hid away in the machine drawers.

Workstand.—If your grocer is good-natured, perhaps he will give you a cheese box for the asking; at best, he will charge only a few cents for it. Cut for this three strips of wood to serve as legs, making them long enough so as to raise the cheese box to about the height of an ordinary table; let these legs run to the top of the cheese box and nail them right to the outside. Next stain the whole with some dark color. Line the box by tacking in some sateen, cretonne, or any suitable material you have on hand. This makes just the kind of a workbox a woman with much mending or sewing appreciates. If you wish to go a step farther, make a cushion and attach it to the top of the box; also screw in a brass hook upon which to hang a pair of shears, and make a pocket for holding buttons and another for holding darning cottons and yarns.

Oven cloths.—Take strips of denim or any other heavy material, about one yard long and ten inches wide; hem both ends, then turn them up about six inches and stitch them down the sides so as to form pockets; now hem the two raw edges left between the pockets. See the scheme? When mother wishes to take something out of the oven she slips one hand in each pocket and so there is no danger of burning some unprotected part of the hand.

Magazine protector.—Whover has a favorite magazine which he is trying to preserve will welcome a protector made out of two pieces of cardboard about one-half inch larger each way than the magazine they are to cover. Paste some pretty wall paper on this cardboard, make three sets of corresponding holes in the cardboard and run ribbon through the holes, thus joining the two pieces of cardboard and making a satisfactory cover of them. Cut the ribbon long enough so that the case can be enlarged to hold several of the magazines if desired. If handy with a paint brush, perhaps you can paint the name of the magazine which it is intended for on the cover of the case, or perhaps you may be able to find some discarded numbers and from these can get out the name and paste the letters in order on the cover.

Desk blotters.—Cut out some of the pretty heads and figures in the advertisements of magazines or on their covers; paste each of these on a thick piece of paper on thin cardboard; cut out the cardboard to the outlines of the figures. Next cut out several thicknesses of blotting paper by tracing the outline of each figure upon it and cutting to the inside of your pencil mark. Attach the blotting paper to the cover by means of a bow of ribbon run through the perforations which you must make in the most convenient place. Now you have a set of blotters which you can give to sisters or friends.—Janet Thomas Van Osdel.

Care of the Eyes.

The eye is one of the most sensitive as well as most essential organs; and yet on every side we see rank abuse of it. Reading when riding is most trying to the sight, the unsteady motion of the car or carriage requiring a constant readjustment of the focus. To scan the large headlines is all that one should attempt.

Once we saw a lady saving (?) the hour spent in a ride on the train by using it to make point lace! Just think of it! The most trying of fancy work, even under favorable circumstances. It scarcely seems possible that a person of intelligence would not know better. Some day she would surely pay for the folly, perhaps without being able to trace the source of the trouble.

Fancy needlework should only be done with the best of surroundings, and then in moderation. While it is so beautiful that one can be pardoned for much trouble in securing it, to continue the work when the eyes are tired or the light not the very best is the greatest of folly. Sunlight is required, and a dark day used for work of a less trying nature.

Fashion, too, has other kinks against which guard should be placed. The dainty veils with fancy mesh are very becoming to the wearer, yet injurious to the eyes, especially those with dots or figures of any kind. If you must wear a veil, select a plain one, even though you do look plain. The optical figures which may attend the wearing of the fancy weaves are too unpleasant and persistent to be courted.

The jaunty little hats of the modern school girls carry also a menace to the eye in the fancy cord and tassel which fall down gracefully in front of it. You may not be in the height of fashion in so doing, but it is far wiser to adjust the ornament to fall at the side.

Another common abuse is the wearing of glasses which are not fitted to the eye. If one accustomed to wearing glasses happens to find that they are needed and are not at hand, how common it is for an obliging friend to pass along his own, as though glasses were glasses; and yet an attempt to wear those of another usually results with no advantage, and perhaps positive injury. Far better have none than those which are not adapted to the wearer.

During the long winter evenings it is especially desirable that the light be bright and steady. If you use kerosene, take heed that all parts of the lamp are kept clean and bright. If the burner is of nickel rather than brass it will give a white instead of a yellow light, which will be found a great improvement. The large wick is to be preferred, even if more oil is consumed. Oil is cheaper than eyesight.

Avoid using the eyes after they become tired or there is an inclination to rub them. Bathing in cold or even quite warm water is in many instances beneficial. The treatment which helps one may not be the best for another, and if one has a suspicion that the course recommended by a friend is injurious in his own case, it should be at once discontinued. In fact, any radical treatment should never be commenced save under the direction of a skilled oculist. The quack who has a cure-all for every ailment should not be allowed to practice upon the eye.

If you need glasses, consult a competent man. The place where you can get them the cheapest may prove to you the dearest in the end. A perfectly-fitting lens is of much more value than a gold frame. Scarcely any pair of eyes are exactly alike, and it requires science and skill to make the proper adjustment. Only the competent oculist should be allowed to make the attempt.—Bessie L. Putnam.

Averted the Goslings.

"Why is it," asked Rose Stahl, "that in the spring a young woman's fancy is so apt to turn to clucking hens? Last year one of my best friends abandoned the footlights and sought the actors' oft-dreamed-of paradise, a little home in the country.

"As a recreation she decided to start a poultry farm, which she did with a barn-yard hen and thirteen eggs from the village store. Not having even the most elementary knowledge of poultry, she inquired of a neighbor how long eggs generally took to hatch. She received the reply:

" 'Three weeks for chickens and four for ducks.'

"The neighbor met her some time afterward, and, on being asked how the poultry farming was going on, she replied, with a lowering countenance:

" 'Oh, I've finished with it. At the end of three weeks there were no chickens, so I took the hen off, as I didn't want ducks.' "—Young's Magazine.

$5.00 Worth of Havana Smokes For 99 Cents

YOUR idea of what is meant by the word "stogie" will undergo a big change after you smoke one of the fifty Menges Stogies I will send you postpaid for 99 cents. I call them stogies because they resemble ordinary stogies in size and shape, but in other respects, tobacco quality and smoke satisfaction, they are equal to any 10-cent straight cigars. Old smokers have written me often regarding the tobacco I put into my stogies—it is grown in this country from the purest Havana seed. It is impossible to equal this tobacco in any stogies or cigars at my prices. This is absolutely the greatest smoker's offer made, and no smoker can get such genuine satisfaction and pleasure for so little money elsewhere.

Exact Size

Menges Stogies Sure to Afford You Lasting Pleasure

The value is in the filler, not wasted in a fancy but worthless wrapper. My wrapper is good, honest leaf, free from breaks or openings and therefore draws well. A Menges Stogie is a real treat, a smoke good enough to offer to your friend or guest. I have sold thousands upon thousands of Menges Stogies under my **money-back guarantee.** I have not had a single stogie of the thousands returned but, instead, **have had repeat orders from 96 out of every 100 smokers who have tried them.**

Absolute Good Faith in Every Detail of This Big Value Offer

I guarantee my goods. I guarantee you satisfaction. I can't afford to let a single man question anything—I don't leave a single loophole for myself. I say to you in plain English—if after you smoke a few of the 50 Menges Stogies I will send you at 99 cents you find that you do not consider them worth what you have paid for them, you do not consider them satisfactory or pleasant smokes, then return what you have left to me and I will refund what you have paid me without argument and cheerfully. This offer practically means getting Havana cigars of 10-cent straight quality for 2 cents each, so let me have your order at once. Just send me the coupon or a note and money order and I will send you the goods postpaid very promptly.

H. MENGES
The Smoker's Friend
519 Menges Bldg., St. Louis, Mo.

Send This COUPON Today

H. Menges, 519 Menges Bldg., St. Louis, Mo.
I enclose 99 cents for which send me postpaid 50 of your Havana Seed Stogies. It is understood that I am to keep them 10 days, smoke as many of them as is necessary to try them, and if not thoroughly satisfied to receive full refund on returning remainder.
Name _____
Address _____

SOLID STERLING SILVER 18c.

Send us your name and address with 18 cents in stamps and we will send you our new illustrated Catalogue, "THE BOOK OF A THOUSAND WONDERS," and this sterling silver thimble, postpaid; size, 5 to 11. Address, Dept. A,
E. B. COLEMAN & CO.,
Equitable Bldg., ST. LOUIS, MO.

ELEGANT THIN MODEL 20 YEAR WATCH

Hunting case, beautifully engraved, gold finished throughout, stem wind & stem set, fitted with 7 ruby jeweled American lever movement, guaranteed 20 years; with long gold plated chain for ladies or vest chain for Gents.

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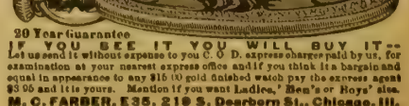

20 Year Guarantee

IF YOU SEE IT YOU WILL BUY IT—Let us send it without expense to you C. O. D. express charges paid by us, for examination at your nearest express office and if you think its bargain and equal in appearance to any $15.00 gold finished watch pay the express agent $3.95 and it is yours. Mention if you want Ladies,' Men's or Boys' size.
M. C. FARBER, E35, 210 S. Dearborn St., Chicago, Ill.

The Twice-a-Week ST. LOUIS REPUBLIC

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Democratic newspaper in the United States, and is published at St. Louis, Mo.

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Use and Waste of Barn-yard Manure.

The indiscriminate application of barn-yard manure is often attended with considerable loss. Often it is put onto land where it would be more profitable to apply other kinds of fertilizer. It must be remembered that barn-yard manure is a complete fertilizer. It contains all the elements of plant growth—the nitrogen, the potash and the phosphorus. It should be always applied to the lands that need the three elements, rather than to land that is deficient in only one element.

It is therefore a mistake generally to apply farm-yard manure to reclaimed swamp land. Such soil is very rich in nitrogen and the added nitrogen in the farmer's manure is just so much nitrogen thrown away. It would be far more economical to put potash onto such swamp land and perhaps phosphate than to waste the three-fold barn-yard fertilizer on it.

In the fall and winter barn-yard manure can be placed on top of the soil with less loss than at any other time of year. In the spring and summer the atmospheric conditions are such that much of the volatile portion of the manure is dissipated into the air, to the benefit of no one. But in the fall and winter the cold and rains keep the volatile portions from going off in the form of gas, and most of the manurial elements are washed into the soil.

The old-fashioned manure-pile should be a thing of the past. A manure-pile properly protected from sun, wind and rain is profitable and to be encouraged, but the one that formerly existed was exposed to all kinds of deteriorating influences, so that by the first of April a large percentage of its fertilizing value had been taken away. Where it is convenient to do so, hauling out the manure onto the land at least once a week will be a safe way to dispose of it. If exposed to the rains in the barn-yard the soluble portions are washed out into some brook or drain and are lost, but if exposed to the rains in the fields the soluble portions are washed into the soil, where they will do the greatest possible amount of good.

Getting the manure under the ground as soon as possible is still the way to get the most out of it. It should be worked into the soil as soon as possible after it is made. The old idea of waiting till manure is well rotted before plowing it under is now an exploded theory. The manure that is freshly made contains the greatest possible amount of fertility, and no process of handling can make it contain any more. Every day that it remains unused it loses some of its value.

After all, the greatest waste in manure comes from not using more of the commercial kinds to supplement the barn-yard manure. Often such soil as reclaimed marsh land would produce double its usual crop by the application of a few dollars' worth of potash or some other kind of which the land chances to be in need. Few of our farms produce enough barn-yard manure to meet the requirements of the farms.

Drainage and the Water Table.

In the drainage of all kinds of land the water table in the soil should be taken into consideration. Usually in the past, the drainage operations have been carried on with the idea that it was not possible to get too much drainage. It was supposed that if the too abundant water were taken out of the soil there would still remain enough capillary water in the soil to satisfy the requirements of all crops. That this is not true is now shown by the experiences of men in all parts of this country.

The real object of drainage operations is to lower the water table in the soil. But this table should not be lowered to a greater depth than three or four feet at the most. Usually about thirty-six inches is the best distance for the surface of the soil above the water table. Often the result of deep ditches has been to reduce the water table to a distance of ten feet or more below the surface of the soil. It is plain to see that in such a case crops will suffer on such land every season that is not unusually wet.

Even marsh lands are sometimes drained too well. Recently a Wisconsin bulletin cautioned against this error as to swamp lands. It says: "On some marshes * * it is possible that too thorough drainage may occur, so that crops on such land during very dry seasons may suffer for lack of water. Under such conditions it is quite probable that the use of dams at intervals in the mains and larger lateral ditches for holding back the water during very dry seasons will be found advantageous."

Of course the use of the dams would be to cause the water table in the soil to rise to a point where the water would be within the reach of capillarity. It is probable that in the future, tile-draining systems may be so constructed that it will be possible to cause them to become inoperative at such times as it is desirable to hold the meager water supply in the soil.

The reckless lowering of the water table in the soil through drainage has been a fruitful source of loss to parks and wooded areas. When, in preparation for the World's Fair at Chicago, in 1893, the lagoons were dug in Jackson Park, large numbers of fine trees died. The great lagoons were really immense drainage ditches, which lowered the water table in the soil sometimes as much as ten feet. The roots of the trees had accustomed themselves to a certain strata of soil filled with capillary moisture and plant food. When the lagoons were made the trees found their roots in perfectly dry soil in the summer time, and their leaves wilted months before the coming of frost. In every place where sewer systems are put in this result is common. Many a lot loses some of its good trees.

We need the drainage on our farms and elsewhere, but we need also to keep in mind the fact that the relation of the moisture supply to the soil is one of supreme importance.

This is a Crescent gold-filled watch case enlarged to show detail. You will find "gold-filled" watches sold by all sorts of jewelers at all sorts of prices. If you buy on price or *guarantee* stamp you are pretty sure to get a shoddy case.

You can tell a reliable case by the depth of the engraving and engine-turning—and by the "Crescent" or "Jas. Boss" trademarks stamped inside.

Deep engraving always indicates a thick gold-wearing surface. In a trashy case the gold is not thick enough to stand deep cutting. The design is shallow cut or merely burnished on.

Don't be misled by irresponsible "guarantees" stamped inside the case. A true warranty of value and service is the "Crescent" or "Jas. Boss" trademark. They are standard with the fine jewelry trade and have been for fifty years.

The Keystone Watch Case Co.
Established 1853
Philadelphia

A Boy Corn Champion.

A fifteen-year-old high-school boy, J. Sam Griffin, is the champion corn grower of Lucas county, Ohio. In a contest held at the Lucas County Fair this fall, he won a first prize of $20 for having grown, at the least expense, the greatest yield of corn on an acre of ground. He also won a first prize of $6.00 on twelve ears of corn of best quality shown in the class for boys under eighteen years. In the acre contest, the second prize of $15 was won by Ross Kaspar, fourteen years old, an elementary school boy. These boys both live in Richland Township, where, for the past two years, agriculture has been taught in the high school.

FREE TO HORSE OWNERS.

A booklet on the horse is published by the Binkley Medical Co., Nappanee, Ind., sole manufacturers and owners of Frazier's Distemper Cure. You can learn the causes, symptoms and treatment of all contagious diseases among horses from this book. It is sent free. Address, Binkley Medical Co., Dept. H, Nappanee, Ind.

Our Rose Premiums.

During the coming rose season we intend to give all of our readers a chance at a new collection—the finest collection ever offered. There will be eight choice, hardy, one-year roses, as follows: Etoile de France, Yellow Kaiserin, Helen Gould, Clothilde Soupert, President Taft, White Killarney, Marigold, Everbloom Rambler.

Our Special Offer.

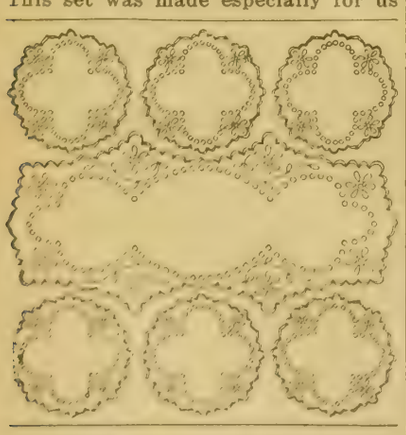
Send us sixty cents. We will send you The National Farmer and Stock Grower for one year. We will send you direct by mail, postpaid, the full set of eight hardy, ever-blooming roses directly it is safe to deliver them. We will also send you a 16x20-inch picture entitled **"The American Beauty Rose."** The picture is most beautiful. There is a great bunch of roses resting on the white linen cloth of a table. It is glorious, magnificent. We have sent out many thousands of these pictures and sets of roses, and all receiving them have been well pleased. Send your orders early to avoid getting left. We are only allowed ten thousand sets of roses.

UNIVERSAL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated below shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us



and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us thirty cents and we will send you this dainty set for a short time only, absolutely safe delivery guaranteed, and the Universal Magazine for one year The Universal Magazine is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns, and has a number of original household articles. Address, **HALE PUBLISHING CO, 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone who will send in four subscriptions and $1.20 to pay for same will be credited with one-year's subscription to the Universal Magazine and one Embroidery Set.

AN OPINION OF ABSORBINE.

Rev. A. E. Stanton, 1223 Marshall Ave., Mattoon, Ill., under date of March 28th, 1911, stated his opinion of Absorbine in these words: "Your remedies came safely and wish to say that they have accomplished far more than we really expected." Use Absorbine for wind puffs, capped hock, thoroughpins, bog spavin, lame shoulder, ruptured ligaments, swollen tendons, etc. At druggists, $2.00 a bottle, or sent direct, express prepaid, upon receipt of price. Descriptive pamphlet sent free upon request. W. F. Young, P. D. F., 106 Temple street, Springfield, Mass.

BIG LABOR-SAVING FARM MACHINE.

The Luther Hummer Tool Grinder, an advertisement of which appears in another section of this paper, is indeed a great labor-saving device for the farm. Although it is only one machine, it is so constructed that attachments can be quickly interchanged which enable one to apply many different operations.

The sharpening wheels of this machine are of Dimo-Grit, the newly-discovered artificial abrasive, which is as hard as South African diamonds. These wheels revolve at a speed of 4,000 revolutions per minute and do the work very rapidly, without the need of water and without danger of drawing the temper. Dimo-Grit is a substance peculiarly adapted to the sharpening of steel.

Besides doing all kinds of grinding and sharpening of ordinary tools at a great saving of time, this machine has a flexible shaft attachment for sharpening ensilage and threshing machine knives and mower guards, flutes on corn huskers, etc., without removing them, also for sharpening horseshoe calks, clipping horses and shearing sheep.

It has a milk-tester attachment for testing butter-fats. One-third of the cows in the country are milked at a loss, therefore it provides a means of detecting the money-losing cows. It also has a lathe attachment, rip saw, jig saw, drill for boring holes into wood or iron, and attachments for sharpening discs, sickles and gumming saws—thirty attachments in all.

In these days of inventions the farmer is being well taken care of in the way of labor-saving machinery. For particulars concerning thirty-days' free trial address Luther Grinder Mfg. Co., 157 Stroh Bldg., Milwaukee, Wis.

NEW TRAPPING LAWS.

The wide variation in trapping laws in various states makes it quite necessary for the trapper and farmer to be in close touch with game legislation at all times. The old saying that "ignorance of the law excuses no man" has caused regret in the heart of many only when it has been too late.

As a rule, the professional trapper makes it his business to become acquainted with all new laws regarding hunting and trapping, but there are many farmers and amateur trappers who are not as familiar with game laws as they should be.

These people will be glad to learn of a book which is now being distributed free by F. C. Taylor & Co., 315 Fur Exchange Building, of St. Louis, Mo., the world's greatest fur house. This book gives game laws of every state in the Union and Canada. It also tells how and when to trap, what baits to use for various animals, and reveals some trapping secrets which have always been carefully guarded by trappers in the past. We suggest that those of our readers who are interested in hunting or trapping send for a copy of the book.

HOW HE STARTED IN LIFE.

Reporter—"Is it true that you started life as a poor plow boy?"

Citizen—"No, sir; I started life as a small, red-faced baby. Good day, sir!"—Exchange.

YOU **$5 to $10 a Day Easy Money** **YOU**

MAKES no difference if you never sold a dollar's worth of goods in your life—big money comes easy taking orders for our famous made-to-order union made suits, pants and overcoats. Prices so low, quality so high, they sell on sight.

Be a Bank-Roll Owner—Not a Small-Change Man

You'll never have a better chance to get in with the big-money crowd than we're offering you right now without a cent of expense. And remember, there's no hard work involved. It's a snap. We sell suits from $5 to $10 less than other houses, give better materials, better tailoring, better fit—and an absolute guaranty of satisfaction or money refunded.

We Back You We will put our enormous capital, our years of experience, back of you—you don't need a cent. **We start you free** on the high road to wealth—your success is our success. Regal representatives are pointed out with pride in their home towns as substantial citizens. Remember, the business grows like a snowball rolling down hill—every new customer means reorders from himself and his friends, for no one else in the world can duplicate our values. But the prize goes to only one man in a town, so **write today** for the

Beautiful Sample Outfit—FREE

Just send us your name and address quick and we will forward, **absolutely free**, the biggest, handsomest outfit in the country, newest samples, large fashion plate of latest styles, everything necessary, with full instructions so you can commence taking orders at once.

Your Own Clothes At Inside Rock-Bottom Price Of course, one of our best advertisements is a stylish, becoming suit on an agent. So we give you on your own clothes the benefit of all advertising and wholesale discounts. **We prepay express charges.** Write us right away for exclusive territory. The fellow that's late now will be mighty sorry later on. Hundreds of others are getting the big easy money—why not you?

We Use the Union Label on All Our Garments.

REGAL TAILORING COMPANY, 323 Regal Building, Chicago, Illinois

ROYAL **DELFT BLUE AND GOLD 42 Piece Dinner Sets** **FREE**

I want to give one of these beautiful Delft Blue and Gold Dinner Sets to every Lady Reader of this Paper ABSOLUTELY FREE.

I Pay the Freight—

When I say you can have this dinner set free, I mean that it will not cost you one single penny as **I pay all the freight charges.** I will deliver it in your town prepaid and **guarantee it against breakage.**

A Prize for Prompt People

I like prompt people and if you are prompt I will reward you with 6 lovely handkerchiefs. I insist on promptness so **don't delay a minute, write me today.** Remember you get these handkerchiefs in addition to the Dinner Set so get your pencil and write me at once.

A Most Beautiful Set

My Royal Delft Blue and Gold is the handsomest set of china you have ever seen and it is a **complete set too.** It is not a little breakfast or tea set, but is a **full sized Dinner Set of 42 pieces** with large platter and a big covered dish. Delft Blue and Gold are the most expensive as well as the most beautiful decoration for china and have become famous in aristocratic homes. No picture can do justice to the beauty of this dinner set, a flawless, pure white with rich blue at the edges shading to the most delicate tints and a dainty filigree design in pure gold overlapping, with a beautiful gold spray in the center of each piece. The colorings and decorations are underneath the glaze and will wear a lifetime.

You will be proud of this set as long as you live on account of its beauty and quality and because **it costs you absolutely nothing.**

My Offer: I want every lady reader of this paper to grasp this opportunity **now** to own a set of my **Royal Delft Blue and Gold** dishes absolutely free. Just write me a letter and enclose 10 cents as evidence of good faith on your part. For your 10c I will mail you 15 of the most beautiful art post cards you ever saw. These cards are really worth 25c. Now I ask you to send me the 10c merely to keep out curiosity seekers and children. All that I ask of you is that you help me among your friends and neighbors on my great introductory offer. Something that you can do easily and quickly. Write me today enclosing 10c to convince me that you really want one of my 42 piece Dinner Sets and that you are not a mere curiosity seeker. I will immediately send you the 15 fine post cards and arrange to **place my big 42 piece Dinner Set in your home free and all charges prepaid.**

DON'T LET THIS WONDERFUL OFFER WAIT BUT WRITE ME NOW--TODAY.

L. R. FORD, Manager, **36 Friend Bldg., KANSAS CITY, MISSOURI.**

More Christmas Presents.

On page 22 appears an article entitled "Christmas Presents That Boys and Girls Can Make." This is an additional list which will be found both practical and interesting.

Fruit basket.—If you have learned at school how to weave baskets, you can probably make a pretty fruit basket out of raffia. But if that is not one of your accomplishments, select a small grape basket or a box and cover it with green tissue paper; the crepe paper will look the prettier. Polish half a dozen of the biggest and best best-tasting red apples you can find, fill the basket with these, then go to the attic where are the nuts you have gathered this fall, select a few generous samples of each kind and put them in the basket in the empty spaces between the big apples. Such a gift as this to your school teacher or to your Sunday school teacher, or to any person who does not have all the country privileges you do, will be considered a great treat.

Pine cones and needles.—If you live near a pine grove, you have a rare opportunity to make odd Christmas gifts. There is nothing prettier than a fire of pine cones on Christmas Eve. When they burn, they do not fall to pieces readily, and the cone is a mass of fire, in perfect shape for some moments before it falls apart or chars, and the odor they give out when burning is delightful. Collect the cones and let them dry in the sunshine for a couple of days. Make bags out of some kind of bright red material, fill the bags with the cones and attach a card bearing your wishes for a "bright Christmas fire." The pine needles make fragrant cushions. The needles sent alone would make a very good present, or made up into a cushion would be still better .

Set of cupboard cans.—Hunt up all the empty cocoa or baking-powder tin cans you can find. Soak them in hot water until all the paper can be taken off of them. Then polish the cans, take a paint brush and a tube of green or red oil paint and print upon the middle of the cans the words "Salt," "Pepper," "Cinnamon," "Sugar," and so on. Now take the tops of the cans and a small nail, and with the nail punch holes through the covers. This makes it possible for your mother to use the can in sprinkling pepper, salt, sugar, or any of the other seasonings into her cooking kettles.

Tea cosy.—Every person dislikes warm tea; if it isn't served on ice, then it must be piping hot. To help these particular elders to keep their tea hot, suppose you make a tea cosy as follows: Use a dinner plate as a guide to cut two round pieces of goods, either cretonne, sateen or even gingham or calico; now cut two layers of cotton wadding, about half an inch thick; place one piece of wadding on the wrong side of each of your pieces of goods. Now double the goods over, so that it will form a semi-circle, with the wadding as a lining. Run a few basting threads across these semi-circles so as to keep the wadding in place, then turn in the edges of the goods and baste neatly together all around. After the basting is finished, sew together by overcasting or by buttonholing the edges. Next knot a few pieces of yarn or ribbon through the sides of your cosy to keep the cotton in place. Pull out all of the basting threads, then sew together the two curved edges of the semi-circles. When these are joined, fasten a ribbon right in the middle of the curve, which, you see, makes a handle for the top of the cosy. Now slip the cosy over the teapot. Doesn't it cover up the pot so nicely that none of the warmth can escape?

Snapshots.—There is only room to suggest that if you have a camera, no matter how small, you make use of it in taking snapshots of pretty scenes in your neighborhood or pictures of the little brother or sister or of father or mother. Take them when they are not posing for a picture, for you know an unstudied pose is always best. Mount these snapshots on little calendars or on match scratchers or make a small book of them and give them to members or relatives of the family. What a laugh grandmother and grandfather would have over a funny picture of baby! And how a big brother or sister away from home would enjoy a book of home pictures! And there are uncles and aunts who would like nothing better than pictures of the home or of the members of the family. — Janet Thomas Van Osdel.

A Novel Sleeve.

One of the newest sleeves is long and very close-fitting, with a slash from the shoulder to deep cuff depth, where a row of buttons makes a finish to the hand.

The slash is filled with soft, scanty lace frills, or with one long lace puff of scanty fullness. Sometimes, when a touch of bright color is used with a dark tone, the deep color appears under this slash. There is no end to the possible variations.

Yesterday and To-day in Foods.

About a century ago the beneficial effects to the digestion, and the appetite, of foods made from coarse flour was discovered by Dr. Sylvester Graham. Flour thus made was named Graham flour. after Dr. Graham.

In those days Graham flour contained a great deal of nourishment, and stimulated and strengthened digestion and appetite, but was so coarse that it was almost "like taking medicine" to eat it.

But to-day the Graham Crackers baked by the National Biscuit Company have a most delicious nut-like flavor and are a toothsome delicacy as well as being healthful. This is due to perfected modern processes which preserve all the natural goodness, sweetness and healthfulness of the wheat. They are packed by the National Biscuit Company under their well-known In-er-Seal Trade-Mark in moisture- and dust-proof packages, thus retaining crispness and flavor.

Range of Prices on Fish.

On November 30th, wholesale fish receivers at St. Louis quoted prices as follows: Black bass, 12c. per pound for large, 15c. for medium and 19c. for order size; crappie, 8c. per pound for small, 10c. for medium and 12c. for large; dressed cat, with collar bones off, at 11½c.; collar bones on, at 10½c.; gross do. at 6c.; spoonbill cat, 8c. for large, 7c. for medium and 6c. for small; dressed bullheads, with collar bones off, at 11c.; collar bones on, at 10c.; buffalo, large gross at 5c.; medium gross at 3½c.; large dressed at 6½c.; medium dressed at 5½c.; German carp, large dressed at 5c.; small dressed at 4c.; large gross at 2c.; sunfish, 3½c. for small to 4½c. for large; white perch, 3c.; large striped bass, 6c.; eels, 7c.; turtles, soft-shell, 5c.; snapping turtles, 3c.; turtle meat, 8c.

I Am Willing To Prove I Can Cure You

To That End I Am Giving Away $10,000 Worth of Medicine

In order to show beyond all doubt that I am in possession of a medicine that will cure kidney trouble, bladder trouble or rheumatism, I will this year give away ten thousand dollars' worth of this medicine and anyone suffering from these diseases can get a box of it absolutely free. All that is necessary is to send me your address.

I don't mean that you are to use a part of it or all of it and pay me if cured. I mean that I will send you a box of this medicine absolutely free of charge, a gift from me to the Uric Acid sufferers of the world, so I can show them where and how they may be cured. I will not expect payment for this free medicine, nor would I accept it now or later if you sent it. It is free in the real meaning of the word.

For twenty-five years—a quarter of a century—I have been trying to convince the public that I have something genuine, something better than others have, for the cure of stubborn, chronic rheumatism, for torturing kidney backache, for annoying calls to urinate. But it is hard to convince people—they try a few things unsuccessfully and give up all hope and refuse to listen to anyone thereafter. Happily, I am in a position now to demonstrate to sufferers at my own expense that I have a medicine that cures these diseases. I don't ask them to spend any money to find out; I don't ask them to believe me, nor even to take the word of reliable people, but all I ask is that they allow me to send them the medicine at my own cost. That is surely fair.

DR. LYNOTT
who is giving away $10,000 worth of medicine.

To this end I have set aside ten thousand dollars, which will be used to compound my medicine. Much of it is ready now to be sent out, all of it fresh and standard. There will be enough for all sufferers, though there be thousands of them. And anyone who needs it can get some of it free. But in order that I shall know that you have a disease for which the medicine is intended, I ask you to send me some of your leading symptoms. If you have any of the symptoms in the list printed here you need my medicine, and if you will write me I will gladly send you a box of it free with full directions for your use. Look the symptoms over, see which symptoms you have, then write me about as follows: "Dear Dr., I notice symptoms number"—here put down the numbers, give your age, full address, and send it to me. My address is Dr. T. Frank Lynott, 4921 Occidental building, Chicago, Ill.

The ten thousand dollars I am spending for the compounding of my medicine is only a part of the money I am devoting to this cause, for the package of medicine I send you will be fully prepaid at my expense. From any standpoint you view it, YOU incur no expense or obligation. Just tell others who you know are suffering who sent you the medicine that cured you.

I am promising to give away ten thousand dollars' worth of medicine, and I will do that; I am promising to send any sufferer who writes me a box of this medicine and full directions free of charge, and I will do that. I can say further that this medicine has been vouched for to the Government as complying in every detail with all requirements. It will stop rheumatism; it will stop pain and backache; it will stop too frequent desire to urinate; it will heal, soothe and strengthen. You will be better in every way for having taken it. There is not an ingredient that can injure; not one but will benefit. All that I ask is that you use it yourself so that you may be personally convinced.

Owing to the large number of requests, I have had ten thousand more copies of my medical book printed. This book is new and up to date and contains complete descriptions, symptoms, causes, effects and cures of kidney, bladder and rheumatic diseases. All who write for the free medicine will be sent a copy of this grand illustrated medical book—the largest ever written on these diseases for free and general distribution.

If you need medicine such as I have, if you are anxious to be cured and don't want to spend any money LOOKING for cures, write me. Read the symptoms over and let me hear from you today.

These Are the Symptoms:

1—Pain in the back.
2—Too frequent desire to urinate.
3—Burning or obstruction of urine.
4—Pain or soreness in the bladder.
5—Prostatic trouble.
6—Gas or pain in the stomach.
7—Geneal debility, weakness, dizziness.
8—Pain or soreness under right rib.
9—Swelling in any part of the body.
10—Constipation or liver trouble.
11—Palpitation or pain under the heart.
12—Pain in the hip joint.
13—Pain in the neck or head.
14—Pain or soreness in the kidneys.
15—Pain or swelling of the joints.
16—Pain or swelling of the musles.
17—Pain and soreness in nerves.
18—Acute or chronic rheumatism.

Only 40 Cents

Anti-Nicotine Calabash Pipe

THIS splendid Calabash is modeled on the lines of the original African Calabash Gourd. I have placed in it my famous Anti-Nicotine Bowl, made of a clay-like material which absorbs the nicotine and uses it to color the pipe like the finest Meerschaum. You do not have to "break in" this pipe. There are no vile fumes. It is always sweet, clean, dry. With German Silver mountings, 40 cents each, three for a dollar. Sent prepaid anywhere with a copy of our fine catalog of smokers' articles. Send today. Money back if not satisfied.

Three for One Dollar

H. Menges, The Smoker's Friend, 266 Menges Bldg., St. Louis, Mo.

Calendar FREE

This lovely new 4-page 1912 calendar with four beautiful cards sent for two cent stamp to cover postage.

A. PORTER
107 Clinton St., Chicago
Dept. '635.

ASTHMA CURED TO STAY CURED.

No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease.

FREE TEST TREATMENT

Including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.** Dept. N, American Express Building, Chicago.

Paper-bag Cookery.

During the past months the method of soaking food in paper bags has been much talked of. There are so many points in its favor that every woman interested in setting a good table at as low a cost as possible will be glad to learn of this way of cooking.

The bags come in assorted sizes and are especially prepared for the purpose of cooking food, being made of strong, waterproof, odorless material. Meats, potatoes and many other vegetables can be better cooked in this way than by the old method. In the main, the directions for using the bags are to prepare the food exactly as for cooking in the ordinary manner, using this precaution, however: Nothing in the way of juices, flavors or seasonings is lost in paper-bag cookery, so be a little sparing at first in the use of salt, pepper, sugar, or any sort of seasoning. After a few experiments on your own part you will understand exactly how to temper the seasoning. When the food is ready for the oven (all paper-bag cooking must be done in the oven) grease the inside of a bag which is the right size to contain the food. Have the bag a rather close fit, as this gives the best results in the finished product and also does away with a tendency for the unfilled portions of the bag to harden and crumble away; where the food touches the bag, the latter is kept moist and pliable. Have the bag right side up to receive the food; that is, with the seam on the top side. Then fold over the open edges of the bag several thicknesses and fasten them with a pin or a wire clip. Slip the bag into the oven, which should be at a sufficiently high temperature to slightly brown the corners of the bag within a couple of minutes. But after cooking at this temperature for about ten minutes, lower the heat about one-sixth. After you have experimented enough to know how to use your oven in this manner of cooking, there is no need of looking at the food from the time it is put into the oven until it is time to take it out. It should be cooked according to the usual scheduled time for cooking the dish. And if, perchance, the food should stay in the oven ten or fifteen minutes longer than the scheduled time, it will not be spoiled in the least. When taking from the oven, slip the bag upon the platter or dish which is to bear it to the table, split the bag across the top and remove the fragments of paper.

I am giving two recipes for food cooked in paper bags:

Roast chicken.—Select a young roasting fowl, clean and wash it, then fill with a dressing made from stale bread which has been soaked in water until soft, then squeezed almost dry and mixed with a beaten egg, the chopped liver of the chicken, one tablespoonful of lard, pepper, salt, and either sage or onion for seasoning. Sew up the chicken and rub a little butter and some pepper and salt over it, slip it into a buttered paper bag, seal the bag and put into the oven to cook the required time.

Baked apples.—Select firm cooking apples, wash and core them, then fill the opening left by the removal of the core with sugar, a few drops of water and a dab of jelly. Put into the buttered or greased bag, seal the bag, slip it into the oven and cook for twenty to twenty-five minutes.—Janet Thomas Van Osdel.

Winter Birds.

There is no more fascinating or more helpful study for the entire family than the birds of your own farm. And they have so great an economic value that it is really good business as well as good mental discipline to get acquainted with them.

Popular notions to the contrary, winter is really the most opportune time to begin a study of their habits. There are fewer forms to confuse the amateur, and the leafless branches render their coming and going more readily seen. Besides, they are more inclined to be friendly at this season, especially if you preface your advances at familiarity with a few crumbs or stray bits of grain.

Commence with the species which is nearest at hand, and though you may fancy it so commonplace that there is little to learn about it, careful study and observation for a few days will reveal many interesting traits. There are habits peculiar to the species and others which may be said to belong to individual birds. And the separating of these becomes another valuable part of the work. The study is of general interest, or can be made so, even baby contributing his share to the fund of knowledge.

The number of winter birds will be found much larger than is usually supposed, some of them frequenting the yard and others being found in sheltered thickets or woodlands. How they subsist is the first question, and it can be answered in two words—seeds and insects. The seeds are largely those of weeds; the insects such as can be found on or inside the bark of our common trees.

There are many wild fruits which cling until devoured by our winged friends. And the thicket of black haw may prove a delightful retreat. In taking up the study, it may be well to select some well-known family, like the woodpecker, and note the traits of various species at the same time.—Bessie L. Putnam.

Illinois raised a corn crop of 365,504,000 bushels in 1911, which is 58,000,000 bushels more than was raised in any other state.

Sister Woman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send you, your daughter, your sister, your mother, or any ailing friend, a full 50-cent box of Balm of Figs Compound absolutely free. It is a remedy for the treatment of woman's ailments, and I want to tell you all about it—just how to use it yourself—right at home without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—let me prove it to you, and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so quickly and surely cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with any form of female weakness or diseases so common to women.

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I will send it to you **absolutely free,** to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to **prove** my faith by sending out these **50-cent boxes** free. So, dear reader, irrespective of your past experience, write to me **at once — today** — and I will send you the treatment **entirely free** by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the **very best test** of anything is a **personal trial** of it, and I know a 50-cent box of Balm of Figs Comcound will **convince you** of its merits. Nothing is **so convincing** as the **actual test** of the article itself. Will **you** give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a **50-cent box of this remedy absolutely free.** Address,

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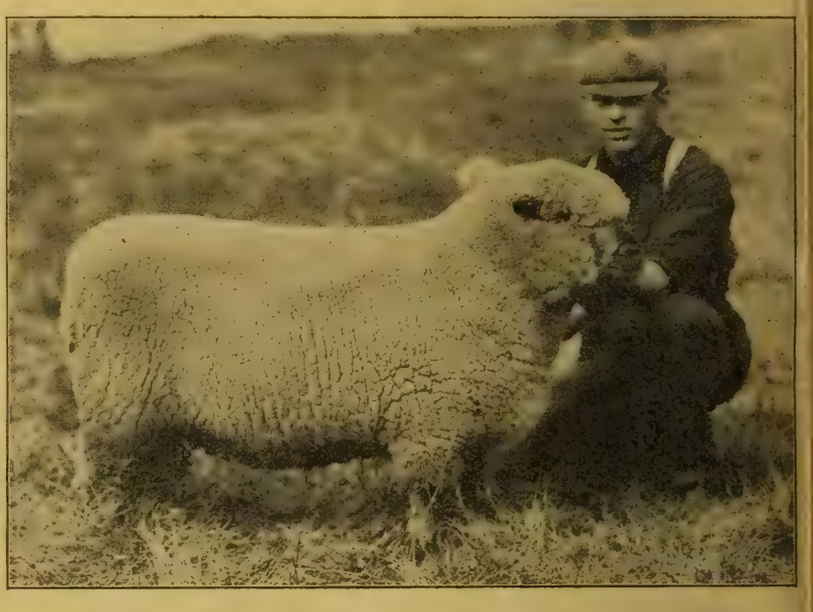

CHAMPION OXFORD DOWN RAM at Indiana, New York and Michigan State Fairs of the year 1911. Owned and exhibited by Geo. McKerrow & Son, of Pewaukee, Wis. This is a sample of the sheep pictures collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine,** our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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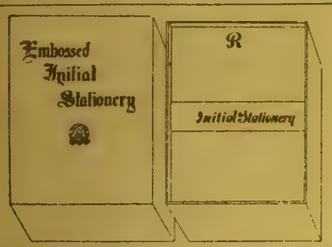

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containing home reading, stories, fashions, patterns and poetry — a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the Universal Magazine for two years, and they can select their own initial for the stationery, and we will send it as a free premium, postpaid. Money refunded if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Washable Hangings and Ceverings.

For daintiness and serviceableness there is nothing that can come up to the pretty cretonnes and chintzes which can be had in almost any desirable pattern and color. They are washable, which makes them so practical for bedrooms and even for living rooms. It is so often necessary in homes of limited means to put discarded furniture into the bedrooms, something that was once good enough, perhaps, for the parlor, but because of shabbiness or other unfitness has been relegated to a less conspicuous place. Here is where cretonne or chintze can be worked in. Suppose this discarded chair is an upholstered one. Select a cretonne in which the flowers match the wall paper and make a slip-over cover for the old chair. This can be done by cutting the cover after the outlines of the chair; finish off with a flounce around the bottom. This gives a chair which is a real addition to the comfort and appearance of the room; the covering is washable and can be removed at any time. Now, to carry the idea out a little farther, make a bedspread with a valance of the same kind of goods as was used for the chair cover; put a valance across the top of the windows and also inside curtains, using either the same cretonne or white material bordered with a strip of the goods. If there is a good dresser in the room, make a dresser cover of white and border it with a strip of the cretonne; if there is no dresser, make a dressing table by taking a discarded kitchen table or even a box will do, and making a hanging of cretonne to go all around the edge. This will completely hide the legs of the table or the sides of the box; an extra valance a few inches wide running around the top of the other hanging will give a pretty finish. Cover the top of the table with the same material. Above the dressing table hang a mirror and surmount it with a valance of the cretonne. Perhaps the best way to attach the valance to the mirror is to first tack the half of a barrel hoop to the top of the mirror and then attach the valance to the hoop. A finishing touch will be several sofa cushions, if there is place for them, made of the cretonne or of harmonizing plain materials bordered with strips of the cretonne. —Janet Thomas Van Osdel.

How the Nervous Child May Be Helped.

Some children are born nervous and some are made nervous by their manner of living. But whatever the cause of this condition, it can be relieved to a great extent by the mothers themselves. Nervous children, more than any others, require a simple, nutritious diet, something that will give the most nourishment with the least expenditure of energy on the part of the digestive organs of the child. Candy, rich pastries and heavy foods of all sorts should be avoided. The child should not be allowed to eat at any and all times between meals. There are times when undoubtedly he needs food between the regular meals of the day, but he does not need it if he insists that it be cake, pie or candy, and refuses a glass of milk or a slice of whole wheat bread and butter.

Pure air, in abundant quantities, both day and night, is what a nervous child needs. There is no place better than the farm for the child with such trouble, and the mother should see to it that he spends a large part of the day out of doors, both summer and winter. There is always danger that the naturally delicate child will be coddled, and this so often means that when the first cool weather comes he is kept indoors. As the days grow chill, he should be dressed a little warmer, but be sent out to play every day; by the time the really cold weather comes he will be so hardened to it that he will want to be out of doors every day, just as in summer. Ten to one, he will not have a cold all winter. The healthiest youngsters I ever knew were five children who were out every day in the year, rain or shine, hot or cold. As the cool weather came on these five began to grow in bulk by reason of their additional clothing, and by the middle of winter they were as round as barrels. I remember that the least of these was so very small that his additional clothing made him almost round, and it sometimes seemed easier for him to roll than to walk.

The mother must not suggest to her child that he is nervous. Any mention of his condition tends but to accentuate it. Also, she must not make him any more nervous by any nervousness of her own. So often nervous children are the offspring of nervous parents, and if it is the mother who is thus disposed, her task will be doubly hard; but self-control which she must exert for the sake of her child will result in the greatest good to herself. I have seen a mother, herself all aquiver with nerves, shriek out to a restless little one: "Oh, you make me so nervous, Bessie! Do sit still!" Of course, the tone and manner serve only to increase the restlessness of Bessie, but the mother thinks she has done her best to quiet the child. If instead she had said in a calm tone: "Shall we see how still we can be for five minutes, Bessie?" or, "Wouldn't you like to sit down and look at the pictures in this book, dear?" Bessie would have yielded immediately and settled down to some quiet occupation without any nerve strain on either mother or child.

Another woman I know fusses at her child. Perhaps she is straightening the hat or pulling out its ribbons or jerking down its dress or urging it to look at this, that or the other thing. Thus the child is kept constantly on the alert and loses what little natural repose it may have. If left a large part of the time to its own amusement it would become more resourceful and gain a poise that it can never have if constantly in the company of a fussy mother.—Janet Thomas Van Osdel.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions**, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

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Put a Rivet in Your Future

Go into business for yourself and insure your own success and comfort. Here are some fresh instances showing how to succeed on small investments. The facts given are substantiated by our agricultural commissioner, Mr. L. A. Markham, formerly with the United States Government as an expert on agriculture:

THE Oakland Fruit Company has 18 acres in Elberta peaches four miles east of Van Buren, Arkansas. Last year that 18 acres yielded 6,000 crates of peaches. Those peaches sold for $6,000. Mr. G. A. Howell, of Van Buren, Arkansas, had 3½ acres in cantaloupes last year. The yield was 472 crates. The 472 crates sold for $603.32. Then he followed the cantaloupes on 1½ acres with beans. The beans sold for $85. Total income from 3½ acres, $688.32.

Mr. J. G. Nordin, of Russellville, decided to plant 2 acres in Nancy Halls. Nancy Halls are a particularly luscious and succulent variety of sweet potatoes. He got 1140 bushels and sold them for $1 per bushel. That's his sworn statement. Now, what do you say? These instances are exceptional? Yes, they are, but surely you could do one-fourth as well. Then, how would you like to raise peaches at $83 per acre, cantaloupes at $50, and sweet potatoes at $142?

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Our Immigration Agent will help you find the right place and our Agricultural Commissioner will help you get right results. It's "your move" now. Send for our booklets and folders, "Eastern Colorado," "Western Kansas," "Arkansas Homebuilder" or "Louisiana Lands." They are free.

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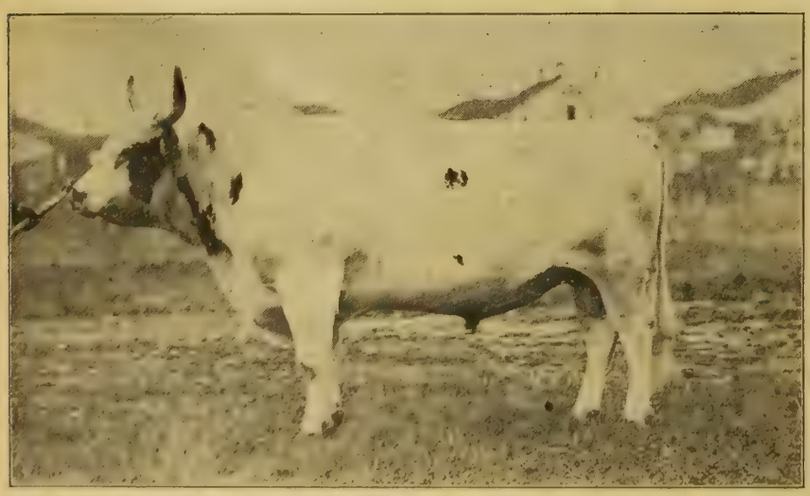

BARGENOCK GAY CAVALIER, 11,981—Ayrshire bull. Senior and grand champion of the breed at the State Fair of Minnesota; also at Wisconsin, Illinois and other Shows and Expositions. Exhibited by Adam Seitz, Waukesha, Wis. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

Saving in the Kitchen.

A nice way to use up the scraps of bread that are not eaten at meals is to cut the pieces into small squares and brown them in the oven; then they can be put away carefully and they are ready to use in soup, and many prefer them to crackers.

It is a good plan to save all the broken dishes that are worth mending and mend them all at once, and the white of an egg and flour makes a good cement, and melted alum is another, but the best cement is made of Plaster of Paris and a thick solution of gum arabic. Small holes in tinware may be mended with putty, and another good cement for tinware and stone jars is made by mixing together litharge and glycerine to the consistency of thick cream.

A good way to save all kinds of fat, no matter if it is burned, is to pour it all into a crock, and when you have a gallon or more, put into a large kettle with twice the quantity of water, and when the fat is all dissolved, let it boil for about twenty minutes, then cool it, and when it is all hard, take it off and render it down and pour back into the crock, and you will have a nice lot of pure, clean fat. Waste fat may be utilized in the making of an excellent hard, white soap for household use. Fry it out and strain, then to one-half pound of reliable potash and a little water add three pounds of melted fat and stir for ten minutes, then turn into pans to cool.

It takes less than five minutes to rinse the dish towels out in warm, sudsy water after each meal; then to keep them soft and white without hard rubbing, wash them in the usual way, then boil them in good suds containing plenty of borax, and this should be done at least once a week. After using this borax suds for boiling the towels it can be used for cleansing the kitchen table or added to the water for scrubbing the floor, as there is nothing better for whitening wood than strong, hot borax suds, or it can be used for cleaning the kitchen utensils that have become dark or discolored by filling with the suds and allowing it to boil until they are thoroughly clean.

After cleaning and whitening the biscuit board with the borax suds you can keep it clean a long time and save scrubbing by using a large piece of heavy, brown wrapping paper for rolling pie crust or molding light bread upon instead of the biscuit board.—Martha.

Books For Special Buying.

See page 15 and indicate on the coupon which of the thirty-two special books you need. This refers to the advertisement of Montgomery Ward & Co. You can send the coupon to their house at Chicago or Kansas City, whichever is nearest to your home. Absolute satisfaction for the buyer is the rule with this house.

Don't forget to read about the Indian Runner Ducks advertised by W. M. Sawyer, of Lancaster, Mo. He is one of the leaders in Missouri in this line.

Sewing Machine $1.00 a Month.

The Sheffield Sewing Machine is sold on the most reasonable terms. No farmer's wife or daughter ought to be without one. Address, Sheffield Manufacturing Company, 1421 Olive street, St. Louis, Mo.

Roasting pigs shipped in to the St. Louis market during Thanksgiving week brought $1.00 to $1.75 per head, and this refers to pigs of twenty to thirty pounds weight.

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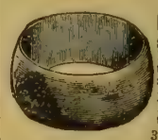

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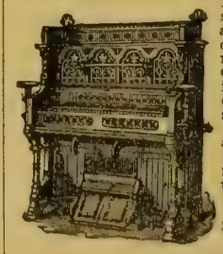

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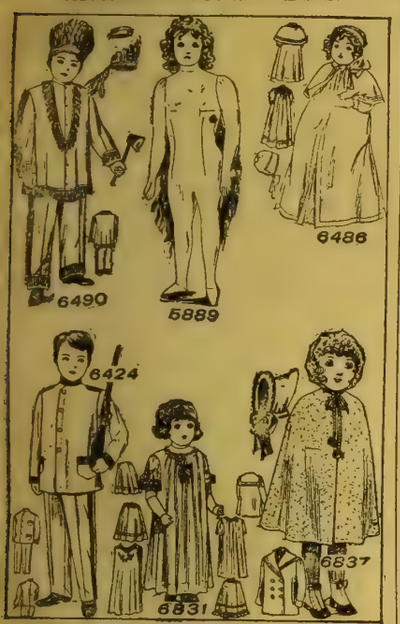

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No. 7209.—Kimono For Misses and Small Women. Fourteen, sixteen and eighteen years. Perforated for shorter length, with elbow or three-quarter sleeves.

No. 7205.—Six-gored Skirt. 22 to 32 waist, with plaited extension at front and back, with high or natural waist line, with front and back gores that form panels.

No. 7193.—Work Apron With Body and Sleeves in One. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust.

FANCY APRONS.

No. 6480.—Fancy Aprons. One size.

No. 6164.—Fancy Apron. One size.

No. 6563.—Circular and Fancy Work Aprons. One size.

No. 6158.—Princess Aprons. Small, 32 or 34; medium, 36 or 38; large, 40 or 42 bust.

No. 6148.—Fancy Apron. One size.

No. 6477.—Collapsible Sewing Basket. One size.

No. 6484.—Tea Cosey With Adjustable Cover. One size.

LADIES' MUSLIN AND CHILDREN'S ATTIRE.

No. 7188.—One-piece Blouse. 34 to 44 bust, with fancy or plain collar, that can be cut with round or square back, with elbow sleeves and undersleeves or long sleeves gathered into bands.

No. 7201.—Shirt Waist For Misses and Small Women. Fourteen, sixteen and eighteen years. With neck band or collar.

No. 7194.—Semi-Princess Gown. 34 to 42 bust, with five-gored skirt, with three-quarter sleeves, with pointed or round collar.

No. 7187.—Six-gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With high or natural waist line, with or without separate panels that can be perforated for shorter length.

No. 7189.—Boy's Russian Suit. Two to six years.

PRETTY MODELS.

No. 7190.—Tucked Blouse or Shirt Waist. 34 to 44 bust.

No. 7195.—Overblouse. 34 to 42 bust. To be worn over any blouse or guimpe, with or without frill, with high or natural waist line.

No. 7212.—Semi-Princess Gown. 34 to 44 bust, in walking or round length, with elbow or long sleeves, with or without collar.

No. 7199.—Two-piece Skirt With Front Panel. 22 to 30 waist, with inverted plaits or habit back, with high or natural waist line.

FREE TO YOU—MY SISTER

Free to You and Every Sister Suffering from Woman's Ailments.

I am a woman.
I know woman's sufferings.
I have found the cure.

I will mail, free of any charge, my home treatment with full instructions to any sufferer from woman's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourselves at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is safe and sure cure for Leucorrhoea or Whitish discharges, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors, or Growths; also pains in head, back and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney, and bladder troubles where caused by weaknesses peculiar to our sex.

I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that, it will cost you nothing to give the treatment a complete trial: and if you wish to continue, it will cost you only about 12 cents a week or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all old or young. To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in young Ladies, Plumpness and health always results from its use.

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On November 30th, New York wholesale butter prices were as follows: Creamery—Specials, 37½c.; extras, 36¼c.; firsts, 33 to 35c.; seconds, 30 to 32c.; thirds, 27 to 28c. Creamery held—Specials, 34c.; extras, 32 to 33c.; firsts, 29½ to 31c. State dairy, common to fair, 23 to 28c. Process—Specials, 26 to 26½c.; extras, 25c.

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This elegant desk is a splendid subscription premium for club raisers. It is Golden Oak. The height is 41 inches, width 26½ inches, and in the shipping crate the weight is 52 pounds. It is packed in sections but easily put together. The interior has two pigeonholes and two compartments. The picture is an exact reproduction of the desk. Anyone who desires to do so can earn one of these desks by taking a few subscriptions for our own publications, the Universal Magazine and The National Farmer and Stock Grower. For particulars address **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Whenever you see an Arrow think of Coca-Cola.

CHRISTMAS BELLS.

I heard the bells on Christmas Day
Their old familiar carols play.
And wild and sweet
The words repeat
Of peace on earth, good will to men!

And thought as how the day had come
The belfries of all Christendom
Had rolled along
The unbroken song
Of peace on earth, good will to men!

Till ringing, singing on its way,
The world revolved from night to day.
A voice, a chime,
A chant sublime,
Of peace on earth, good will to men!

Then from each black, accursed mouth
The cannon thundered in the South.
And with the sound
The carols drowned
Of peace on earth, good will to men!

It was as if an earthquake rent
The hearthstones of a continent.
And made forlorn
The households born
Of peace on earth, good will to men.

And in despair I bowed my head,
"There is no peace on earth," I said.
For hate is strong,
And mocks the song
Of peace on earth, good will to men!

Then pealed the bells more loud and deep;
God is not dead, nor doth He sleep!
The wrong shall fail,
The right prevail,
With peace on earth, good will to men!
—Henry W. Longfellow.

DEVELOPING.

Strange to think that in the darkness of this little, silent room,
Where the lantern's steady crimson gleams a red eye—in the gloom,
I can watch imprisoned sunbeams weaving pictures in their loom.

Just one flash of Time's swift shuttle so!—that made them! There they creep
Slowly out upon the plate here, as a dream creeps out on sleep
When the awakening soul remembers long-lost thoughts from out the deep.

There they come then, streets and cities, fields and orchards far away—
I can almost smell the blossom, hear the children there at play—
I alone thus vainly watching the rebirth of yesterday.

So sometimes, when I am weary, out upon my mind's blank plate
Creep slow pictures that were graved there long ago by careless Fate,
Hidden deep in Memory's dark-room they like buried sunbeams wait—

Strang old pictures, long forgotten, left unrecked of in my brain,
Till comes Memory with her lantern, pours some scent, some old refrain,
Like a liquid spell upon them, and, behold, all's clear again!
—Isabel W. Hutchison, in Chambers' Journal.

WATCHING THE SHEEP.

We stood and watched the foolish sheep
As from the field they sped,
Each one intent that it should keep
Behind the one ahead.
"How silly!" cried the lady fair,
"'Tis comical indeed
To see them running everywhere
With one sheep in the lead."

(And she, as I told brother Mike
With a sarcastic smile,
She and the rest wore clothes alike
And hats all of one style.)
We stood and watched the sheep again
Until one nervous sheep
Dashed for the fence, and, there and then,
Went o'er it with a leap.

Behind it in an ordered line
The flock jumped one by one.
"The fools"—this wise remark was mine—
"Ape what they have seen done."
(And brother Mike and all the men,
As I observed to him,
Wore clothes that were called stylish then,
And hats alike in brim.)

And as we left we saw the sheep
Once more leap o'er the wall,
Behind its leader each would leap,
Behind it it would fall.
"Dumb, silly things," we all agreed,
As on our way we turned,
"For sheep there is a lot, indeed,
That they have never learned."

(But most of us do things alike,
As like as like can be—
As I observed to brother Mike
And Mike observed to me!)
—Chicago Evening Post.

THE COMRADE.

Be thou young, I will romp with thee,
Sun up, sun high, sun down, stars;
Be thou old, I will lean with thee,
Cackling over the cattle bars.

Be thou sad, I will weep with thee;
Tears are water, and, mingled, dry.
Be thou glad, I will laugh with thee,
Mirth is maddest when two are by.

Be thou lone, I will come to thee;
Twining hearts make dearth of woe.
Be thou ill, I will sit by thee,
And bid the devil quickly go.

Be thou living, I'll live with thee,
Strong in waking and warm in sleep.
Be thou dead, I will lie with thee
Under the cedars, cold and deep.
—Richard Wightman, in the Century.

HARMONIOUS DISCORD.

My wife and I, we disagree
On every mortal matter;
The Sprats, 'tis said, were odd; but we
Are infinitely spratter.

Of fifty Aprils she's the sum,
Sunshine and showers together.
While fifty-three Novembers come
In me to sober weather.

I love the daily round of life,
Its rare occasions please her;
I flouted Christmas, and my wife
Thought it was done to tease her.

Her fitting throne an easy chair,
Her joy a motor car is;
For me a stool, or Shank's mare,
A better mount by far is.

Words are my study, life is hers;
We go to different teachers;
I learn from books; while she prefers
To learn from living creatures.

Yet (though you'd say words had their use
In speech, as legs in walking),
A sentence rarely I produce,
And she does all the talking.

If hovering wasps assail our board,
I'm in a fearful bustle;
She sits and shames her craven lord
By moving ne'er a muscle.

Then let an earwig come but near,
Or woodlouse pink and tender,
Her courage all dissolves in fear;
'Tis I that must defend her.

Our looks no less than tastes you'll find
Alike antipodean;
She's of the tall and stately kind,
I stumpy and plebeian.

A natural perruque she grows
Of silver curls, well ordered;
With narrow fringe that sparsely shows
My naked noodle's bordered.

A crowning discord only can
Solve discords so inhuman;
She says the world to her's one man,
To me it is one woman.
—Westminster Gazette.

THE RAZORBACK "COME BACK."

Can he come back? has been the cry
That we have heard on every hand.
Some once affirmed, now all deny,
It's settled in this Yankee land—
"You can't come back," the people say;
You're doomed forever and a day."

This is a rule that none gainsay,
And yet we've overlooked a bet,
A gent "came back" the other day—
Yes, there came back an old-time "vet."
He's back; he's back. You say who's back?
The answer is: "The razorback."

The razorback, the one-time pet
Of our ancestors in the woods;
The only pork our daddies "et,"
And thought it surely was the goods—
The razorback from "Rackensack"
He has come back; he has come back.

For on the market page we read
That ounce for ounce and pound for pound,
He brings as much as do the breed
Of round, fat hogs in Kansas found.
The "razor" beats those Kansas fats,
There's breakfast bacon on his slats.

Corn belt prosperity has spoiled
With too much fat the bacon zone—
While into lard he must be boiled,
The lean hog comes into his own,
And on the rich man's table now
The razorback has made his bow.

Thus history itself repeats,
The scoffed at "razor," down and out,
Comes back and is the king of meats,
And puts the "dopesters" all to rout,
And rising from his lowly station,
Becomes the lard of all creation.

He's long and lanky as a rail,
Mere leanness fastened to a spine;
But frora his wolf ears to his tail
He's breakfast bacon, and he's fine—
For he's all back, so he came back,
That's how the razorback came back.
—C. L. Edson, in Kansas City Star.

For Lovers of Flowers.

Park's Floral Magazine is the oldest and best floral monthly in the world. Forty-first year. Illustrated. Bright as a Marigold and published at 25 cents a year.

The **Universal Magazine** is a bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money; also published at 25 cents a year.

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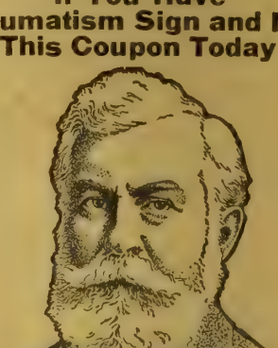

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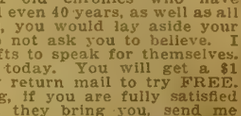

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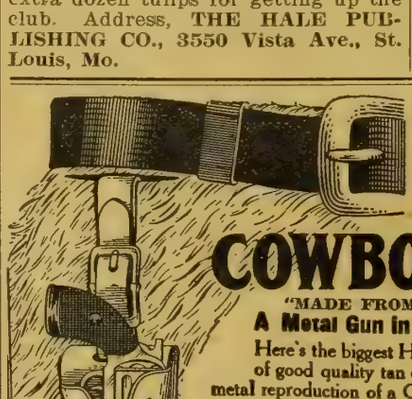

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EXTRA PRIZE An extra prize for all little girls who write promptly. You want to get the EXTRA PRIZE sure. Not one cent of your money is required, so write today.

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Send No Money—

Just Your Name & Address—A Postal Card Will Do. I don't want any money. All you have to do is to write me for my GREAT FREE OFFER and say you want a Mama and Papa Talking Doll. NOT ONE CENT OF YOUR MONEY is REQUIRED. Write at once.

UP-TO-DATE
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SELECTED POETRY.

AT HAMMOCK-BY-THE-TREE.

Some go to Hillcrest-by-the-Pool,
Some go to Glenview-by-the-Lake,
In search of somewhere that is cool,
And there they stew and fret and bake.
I have a quiet summer place
That's not like Sandhill-by-the-Sea—
Across the lawn my path I trace
And stop at Hammock-by-the-Tree.

At this resort one is surprised
To find that all the prospects please;
Home comforts, just as advertised,
And constantly a cooling breeze;
There one may look up at the sky
That is as blue as any sea
And count the cloudships sailing by—
It's fine at Hammock-by-the-Tree.

No pert-mouthed children flounce about,
No gossips sit in rocking chairs,
No bellboys clatter in and out,
No gay grass widows put on airs.
There is no rush to be the first
To reach the tables during meals,
No orchestra may do its worst
With shrieking flutes and fiddle squeals.

And there nobody rocks the boat,
But one may sail the Sea o' Dreams,
And all contentedly may float
Adown the babbling fancy streams;
There is no land in all the earth
That in this spot one may not roam;
He may have all the day is worth
And safely make the port of home.

My baggage is a pipe and book
And there I travel every day;
I find the quiet little nook
Where laughing breezes come to play.
It is the corner of content,
A place that has a charm for me—
There my vacation will be spent;
I'll stop at Hammock-by-the-Tree.
—Chicago Post.

SOMETIME.

Sometime we're going to do a kindly deed,
Or speak a helpful word to some lone heart;
Sometime we're going to plant the living seed
In soil where it will thrive and do its part.
Sometime we'll stoop to help a wearied soul
Which staggers underneath a heavy load;
Sometime we'll pause while rushing toward the goal
To aid a brother on the rocky road.

Sometime glad eyes will speak the love they bear,
Because of favors which were ours to show;
Sometime in Life's long day, we'll gladly share
The little blessings which are ours to know;
Sometime we're going to stop the ceaseless grind—
This everlasting hurry-life we live,
And be more loving, tender, true and kind,
More thoughtful and more ready to forgive.

Sometime we'll cease to fret at little cares,
And put away our foolish, timid fears;
We will not look for pitfalls or for snares,
We'll speak no gossip for our neighbor's ears;
Sometime we'll only see the good in men,
Be blind to all the worthless and the bad,
And recollect our own weak faults, and then
Just strive to make the whole world bright and glad.
—E. A. Brininstool, in Los Angeles Express.

THE VILLAGE BLACKSMITH.

Under a spreading chestnut tree
The village smithy stands;
The smith, a mighty man is he,
With large and sinewy hands;
And the muscles of his brawny arms
Are strong as iron bands.

His hair is crisp, and black, and long,
His face is like the tan;
His brow is wet with honest sweat,
He earns whate'er he can,
And looks the whole world in the face,
For he owes not any man.

Week in, week out, from morn to night,
You can hear his bellows blow;
You can hear him swing his heavy sledge,
With a measured beat and slow,
Like a sexton ringing the village bell,
When the evening sun is low.

And children coming home from school
Look in at the open door;
They love to see the flaming forge,
And hear the bellows roar,
And catch the burning sparks that fly
Like chaff from a thrashing floor.

He goes on Sunday to the church,
And sits among his boys;
He hears the parson pray and preach,
He hears his daughter's voice,
Singing in the village choir,
And it makes his heart rejoice.

It sounds to him like her mother's voice,
Singing in Paradise!
He needs must think of her once more,
How in the grave she lies;
And with his hard, rough hand he wipes
A tear out of his eyes.

Toiling—rejoicing—sorrowing,
Onward through life he goes;
Each morning sees some task begin,
Each evening sees it close;
Something attempted, something done,
Has earned a night's repose.

Thanks, thanks to thee, my worthy friend,
For the lesson thou hast taught!
Thus at the flaming forge of life
Our fortunes must be wrought;
Thus on its sounding anvil shaped
Each burning deed and thought.
—Longfellow.

GOBBLE, GOBBLE, GOBBLE!

A turkey perching in a tree
Turned round and looked right down at me,
And all the words he said were three—
Gobble, gobble, gobble!

I got that turkey in a shed;
Some yellow corn before him spread;
The same three words to him I said—
Gobble, gobble, gobble!

When he had gained about ten pound
And was fat, juicy, sleek and round,
Again he turned and made the sound—
Gobble, gobble, gobble!

"All right," said I, "I'll gobble you,
Invite my friends to help me, too.
What you request, dear sir, we'll do—
Gobble, gobble, gobble!"

There at the table to each guest
I read that turkey's last request.
They then proceeded with great zest
To gobble, gobble, gobble!

They made of him a perfect wreck;
They stuffed themselves full to the neck;
They gobble, gobble, gobbled,
Till they wabble, wabble, wabbled.
—C.M.Barnitz, in Petaluma Poultry Journal.

THESE COMMON SAYINGS.

These common sayings make me laugh,
For they are never true by half;
These foolish sayings, which each day
The common run of people say.

"'Im frozen stiff," we've often heard;
If true, they couldn't say a word;
"I'm all broken up," a man will say;
Yet tend to business every day.

"The wind blew through me," mind you, through!
How queer they'd look if it were true.
"She dropped her eyes," would not that be
A very sad calamity?

"I'm busted," a financial break,
A hundred times you've heard men make.
"I caught the train." You did? Well, well!
What did you catch it with, pray tell?

"She cut me dead the other day,"
You've often heard some fellow say.
Worse still, you've heard some one aver,
"She's stuck on him," or "he on her."

"I never slept a wink last night,"
Is an exaggeration quite.
"The rain came down in bucketfuls"
Is but another of the bulls.

And so they go from day to day,
These foolish things that people say.
To get them all in print, I think,
Would take a barrel full of ink.
—Joe Cone.

WHAT MARY DONE.

Mary had the queerest taste!
Just despised the military,
Gave her heart, her hand and waist
To a young apothecary,
Just a common, ordinary,
Pill-compounding, bumptious, bounding,
Fat and sassy, sassafrassy,
Smirking sonvergun.
When he smirked his smirks at Mary,
That's what Mary done.

Mary thought him such a dear;
We just thought it temporary,
Till at last it seemed quite clear
Her affection wouldn't vary.
Yes, she loved that smart and airy,
Puffed-up, placid, boric acid,
Seltzer-bromo genus homo,
Sneering, leering one.
When he leered his leers at Mary,
That's what Mary done.

He skipped out, the low-down trash!
She, so simple and unwary,
Sent him fifteen dollars cash
At his call epistolary.
Yes, the mean and mercenary
Drugs and notions, cream and lotions,
Small, cocaine, pop-eyed zany,
Out of town he skun,
Never did come back to Mary,
That is what he done.
—St. Louis Star.

Teach Children the Personal Equation.

In school life as at no other time it is necessary to warn the child of the danger from disease through too close associations with fellow-mates. Children are naturally affectionate and trusting, and while it is unwise farther than absolutely to break this bond, the safeguards against evils require that at least hints be given.

Seat-mates are especially in danger, even among the best of families. And where at least one comes from the poorer classes this may be increased. There are still districts in which the practice of using the same comb or exchanging hats brings trouble. When this comes, it is well to know that kerosene is an effective agent.

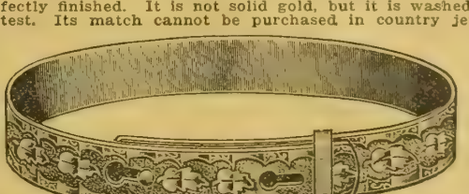
But it is against disease that the greatest warning should be sounded. Instill from the beginning that the pencil was made to mark with, never to be placed in the mouth. Statistics show that contagion in the public school is largely through this source, even where pencils are furnished to each pupil. They are taken up at the close of the day and redistributed the next morning, dainty little Miss Trim perhaps getting the one which Mike O'Harin had been chewing the day before while doing his hard sum; or it may be he had only moistened the lead, as so many get the habit of doing, to obtain a blacker mark.

Teach the little one to avoid breathing into the face of another or receiving such breath; to avoid those who have the habit of spitting. Neatness in person and a general avoidance of those who are the reverse count for sanitation as well as good breeding. — Bessie L. Putnam.

Uneeda Biscuit
In Select Company
It's the very nature of a soda cracker to absorb moisture and foreign odors.
That's why the ordinary soda cracker remained so long in obscurity.
The advent of Uneeda Biscuit and the moisture-proof and odor-repelling package changed all this—for Uneeda Biscuit, the perfect soda cracker, keeps select company —its own.
To-day the goodness, the freshness and body-building virtues of Uneeda Biscuit are acclaimed in tenement and mansion.
Never Sold in Bulk
5¢
In the moisture-proof package
NATIONAL BISCUIT COMPANY

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



Universal Magazine Bracelet.

Illinois Housekeepers' School.

We have received notice from Isabel Bevier, head of the Department of Household Science at the University of Illinois at Urbana, that they were making plans for the Annual School for Housekeepers to be held January 15th to 27th, 1912, in the north wing of the Woman's Building. At the time the notice was sent out the program had not been issued, but by the time this paper reaches the hands of our readers those who are interested will be furnished a copy by writing for it. Address, Chief of Household Science, University of Illinois, Urbana, Ill.

Concerning Silo Patents.

The Iowa Agricultural Experiment Station at Ames, Iowa, has set out on a nation-wide hunt for a home-made round silo built in 1898 or earlier and incorporating some of the essential features of the patented structure of to-day. H. L. King, Agricultural Engineering Experimentalist of the Station, has offered a reward of $50 for the first definite information about just such a silo. He expects also to make a trip to several of the older dairying districts of the United States for a personal search for pioneer silos.

Back of this unusual hunt is the claim of the wooden silo manufacturers that American farmers cannot build round silos of any type or material without first paying tribute to them in license fees. They claim a patent monopoly and they have organized themselves to enforce it. In the past summer of extensive silo building they sent out thousands of letters warning farmers who were putting up home-made silos and threatening suit for infringement.

This claim of a silo monopoly concerns the Iowa Station because two of its experimenters, Prof. J. B. Davidson and H. L. King, designed a successful hollow tile silo three years ago which they dedicated to the American farmer and his free use. This silo has been made the special object of attack in Iowa, where nearly a thousand are in use. Letters warning farmers building these silos have been sent out and intimations of damage suits have been frequent. Whenever appealed to the Station has taken the new stand that it is doubtful if the manufacturers really have a monopoly, as they claim, on wooden silo building.

"We have good reason to believe," says Mr. King, "that the special features of wooden silos for which patents are claimed were used in some of the silos built prior to the date of the patents, June, 1899. Those features are the continuous door, reinforced door jambs, door jamb braces and devices for holding the doors in place. Round wooden silos were in use long before 1899. We want additional information about them. For the first information received about such a silo containing some of these mentioned features, $50 will be paid, if it is sent to the Iowa Agricultural Experiment Station, Ames, Iowa.

"The Iowa Station is not setting out to fight anybody. It merely wants to make certain about these disputed points and to protect the farmers in Iowa and in every state in what it considers their right to build round silos of brick, tile or masonry, and possibly of wood also."

The Market For Oats.

On November 30th, at St. Louis, cash oats sold at 50½ cents a bushel, against 33½ cents the same day last year. Since then on closing days of the month oats sold: February at 30 cents; March, 31 cents; April, 32½ cents; May, 34 cents; June, 44 cents; July, 39½ cents; August, 43½ cents; September, 46½ cents; October, 46½ cents; and November, 50½ cents.

At Chicago, the December option for oats was quoted June 30th at 46⅛ cents a bushel; August 31st, at 46 cents; and November 29th, at 47⅛ cents. The December oats option was closed out last year at 31⅛ cents; and the year before at 43⅝ cents.

As with other grains, the May option is the most important with oats. On July 31st of the present year the May option of 1912 was quoted at 46 cents; August 31st, at 48⅞ cents; September 30th, at 50¼ cents; October 31st, at 49 cents; and on the closing day of November the May oats option was quoted at 49⅝ cents, and the July option at 46¼ cents a bushel.

We are inclined to believe that with active business conditions oats consumers could stand 55 to 60 cents a bushel, but we are informed that general business is not what it ought to be, and yet sometimes it appears that there are not enough oats to go round, no matter what the price may be.

A reference to the daily oats quotation will be a good idea after our patrons have read this review of the oats trade.

Late St. Louis onion prices: Red Globe, 75c. to $1.20 per bushel; Yellow Globe, $1.00 to $1.10; sacked White Globe, $1.90 for fancy.

Don't Wear a Truss!

Brooks' New Scientific Appliance--Adjustable to Any Size Person--Easy, Comfortable, Affording Instant Relief--Made for Men, Women and Children.

SENT ON TRIAL.

No risk in ordering--Money will be refunded if not satisfied.

After thirty years' experience in curing rupture, I have invented an Appliance which will absolutely hold the rupture and never slip, yet is light, cool and comfortable. It conforms to every movement of the body without chafing or hurting, and costs less than many common trusses. There are no springs or hard, lumpy pads, and yet it holds the rupture safely and firmly without pain or inconvenience. I make it to your measure, and send it to you on a **strict guarantee of satisfaction or money refunded**, and I have put my price so low that anybody, rich or poor, can buy it.

DOUBLE RUPTURE CURED.

Lecompton, Kans.,
R. F. D. No. 2, Feb. 7, 1911.

Mr. Brooks.

Dear Sir:—I drop you these few lines to say I am well pleased with your Appliance, as it has effected a permanent cure in my case. I have been ruptured eighteen years. Am now forty-two and wore a great many trusses before I got your Appliance. The ruptures disappeared after wearing the Appliance a few months. Mr. Brooks, I will do all in my power to recommend your Appliance, not only for your benefit, but to help others who suffer from rupture.

Your True Friend,
W. F. BUCHHEIM.

The above is C. E. Brooks, who has been curing rupture for over 30 years. If ruptured, write him today.

"COMPLETELY CURED."

Hebron, Douglas Co., Mo.,
June 12, 1911.

C. E. Brooks.

Dear Sir:—Some time ago I purchased an Appliance from you and am now please to inform you I am not wearing it nor will I ever need it again, for to my great surprise, it has completely cured me. I hardly hoped to be cured at all, but the cure was effected in about seven months. Many thanks for the kind way in which you have treated me.

Yours gratefully,
S. B. LITTELL.

I have received thousands of letters like these from grateful patients the world over. This appliance gives **instant relief**, and effects permanent cures when everything else has failed. Remember, I use no salves, no harness, no lies. Fill out the attached coupon and mail today, and I will send you free my illustrated Book on Rupture and its Cure, showing my Appliance, and giving you the names of many people who have tried it and are now permanently and soundly cured. Remember, I send my appliance **on trial** to prove what I say is true. You are to be the judge. Send free coupon **now**.

C. E. BROOKS,
59 A, Brooks Bldg., Marshall, Mich.

FREE INFORMATION COUPON.

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Marshall, Mich.

Please send me by mail, in plain wrapper, your illustrated book and full information about your Appliance for the cure of rupture.

Name.....

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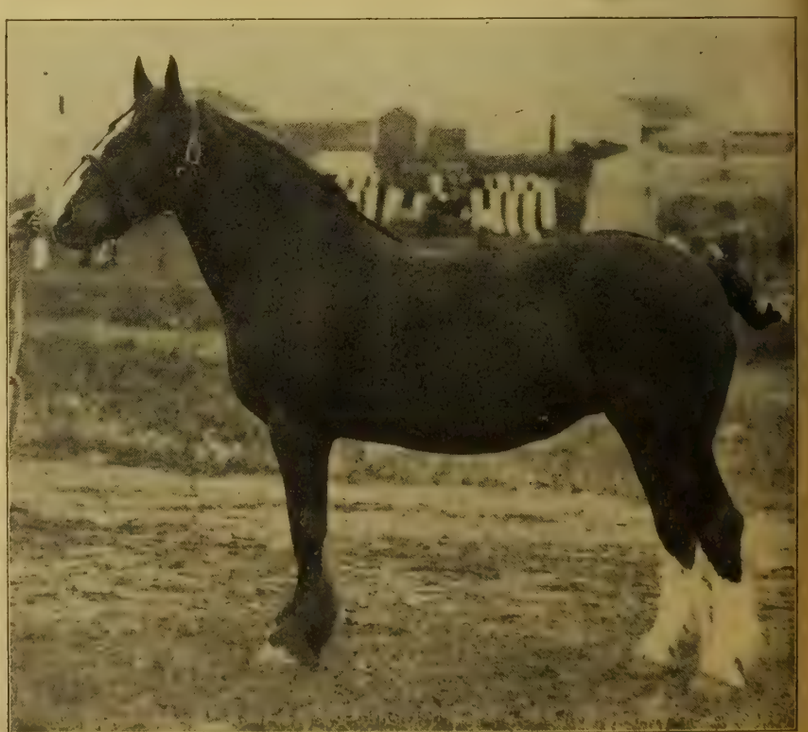

MISS FANNY—Champion Clydesdale mare at the Minnesota State Fair, 1911. Exhibited by McLay Bros., Janesville, Wis. This picture is a sample of those collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

National FARMER

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VICTOR—Grade Angus steer. Grand champion at Chicago International Live Stock Show of 1911. Bred by W. J. Miller, of Newton, Iowa. Fed and exhibited by the Iowa State College. Sold by Clay, Robinson & Co. at 90 cents a pound, weighing 1,610 pounds, bringing $1,449.00. Bought by The Fair at Chicago and slaughtered by Armour & Co., the slaughter record being 69.87 per cent. of dressed meat to carcass. That the price obtained was a remarkable one was reflected in the fact that it was the highest a fat two-year-old steer ever made, and the highest paid at the International Show for any fat steer in eleven years.

GRAND CHAMPION SHEEP AT CHICAGO INTERNATIONAL LIVE STOCK SHOW OF 1911. Sold by Clay, Robinson & Co. at $7.60 per 100 pounds. The average weight was 165 pounds.

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and Stock GROWER

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions for palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The strap passes through the leather tongue and the first ring and over

the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone getting up a club of four subscriptions and sending in $2.40 will be credited with one book and one-year's subscription free.

Bacterial Destruction of Wood.

We speak of wood rotting, but few realize that what we call rotting is the active work of minute growths, the filaments of which strike into and destroy the wood, changing it into other substances than those comprising the natural wood. A good many people think the rotting is caused by moisture, but that is not the truth. Wood entirely immersed in water will not rot. Last year some timbers were dug out of the Rhine river that had been there since the days of Julius Caesar. They were undecayed, though they had been immersed in water for two thousand years. They were reported to be as black as ebony and as hard as mahogany. This is an illustration of the fact that water does not rot wood. Also, out of the swamps of Western Europe have been dug logs that were submerged before written history began. The same is true of many other bodies of water. A diver who has been working in Lake Michigan for twenty years tells the writer that the whole southern part of the lake is shallow, and that in that portion tree trunks are common. Yet the settling of the land in that portion of the country must have been a great many thousand years ago.

The bacteria that destroy wood must have both moisture and air to permit them to work. The farmer drives a fence post and in a few years finds it is rotten just at the surface of the ground. Often the wood-destroying bacteria have not penetrated even to the bottom of the post, especially if it is driven in very wet land. The lesson to be learned is for the farmer that has fence posts to drive to protect them with tar or other substance just at the point where the moisture of the soil comes into contact with the air.

Air and moisture help the development of wood-destroying bacteria. That is why paint should be used on window sills and porches and piazzas oftener than on other parts of the house. Protecting the wood with paint prevents the working of the destructive bacteria. Every year the buildings should be examined to note the places where the rains have greatest effect, and such places should be protected with paint or other protective material.

Many a farm building goes to decay because it is allowed to become leaky and wet places are made that invite the work of the invisible hosts of the fungus family. It therefore pays to keep a roof mended and all other places tight where the moisture would not quickly dry out after a rain.

Vehicles that are allowed to remain where they will be frequently wet after the paint has worn off are sure to go to pieces. If kept in a dry place, these same vehicles would last indefinitely.

Often moisture exists where one does not suppose it to exist and so-called dry rot takes place. But perfectly protected wood will last indefinitely. The protection may be either paint or a good shelter.

Cider Not Intoxicating.

Not much cider is manufactured in Westchester county, New York, for export, nearly all of it being consumed at home. Two Tuckahoe farmers were comparing notes.

"How many barrels have you put up this year, Silas?" said one.

"Only seven, Joel," was the reply.

"Got any handy?"

"Sure thing, Silas," and Joel went into the house, returning soon with some of the apple elixir in a big tin dipper. "There," said he, "try that," and Silas sipped.

"Well, what do you think of it?" Joel inquired.

Silas shook his head dubiously.

"Don't you like it, Silas?" was the anxious inquiry.

E. C. SIMMONS
KEEN KUTTER
TRADE MARK REG. CUTLERY AND TOOLS U.S.PAT.OFF.
No matter what tool you are going to buy, if it bears the name Keen Kutter you have an absolute guarantee of quality. The trade mark is your protection. It means that the tool is better made, contains better tool steel, lasts longer, is more convenient and does better work than ordinary tools.
KEEN KUTTER
Tools for good work
Nearly fifty years of experience are represented in the making of Keen Kutter tools. It is a varied line—Hoes, Spades, Forks, Scythes, Axes, Saws, Hammers, Augers, Wrenches—a tool for every purpose and every one the best of its kind. Our Motto:
"The Recollection of Quality Remains Long After the Price is Forgotten"
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If not at your dealer's, write us. Send for free tool booklet No. 896.
SIMMONS HARDWARE CO., Inc.,
St. Louis and New York,
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AXE No. K1000 PRICE $1.25
SAW No K88-26 IN. PRICE $2.00
HATCHET No. K302 PRICE $1.40
HAMMER No. KP110 PRICE $0.85
SCREW DRIVER No. K80 PRICE $0.25 TO $0.50
WIRE CUTTER No. K206 PRICE $0.50
BRACE No. KP8 PRICE $1.50

"How many barrels did you say you made, Joel?" asked Silas.

"Seven."

"Well, Joel, if you had another apple you might have made eight."
—New York Herald.

Result From Complete Fertilizer.

"Last spring I bought my fertilizer (manufactured by the Empire Carbon Works, 421 Locust street, St. Louis, Mo.) from Wm. Stoddart. On account of the drouth I did not get it in until the first of June. It was a very poor piece of pasture land. I have been using fertilizer on my corn for several years, and have used several different kinds of fertilizers, and got the best results through your goods of any I have ever used. The corn that I fertilized stood the drouth better than any I ever had. It never fired." (Signed) Eugene Madden, Monroe City, Mo.

U. S. Cream Separator.

A very good advertisement of the U. S. Cream Separator will be found on page 10, also some very strong points in regard to the merits of the implement. When you write for catalogue, address Vermont Farm Machine Company, Box 125, Bellows Falls, Vermont. You will then get the name of the nearest representative of the company where you can see the U. S. Cream Separator in use.

You Get Your Roof at Agent's Price

and Profits Besides When Your Neighbors Buy Edwards Roofing Because They Like Yours!

This is our special Agent's Proposition in a nutshell. It is open right now to one man in each community. If you are the man, write us at once! Get the whole proposition. You place yourself under no obligation. You can have an everlasting roof of Edwards Interlocking "Reo" Steel Shingles on your house, barn or other farm buildings and let it make money for you.

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Made Rust-Proof and Rot-Proof by Our "Tightcote" Process of Galvanizing

Each and every one of the high-grade Bessemer Steel Shingles is dipped singly into molten zinc. This gives heavy, uniform coating and covers all edges. No raw edges exposed to the weather. Edwards interlocking feature makes solidest roof. Lasts a lifetime. Comes in sheets 5 to 12 feet long, 24 inches wide. Galvanized or painted, all ready to put on. Hammer and nails all that is required. Anyone can do it. Can be applied over wood shingles or sheathing 12 inches apart.

$10,000 Ironclad Bond Lightning Insurance

We agree to refund the amount paid in every case where a roof covered with Edwards Interlocking "Reo" Steel Shingles is destroyed by lightning. This guaranty is backed by our $10,000 Ironclad Bond and stands forever. Ask for Big Free Roofing Catalog No. 157, with special low prices. Freight prepaid. Send dimensions of your buildings and we will quote you cost. Write today.

THE EDWARDS MFG. CO., 107-157 Lock Street, Cincinnati, Ohio

IMPLEMENTS AND PROFITS

Do you realize to what extent the implements on the farm control the profits? When you consider that each one is capable of either increasing or decreasing the returns from the crops upon which it works, it is apparent that too thorough a study of its uses and construction is almost impossible

While it is a matter of right—of justice—that farmers should buy their implements as cheaply as is consistent with quality, they can always afford to buy the best.

There are five points to consider in every machine: (1) Its purchase price must be fair. (2) It must do the work for which it is bought. (3) It must be economical to operate (4) Its repairs must be reasonable. (5) It must serve a long life.

Upon these five points every implement should be judged and selected. The second, third, fourth and fifth factors may all be included in the one term, *efficiency*. Upon the efficiency of the tools depends the yield and cost of production.

Mr Farmer, we have made farm machines for sixty years upon the standard of those five points by which you should select your implements. It is your standard, and our standard; just "Johnston Quality." If we are not supplying all of your tools, we should. It means satisfaction—profit.

Our free catalog will show you why. It is full of information on farm mechanics, and will be sent you on request. Write a post card for it today.

Johnston Harvester Co., Box 117-R, Batavia, N. Y.

RAW ROCK PHOSPHATE.

Pronounced Absolutely Worthless as Fertilizer For the Reason That It is Not Available as a Plant Food in Reasonable Time.

The advisability of using or not using ground rock phosphate as fertilizing material ought to be settled so that farmers will understand what to do. Raw rock phosphate is either available as a plant food in reasonable time or it is not a good purchase. It is either a good use of money or it is an absolute waste of money to buy it. When ground rock phosphate was brought into prominence several years ago the editor of The National Farmer and Stock Grower asked the best fertilizer authority he knew for the value of it, and the answer was to the effect that it had no immediate or appreciable effect on plant life. Not considering the answer conclusive, no mention was made of the subject in the columns of this paper at that time. Since then the editor has read notices of raw rock phosphate without gaining much information, and, although he was always anxious to be able to recommend this material as a cheap but effective manner of furnishing plant food to the soil, he did not feel justified in doing so.

A few months ago we noticed that raw rock phosphate was mentioned by Prof. H. G. Bell as one of five important forms by which phosphoric acid is supplied. Prof. Bell being engaged at Chicago, doing educational work in the interest of "larger crops and better yields," and having listed the goods in with all other recognized fertilizers, we expected to receive a favorable reply from him, if one could be sent. Our letter to Prof. Bell was as follows: "My Dear Sir:—In your address at Springfield, Ill., before the Agricultural Committee of the Bankers' Association, you mentioned 'Raw rock phosphate which carries 25 to 32 per cent. of very slowly available phosphoric acid.' I write for the purpose of asking the question: 'Does very slowly available mean one, two, ten, twenty or fifty years?' I have had the inclination to advise farmers to buy ground phosphate rock, but have hesitated because of the doubt in my own mind as to the time in which it requires to become available when applying it to the soil with barn-yard manure. If you will kindly give me a reply, I will be glad to use it." (Signed) Philip H. Hale, Editor.

The answer of Prof. Bell was dated October 25th, 1911, and was as follows:

"My Dear Sir:—Your inquiry of the 23d inst. is to hand. I beg to state, in reply, that the consensus of opinion of most of our leading Agricultural Experiment Stations and of all European Stations is, that phosphoric acid in raw rock phosphate is very slowly available, even in an acid and decidedly sour soil. You see, therefore, I cannot answer just within what time any of the substances will be available. The phosphoric acid in phosphate rock is in what is known as the three-lime form. That is, three quantities of calcium are combined with two quantities of phosphoric acid. This form is entirely insoluble in water. To confirm my statement, I quote briefly from experimental reports issued by prominent stations which have investigated this question.

"First. The Tennessee Station, which is located right in the raw rock mining center, says: 'The outcome of the experiments made thus far does not allow us to recommend for general use the ground phosphate rock, which is relatively cheap and which it was hoped would prove a strong competitor of other phosphates. Both steamed bone meal and acid phosphate can, however, be highly recommended."—Twenty-third Annual Report Agricultural Experiment Station, University of Tennessee.

"Second. The following resolution passed by the Association of German Agricultural Experiment Stations at Dresden, September 14, 1907: 'The association has concluded, from fertilizer experiments at hand with raw phosphate fertilizer, that there is shown no profitable fertilizer effect, apart from those of acid soil. In consequence thereof the association feels it should discourage the use of raw phosphate on other soils.'

"Third. Experiments made by Czerhati, L. Pey, Clausen and others led to similar results to those just stated. The same report states that 'From present experiments it can be concluded with certainty that the general use of earthy phosphates (raw rock phosphates) cannot be considered as phosphoric acid fertilization.'

"Several other prominent American Experiment Stations corroborate the opinion expressed as above. Prof. A. D. Hall, Director of Rothamsted Experiment Station, England, says after a comparison of other sources of phosphoric acid, such as bone meal and superphosphate, with raw rock phosphate: "In the main the mineral phosphates are used for the manufacture of superphosphate, practically the only manure which contains phosphoric acid at all readily soluble in water.

"From the above opinions you will see that the value of ground phosphatic rock as fertilizer is a doubtful question, and that the authorities are agreed that superphosphate, which is phosphatic rock treated with sulphuric acid, to render the phosphorus readily available for plant food, is the only form in which it should be used, and not in the raw and practically unavailable form. Superphosphate will give immediate and profitable returns." Yours Very Truly, (Signed) Henry G. Bell.

Since receiving the letter from Prof. Bell we have had a personal interview with him and we left him with the impression that he regarded the purchase of raw rock phosphate for fertilizer by farmers as an absolutely useless expenditure of money. It has also been suggested to us that far from being a benefit to the farmer it is to his disadvantage, for the reason that he thinks he has bought a fertilizer, when he has bought nothing of the kind, and, not obtaining results commensurate with the outlay, he will condemn all valuable fertilizers by reason of his first misguided purchase.

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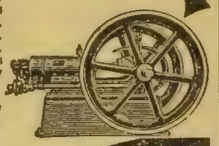
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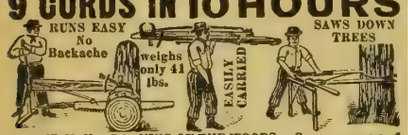

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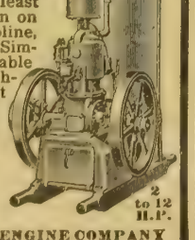
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The Oklahoma Boy's Corn Premium.

The National Farmer and Stock Grower, published monthly at St. Louis, Mo., is the most influential paper for good in the United States. This paper has offered premiums for corn improvement for several years, and in the year 1911 premiums were offered at every County, State, Interstate and National Fair in the United States. The only condition was that the corn winning the prize must be grown from seed corn furnished by The National Farmer and Stock Grower as a subscription premium. The seed corn furnished to subscribers was grown by winners of championship prizes, and sufficient seed was furnished in each case to make a good showing.

Several prizes were paid in the fall of 1911, and one is just paid to Dennis F. Watson, a boy of 14, at Chandler, Oklahoma. Early in the year 1911 the Oklahoma boy of 14 sent in a subscription to The National Farmer and Stock Grower for one year, and in addition to receiving the paper he received one pound of Johnson County White Corn raised by L. B. Clore, the champion corn grower of the United States.

The young man planted the corn, and when the crop was harvested he selected ten ears and exhibited them at the Oklahoma State Fair and won the first prize. The certificate of the State Agent in charge of the Boys' and Girls' Demonstration Club is as follows: "This is to certify that the exhibit of ten ears of white corn entered by Dennis F. Watson, of Chandler, Oklahoma, in competition for the prizes offered by Senator T. P. Gore and Senator R. L. Owen under the supervision of this department at the Oklahoma State Fair at Oklahoma City, Oklahoma, 1911, received the highest score of any exhibited in this contest."

Immediately upon receipt of the notification The National Farmer and Stock Grower investigated the claim, found it to be correct, and forwarded the cash prize of $25.00 awarded by the paper to a first-prize winner at a State or Interstate Fair.

The Wheat Market Situation.

It is always interesting to study the wheat market situation, one month with another and one year with another. For instance, on December 31st, 1909, cash wheat sold at St. Louis at $1.29 to $1.30 per bushel; on December 31st, 1910, at 97 to 99 cents, and on December 30th, 1911, the cash wheat at St. Louis sold at 96½ cents a bushel. The quotation is for No. 2 soft red wheat.

In the speculative market represented by Chicago quotations the year 1911 went out with the December option closing at 93 cents, against 92½ cents the year previous, and $1.18 down to $1.12 the year before.

Here are the last three-year closing quotations for wheat at Chicago:

Year.	December.	May.	July.
1909.....	$1.12	$1.11½	$1.01⅝
1910.....	92½	97	93⅝
1911.....	93	99	94⅜

It will be observed that during the past two years the city consumers have not had any occasion to get excited over the price of wheat. If the cost of shipping wheat to market is considered it will be shown that farmers have not realized a fair price for wheat.

Flour, such as enters into average baker's bread, is not sold above $1.75 per 100 pounds. It may therefore be advisable to insert in this article the flour quotations by the barrel, December 30th, 1911:

Quote soft winter—Patents at $4.50 to $4.80 in wood; straights at $3.70 to $3.85 in jute; extra fancy at $3.40 to $3.55 in jute; fancy at $3.20 to $3.30 in jute; low grades at $3.00 to $3.10 in jute. Hard winter, in jute—Patents at $4.50 to $4.65; saraights at $4.35 to $4.45; clear and first bakers' at $3.25 to $3.60; low grades and second bakers' at $2.90 to $3.10. Spring patents at $4.80 to $5.00 in jute. The foregoing prices are for car lots from first hands on track or at depot.

Now, every farmer raising wheat wishes to know what the future has in store for him, and there is no getting away from it. The future as predicted by the Board of Trade is indicated by two quotations, one being the May quotation of 1912, which is influenced by the crop of 1911, and the quotation on December 30th, 1911, was 99 cents a bushel, and the other, the July, 1912, quotation is indicated by the expected crop of 1912, and the quotation December 30th, 1911, was 94⅜ cents. It is possible that by the time the size of the new crop is fairly estimated the July quotation will be advanced five to ten cents.

The Hay Market at St. Louis.

The hay market would look pretty good to a farmer if there were no freight bills to pay. St. Louis sells hay on both sides of the river. On December 30th, 1911, the sales on the St. Louis Side were: Part car clover-mixed at $20; one car light do. at $21.50; one do. at $22. Timothy—Part car No. 2 at $20; one car part No. 3 at $18, and part No. 1 at $22; one car No. 1 at $22; three do. at $22.50; five do. at $23; two good do. at $23.50. Prairie—Part car No. 3 at $12; one car No. 3 at $12.50; one car No. 2 at $13; one car and part car do. at $14; one car do. at $15; two cars No. 1 at $15.50; one car do. at $16. Alfalfa—One car wet and heating at $13; one car do. at $14; one car No. 2 at $16; one car do. at $16.50; delivered to East Side; two cars No. 1 at $18. On East Side: Timothy—Two cars No. 2 at $19; four cars No. 1 at $23, delivered to St. Louis. Alfalfa—Two cars No. 1 at $18. Clover—No. 2 quotable at $17 to $18; No. 1 at $19 to $20.50; choice at $21. Straw—Sale of one car wheat straw at $7.50.

The Economical Reader.

A man who was too economical to purchase or to subscribe for a paper sent his little boy to borrow the copy taken by his neighbor. In his haste the boy ran over a $4.00 stand of bees and in ten minutes looked like a warty summer squash. His father, who ran to his assistance, and, failing to notice a barbed-wire fence, ran into that, cutting a handful of flesh from his anatomy and ruining a $4.00 pair of pants.

The old cow took advantage of the gap in the fence and got into the corn field and killed herself eating green corn. Hearing a racket, the wife ran out, upset a four-gallon churn full of rich cream into a basket of kittens, drowning the entire litter. In her haste she dropped a $25 set of false teeth. The baby, having been left alone, crawled through the spilled milk and into the parlor, ruining a brand-new $20 carpet. During the excitement the oldest daughter ran away with the hired man, the dog broke up eleven setting hens and the calves got out and chewed the tails off'n four fine shirts.—Bernie (Mo.) Star.

Florida is now busily engaged in furnishing tomatoes for those who live high.

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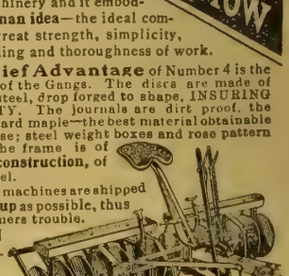
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The Railroad and the Settler.

The enlightened conduct of the railroad is a recent development. Formerly railroad management consisted of making rates on commodities as high as the traffic would bear and letting it go at that. But more recently the idea has been advanced that the railroad prospers best through the encouragement of industry upon the lines of the system. The first step was to establish town sites and factories and then came the instruction and guidance of the farmer. The encouragement of the farming industry is now engaged in by railroads as a business. It is not enough that settlers shall come in; it is also necessary to show them the profitable crops to raise. For instance, a farmer on the Rock Island Railway System has an Agricultural Commissioner to turn to for advice and assistance. Several times a year agricultural instructors go over the lines showing profitable crops to raise and how to raise them. Let the farmer find an opening for the development of a new local industry and the Agricultural Commissioner of the railroad is the first man on the ground to help the move along. We are reminded of this by the works of Prof. Cottrell, Agricultural Commissioner of the Rock Island Lines. His free book on scientific corn raising alone has been of untold value to farmers, and his assistance is always available. In recent years some of the richest plantations in Arkansas and Louisiana have been cut up into tracts of moderate size. These lands are on the Rock Island System. All who desire information concerning them can address L. M. Allen, Rock Island Lines, 411 LaSalle Station, Chicago, Ill. All who do so will obtain full description of lands and Prof. Cottrell's Book, "How to Double the Yield of Corn."

Golden Arrow Seed Corn.

We have just received word from Mr. W. A. Crawford, of Sullivan, Mo., that the Golden Arrow Seed Corn which he purchased from one of our worthy advertisers, namely the A. W. Schisler Grain Company, of St. Louis, Mo., won first prize and took the blue ribbon at the Tri-County Fair, 1911, as being the best specimen of yellow corn which was exhibited. It won the favor of many prominent farmers who had for years been using Reid's Yellow Dent Corn, but after the success of Golden Arrow as a prize getter and giving a heavy yield in spite of the dry weather, they had Mr. Crawford reserve them seed for their own planting.

Golden Arrow is a variety of Yellow Dent, but is claimed to have superior points over all other yellow varieties on account of its rich, golden-yellow grain, deep kernel, small cob and shapely ear, about 10 to 10½ inches in length, having on the average about eighteen to twenty straight rows, running well to a full, round tip. It matures in about 100 days and is a very heavy yielder. It is remarkable how it responds and adapts itself to any character of soil and climates. A bushel of Golden Arrow corn in ear, 70 pounds, when shelled tested 58½ pounds, thereby only leaving 11½ pounds for the cobs. This clearly shows any planter the value it has for ear-feeding corn or as a shipping corn. The Schisler Grain Company had many reports from many localities, bearing the same praise as above, and in some cases give a reader the names of farmers who are using this splendid variety right in their own community. A line to them will give you this information free of charge. Address, A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo.

The next movement is said to be to put the farm on a factory basis. Factory basis means incorporations, larger farms, more machinery, high fertilization, intensive methods, fewer owners, more employes and more watered stock.

Our Foreign Population.

According to the last census, the foreign-born population of this country increased from 10,213,817 in the year 1900 to 13,342,500 in the year 1910.

Foreign Population, 1910.

Germany	2,499,200
Russia	1,706,900
Austria-Hungary	1,658,700
Ireland	1,351,400
Italy	1,341,800
Norway, Sweden, etc.	1,250,500
Great Britain	1,221,400
Canada	1,198,000
Mexico	218,800
Switzerland	124,800
Holland	120,000
France	117,100
Greece	101,100
Miscellaneous	432,800
Total	13,342,500

The decreased items are: Germany, 314,213; Ireland, 263,832; and Wales, 10,960. All other countries show gains. Russian arrivals increased 1,066,190; Austria, 698,941; Hungary, 322,791; England, 35,570; Scotland, 29,927; Italy, 857,837; Norway, 67,121; Sweden, 93,514; Denmark, 27,741; France, 13,069; Greece, 92,587; Holland, 15,078; Switzerland, 9,219; Canada, 25,255; and Mexico, 116,892.

GOOD BOOKS AND PAPERS.

FARMERS' BULLETIN, NO. 475, issued by the Department of Agriculture, is entitled ICE HOUSES. It is by Prof. L. C. Corbett, Horticulturist of the Bureau of Plant Industry. It is illustrated; contains pictures and plans of inexpensive ice houses. There are chapters on Source of Ice Supply; Principles of Ice Storage; the Ice Harvest; Types of Ice Houses and Their Advantages: Construction; Relation of the Ice Supply to Fruit Storage; Combined Ice House and Dairy; Combined Ice House and Refrigerator Plant for the Storage of Farm Products; the Construction of a Refrigerator; the Construction of an Ice Chest. The way to get this bulletin is to write to the Secretary of Agriculture, Washington, D. C., and ask for a copy.

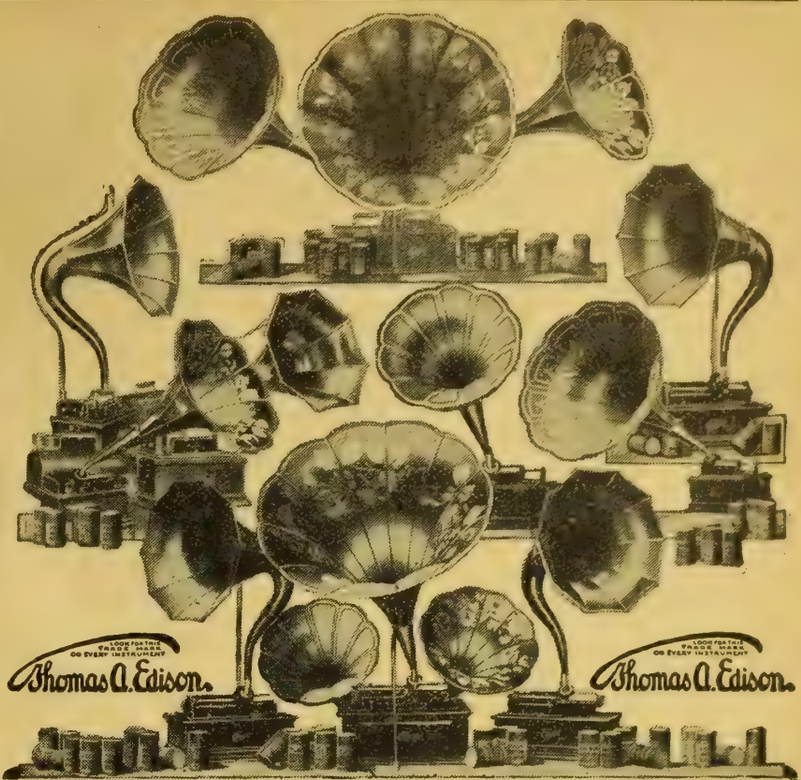
THE SOUTHERN FIELD, issued monthly by the Land and Industrial Department of the Southern Railway, Washington, D. C., is for the purpose of giving reliable information concerning the progress of Southern agriculture. It is full of facts, giving exact location for every incident mentioned. To get a free copy, write to Land and Industrial Department Southern Railway, Room 71, Washington, D. C.

A CHINCHBUG SITUATION. This is a pamphlet prepared by Stephen A. Forbes, State Entomologist of Illinois, in the interest of farmers, and copies of it can be had by addressing him at Urbana, Ill. He warns farmers against the chinchbug and advocates co-operation by farmers to eradicate the pest. It is reasonably easy to do so and Prof. Forbes has stated exactly what must be done to get rid of them.

"FACTS ON FERTILITY." This is a pamphlet issued for free distribution by the Middle West Soil Improvement Committee. It is on the subject of profitable fertilization and covers the subject from the need of fertilizers to the cost and profit. Write for a copy to Prof. H. G. Bell, 919 Postal Telegraph Building, Chicago, Ill.

FARMERS' MANUAL OF LAW by Hugh Evander Willis, author of "Willis on Contracts," "Willis on Damages," etc., is issued by Orange Judd Co., of New York City. This is a book of 456 pages, a manual of law adapted for the use of farmers and students in Agricultural Colleges, and is elegantly bound with gilt title. The forms for leases, mortgages, bills of sale, wills, etc., are fully up-to-date.

Farmers' shipments of cultivated ginseng are selling at $4.00 to $4.50 per pound. Golden Seal is close second, at $4.00.



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Wonderful Edison Catalog Free

Get our handsome Free Edison Catalog and list of Amberol records so you can select just the machine and the songs, recitations, etc., that you want to hear on this ultra-generous offer. Remember there is absolutely **no obligation.**

If you enjoy good music and the finest and most varied entertainment, or if you want to give your family and friends a treat such as they could not get by any other means, then you should certainly investigate this remarkable offer.

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Without any obligation on me, please send me your great Edison Catalog and explain your Free Offer on my choice of a new style Edison Phonograph.

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The Healthy Hog.

"Abundant hair on swine, lively and somewhat fine and soft, growing out of a pliable skin, which is neither thick nor papery, and free from mangy conditions, tells the story of robust health, vigor, thrift and active circulation. The ideal hog should not be sleepy and sluggish, nor, on the other hand, restless and uneasy. Free action and a bright, sprightly manner are signs of good digestion and good health. If he is a comfortable, good-natured, friendly creature, wide-awake, disposed to visit with his owner instead of running away from him, and has the other points of excellence mentioned, he can scarcely fail to be a joy to his possessor and approximate, in the eyes of many, a thing of beauty."—From Coburn's "Swine in America."

The Hackney in Harness.

Hackney bred horses and ponies made an unexampled record in the open harness classes at the National Horse Show last year, winning thirty-five first prizes to six for all other breeds combined. In eighteen classes they bore away every ribbon awarded. In the seven championship classes six of the winners were Hackneys, Mr. J. W. Harriman's Nala being the only harness champion that was not by a Hackney sire. He is a trotting-bred horse. Five of the seven reserve championships also went to Hackney bred horses.

THREE-YEAR SUBSCRIPTIONS.

We desire to invite attention to our three-year subscription proposition. It is practically a trial subscription, payable at the end of the first year. The subscription can be stopped at any time by paying for the period the paper is taken. This method of taking subscriptions is the invention of Uncle Piper, our subscription editor, who has gnaranteed that every one of them will be paid when they are due. The subscription price of this paper is $1.00 for three years, and the bill for the subscription is sent to the subscriber at the end of the first year. When the bill goes out Uncle Piper slips in a list of handy premiums for the subscriber to select one from, providing he pays the bill promptly, and the general result is that the bill is soon paid. When it comes to getting subscriptions from intelligent, high-class farmers, Uncle Piper is at the head of the class.

Uncle Piper.

SUBSCRIPTION BLANK.

To the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — You are hereby authorized to enter my name as a subscriber to The National Farmer and Stock Grower for three years. At the end of the first year I will pay one dollar for the three-year period. This order is given with the understanding that I am at liberty to stop the paper at any time by paying the subscription to that date.

Name.. .....

P. O. Box.....R. F. D.....

Postoffice.... .....

The Superiority of Alfalfa.

Nothing else stands out so clear and distinct as the superiority of alfalfa when considered as a forage crop. We have lands devoted to timothy alone and clover alone, and clover and timothy mixed, also to all other forms of forage, but after taking into consideration the different crop values as ascertained by the census, it stands out that every acre of alfalfa averaged in value $19.78, and all other hay crops averaged $12.94 per acre. Taking the country over, as was done by the census enumerators, the figures ought to be accurate, and we find that 4,702,230 acres of alfalfa are cultivated in the United States, and the average crop value in the census year was $6.84 per acre more than was realized for each acre of timothy and clover.

How to Save Feed.

A marked difference exists between individual animals as regards the returns which they yield for the feed consumed. Some have greater digestive powers than others. The power of assimilation of the one animal is superior to that of the other, and the advantage of the better type of animal lies in its ability to produce more flesh or milk from a unit of feed than could the poorer one. It is also an established fact that young, growing animals not only make actually larger gains than more mature ones, but likewise more economical gains.

That pure-bred animals are more economical to keep than scrubs is well known. Few farmers can boast of wholly pure-bred herds, but every farmer can greatly increase the milk yield of his cows. Pratts Animal Regulator will increase the economical utilization of every ounce of feed, protect cattle from disease and prove a great help to big dairy profits if used every day.

This is a most efficient tonic and aid to thorough digestion and assimilation obtainable. It has been used regularly for forty years by some of the most successful farmers, breeders and dairymen in the United States and Canada. See advertisement of Pratt Food Company, Dept. 54, Philadelphia, Pa., and write for Free Live Stock Book.

German Meat Packers in Paraguay.

The beef-extract establishment of Dr. E. Kermerich, situated at San Salvador, in the northern part of Paraguay, has recently been purchased by Hermann Krabb & Co., an importing and exporting firm, having its principal house in Hamburg, Germany, with branches in other European cities, as well as in Montevideo and Buenos Ayres.

Heretofore the only product of the establishment has been extract of beef, but the plant will now be equipped with $50,000 worth of machinery just ordered from the United States for the canning of meat and utilizing all the by-products of cattle. The entire plant when completed will represent an investment of $250,000 American gold, and will be able to handle 50,000 to 100,000 head of cattle a year. This information is received by the Department of Commerce and Labor from United States Consul Cornelius Ferris, Jr., at Asuncion, Paraguay, a small country in South America, which has no seacoast and is surrounded by Bolivia, Argentine and Brazil. The principal city is Asuncion, and the outlet to the sea is by the river De la Plata.

Read about our Rose Premium on page 22.

More Feed Per Acre

The cost of producing meat or milk would be much less if it required less acres to produce the feed.

Both the *quantity* and *quality* of the feed improve when the right plant foods are used to supplement the manure and clover. They improve enough to yield a *handsome profit* on the expenditure.

The right plant food includes enough

POTASH

in available form. Supplement the manure and phosphate with 50 to 100 pounds of Muriate of Potash, or 200 to 400 pounds of Kainit, per acre, and you will raise big corn and fine clover after the grain and at the same time improve the fertility of the soil.

Try Potash salts alone on the swamp land pasture and note the clover and good grasses crowd out the wild hay. Write us for prices of Potash, one bag up.

GERMAN KALI WORKS, Inc.
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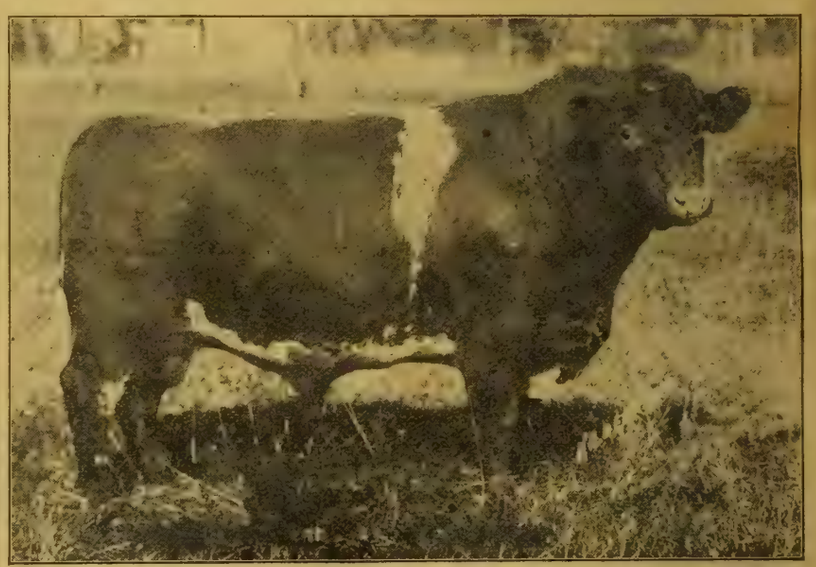
Whitney Central Bank Building, New Orleans

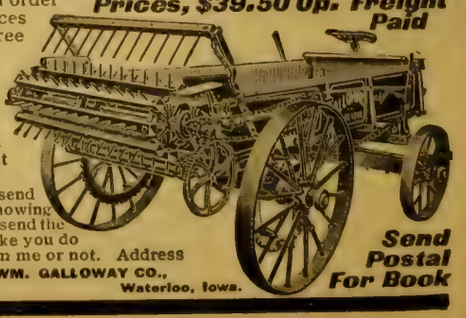


THE CONFESSOR—Polled Durham bull. Exhibited by J. H. Miller, Peru, Ind. THE CONFESSOR was junior champion of the breed up to two years ago, and since then has been grand champion and champion without a single defeat. Was grand champion International Live Stock Show, 1911. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

Let Galloway Save You $25.00 to $40.00 on a Manure Spreader

If you'll send a postal for my Special 1911 Spreader Offer, I believe we can make a deal. If we do, you'll save at least $25.00, perhaps $40.00, according to size and style you want. And you get a free trial and a guarantee that would break me if my Spreader wasn't *right*. I know I *have* to go *high on quality* and *low on price*, because I sell by mail. The other fellow is right on the ground to *persuade* you personally. My *quality* and price has to do all *my* persuading. Let me try it. Our capacity is 42,000 spreaders this year in order to quote the low prices I do—30 to 365 days free trial and my long time binding guarantee in writing. $25.00 to $40.00 saved—think of it! That's fair, isn't it? If you can think of a fairer proposition than I'll make you, I'll print it in my next advertisement.

Prices, $39.50 Up. Freight Paid



Get your pencil or pen right now, and send me a postal for my big Spreader Book, showing 5 styles and sizes, from $39.50 up. I'll send the book free and a proposition that will make you do some tall thinking whether you buy from me or not. Address

WM. GALLOWAY, Pres., THE WM. GALLOWAY CO.,
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Send Postal For Book

Getting Knowledge From Others.

The natural tendency of most people is to run around in a circle, both in their practices and in their methods of thinking. Here and there a genius is able to plunge outside the circle and get new ideas and adopt new methods. He then becomes a teacher of others, and the race has made that amount of progress.

But to most people new, original thoughts are not common, and most thoughts are such as have been thought by the same person before or been obtained from others. It is probable that an absolutely original thought is very rare. We obtain most of our education by coming into touch with others.

The man who lives in himself and keeps away from other people makes little real progress. He may sometimes think that he is making progress, but it is usually in the direction of dreams and illusions. It is the part of wisdom to constantly be on the alert to learn from others and to miss no opportunity to get into touch with the thoughts of others.

This is the central idea of the numerous conventions that are held every year in all parts of the country. Every farmer should make it a point to attend as many conventions as possible, that he may be able to find out the thoughts that others have thought that he has not. An energetic convention-goer soon finds that he has a long list of new ideas that are valuable to him and that he would not miss knowing.

Farmers' conventions are now more numerous than ever before, and they are of more importance, because the knowledge brought to them is greater than ever before. The speakers from the Agricultural Colleges have in turn been in touch with other men and have obtained new ideas on the principle and methods of farming. It pays to take advantage of these moving educational centers, which are now brought to the door of the farmer.

For the same reason, it is important that the boy be sent to the Agricultural College, if he chooses agriculture as his profession. In the Agricultural College are brought together the experiences of multitudes of people and many new ideas. The Agricultural College courses are designed to lead students outside of the circles in which they are wont to travel. For this reason an agricultural student will make more real progress in a four-year college course than he would in a lifetime of circulating experiences on the farm, where the same operations would be repeated over and over indefinitely.

The visiting of other farms is a good way to get in touch with the thoughts of others. On every first-class farm will be found some unusual thing that is worth considering and often worth copying. Accident now and then leads a person to adopt a process that proves of value. The amount of valuable information thus obtained will go far towards making all farm work a success. The intercommunication of all the best methods will gradually raise the standard of all our agricultural operations.

Side Notes on Alfalfa.

It used to be thought that alfalfa could be grown only in a very limited region, but as time goes on we are compelled to recognize the fact that alfalfa has a capacity for extending the boundaries of its habitat. When the writer first began to observe it, it was grown in the United States, principally in California, Nevada, New Mexico, Arizona and Colorado. It was looked upon as a semi-tropical plant. The idea that it could be grown in regions where the winters are bitterly cold had not then been accepted. Perhaps the first impression of its great hardiness came in the report of an agricultural professor sent to Siberia by the United States Department of Agriculture. He reported that he had followed the alfalfa north till he reached a region where the winter temperature falls to 40 degrees below zero.

The writer has since that time seen good fields of alfalfa as far east as North Carolina and as far north as Alberta, in Canada. He has seen it growing luxuriantly in Northern Minnesota, where the winters are severe. He also noticed that along one railroad right of way in Michigan a mass of it was growing with great vigor. One of the best clumps of alfalfa he has ever seen was at a railway terminal in Wisconsin, from seed that had evidently fallen from a freight car. The soil in which it was growing was composed partly of cinders, and much of the rest was gravel and sand, but the alfalfa seemed to be in its element. Its roots had evidently struck the living fountains below and the soil around it was free from weeds. It was on a slight elevation, where it caught the full blaze of the sun.

It had the conditions right for large growth, for it was in a friable but rich soil, had a good supply of water below it and was not encumbered with weeds. Weeds will probably kill out more new plantations than any other one thing. After a plantation is well established it is difficult for the weeds to get in, but before the alfalfa has really gotten deeply rooted the weeds have the best chance, at least in the region where skies are not cloudless. A piece of land to be put into alfalfa should be cleared of weeds, even if it takes several months to accomplish that end. The imperfect preparing of the seed-bed is the cause of many failures. Thus, a farmer will turn over a piece of land, give it a harrowing or two and sow the alfalfa seed. When the alfalfa comes up it is being pressed on all sides by weeds and grass and fails to get a good start. After a year the farmer in disgust plows up the field and says that alfalfa does not do well on his land. The fault is more often with the handling of the processes of seeding than in the land.

Of course, if the land has not before grown alfalfa the soil should be inoculated by scattering over it soil from fields in which alfalfa has been grown. These soil particles carry some of the bacteria that develop the root nodules, in which the change of free to fixed nitrogen goes on.

A Prize Hog Record.

The winner in the prize-hog competition held last summer at Henderson, North Carolina, was Milton Allen, a farmer living at Horse Shoe, in that state.

The hog which took the silver cup weighed 523½ pounds net at twelve months, and sold at 10 cents per pound. The owner states that the cost of producing this animal did not exceed five cents per pound, according to his books.

The hog was a Poland-China, full blooded, and was weaned at seven weeks. It was then allowed to run in a pasture lot of lespedeza and white clover until nine months old. —Southern Field.

The Howard Watch

When the time comes to buy your HOWARD Watch—go to the *leading jeweler* of your locality.

The HOWARD is sold only by legitimate jewelers—and you will not find HOWARD Watches in *every* jewelry store, at that.

The HOWARD Company are as critical in selecting the jewelers to represent them as they are in perfecting the watches themselves.

They produce the finest practical watch in the world—and they want to deliver it to you through a jeweler who is capable of respecting it, and of handling it as such a timepiece ought to be handled.

A HOWARD Watch is always worth what you pay for it—

In *service*, owing to the precise and permanent adjustment, which is peculiarly a HOWARD achievement.

In *prestige*, because ever since 1842 the HOWARD has been pre-eminently *the* watch with the leading men of every phase of American activity.

And in the sheer pleasure of owning the finest article of its kind ever produced.

The price of each watch—from the 17-jewel (*double roller*) in a Crescent or Boss gold-filled case at $40 to the 23-jewel at $150 and the EDWARD HOWARD model at $350—is fixed at the factory and a printed ticket attached.

Find the HOWARD jeweler in your town and talk to him. He is a representative merchant—a good man to know.

Send us your name on a postal card and we will send you—FREE—our pamphlet, THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

E. HOWARD WATCH WORKS

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Guaranteed for one year. Self-Starter, 120-inch Wheel Base, Unit Power Plant, Three-point Suspension, Bosch Magneto, Demountable Rims, 36x4 inch Tires, Inside Control Levers, Electric Side and Tail Lamps. List price Model "H," $2,000, fully equipped, Mohair Top, Windshield, Speedometer, Prest-o-lite Tank, etc.

There are many localities where we have no agent, and if you will write us, we will send you our catalog and interesting proposition on a car for your own use. We also make a full line of carriages and harness.

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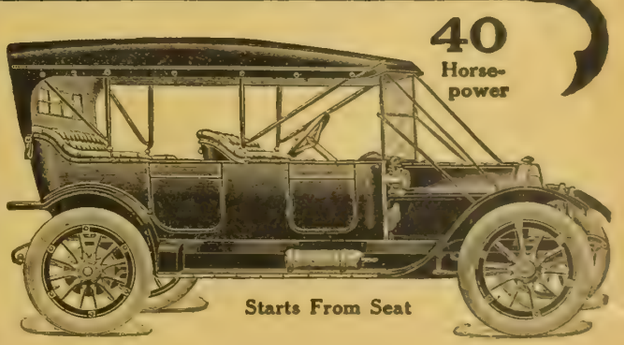

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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Our Industrial Policy.

We wish it most thoroughly understood that The National Farmer and Stock Grower has a decided policy in regard to the matter of protection of all American industries, and especially farm products.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that the advantages of our own markets belong to the tax-paying citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted.

By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service, and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth or other unavoidable influences the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Our position as stated has never varied and never changed. During the past year three great organizations have endorsed our views. They are the National Grange, the American National Live Stock Association and the National Wool Growers' Association. If all other farm organizations will stand upon the resolutions that these associations have adopted the law-makers of the United States will see that the policy the farmers unite upon will be the law of the nation.

THE GREAT BOOK OF LIVE STOCK CHAMPIONS.

We are actively engaged in preparing the new edition of the Book of Live Stock Champions for publication.

We have published several editions of this valuable book and intend to make the new edition far superior to all others. To this end we have waited for the list of champions at the International Live Stock Exposition of 1911.

We already have illustrations of seven hundred different champions, and in each case the picture occupies a half page of the book. We are now gathering the remaining three hundred pictures.

Each illustration is a special demi-tone engraving from a photograph taken from life. No drawings or fancy pictures appear in the book.

First and second-prize winners are not eligible unless they have also won championship prizes. It is a Book of Live Stock Champions, not simply a book of ordinary prize winners.

Champions of the beef cattle breeds are admitted by their showring honors. We have enough pictures of beef cattle champions to make a book by themselves.

Dairy cattle are admitted by showring honors, also by officially tested dairy records. We have the finest selection of dairy cattle in the world.

Dairy cattle are admitted by showring honors. Trotters and pacers are admitted on track records or as noted sires. We have all the famous horses, going back thirty years.

Thoroughbred horses are admitted on account of track honors or as sire or dam of champions. Saddle horses and ponies are admitted as championship winners.

Jacks and jennets, also mules, are admitted on show-ring or market honors.

Hogs, sheep and Angora goats are admitted as winners of sweepstakes prizes at State, National or International Fairs.

Numbers of famous car-loads of cattle, horses and sheep which have won show-ring and market honors will be published in the book.

Every live stock champion is entitled to entry providing a first-class photograph can be obtained. We do not intend to disfigure the book with poor pictures. It is better to leave out the poor pictures than to apologize for an inferior book.

A number of live stock champions appear in this edition of The National Farmer and Stock Grower to show the character of the Book of Live Stock Champions.

We do not charge the owner for publication of his animal, but we do ask his co-operation in furnishing first-class photographs and the records of said animals.

It is worth something to a publisher to know how many books to print and bind. We therefore offer the first ten thousand copies of this edition at one dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies will be handsomely printed and elegantly bound in red cloth, with gilt title. This is an extraordinary offer.

HERE IS A SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Book of Live Stock Champions, cloth-bound edition of 1912, immediately after publication.

Name .....

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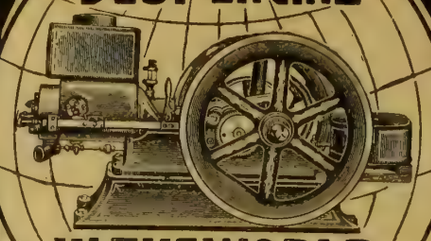
THE BEST ENGINE IN THE WORLD



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is built into it—it is best from foundry to testing room. **Best** and **simplest** in **material, in workmanship and in many important features of design which are found on no other engine in the world.**

The speed lever which works like the throttle of a locomotive and regulates the speed while the engine is running, is an **exclusive Waterloo feature,** and it alone adds $20.00 to $50.00 to the value of your engine. Many other features are just as important—our patented mixer which does away with the expense and bother of a pump; new type igniter that never misses a spark; automatic fuel regulation making it the cheapest to run; frost proof construction.

Burns either Kerosene or Gasoline= starts easy in the coldest weather. All parts are interchangeable and it is so simple that a child can run it.

The Waterloo Boy is no experiment—it is the oldest successful farm engine on the market and has made good for nearly 100,000 farmers for over 19 years—**some of your neighbors among them.** Built in one of the biggest engine factories in the world, with a capacity of 130 complete engines per day, nearly 40,000 per year.

Let the other fellow experiment—you use his experience and buy a **Waterloo Boy** in the first place. Get the certainty of absolute satisfaction at the *lowest price ever made on a reliable engine.*

5-Year Guarantee. Catalog and full details FREE. Write today.

WATERLOO GASOLINE ENGINE CO.,
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AWARDED GOLD MEDAL at INTERNATIONAL Gasoline and Oil ENGINE SHOW, BUDAPEST, HUNGARY. JULY, 1911

AWARDED GOLD MEDAL at INTERNATIONAL EXPOSITION, Turin, Italy. September, 1911

[Please mention National Farmer and Stock Grower.]

Pull Stumps! Make Big Money Easy!

Increase the value of your land. Raise stumps, trees and hedges *out of ground.* then raise big crops. Do work for neighbors or rent machine at a big price. You can **pull** trees faster than you can cut them. Get the only Puller that is self-anchored and stump-anchored, the *unbreakable*

Milne All Steel Combination Stump Puller

Simple, light, handy, rapid, powerful. Many features—Patent Wire Rope Coupler, All Steel Rope Safety Double Power Pulley, Double, Triple and Quadruple Power Attachments, etc. Our new Rotary Power Attachment is a wonder for sawing, grinding, washing, and other power work—a farm horse power.

SEND NAME Get our new catalog of facts, proof and prices. Address **MILNE MFG. CO., 1002 Eighth Street, Monmouth, Ill.**

[Please mention National Farmer and Stock Grower.]

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.

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BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

[Please mention National Farmer and Stock Grower.]

Cost of a Suit of Clothes.

It cost the United States a large amount of money to obtain information secured by the Tariff Board. Included in this information are the facts relating to an average suit of clothes, such as is worn by men of moderate means.

For the wool that enters into an average suit of clothes the sheep farmer is figured to receive $2.23.

The profit on the wool as sold by the sheep farmer is estimated by the Tariff Board at 68 cents in the whole suit of clothes.

When the manufacturer gets hold of the wool at $2.23 he manufactures it into cloth and increases the selling value $4.78, out of which he obtains a profit of 23 cents.

When the wholesale clothing manufacturer gets the cloth at $7.01 and makes clothing out of it he receives $16.50 for the suit, and out of this he obtains a profit over cost of manufacture and sale of $2.18; then the retailer makes a margin of $6.50 for selling the suit of clothes, out of which the cost of selling has to come.

For the better understanding of the situation we append the following statement:

Cost Evolution of a Suit of Clothes.

Cost of wool to farmer	$ 1.60
Profit obtained by farmer	63
Price received by farmer	$ 2.28
Cost to manufacture into cloth	4.55
Profit to manufacturer	23
Price received by manufacturer	$ 7.06
Cost to make into clothing	7.26
Profit on suit to clothing maker	2.18
Wholesale price of suit	$16.50
Margin received by retailer	6.50
Price paid by consumer	$23.00

Now see what's next! Congress is advised to reduce the profits of the sheep raiser by admitting foreign wools free of duty. Good-bye sheep raiser's profit of 68 cents! Congress is also advised to reduce the duties on woolen cloth so as to admit foreign cloth. Good-bye manufacturer's profit of 23 cents on cloth! When the sheep raiser raises hogs instead of sheep, cloth and clothing cannot be made out of hog bristles; then good-bye clothing profits and good-bye retailer's profits!

Read This Remarkable Free Offer.

We wish to call the special attention of every one of our readers to the remarkable offer of a free package of Stock Food made by the Wilbur Stock Food Company in their advertisement in this issue.

Wilbur's Stock Food has been used by stock raisers for over twenty-five years with excellent results. It tones up the powers of digestion and assimilation; it increases the flow of milk; it is without rival as a fattener of horses, sheep, hogs and steers. For poultry it is one of the best egg producers that is known. It makes your stock rolling fat.

Every keeper of live stock should write to-day for complete information concerning the free package and also with respect to the $1,000 prize contest, with 127 cash prizes, which the Wilbur Stock Food Company is conducting and which is open to every stock raiser. Fill out and mail the coupon in the Wilbur advertisement, or write to the Wilbur Stock Food Company, 439 Huron street, Milwaukee, Wis.

The Sheepman and Congress.

When the men in Congress vote against the sheep breeders and wool growers in the country, the men in Congress must not be surprised if sheep raising and wool growing go out of fashion. For the jobs in Congress there are many applicants, but for jobs to herd sheep on the lone prairie the applicants are less than formerly. It is much easier to get sheep raisers to ship their sheep to market and go out of the business than it is to get them to start up again. If Congress takes the duties off wool and woolen goods, Congress will be responsible for any shortage in mutton and wool that follows their action. Congress can starve the people, but Congress cannot feed them.

Our Grapevine Premium.

On page 9 will be found our great and valuable grapevine premium offer. The same offer was made last year with great success, and with one known exception all the plants grew and thrived. If you wish to discover by experiment which vines grow best on your farm, make the test by trying these eight varieties.

At the St. Louis National Stock Yards during the year 1911 the receipts were 1,067,076 cattle, 3,107,868 hogs, 989,783 sheep and 170,379 horses and mules.

A top load of 1,400-pound Missouri steers sold at St. Louis early in January at $7.40 per 100 pounds.

Chicago received 104,545 horses in 1911.

New York cabbage is selling at St. Louis at $28 to $30 per ton.

$25 an Acre for land that will grow Corn like this.

If this land was located in the northern corn belt you couldn't buy any of it for less than $150 an acre. There is no better corn land in the world than these rich river bottom lands of Arkansas and Louisiana. Not only will they grow, with ordinary cultivation, 50 bushels of corn, but they will produce two big money crops a year.

For generations these big plantations have been held intact. Now they are being cut up because the owners have found out that there is big money in 160 acres properly cultivated and they do not need more. *It is the greatest opportunity ever offered to northern corn growers.*

50 bushels of Corn and 60 bushels of Oats in one year.

Mr. W. N. Ruffin, of Monroe, Louisiana planted 50 acres to oats in November, and harvested 60 bushels to the acre. In June he followed the oats with corn and got 50 bushels to the acre. He sold his oats for 75¢ a bushel, and refused 70¢ a bushel for his corn, preferring to feed the corn to his stock.

Mr. Ruffin is a good farmer, but his yields are not exceptional. Other good farmers are making big records. Wherever good farming methods are followed the wonderful richness of the soil produces a big yield—not one crop a year, but two always and sometimes three. The rainfall averages from 50 to 55 inches a year and

there has never been a crop failure from drouth.

Not only do these corn growers get big yields, but they get big prices, too. The big export market of New Orleans is near at hand, and Louisiana corn brings about 10¢ a bushel more than northern corn because it contains less moisture and is ready for export as soon as it is harvested.

Prof. H. M. Cottrell, an expert of national reputation, formerly Professor at the Kansas and Colorado agricultural colleges, and now Agricultural Commissioner of the Rock Island Lines, recently made a very careful inspection of many of these corn lands. It is Prof. Cottrell's expert opinion that no where in America is there a better opportunity open for corn growers to make money than there is in these Arkansas and Louisiana corn lands.

Better look into this proposition at once. If you are renting, your rent money will quickly pay for a better farm in Arkansas or Louisiana; if you want a place for the boys you can buy them one of these rich river bottom farms, as good or better than yours, for one sixth the cost.

You will find this southland a delightful and exceedingly healthful place to live. The people are good neighbors. Rural Free Delivery, Telegraph, Telephones are everywhere; good markets are accessible and are shipping in farm produce because the local supply is not equal to the demand.

You owe it to yourself to investigate this at once. If you are interested, drop me a line saying how many acres you would want; whether you own a farm at present, and how many acres. You will be given careful, personal, individual attention, and the best unprejudiced advice as to where and how to get one of these splendid corn land farms at a price much below its actual worth.

Book on Scientific Corn Raising, FREE.

Rock Island

Prof. Cottrell's book, "How to Double the Yield of Corn," is the result of years of experience, experiment and study. It is worth dollars to any farmer who will read it and follow the advice it gives. You may have a copy free, if you will write me today. I will also send you a book written by Prof. Cottrell, telling more about these wonderful corn lands.

The statements herein made have been fully investigated and can be absolutely relied upon.

L. M. Allen, Passenger Traffic Manager, Rock Island Lines, 411 LaSalle Station, Chicago

John Sebastian, Third Vice-President

ALFALFA
CLOVER SEED

Northern grown, "Full of Life," tests 98 per cent. purity, 95 per cent. germination. Write for samples and prices and New Beautifully Illustrated Catalog which tells about the best varieties of "Full of Life" Seeds, Plants, Bulbs, Shrubs, etc.

H. W. BUCKBEE, Rockford Seed Farms
R.F.D. 50, ROCKFORD, ILLINOIS.

Protecting Cheese by Paraffine.

Nearly all cheese of the cheddar type made in the United States is paraffined before it reaches the public. Yet it is not more than six years since it became a general practice, and less than ten that paraffine to protect from loss of weight was first brought to the attention of cheese handlers.

At first the process was in order to improve the appearance, but when it was found that the protecting coat of paraffine to a great extent prevented the considerable loss of weight by evaporation it became the usual treatment. The circular (No. 181, Bureau of Animal Industry) just issued by the United States Department of Agriculture, Washington, D. C., discussing the methods and results of paraffining cheese, concludes that it is an effective way of preventing loss in weight and the growth of mold; that for one to ten seconds in a paraffine bath at 220 degrees Fahrenheit is sufficient; that treatment on the third day after coming from the press gives the best results; and that cheese should not be allowed to remain in a warm curing room for more than one day after paraffining.

The New Oleomargarine Bill.

Representative Burleson, of Texas, has introduced into Congress an oleomargarine bill known as House Bill 14,112. Among the provisions of this bill are: A reduction of the present tax on all oleo to one-fifth cent. per pound, a reduction in the present license fees, a provision that all oleo be put up by manufacturers in their factories and sold only in cartons of one-half to ten pounds and providing severe penalties for infraction of its provisions. The bill further aims to change the descriptive name of oleomargarine to "margarine." Under existing laws the tax on uncolored oleo is one-fourth cent per pound, and the colored ten cents a pound. The largest production of oleomargarine was 141,862,280 pounds in the year 1910. The total possible output of all oleo factories is estimated at 192,000,000 pounds in a year, but it is doubtful if the record of 1910 will again be reached in many years. Oleo is just as much a cattle product as butter, and cattle for slaughter decreased six per cent. last year.

Cost of Making and Selling Milk.

Many people in the cities complain at what they consider the high price of milk, this being from eight to ten cents a quart. About eighty cities in the United States are supplied with milk at eight cents per quart. This is a very moderate price, considering the cost of making milk and the difficulty of handling it.

Milk is one of the food articles that is always sold on a close margin. This is due to the universality of the competition existing among producers of milk. The man that produces milk and the man that makes a business of selling milk know that the price even at eight cents a quart is so low as to make it impossible for any man to become very rich out of either end of the business.

We have not yet arrived at definite methods for the delivery of milk, nor have we attained the highest knowledge of how to produce it. Yet the delivery of milk comprises its greatest group of problems. It is one thing in which competition is a disturbing element, for several dealers working over the same ground are duplicating efforts without increasing results.

The producer of milk is credited with getting about one-half of the price at which the milk sells at retail. If the milk sells at eight cents per quart, the producer is supposed to get about four cents, or approximately $2.00 per 100 pounds. This estimate is made on figures collected in a dozen states of the Union. Of course, there are many farmers who are selling milk at a much lower price than this; but this depends on local conditions, which always disturb any estimates made on such a problem.

The cost of transporting milk on the railroads and of delivering it to consumers is about equal to the price received for it by the producer. The question of profits is one that always has to be left to take care of itself. The first effort of the dealer is to get enough out of his milk to pay expenses, which includes a fair sum for his own labor. If above that he has no profit, he at least has had the satisfaction of conducting his own business and making a living.

The dealer is to-day put to larger expenses in carrying on his business than he was in the past. The change from the old dipping method to the bottle system costs him about one cent per quart. A big bottler of milk informs the writer that the entire supply of bottles has to be renewed every thirty days on account of the breaking of bottles and loss of bottles in other ways. The bottler figures one cent a quart for this, which probably more than covers the loss.

The cost of making milk to-day is greater than ever before, on account of the high price of all feeding materials coming from the mills. Few farms are as yet equipped with silos, and in some localities the bottling establishments will not accept milk made from silage. This is a mistaken objection, but it has its effect on the cost of producing milk.

Holstein Milk Records.

Being tested for admission to the Holstein-Friesian Advanced Register, 245 females, of which one-half were heifers with first or second calves, produced in seven consecutive days, 95,246.5 pounds of milk, containing 3,245.332 pounds of butter-fat, thus showing an average of 3.41 per cent. fat. The average production for each animal was 388.8 pounds of milk, containing 13.246 pounds of butter-fat, equivalent to over 55.5 pounds or 26.4 quarts of milk per day, and over 15.45 pounds of the best commercial butter per week. The Superintendent of Advanced Register says: "Here we have a large issue of the official reports with nothing remarkable to mention; only one animal producing above 21 pounds fat. The records were for the most part made just as the animals were going into winter quarters, and till a herd gets settled down contentedly for the winter the best results cannot be expected from official test work."

A Community Bull.

Some time ago we were informed of what the dairymen in a certain small town were doing in the way of owning in common a pure-bred bull. The idea is not a new one in dairy sections of the West. Most farmers are not able to pay a big price for a first class sire; ;but several are in a position to make a contribution toward the purchase of a bull that is able to greatly improve the herds in the community. It would bring rich reward to the dairy industry if farmers in a given community would pool their interests and own in common a high-grade sire, making provision for the keeping and service of the animal.—Connecticut Farmer.

The Prize Winners

Use United States Cream Separators

Throughout the country the U. S. Cream Separator is gaining fresh laurels because of the **perfect cream** which it separates. The smooth, velvety U. S. cream makes the first premium butter.

No other cream separator equals the UNITED STATES in the superiority of its patented skimming device. With this the cream particles are thoroughly extracted in a perfect unbroken condition.

That is why the U. S. users have this year won such first prizes as these:

$500 Silver Cup

offered by the Northern Pacific R. R.

Awarded A. G. Scholes, Townsend, for the Best Creamery Butter at Montana State Fair.

First Prizes on Creamery Butter

Ogden Fair, Utah, Jensen Creamery Co., Ogden.
Hamilton Fair, Mont., Bitter Root Creamery, Stevensville.
Missouri Slope Fair, N. D., Michaels Creamery, Judson.
Valley Fair, Vt., W. C. Hall, So. Londonderry, score 97¾.

Dairy Sweepstakes

Vermont State Fair, L. R. Dana, Pomfret, score 98½.

Dairy Butter—First Prizes

Michigan State Fair, D. P. Miller, Almont.
Illinois State Fair, Wm. Brautigam, Brighton.
Virginia State Fair, R. S. Hartley, Youngsville, Pa., score 96½.
Vermont St. Fair, E. H. Hazen, White River Jct., score 98 on prints.
Utah State Fair, W. H. Smith, Woods Cross.

The United States Cream Separator is superior to all others in skimming, washing, easy running and durability. Prices reasonable. *Why not own one?*

VERMONT FARM MACHINE COMPANY
Bellows Falls, Vermont

Distributing Warehouses in every dairy section of the country.

DAIRY AND CREAMERY NOTES.

Butter is a necessity just so long as the price is reasonable; when butter gets too high for consumers to pay, consumption decreases. The New York butter salesmen said that the butter market was four cents too high when the wholesale price was 39 cents for the top grade, and purchasers waited until the price was reduced to 35 cents when the movement began again.

The average dairyman does not feed enough to his cows to develop them to their full capacity. Most milch cows can stand full feeding and pay a profit on it.

The Holstein breed of cattle is noted for the large supply of milk, and ten cows of the breed have each given 850 pounds of butter-fat in a year.

Empire Brand Fertilizer.

"I used 1,000 pounds of Empire Brand Fertilizer in 1911. The results were largely better than I expected. I feel assured in stating that my cotton crop where fertilizer was used was increased not less than 300 pounds per acre. I do not hesitate to say that it pays to use fertilizer, and, as with everything, it pays to use the best, and I can recommend the Empire Brand." (Signed) M. F. Grimes, Houston, Tenn. See card of Empire Carbon Works, 421 Locust street, St. Louis, Mo.

Rubber Roofing

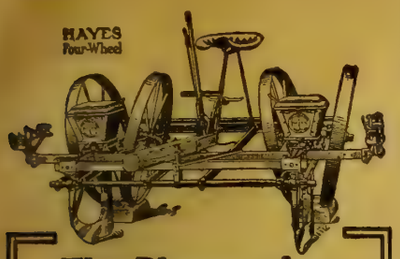
Warranted For Twenty-Five Years.
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 998, East St. Louis, Ills.



The Planter that Never Misses a Hill—

No matter how carefully you prepare the soil, select the seed and cultivate the corn—no matter how rich the soil or favorable the weather—you lose money by planting with a planter that misses even an occasional hill. Don't be blinded to this fact—figure it out yourself. How much did the bare spots cost you last year? Eliminate this waste! Get right down to the bottom of the planter question.

The Hayes Drop never fails. It is the simplest, most durable and most efficient ever made. Always in plain view of the operator—works perfect all the time and lasts for years.

Never cracks or grinds the seed—over 40 sizes of seed plates, ground by special machinery and the cells do not vary 1-1000 of an inch. Will drop accurately any size or shape kernel.

Big Advantage in Four Wheels

Wheels running on an angle pack the dirt around the corn, leaving a loose ridge on top. Will cover where all others fail—even in wet and sticky ground.

Runners set back between the wheels, regulating depth of planting to the fraction of an inch. The Hayes is the only planter made that will plant every kernel exactly the same depth. Corn all comes up at same time. Cultivation 2 to 4 days earlier.

Ridge over the corn prevents washouts on hillsides, gives greater sun surface and loose soil on top allows corn to sprout and come up several days quicker.

The Hayes checks with absolute accuracy—cross rows straighter than the way you drive.

Shortest coupled planter made, lightest draft and turns in shortest space.

Can be furnished with perfect working Fertilizer Attachment, also Disc Furrow Openers or Stub Runners if preferred.

Ask your neighbor and dealer about the Hayes and send for free booklet "Z" containing valuable planter facts.

Hayes Pump & Planter Co.
Galva, Illinois

HAYES
FOUR WHEEL PLANTER

Difficult Churning.

In the fall and early winter conditions often arise which make the churning of cream on the farm a difficult matter. At this time of year, cows are usually well along in their period of lactation and are upon dry feed. The effect of both these conditions is to make the fat in the cream harder and in smaller globules. Butter-fat is a mixture of many kinds of fat, each having a different melting point. When the cow is fresh and upon pasture or other succulent food the fat in the milk consists of a large proportion of the soft fats, which unite easily into butter upon agitation in the churn.

Practically all cases of difficult churning can be readily overcome by methods of handling. Ripening the cream to a higher degree of acidity and churning at a little higher temperature will overcome the most of these cases. Cream at this time of the year is often allowed to sour at too low a temperature and is kept too long before churning. It should be ripened at a temperature of about seventy degrees, and when it has developed a clean, sharp, acid taste it should be churned. A thermometer is almost a necessity in getting cream ready for churning. The temperature at which to churn cream will vary with conditions, but for this time of the year it should probably not be below sixty degrees.

When thick cream is put into a churn at a low temperature the agitation may cause it to incorporate bubbles of air, which make the cream swell and froth and behave as though it were beaten. It cannot be churned in this condition, but must be warmed gradually several degrees and then the churning started again. This can be accomplished by a little lukewarm water added directly to the cream or by warming the cream from the outside. Too much water should not be added or difficulty in churning will result from the thinness of the cream.

Sometimes, when the churning temperature is low, no frothing will result, but the formation of butter seems to stop just short of the breaking point. The difficulty is overcome by slightly warming the cream or by adding a little dry salt. The salt affects the viscosity so as to facilitate the union of the fat globules.—G. A. Gilbert, Colorado Agricultural College, Fort Collins.

Bacterial Contamination of Milk.

The bacteria, seeded so numerously in our market milk, come from widely different sources. It is practically certain that milk as it is secreted by the healthy udder is sterile. However, it is difficult to draw sterile milk from the cow. In the case of a cow suffering from disease, such as tuberculosis or inflammation of the udder, the germs can pass dirctly from the cow into the milk. Bacteria, adhering to the mouth of the milk ducts, can make their way up into the teat for a short distance. Here they find rich food in the few drops of milk that remain, and the warmth of the teat causes their rapid increase.

One of the chief sources of contamination is from the cow herself. The coat of the cow, even kept under good condition, offers the best of facilities for harboring dust and dirt. All of this filth is laden with bacteria in immense numbers. In the switching of the tail, the movement of the flanks, the rubbing of the skin by the milker, there is a constant shower of bacteria into the pail.

What is true of the cow is also true of the person of the milker. Clothed in the dust-laden garments of daily use he carries innumerable bacteria, many of which are dislodged and fall into the milk. It is not so much the number from this source as it is their liability of being disease producers that is important.

The air is another source of contamination. The movements of men and animals in the stables cause a good deal of dust to raise and settle in the exposed milk. The presence of dust is always accompanied by large numbers of bacteria, especially of the putrefactive and spore-producing kind.

Probably the most prolific source of milk contamination, as far as numbers are concerned, is the milk utensils. As the milk passes from one utensil to another it gathers more and more bacteria. Pails and other utensils are usually washed with hot water and soap. But after ordinary washing there will be left clinging to such utensils many bacteria which are ready to develop as soon as fresh milk is added to furnish proper food and conditions. Undoubtedly most of these bacteria are lactic acid producers, and, although harmless, will cause an early souring of the milk.

These various contaminating factors can be largely lessened or completely eliminated. The most of the bacteria from the fore milk can be thrown out by rejecting the first few streams. Dust in the air can be reduced by exercising care as to the time of feeding and bedding. The number of germs from the animal and the milker can be reduced by cleaning and moistening the udder and the flanks of the animal, by using a pail with a small opening, and by requiring the milker to wash his hands and use clean clothes. The use of steam or scalding water in washing the dairy utensils will entirely exclude the germs from this source.—G. A. Gilbert, Colorado Agricultural College, Fort Collins.

Beware of "Gasoline Doping"

It is a favorite trick of the professional "gyps" who infest the great horse markets—also the "ginger trick" and the "artificial tail" frame-up. These smooth dodges and all the other rascalities of these brazen scamps are laid bare in

"Horse Secrets"

by Dr. A. S. Alexander, famous veterinarian. The only complete book of horse-trading swindles ever published as far as we know. Farm Journal has distributed seven editions of this book—75,000 copies—in the past two years. We want every farmer to have one for his protection against roguery and for the valuable information this book also contains about the feeding and conditioning of stock and the cure of diseases and bad habits.

The warning advice contained in this book and in the pages of Farm Journal have probably saved "Our Folks'" $100,000 in the past year. Subscribers constantly write to tell us of the cash value—dollars and cents—they have received from

FARM JOURNAL

This wise little paper will be of real money-saving and money-making value to you. No other farm paper is so broad in its scope—so intensely practical—so interesting in its presentation of facts—so helpful and entertaining in its columns devoted to the home—so strict in its demands that all its advertisers shall be absolutely reliable.

You need it for yourself and your family—and you can have

Farm Journal every month for four years and Horse Secrets at once, postpaid, for only $1.00.

Send for them at once, and if, on receipt of the book, you don't believe that in it alone you have more than your money's worth, say so and we'll stop the paper at once.

If you order promptly, we will send, absolutely free, "Poor Richard Revived"—our splendid new Almanac for 1912.

FARM JOURNAL, 257 N. Clifton St., Philadelphia

A New List.

"How many zones has the earth?"
Pupil—"Five."
Teacher—"Correct. Name them."
Pupil—"Temperate zone, intemperate, canal, horrid, and o."—Life.

Tariff resolutions by the American National Live Stock Association are worth reading. See page 14.

"EVERYBODY"

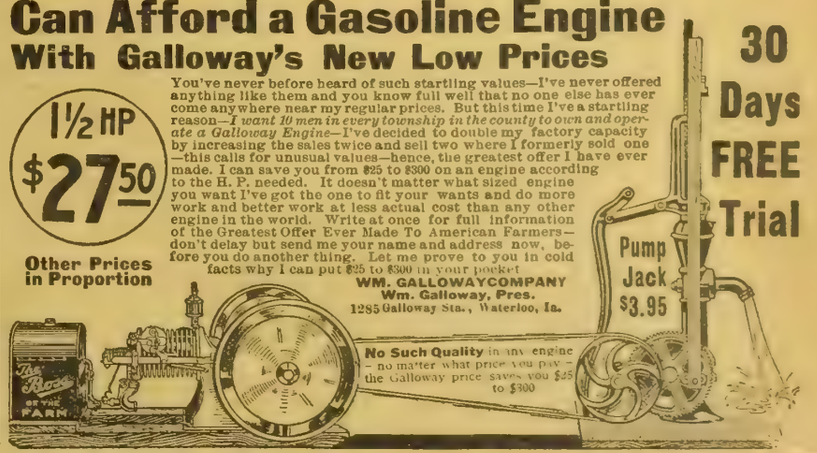
Can Afford a Gasoline Engine With Galloway's New Low Prices

1½ HP $27.50

Other Prices in Proportion

You've never before heard of such startling values—I've never offered anything like them and you know full well that no one else has ever come anywhere near my regular prices. But this time I've a startling reason—*I want 10 men in every township in the county to own and operate a Galloway Engine*—I've decided to double my factory capacity by increasing the sales twice and sell two where I formerly sold one—this calls for unusual values—hence, the greatest offer I have ever made. I can save you from $25 to $300 on an engine according to the H. P. needed. It doesn't matter what sized engine you want I've got the one to fit your wants and do more work and better work at less actual cost than any other engine in the world. Write at once for full information of the Greatest Offer Ever Made To American Farmers—don't delay but send me your name and address now, before you do another thing. Let me prove to you in cold facts why I can put $25 to $300 in your pocket.

WM. GALLOWAY COMPANY
Wm. Galloway, Pres.
1285 Galloway Sta., Waterloo, Ia.



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Pump Jack $3.95

HUNDREDS OF CARLOADS OF
Fruit and Ornamental Trees,
Evergreens, Shrubs, Hardy Roses, etc. 1,200 acres, 50 in Hardy Roses, none better grown. 47 greenhouses of Palms, Ferns, Ficus, Everblooming Roses, Geraniums, and other things too numerous to mention. Mail size postpaid, safe arrival and satisfaction guaranteed. Immense stock of SUPERB CANNAS, the queen of bedding plants Acres of Pæonias and other Perennials. 50 choice collections cheap in Seeds, Plants, Roses, etc. For Fruit and Ornamental Trees ask for Catalog No. 1, 112 pages; for Seeds, Everblooming Roses, Cannas, Geraniums, Greenhouse and Bedding Plants in general, Catalog No. 2, 168 pages. Both FREE. Direct deal will insure you the best at least cost. Try it. 58 years. (25)
THE STORRS & HARRISON CO.
BOX 450, PAINESVILLE, O.

GOOD SEEDS

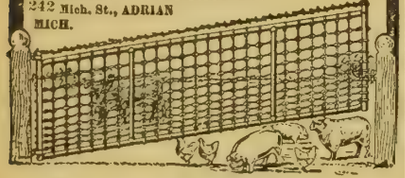
BEST IN THE WORLD

New Crop Grown at Farmer Prices. In addition a lot of extra FREE SEEDS thrown in with every order.

BIG SEED BOOK FREE

Our Grand Big Illustrated Catalog of all Farm and Garden Seeds is now ready and free to you. Write for it today. Send names and address of neighbors who buy seeds. Address
RATEKIN'S SEED HOUSE
SHENANDOAH, IOWA Box

THE GATE WITH A "LIFT"
NOT ONLY LIGHTENS THE DAY'S LABOR BUT LIFTS A LOAD OF WORRY—YOU KNOW YOUR ANIMALS ARE SAFE BEHIND THE
PEERLESS SELF-RAISING GATE
The extra heavy frames of high carbon steel tubing, nearly two inches in diameter; the all No. 9 wire filling of Peerless Fencing makes it the most efficient gate.
Add the Self-Raising feature and the Galvanized finish and you have extra value.
A double latch no animal can work; a barb wire top no animal will ride.
Sold by big implement men, or shipped direct where we have no dealer.
Peerless Wire Fence Co.
242 Mich. St., ADRIAN MICH.



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KITSELMAN FENCE
Made from thoroughly Galvanized Open Hearth steel wire. Our free Catalog shows 100 styles and heights of hog, farm and poultry fence at from
11½ Cents a Rod Up
Sold on 30 days free trial. If not satisfied return it at our expense and we will refund your money. 80-rod spool of Ideal galvanized
BARBED WIRE $1.40
Write today for large Free Catalogue.
KITSELMAN BROS. Box 261 Muncie, Indiana.

STRAWBERRIES
I grow Strawberry, Raspberry, Blackberry and other small fruit Plants, Grape Vines, Shrubbery, etc. My FREE catalog tells the truth and quotes fair prices for good stock true to name. If interested, write today.
W. F. ALLEN,
116 Market Street, Salisbury, Md.

Fattening Lambs.

The great question which the successful lamb feeder is now trying to solve is that of the most economical concentrate to be used in fattening his lambs.

The fact that most feeders are using alfalfa for a roughage simplifies the above problem considerably. Alfalfa supplies the protein, and when fed with a fattening concentrate, as corn or barley, reduces the amount of food required for a pound of gain to the minimum. Experiments prove that corn is just a trifle better, pound for pound, than barley when both are fed in connection with one of the legume hays, as clover or alfalfa. There is little data on the economy of feeding corn alone with upland or timothy hay or with corn stover. This follows from the fact that such a ration would lack considerably in protein. Doubtless barley would somewhat excel corn, pound for pound, when fed with roughages lacking protein, as the ones last named. Whole barley may be fed very successfully to fattening sheep.

The fact that cotton-seed meal can be purchased for a price comparing favorably with that of corn in Colorado has suggested the feeding of this concentrate with alfalfa hay for fattening lambs. In this combination, however, we have two feeds high in protein and consequently an unbalanced ration. Oil meal is fed quite extensively with timothy hay and roots, in which combination it gives very good results. On the other hand, very few records of sheep fattened on cotton-seed meal and alfalfa are available, for, as a rule, protein-rich feeds (alfalfa and oil meal) are the most expensive nutrients of a ration and are not usually combined. It is very probable, however, that some cotton-seed meal can be fed when alfalfa is fed if we use a mixed ration of corn and cotton-seed meal. The best proportion would perhaps be one-third cotton-seed meal and two-thirds corn, either shelled or cracked. This combination should give good results and at the same time be much less conducive to digestive disorders than a ration of cotton-seed meal and alfalfa.

Peas are strongly recommended for fattening sheep. When fed in combination with either corn, barley or oats, equal parts, better gains are made than when either of the above cereals is fed alone. This is especially true where timothy hay or corn stover is fed as a roughage.—J. B. McNulty, Colorado Agricultural College, Fort Collins.

GRAND SUBSCRIPTION OFFER.

A Splendid Magazine One Year, The Ladies' World — National Farmer and Stock Grower One Year—Eight Standard Grapevines —All For One Dollar.

This is a startling subscription offer, especially valuable to farmers' families and to anyone who owns a home. **"The Ladies' World"** is a monthly magazine, forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful, splendidly edited, lovely stories, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. **The National Farmer and Stock Grower** is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets. Collection of **Eight Two-year Standard Grapevines.** These grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe; **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

American Source of Potash.

According to the officials of the United States Department of Agriculture, a satisfactory source of home potash has been found in the Giant Kelps of the Pacific coast. Kelp is a large, blackish seaweed, which being reduced by heat to ashes is also called kelp; in other words, kelp is a growth of seaweed, and there is plenty of it in the waters of the Pacific coast. These seaweeds are able to extract by selective absorption the potash from the sea water, and on drying the seaweed these salts are very largely exuded on the surface. The dried plants contain from 25 to 35 per cent. of their weight of potassium chloride, and the latter can very easily be extracted.

The kelps also contain iodine and have been used as a source of iodine alone, and many other by-products can be obtained from them. It is possible that these by-products will more than pay the manufacturing expense, leaving the potassium chloride free from cost. The Japanese have already shown considerable ingenuity in working up these by-products. Not only do they use some of the waste material for cattle food, but the Japanese themselves use it as a staple article of diet. Glue, shellac, paper and other useful products can also be made.

These Pacific groves of seaweed are in the ocean and within the three-mile limit. The government investigators say that it ought to be harvested cheaply, and no doubt it may be, but fishing for seaweed and reducing the seaweed to ashes and the ashes to commercial fertilizer and transporting it from the Pacific coast to the Atlantic will be no easy matter until after the Panama Canal is finished. It may be, however, that the Department of Agriculture has hit upon a means of obtaining a supply of potash which will finally be utilized.

HOW THEY SAVED THEIR HOGS.

Attention of our readers is directed to the letter below, from J. F. Cook & Co., of Lexington, Ky. The Cook Farms are well known all over the United States and foreign countries. They are large breeders of the big black and Tamworth; also Hampshire hogs. Also the largest breeders of mammoth jacks in America.

"Lexington, Ky.: Gentlemen:—We have been using your hog medicine made at Nashville, Tenn., and we are much pleased with the results we have had with it. Enclosed please find check, for which ship us another supply." J. F. Cook & Co. The letter was addressed to Dr. D. C. Snoddy Co., Dept. H, Nashville, Tenn.

At St. Louis, broom corn is selling in car lots on track at $100 to $185 per ton.

COW PEAS,

NEW, SOUND STOCK,
WHIPPOORWILLS, BLACK and CLAYS } $2.00 per Bushel.
BLUE NEW ERAS.....$1.75 per Bushel.
RED CLOVER,
SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.
TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, SEED CORN.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE,

PER 100 POUNDS, $1.50.
TURNIP and SPINACH, VEGETABLE and FLOWER SEEDS.
EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

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Made of DOUBLE STRENGTH Coiled Spring Wire. Requires fewer posts. Always tight. Is heavily Galvanized with PURE ZINC.
Will outlast all others. Sixty different styles and heights to choose from. A FENCE for every purpose.

WE SELL DIRECT TO THE FARMER AT DEALER'S PRICES.
Be your own merchant and put the Dealer's Profit in your own pocket where it belongs. Prices the lowest ever quoted for a first-class fence.
26-inch Hog Fence, - - 15c. per rod.
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Special Barbed Wire, $1.40 per 80-rod spool.
Biggest values ever offered and sold under our 30-DAYS-FREE-TRIAL-MONEY-BACK GUARANTEE-CONTRACT. Our big Catalogue contains information you ought to know. Write for it today. It's FREE.
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BEST IN THE WORLD
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SEEDS
and large instructive catalogue of Best Seeds at right prices. Send 2c stamp for postage. Gardeners ask for wholesale list.
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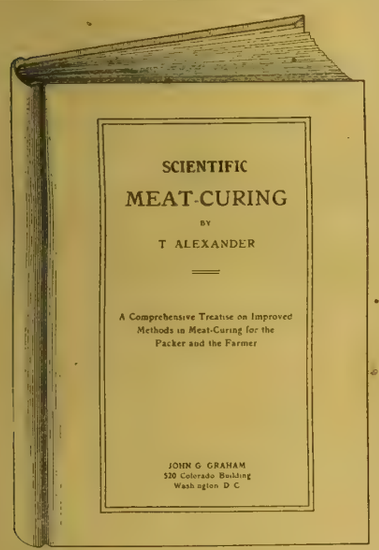
No. 17, A Bik., Rockford, Ill.

10,000 MEN WANTED
For Government jobs. Write for list of positions open. FRANKLIN INSTITUTE, Dept. S 107, Rochester, N. Y.

SCIENTIFIC MEAT CURING.

A Booklet For All Farmers, Stockmen, Butchers and Packers.

There is a book on meat curing. It is descriptive of the methods used by the most expert of all the butchers and packers. It is actually a text book for the curing of all meat products. It includes elimination of animal heat, difference between weight alive, dressed and cold, with shrinkages; table for making different strengths of pickle, mild and strong cured meats, temperatures,, pumping, pumping pickle, pumping of hams, calas, picnics etc. Time in pickle for different weights, curing pickle for hams, etc.; sweet pickle bellies, time for smoking, number of days in cure per pound, overhauling, handling old meats, soaking, washing, soaking first-grade bellies, soaking beef hams, long and short cut tongues, dry salt meats, temperature of smoke house, time for smoking to prevent skippers, kind of wood to use, use of sawdust for color, smoking S. P. meats, summer schedule, smoking colored and uncolored meats, first-grade hams, beef hams, No. 1 pork hams, picnics, No. 1 bacon wide, No. 1 bacon narrow, with shrinkage, smoking tongues, firing house for S. P. meats, coloring, use of liquid smoke, and insect proof covering. Instructions for preparing



mess beef for curing, chopping and scoring, mess chucks, mess rumps, curing mess beef, packing for curing, S. P. beef hams, beef rump butt cure, Antwerp beef hams, overhauling, packing mess beef for shipment, weights summer and winter, amount of capping salt to be used for Northern and Southern points, Scotch buttock cure, dry cure shoulder clods, dry cured boneless beef, beef tongue cure, weights and strengths of pickle to use in shipping, beef tongue smoking ages, for export shipment, handling and curing of lamb tongues and tables showing the strengths of pickle from day to day from which the amount of solids taken up by the meat can be computed.

We have adopted the booklet "Scientific Meat Curing" as a subscription premium to be furnished subscribers to The National Farmer and Stock Grower. Send us sixty cents by money order and we will send you The National Farmer and Stock Grower for one year and you can select one copy "Scientific Meat Curing" as a premium, to be sent postpaid, safe delivery guaranteed Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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May It Bring Health, Prosperity and Happiness To You and Yours.

For ourselves, our wish is that through the coming year we may have the opportunity of contributing to your Prosperity by our unexcelled service and

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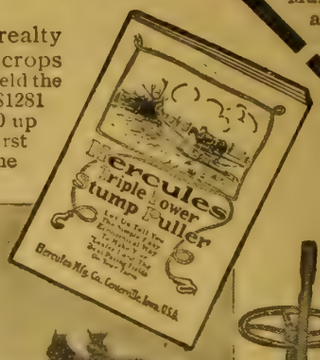
Mail me your free book and special price offer. I want to know all the facts about the Hercules All-Steel Triple Power Stump Puller.

Let me mail you all the facts, figures and proofs that will show you convincing evidence of what big profits the Hercules Stump Puller has made for many others—a fair indication of what a Hercules will do for you. Pull out the stumps now and you are rid of them forever.

Stumps cost big money! They take half the realty value away from the land. They rob you of crops and profits you ought to have. On a 40-acre stump field the profits derived from stump pulling the first year are $1281 and up according to the value of the land—from $750 up in crops every year after. 5000 men who write me first will receive a money-making, money-saving offer on the



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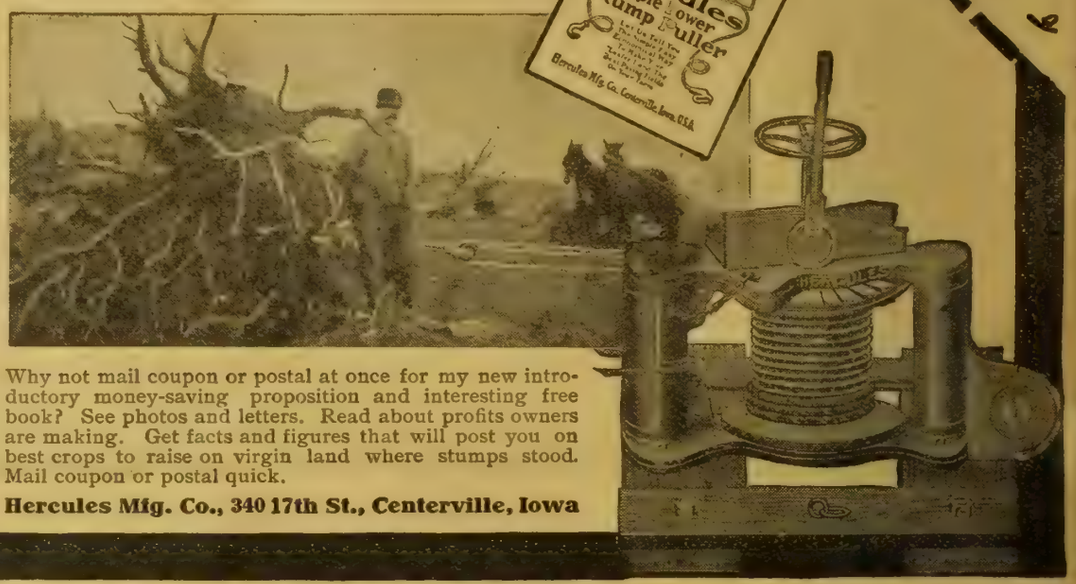

Triple power means more than the **pull of a locomotive.** All steel means 60% lighter weight, 400% more strength than any cast iron or "semi-steel" puller ever made. Accurate machining and turning means smooth running and light draft. Double safety ratchets mean safety to men and team. 3 year guarantee means replacement of any broken castings, whether your fault or fault of machine. Pull an acre of stumps a day easy with the Hercules. When **your** stumps are pulled, do work for your neighbors or rent machine at a nice profit.

Why not mail coupon or postal at once for my new introductory money-saving proposition and interesting free book? See photos and letters. Read about profits owners are making. Get facts and figures that will post you on best crops to raise on virgin land where stumps stood. Mail coupon or postal quick.

Hercules Mfg. Co., 340 17th St., Centerville, Iowa

Stockmen and the Tariff.

At the meeting of the American National Live Stock Association held recently at Denver, the following was the first and most important resolution adopted:

Resolved, By the American Navention assembled at Denver, Colorado, December 12th and 13th, 1911:

1. That we demand the retention of sufficient duties on imports of live stock and its products and all farm products of this country, as will be equal, fair and just to the industry which we represent, compared to the import duties on other products, whether those duties shall be levied for the avowed purpose of protection, or for the avowed purpose of producing revenue to run the government.

2. We condemn as unjust, unfair and discriminatory, the Payne-Aldrich Bill in placing hides on the free list and demand the restoration of same, and declare that we are unalterably opposed to the placing of live stock and live stock products and the products of the farm and ranch on the free list.

3. We appeal to the live stock producing interests and to the agricultural interests to unite in opposition to a discriminatory and unjust system of levying import duties whereby our interests shall be sacrificed for the benefit of others.

4. We declare it to be the just right of the live stock and agricultural interests of this country to enjoy equally whatever preferences any system of import duties gives to the industries of this country, incidental or otherwise, in the home markets of the United States in preference to the products of foreign countries, and we appeal to the fairness and good sense of the people of the United States to maintain the fundamental principle of our government—equal rights to all and special privileges to none.

Never Misses a Hill.

Corn is going to be worth good money and it is worth while to insure having good seed and effective seeders. Study your planters while you may and be sure to get one that will not cause you to do the work or any part of it over again. The merits of an implement are best set forth in the manufacturer's own words and best illustrated in his own catalogue. The Hayes Four-wheel Planter, manufactured at Galva, Ill., is advertised in this paper on page 11, and our readers can note the points of superiority and then send for the special booklet which describes it in every detail. Our readers who are interested should write at once to Hayes Pump and Planter Company, of Galva, Ill., and ask for a copy of booklet Z, which explains all points concerning the Four-wheel Planter.

Hay and Forage Statistics.

According to the United States census, the hay and forage-producing area of the United States in the year 1909 was 71,915,457 acres, against a total of 61,691,069 acres ten years previous, in the year 1899. The acreage harvested in hay and forage consists of 19,536,644 acres of timothy and clover-mixed, 14,675,375 acres in timothy alone, 16,868,374 acres in prairie grasses. Then there are 2,442,836 acres in clover alone, 4,702,230 acres in alfalfa, 1,113,179 acres in millet or Hungarian grass, 4,210,470 acres in other tame or cultivated grasses, 4,254,177 acres in grains cut green, 4,093,256 acres in coarse forage and 18,916 acres in root forage. The 71,915,457 acres classed as hay and forage lands are credited with producing 97,147,446 tons of hay.

The Loss is Ours.

On December 15th it was reported that the British government had decided to exclude the American meat packers, against whom prosecutions are instituted, from tendering contracts for the supply of meat to the British Army and Navy, pending the settlement of the suits. It was also stated that the contracts heretofore entered into by the War Office and which had hitherto been secured by American firms, are now expected to go to Argentina meat packers. But the American meat packers will probably not be disturbed by this for the reason that the American packers own the most active beef plant in Argentina. If the supply from the United States is barred out, the Argentina bids will be advanced, and the War Office of Great Britain will pay more money to the same packers. The loss of trade, if any, will fall upon the stock raisers of the United States.

Alfred R. Urion, of counsel for Armour & Co., after a conference with the concern's officials, said:

"Great Britain's action cut off our largest market for canned meats, which amounted to millions of pounds annually. There is no demand in this country which will equalize the loss, which seems greater because every pound of canned meat represents two pounds of fresh meat."

GENERAL FARM NOTES.

A trucker in Southern Alabama had three acres in cucumbers last season, from which he gathered 1,392 hampers. These were sold in St. Louis for $1,111.25, leaving a net profit to the grower, after every item of planting, cultivation, picking and marketing had been deducted, of $834.—Southern Field.

From Austin, Texas, it was reported on December 16th that the State Prison Commission leased 9,907 acres of land for five years. All of it will be planted in sugar cane, making the total acreage of that product owned by the state about 42,000 acres. The plantations are worked by penitentiary convicts.

Canning on the Farm.

Canning fruits and vegetables has made many a farming community rich and prosperous, and it always makes a tremendous advance for the farm upon which the canning factory is located. Formerly a canning plant cost several thousand dollars, whereas now a few hundred dollars will establish a farmer in the canning business. Mr. Thos. M. Brown, of Springfield, Mo., will tell you all about it, if you will write to him for circular and mention this paper.

CUT DOWN YOUR GROCERY BILL

THIS FREE BOOK shows you how to save from 20 per cent to 50 per cent on all your groceries.

Buy your groceries direct from us and save from twenty to fifty per cent of what you are now paying. We have solved the "high cost of living" problem for thousands of delighted customers.

We buy everything in enormous quantities. This means rock bottom prices — prices that small buyers cannot get. We sell direct to you with only one small profit added. We save you all the "middlemen's" profits that eat up so much of your money.

All our groceries are full measure—absolutely pure. Write to-day for our interesting, money saving grocery book. It is book No. 11. It is free. We want you to compare our prices with those you are now paying.

We issue the grocery book every two months and will send it to you regularly.

Below is a partial list of the other books we issue. They contain thousands of big, money saving opportunities. No matter where you live we can fill all your needs and save you an amazing amount of money. No matter what it is you want, we have it. We can save you many dollars on everything you buy. We are doing it every day for over 2,000,000 delighted customers.

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17 Baby Carriages
18 Men's Fur Coats
19 Sewing Machines
20 Gasoline Engines
21 Cream Separators
22 Building Material
23 Stoves and Ranges
24 Underwear Samples
25 Automobile Supplies
26 Bicycles -- Motorcycles
27 Baby's Dress and Toilet
28 Women's Tailored Suits
29 Circular and Drag Saws
30 Women's Fashion Books
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Please send to my address below books Nos..... absolutely free of cost.

Name .....

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SEND COUPON TO THE NEARER ADDRESS

Medicinal Leaves and Herbs.

The Department of Agriculture has just issued a bulletin on leaves and herbs used as medicine. Nor is this the first publication put out by this Department on the subject of medicines, the others being "Weeds Used as Medicine, Root Drugs and Medicinal Barks."

Collectors of medicinal plants have made such insistent demands on the Department for a guide in their work that a description of thirty-six medicinal plants, including only such as are in most common use, has been prepared by direction of the Secretary, fifteen of them being mentioned in the Eighth Decennial Revision of the United States Pharmacopoeia.

Each plant is listed under the name in most common use, but synonymous common names, and the pharmacopoeial name, if any, are also given, that no one should have difficulty in recognizing the plants familiar to him, or to identifying an uncommon one, if of the series, from the description given.

Perhaps the best-known plants included in this bulletin are peppermint and spearmint, which are not only found in the wild state, but are also cultivated for the distillation of oil, an important American industry. Witchhazel, almost a household word, is found in low, damp woods, from New Brunswick to Minnesota, and south to Florida and Texas. The soothing properties of this plant were known to the Indians, and it is still employed for the relief of inflammatory conditions.

Wintergreen is described as having stimulant and antiseptic properties, though its chief use seems to be as a flavoring agent.

Horehound, one of the best-known domestic remedies for colds, has a wide range, being found from Maine to South Carolina, Texas and westward to California and Oregon. Jimson weed, a common weed in field and waste places, is found almost everywhere except in the North and West. The dried leaves are frequently smoked, or the fumes inhaled, as a remedy for asthma. Catnip, familiarly associated with a tea for babies, is described as a common weed naturalized from Europe. It is noted for its quieting effect on the nervous system.

Boneset is another familiar plant in many households, the leaves and tops of which form an old and popular remedy in the treatment of fever and ague. Pennyroyal, aside from its value as an aromatic stimulant, has an odor which is very repulsive to insects, and is therefore much used for keeping away mosquitoes and other troublesome insects.

Among the other plants not in such common use mentioned in this paper, are foxglove, gum plant, bugleweed, balmony and skullcap. Tansy, wormwood, fireweed and fleabane are described as furnishing useful oils. The complete bulletin can be had by addressing the Secretary of Agriculture, Washington, D. C.

Allerton Sold to Armour.

Another independent stock yard and meat-packing interest is now classed as a trust organization. The Pittsburg Provision and Packing Company has been turned over to the Armour interests of Chicago.

Samuel W. Allerton established the Pittsburg Provision and Packing Company and owned a controlling interest in both the packing house and the yard company. It appears, however, that in his old age Mr. Allerton is closing out his interests at Pittsburg,and it was reported that J. D. Callery, who controlled about 49 per cent. of the stock, had already closed out to Armour. It is very probable that the death of Simon O'Donnell had as much to do with the sale as any other consideration. He was manager of the Pittsburg interests of Samuel W. Allerton, and died a couple of years ago.

Cold-storage Facts.

The following facts concerning cold storage of meat products is taken from the Annual Report of the Secretary of Agriculture:

The principal months when fresh beef is placed in cold storage are September, October and November; mutton, August, September and October; butter, June, July and August, and sometimes May; eggs, April, May and June. Pork is quite well distributed throughout the year. Poultry is made up of diverse elements; broilers go into storage early in the spring and roosters in the early autumn; November, December and January, and sometimes October, are heaviest storage months. With regard to fish there seems to be no regularity in the heavy cold-storage months; most of the fish is received fresh and is frozen, and after the lapse of some time is sent to warehouses or places of consumption, where it is stored again. These two periods of storage are combined in the investigation.

During the three heavier cold-storage months of 1910-11, 47 per cent. of the fresh beef placed in cold storage during the whole year was received into the warehouse; 59.8 per cent. of the fresh mutton, 59.2 per cent. of the dressed poultry, 70 per cent. of the butter, and 79.4 per cent. of the eggs.

It is established by this investigation that 71.2 per cent. of the fresh beef received into cold storage in the year 1909-10 was delivered within three months; 28.8 per cent. of the fresh mutton, 95.2 per cent. of the fresh pork, 75.7 per cent. of the poultry, 40.2 per cent. of the butter, 14.3 per cent. of the eggs, and 35.5 per cent. of the fish.

The percentage of receipts delivered in seven months is 99 per cent. for fresh beef, 99.3 per cent. for fresh mutton, 99.9 per cent. for fresh pork, 96.1 per cent. for poultry, 88.4 per cent. for butter, 75.8 per cent. for eggs, and 64.9 per cent. for fish.

"The important observation to be made," declares the Secretary, "is that the receipts into cold storage are entirely or very nearly exhausted by the deliveries out of cold storage within ten months."

The fresh beef received into cold storage during the year beginning with May, 1909, was kept there on the average for 2.3 months; the fresh mutton, 4.4 months; the fresh pork, 0.9 of a month; and the butter, 4.4 months. The poultry received druing the year beginning with March, 1909, was kept on the average 2.4 months; the eggs, 5.9 months; and the fish, 6.7 months.

A live man in your neighborhood can create a good business for himself by selling our fertilizers. They are rightly balanced and blended to improve both crops and soils.

They are adapted to all crops and soils; they are "making good," hence are well-known and popular, and sell readily to progressive farmers.

We have the largest and best equipped Fertilizer Factory in the State of Illinois.

Send for free Booklet and ask for Agency today; address

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421 LOCUST ST., ST. LOUIS, MO.

A PAIR OF SHORTHORNS—SULTAN MINE, bull, and NONPAREIL, 44th, cow. Exhibited by F. W. Harding, Waukesha, Wis. Champions at Wisconsin State Fair of 1911. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

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Write for market information.
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P. O., National Stock Yards, Ill.

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An Absolute Cure for
Moon Blindness
(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

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are now in season. They are quickly eradicated by

Summers' Worm Powders

Thirty Years' Popularity; Dead Shot every time; Largest Sale. 7-lb. pkg., $1.; 3-lb pkg., 50c. Of all Druggists or
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Illustrated Catalog of Stockmen's Supplies Free.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use
Fleming's
Spavin and Ringbone Paste
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Not used on soft bunches. Write for
Fleming's Vest-Pocket Veterinary Adviser
Best book on blemishes, and we send it free. Read it before you treat any kind of lameness in horses. 192 pages, 69 Illustrations, durably bound in leatherette.
FLEMING BROS., Chemists,
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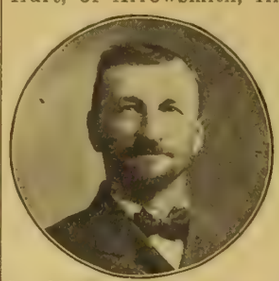
The Breeders' Horse Sale.

The Annual Breeders' Sale will be held at Bloomington, Ill., under the presidency of Mr. D. Augstin, famous breeder of Percheron horses, and under the management of Mr. C. W. Hurt, of Arrowsmith, Ill. The sale is mainly by breeders and such horses as are imported are intended specially for this sale. The offerings will consist of 300 imported and native-bred registered Percherons, Belgiums, French Draft, Shire and Clydesdale stallions and mares, and the sale will be held Tuesday, Wednesday, Thursday and Friday, January 23, 24, 25 and 26, 1912. The day for the catalogue to be ready to mail out is January 8. We are specially requested to mention that the Friday auction will include 100 registered trotters, 100 head of ponies, besides grade draft, single drivers, saddle and all-purpose farm horses, stallions, mares and geldings. The best way to keep up with this sale is to write C. W. Hurt at Arrowsmith, Ill., and get a catalogue and follow it up later by attending the sale. Bloomington is a first-class railroad junction point on the C. & A. R. R., the Big Four Route, the Illinois Central and the Lake Erie & Western R. R.



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C. W. HURT, Manager.

Mr. HARRY GILL, Horse Dealer.

One of the noted horse buyers of the United States, and probably the largest individual buyer of horses and mules, has come to the conclusion that the place to sell his horses is at the largest horse and mule market in the world—the St. Louis National Stock Yards, Illinois. Mr. Gill will have from two to five loads of horses a week at the National Stock Yards Horse and Mule Market during the year 1912, where he invites all his old-time customers and friends from the Eastern and Southern markets to meet him. Mr. Gill has shipped during the past year 7,554 head of horses, and has paid to the farmers of Iowa and Illinois over a million and a half dollars. Mr. Gill has the happy faculty of satisfying the farmers that he buys horses of, and also the customers that he sells to. He buys all of his horses direct from the farmers, and they come to market fresh and healthy, which is one of the main reasons that the shippers of horses to the Eastern and Southern markets purchase their horses from him, as their horses give them better satisfaction than horses that have passed through two or three markets. Mr. Gill sells part of his horses with the Holland, Nugent & Maxwell Bros. Commission Company at their Monday and Tuesday auction, the balance with the Campbell & Reid and the Western Sale Stables Company on Wednesday and Thursday.

MR. HARRY GILL,
Who buys more horses direct from farmers than any other purchaser in the United States. His horses and mules are usually sold at the St. Louis National Stock Yards.

Weekly Live Stock Report.

The Live Stock Report issued by Clay, Robinson & Co., Union Stock Yards, Chicago, Ill., is by far the best weekly live stock market report; in fact, it is the only weekly report covering transactions of ten principal markets. Clay, Robinson & Co. are leaders in the commission business and do not issue the Live Stock Report for a profit, and all they require a shipper to do is to pay the postage on it as an evidence that they are interested in live stock markets. Write for a sample and you will be pleased with it.

New Year Hog Market.

The hog market of St. Louis opened up the New Year's trade with the bulk selling at $6.00 to $6.25 per 100 pounds; and the top price for choice hogs, 225 to 240 pounds, at $6.35.

Early January sales of onions at St. Louis: Red Globe, No. 2, 57 to 75 cents; fancy, $1.00 to $1.10; extra fancy, $1.10 to $1.20 a bushel; Pacific coast sacked yellow at $1.00, delivered; sacked White Globe at $1.75 per bushel, and Cummer crates at $1.50.

We have very decided views regarding the meat packers and have never failed to publish them; but for the present, while they are being tried on a serious charge, we will refrain from comment and await the decision of the courts.

On January 1st, at St. Louis, home-grown Bermuda sweet potatoes were selling at 85 to 90 cents a bushel, and red and yellow Nansemond at $1.00 to $1.10 per bushel.

Wisconsin Rural potatoes at 91 and 92 cents, and Minnesota Burbanks at 94 to 96 cents a bushel, represent the early January sales on the St. Louis market.

CURE THAT SPAVIN

—or that Curb, Splint, Ringbone or other lameness with Kendall's Spavin Cure. Mr. Montgomery Sheppard of Richfield, N. J. writes this about
Kendall's Spavin Cure
"I have been using your Spavin Cure and have found it a sure cure for Spavins, Splints, Ringbone, Lameness, etc."
Let us send you other letters. Get a bottle of Kendall's at once. You may need it any day. At your druggists $1 a bottle. 6 for $5. Ask for "Treatise on the Horse"—Free, or write to
Dr. B. J. Kendall Co., Enosburg Falls, Vermont, U. S. A.

ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone or similar trouble and gets horse going sound. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.00 a bottle delivered. Horse Book 9 E free.
ABSORBINE, JR., liniment for mankind. Removes Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Will tell you more if you write. $1 and $2 a bottle at dealers or delivered. Manufactured only by
W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.

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REMARKABLE DISCOVERY THAT CUTS DOWN THE COST OF PAINT SEVENTY-FIVE PER CENT.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.
Write to Mr. A. L. Rice, Manuf'r, 66 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

FREE-FARM ACCOUNT BOOK

Know How Much You Make This Year

No one shall pay a cent for Bickmore's Farm Account Book. It will be sent free to any farmer who will be good enough to tell who and where he is. The cost of a crop never demanded closer attention. Business farming puts money in the bank. This book is arranged to keep all accounts in simple form—more simple, and certainly more practical, than trying to remember them; shows what to charge against crop production, has a laborer's time record; and section for personal accounts. 64 pages; for ink or pencil. Not a cheap affair. It is meant for business. Its quality is in keeping with

BICKMORE'S GALL CURE

a remedy that cures, and the horse works all the time. Users keep it in their stables the year round—they believe in it. It is always ready for Harness or Saddle Galls, Chafe, Rope Burns, Cuts, Scratches, Grease Heel, etc. In cows use it for Sore Teats. Don't buy a substitute. Insist on getting Bickmore's Gall Cure—for the sake of your horse's health. But write now for Bickmore's Farm Account Book—it is ready for you. No cost. No obligation. Send your name and address—that's all.

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Send Your Name on This Coupon or on a Postal Card

Send me a Free Copy of Bickmore's "Farm Account Book," as advertised in National Farmer and Stock Grower.

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GUARANTEE

We guarantee all our preparations to do exactly what we claim for them.
If they fail to satisfy you we authorize our dealer to promptly refund your money.

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Animal and Poultry Regulators

are made honestly—advertised honestly—sold honestly—guaranteed honestly and it takes an honest dealer to sell honest goods when poor ones pay him much greater profits. **Pratts Animal Regulator** is the most valuable stock tonic and conditioner ever put on the market, and is guaranteed to make horses, cows and hogs more profitable, or every penny is refunded—you are to be the judge.

25 lb. pails $3.50. Also in smaller packages and 100 lb. bags.

Pratts Poultry Regulator prevents disease, is a guaranteed egg producer and fine for raising little chicks.

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We authorize our dealers to refund purchase price to dissatisfied customers. If your dealer can't supply you, write us.

Get either our Poultry Book or our Stock Book. Free for the asking.

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and have it to clip your horses before the spring work begins. Every horse should be clipped in the spring. The best machine to use is this

Stewart Ball Bearing Machine

The gears are all enclosed, are file hard and run in oil. Turns easy, clips fast and is guaranteed for 25 years. It will clip a horse in 30 minutes. Price, all complete as shown, **$7.50**

Get one from your dealer or send $2 and we will ship C.O.D. for balance. Order today or write for complete catalog showing world's largest line of horse clipping and sheep shearing machines.

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Hog Book Free.

Valuable hog book, great assistance to any one interested in hogs. On the care and management of hogs. It tells how to cure sick hogs, prevent disease and clear hogs of worms. It tells how to manage young pigs. It tells how to make hog raising and feeding a pleasure, and certain success. It tells how to make the hog business pay big. This book is mailed free to all who write Dr. D. J. Snoddy Co., of Nashville, Tenn. Dept. H.

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MINNEAPOLIS, MINN.
Old Reliable (35 yrs.) and Largest Dealers in the Northwest. Pay High Prices. Quick Returns. Satisfaction.
Free! Circulars to anyone interested in Raw Furs. Trappers Guide to those who ship to us.

The St. Louis market increased over a million hogs during the year 1911.

HORSE AND MULE NOTES.

The Stock Farm, commenting upon the great sale at Madison Square Garden, said: "One thing that impressed the onlooker was the fact that the sire of pacers is not considered as valuable as the sire of the trotter, and that the value placed upon the pacer is what he can win racing. Direct Hal, with a record of 2:04¼ and with five pacers in the 2:10 list and four times that number in 2:20, and all of which race well, was knocked down at $4,700."

From Spirit of the West: "At this time, December 1st, it is likely the returns for the 1911 racing season are about all in, and the number of 2:10 trotters totals 51. The fastest of the number is the seven-year-old gelding, Charlie Mitchell, 2:04¼. Peter the Great, 2:07¼, and Todd, 2:14¾, divide the honor of leading the list of sires for the year, with four performers each. Onward Silver, 2:05¼, claims two, and beyond that no one sire has more than one performer in 2:10."

Native Cattle on the Market.

Light cattle of high quality are outselling heavy cattle. At St. Louis, January 1st, 1912, C. M. Berry, of Audrain county, Missouri, marketed 1,197-pound steers at $7.25 per 100 pounds; and E. J. Shobe, from the same county, marketed 1,248-pound steers at $7.00 per 100 pounds. Other cattle from the same county: J. C. Diggs, with five cars of his own feeding that averaged 1,177 pounds, and sold at $6.50; R. H. McClintock, with a two-car shipment, that were fed by himself. These cattle averaged 1,113 pounds, and brought $6.50; Ed Hildebrand, with two cars of his own fed cattle, among which was a drove of heifers, that brought $5.80.

New Year Sheep Prices.

On January 1st, at St. Louis, the best lambs sold at $6.65 per 100 pounds. They were Westerns, fed in Missouri, and averaged 73 pounds. Other good lambs sold at $6.00 to $6.50. Some choice native sheep sold up to $3.75, and a string of Western sheep fed in Atchinson county, Missouri, consisting of almost 1,000 head that weighed 74 pounds, brought $3.65. Stockers were slow sale at $2.00 to $2.50, and bucks went at $2.50 to $3.00 per 100 pounds.

Immense Hog Marketing.

A very large number of hogs were marketed in the West in the year 1911, and it will be many a long year before the same number of hogs will be marketed again. Chicago, St. Louis, Kansas City, Omaha, St. Joseph, received nearly 20,000,000 hogs in 1911, showing a gain of about 5,000,000 over the previous year. The end of 1912 will tell another story.

The Stock Cattle Market.

Native cattle are selling at St. Louis as stockers and feeders as follows: Good to choice feeders, $5.00 to $5.25; medium to good feeders, $4.75 to $5.00; good to choice stockers, $4.25 to $4.75; plain to good stockers, $3.50 to $4.25; fair to good heifers, $3.50 to $4.50; stock cows, $3.25 to $3.50—all quotations being at the price stated per 100 pounds.

Oklahoma Cattle at St. Louis.

Included in the Oklahoma cattle sold at St. Louis on New Year's Day were sixty-one steers, 1,041 pounds, at $6.80; sixteen steers, 1,213 pounds average, at $6.65; sixty-six steers, 1,097 pounds, at $6.50; and forty-seven steers, 1,085 pounds, at $6.40. All these were free from ticks and were yarded in the native division; others were sixty-nine head, 1,014 pounds average, at $5.80; and twenty-nine yearlings, 827 pounds, at $6.00; and 1,091-pound cows at $5.15—all sales being at the price stated per 100 pounds.

Highest price for prime white live geese feathers in wholesale market, 63 cents; prime gray, 44 cents; old white, 36 to 38 cents per pound.

American Steel Fence Post Cheaper than Wood and More Durable. Get Catalog.

THE Fence adds value to the farm. Keep fences in order and the house painted. It indicates prosperity.

Here's an instance: Not long ago a little farm with shabby buildings and fences rotted down, sold for a song. The new owner had the right idea. Buildings were painted. Wire fences were erected to divide the farm into small fields in order to change pastures and rotate crops systematically. Then circumstances compelled him to sell out. The cost of painting and fencing was less than $200.00. The farm sold for four times its purchase price. Appearances *do* count.

AMERICAN FENCE is made of large, stiff wires, galvanized heavily, having the American hinged joint (patented), a fabric most flexible and wear-resisting. A square mesh fence of weight, strength and durability—three great needs in farm fences.

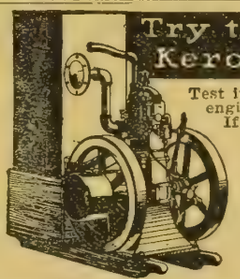
Dealers in Every Place

where farm supplies are sold. Shipped to them direct from mills in carload lots, thus saving freight charges and enabling dealers to sell at lowest prices, giving buyer the benefit.

Send for copy of "American Fence News," also book "How to Make the Farm Pay," profusely illustrated, devoted to the interests of farmers and showing how fence may be employed to enhance the earning power of a farm. Furnished free upon application.

F. Baackes, Vice Pres. & Gen. Sales Agt., AMERICAN STEEL & WIRE COMPANY, Chicago, 72 W. Adams St.; New York, 30 Church St.; Denver; U. S. Steel Products Co., San Francisco, Los Angeles, Portland, Seattle.

Try the Wonderful Columbia Kerosene Engine at our Risk



Test it out on your own place for fifteen days. Give it the hardest engine test you can think of. Compare it with any other engine. If the Columbia doesn't develop more power at less cost, send it back quick. No conditions. We are willing to let you be the judge and jury. Kerosene (common lamp oil) is by far the cheapest fuel today. The price of gasoline is climbing all the time, while kerosene remains the same, and in the right engine, it lasts longer and produces more power per gallon than gasoline. You get ALL the power when you use a Columbia, because it is the right engine. It is the one really simple and perfect kerosene engine. It never bucks when you need it most. It is always on the job.

Write for Particulars of Our Big Special Offer.

Size 2 to 16 H. P.

We are going to double our output for next year. We can do it easily. It is just a matter of getting engine users to test the Columbia for themselves. So we are making a great special money saving offer on Columbia Kerosene Engines. This offer is liable to be withdrawn at any time, so write today for full particulars, for it is a money saver you would hate to miss. **Free Book No. 84 full of engine facts you need to know, sent free.**

COLUMBIA ENGINE CO., 84 Fuller St., Detroit, Mich., U. S. A.

Stop!

Just a Minute, Please

This *little* ad tells you how to get the *big* incubator bargain.

Write me a postal for **"Hatching Facts"** and ample proof of superiority of my famous

World's Champion BELLE CITY 140-Egg Incubator

Has double walls and door and dead air space all over, copper tank, hot water heat, self-regulator, "Tycos" thermometer, egg tester, safety lamp, nursery, high legs, 1, 2, or 3 I am going to sell all my months' machines out on **1, 2, or 3 Home months' Home Test** this year. Test Don't you want to be one of the lucky testers! If so, write today. I will surprise you with the proofs of the wonderful hatches of this machine. Why pay more for a machine that can't compete with mine in the championship class! My machine makes you money from the start at small outlay. When shipped together, I sell my Incubator (price $7.55) and 140-chick double-walled hot water top heated Brooder (price $4.85) for **$11.50** and pay freight. Send for **"Hatching Facts"** today, or if in hurry you may send price direct from this ad—same home test—same guarantee. Money back if not satisfactory. Thousands buy this way. Address, JIM ROHAN, Pres.

$7.55 FREIGHT PAID East of Rockies

$4.85 140-Chick Brooder

Belle City Incubator Company Box 74 Racine, Wis.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Two Kinds of Socialists.

The Rev. Archibald D. Pinkerton, the well-known Christian Socialist of Duluth, said in a recent address:

"I asked a crusty old millionaire the other day to contribute to our book fund. He frowned and said:

" 'So you're a Socialist, eh?'

" 'Yes, sir,' said I.

" 'Well, tell me what a Socialist is,' said he.

" 'But you must tell me first,' said I, 'what sort of Socialist you mean—a political Socialist or a Christian Socialist. For there is a vast difference. The political Socialist says: 'What's yours is mine.' But the Christian Socialist says: 'What's mine is yours.' "—Pittsburg Chronicle-Telegraph.

HENS LAY AND PAY BY THE PHILO SYSTEM

FREE Booklet by E. W. Philo, entitled "A Little Poultry and a Living." Or New 96-page book, "Making Poultry Pay," 10c. Both books and the new enlarged edition of the Philo System text-book, $1.00, or all three books with our monthly magazine, Poultry Review, one year, $1.50.

E. R. PHILO, 13 North Ave., Elmira, N. Y.

SHOEMAKER'S BOOK on **POULTRY**

and Almanac for 1912 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. Only 15c. C. C. SHOEMAKER, Box 915, Freeport, Ill.

Five Pullets in Oregon.

Five pullets in a pen 10x10 space at the Oregon Agricultural College, lay a total of 538 eggs in six months, from November until April. This is probably about as many eggs as pullets can lay in the first six months after starting to lay, the average being 107.3 eggs per pen in six months. They were single comb White Leghorns. The financial statement shows that the eggs sold for $12.66, and the feed, including board for a rooster, cost $3.92¾, leaving $8.74 to pay for time and trouble.

The Boston Poultry Show occupies the attention of twenty-five judges, there being $6,000 in premiums to be awarded, beside 1000 silver cups.

Feeding Poultry in Canada.

A farmers' bulletin issued by the Department of Agriculture of Saskatchewan, Canada, concludes with the following summary:

Birds of the utility breeds are easily fattened and are in demand by the general trade. They should weigh from three to three and one-half pounds when put into the feeding crate.

The egg-laying strains are not suitable for fattening.

The most profitable period for fattening is from three to four weeks.

Be careful not to overfeed chickens the first week. Feed lightly and remove any feed left in the trough half an hour after feeding. Keep the troughs clean and sweet.

After the first week give chickens all they will eat, regularly twice a day.

The oats or mush must be ground very fine. Oats ground for horse feed are not suitable.

Feeding milk or buttermilk whitens the flesh, which is desirable.

Put a little salt in the feed.

Give water in the trough twice a day.

Give some form of grit twice a week. Sifted gravel will do.

Feed tallow during the last ten days. Begin with one pound per day to seventy or one hundred chickens and increase to one pound to fifty to seventy chickens.

To prepare tallow: Weigh quantity required for three days, melt it, and thicken, while hot, with ground oats. Mix one-sixth of this paste with the morning and one-sixth with the evening feed.

If the chicken gets off its feed, remove it from the fattening pen for a few days, allowing it to run free.

Do not allow any food for thirty-six hours before killing.

Kill chickens by dislocating the neck or by bleeding in the roof of the mouth. Use care so that no outside blemish is made.

Market birds with heads and feet on.

Dry pluck at once, while the bird is warm. Observe the buyer's wishes as to whether the bird should be stripped of all feathers or a rim left on the first wing and leg joints. Leave about two inches of feathers around the neck.

As soon as plucked, place the chicken in the shaping board to give it a compact, square appearance.

Chickens should not be drawn.

When cold, wrap in clean parchment paper and pack tightly in shipping case to prevent injury by knocking about.

See that chickens, paper and cases are kept perfectly clean.

He Was Trained For Pawning.

Not even the author of the "Club of Strange Trades" conceived of an odder means of livelihood than that of Dr. Martin Potter, says the New York correspondent of the Cincinnati Times-Star. He runs an animal pawnshop. If you have a lion that you don't need as badly as you need the money, or want to soak a trained bear for a few weeks, or put up an elephant until you hear from home, go around to Dr. Potter. He'll loan you the money against your live stock, and he will not charge you any interest. But you'll have to pay the board of your pledge. "I just drifted into the business," said Dr. Potter. "I started out to furnish trained animals to shows. I've rented everything to showmen from a troup of thoroughbred horses to a red-eyed Numidian lion. By and by I found that I had to lend money now and then to my patrons and take their stock in pledge. It was a necessity of the business, but now I like it."

His stables contain elephants and camels—if you're a regular showman you'll say cam-u-el—and monkeys and a dozen sorts of dogs and all varieties of the cat tribe and the deuce knows what. And his proudest boast is that he was never stuck but once. "Fellow borrowed $20 from me on a trick dog," said he. "Finest dog I ever saw. I'd have loaned $100 on him as easy. But I wasn't shown all that dog's tricks by his owner. That night I found that he had been trained to unlatch the door and get out—and his owner had not trained him to come back."

For Better and Larger Crops.

A good lesson in crop improvement can be learned by obtaining a pamphlet entitled "Better Crops Through the Use of FERTILIZERS." It is issued in handy pocket shape, to be studied at odd times. It contains an analysis of over forty different brands that are prepared for special purposes. To increase crop yields is absolutely necessary. Land is too valuable to work forty acres to produce crops that can as easily be raised on twenty acres. To obtain copy of the booklet, "For Bette Crops," write to Empire Carbo Works, 421 Locust street, St. Louis Mo.

Laying Hens are Money Makers

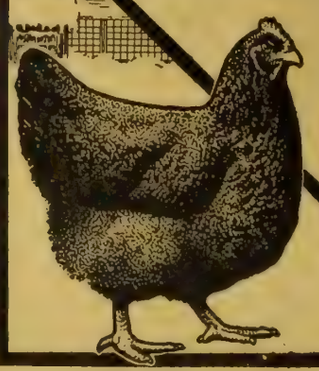
We Guarantee

that by the use of Pratts Poultry Regulator you can have plenty of eggs even when prices are highest and busy hens pay big. A small dose of Pratts Poultry Regulator added to the feed will put more money in your pocket. Try

Pratts Poultry Regulator

on all your hens. Or if you want to make a more careful test, give it to a few for a month, then compare results. Pratts Poultry Regulator doubles the nutritive value of the feed by keeping the digestion in perfect condition.

Satisfaction Guaranteed or Money Back



Our dealers will promptly refund purchase price if you do not find Pratts Preparations pay a handsome profit. If your dealer cannot supply it, write us.

25lb. pails $2.50. Also in smaller packages and 100 lb. bags

Pratts Roup Cure in 25c. and 50c. packages is economical to use and prevents and cures this terrible disease.

Ask for free copy 1912 edition Poultry Book.

PRATT FOOD COMPANY
Dept 54, Philadelphia, Pa.

Pratts Animal Regulator *is the great stock tonic.*

Best Watch in the World.

One hundred and eighty of th leading railroads have adopted th Howard Watch as the standard o excellence. It is because the Howar Watch has no actual competitor There is an interesting story abou this watch which our patrons wil take pleasure in reading. Just writ a postal card to Dept. 122, Howar Watch Works, Boston, Mass., an ask for the story of The Firs American Watch. See page 7 and read about the best watch in the world.

Read about raw phosphate rock as non-available fertilizer on page 3.

ELECTRIC Low Down Handy Wagon

The only wagon for hauling manure, stone, fodder, grain, etc. Saves thousands of high lifts, saves horse flesh, avoids rutting. Makes an end of tire setting and repairs. This wagon will last a generation. Electric Steel Wheel Wagons don't break down. Write for book and see why.

Make Your Old Wagon Over

Use your old running gears, we'll supply Electric Steel Wheels to fit. All heights, all tire widths. Wagon better than ever by simply buying wheels. Let us prove it. Address **ELECTRIC WHEEL CO., Box 40 Quincy, Ill.**

Electric Steel Wheels

The American Swineherd.

Every farmer and stock raiser will find it to his advantage to buy a paper that is devoted to swine raising as a specialty. The best publication in that class is the **American Swineherd,** a monthly publication, issued at 50 cents a year. It is also a good companion for The National Farmer and Stock Grower, and we have decided to handle it as such. Anyone who will send us 50 cents can combine The National Farmer and Stock Grower and the American Swineherd, both papers, for 50 cents, and both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Factors Influencing Quality in Eggs.

Farmers and those handling eggs commercially, as well as the housewives and other consumers of eggs, will be interested in Secretary Wilson's remarks on two systems in vogue in the egg trade.

The system of marketing eggs in general use in the Middle West, known to the trade as the "case-count" system, has proven detrimental to quality. Briefly, case-count buying consists of the payment of the fixed price which happens to be current at the time for each and every dozen which may be offered for sale, regardless of whether the eggs themselves are good, bad or indifferent. The only requisite in most cases to consummate a sale is for each egg to have an intact shell. No more practical step can be taken in improving quality than to discard this system of buying and replace it by the one known to the trade as "loss off."

Where the "loss-off" system is in use the eggs as bought are "candled:" that is, subjected to a test which shows quite definitely their condition and quality. By this test it is possible to detect "rots," "spots" and other deteriorated eggs, such as shrunken, weak, watery and heated eggs. In paying for eggs bought on this basis, the rots and usually the spots and blood rings are thrown out entirely, so that they become a dead loss to the person responsible for them. Such a classification and method of payment is a distinct step forward and results in a great improvement in the eggs.

Dressed Poultry in New York.

These quotations, late in December, show all grades: Fresh killed turkeys, dry-packed, Western dry-picked, selected hens, 20c.; common, 19c.; selected hens and Toms, 19 to 20c.; dry-picked, average best, 18c.; scalded, fancy hens, 20c.; Toms, 19c.; scalded, average, 18c.; old hens and Toms, dry-picked No. 1, 17 to 18c. Chickens—Dry-picked, twelve to box, milk-fed, 24 pounds and under to dozen, 20 to 22c.; 26 to 30 pounds, 18 to 19c.; corn-fed, 24 pounds and under to dozen, 17 to 18c.; 26 to 30 pounds, 15 to 16c.; milk-fed, 5 pounds and up, 20c.; 4 pounds, 18c.; 3½ pounds, 16c.; 3 pounds, 14½c.; corn-fed, 5 pounds and up, 16c.; 3½ pounds, 13 to 14c; do. dry-picked, barrels—Western milk-fed, 5 pounds up, 16½c.; 3½ pounds, 14½c.; mixed sizes, 14½c.; corn-fed, dry-picked, 4 pounds up, 14½c.; 3½ pounds, 11½c.; medium, 10½c.; scalded, broilers, 12c.; 4 pounds up, 14c.; 3½ to 3 pounds, 11 to 11½c.; mixed sizes, 10½ to 11c.; medium, 10½c.; poor to fair, 6 to 8c. Fowls—Dry-picked, Western boxes. 60 pounds and over to dozen, 16c.; 48 to 55 pounds, 15c.; 40 pounds and under, 12 to 12½c.; barrels, clean, 5 pounds and up, 14½c.; 4 to 4½ pounds, 13c.; average best, 12½c.; 3½ pounds and under, 11c,; scalded, average best, 12 to 12½c.; poor to fair, 6 to 8c. Other poultry—Old cocks, per pound, 10c. Spring ducks, 18 to 19c.; Western choice, 16 to 17c.; poor to good, 12 to 14c. Spring geese—Western, average best, 13 to 14c. Squabs—Pair, white, 10 pounds to dozen, per dozen, $4.50; 9 pounds, $4.00 to $4.25; 8 pounds, $3.50 to $3.75; 7 pounds, $2.75 to $3.00; 6 to 6½ pounds, $2.00 to $2.25; dark, $1.50.

Dirty Eggs on the Farm.

While there are a few egg producers who take the best of care of their product, the average farmer considers the eggs produced on the farm a by-product and makes very little provision for their care, aside from gathering them. A large loss is caused by dirty eggs, the number being enormous, and according to the estimate of Secretary Wilson, of the Department of Agriculture, this money loss to the farmers in the United States amounts to about $5,000,000 annually.

This loss is very largely brought about by not gathering the eggs often enough. In wet weather more dirty eggs are found than at any other time. This is caused by the fact that the hen's feet are often covered with mud or filth, and in going on the nest to lay she soils the eggs already in the nest.

An insufficient number of nests is often the cause of many of the dirty eggs found. Eggs are laid on the ground and around the hay and straw stacks, and, becoming stained, are classed as "dirties." Again, when too many eggs are allowed to remain in a nest some are broken, and many of the others become smeared with broken yolks. This condition is often brought about by allowing the broody hens to use the same nests with the layers. On a farm where one nest to every four hens is provided and the nests are kept clean and well bedded, it is found that very few dirty eggs are produced.

After gathering the eggs care should be taken not to put them where they will become heated, or near oil, onions or other vegetables, as they readily absorb odors.

Although dirty eggs may be perfectly fresh, they invariably sell as "seconds," and when but a few dirty eggs are mixed with an otherwise fresh, clean lot, they materially decrease the price of the clean eggs.

Big Four Subscription Combination.

Four best monthly farm papers for one dollar a year. Practically a half-price subscription. **The American Poultry Journal,** one year, **The American Swineherd** one year, **The Fruitman and Gardener** one year, and **The National Farmer and Stock Grower** one year. All for one dollar. These four papers cover the entire field of agriculture—stock raising, dairying, grain growing, vegetables, fruits, poultry, etc. Each publication is the best in its class. No other combination in farm-paper circulation will show such a satisfactory dollar's worth. All these papers are good in any state, useful in any climate and well worth the money to any farmer. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

According to the Stock Farm of December 7th, there are 142 pacers in the 2:05 list and more than 500 trotters in the 2:10 list.

POULTRY PROFITS ON YOUR FARM

EVERY farm can well support, *at low cost* its flock of chickens. And poultry raising, *rightly done,* will net you a big satisfactory *crop of dollars.*

But chicken raising demands the right tools—just as much as any other form of farm work. We want to tell you about the right tools—*why they are best*—and how you can make the most money with chickens on your farm.

Get Our Big Free Book: —Cyphers Company's "Poultry Growers' Guide for 1912." It contains 244 pages, including eight chapters of just the kind of information you need—*practical ideas and facts* from men who know. Study for a *few moments* the following chapter headings—they are *right to the point,* are rich with *profitable* information:

I.—How to Get Twice as Many Eggs from the Same Number of Hens. II.—The 200-Egg Per Year Hen—How to Produce Her. III.—Large Sized Eggs in Demand as Well as Lots of Them. IV.—Mating and Feeding of Fowls to Get Fertile Eggs. V.—Selection and Care of Eggs for Successful Hatching. VI.—Proper Care of Fowls and Chicks with Least Amount of Work. VII.—How to Brood Chicks Properly at the Lowest Cost. VIII.—Premium-Price Table Poultry and How to Produce it. This big book also describes in full

Cyphers Incubators and Brooders

—and explains why they are used by *more* leading fanciers, by *more* large poultry plants, by *more* state agricultural schools and Government Experiment Stations than *all other makes combined.* It tells why they are the greatest money makers *for the farmer*—and proves it by letters from hundreds of successful poultry raisers in all parts of the country.

Cyphers Company Service

—which is fully explained in this book—means that we extend to our customers *the kind of help* that insures for them the best results—that we co-operate with them by means of personal letters, bulletin service, leaflets, egg record cards, incubation charts, etc.,—in meeting their problems as they arise. We are spending thousands of dollars in this work and it is absolutely *free* to all our customers.

Write Today —now—for our free "Poultry Growers' Guide for 1912." 244 pages, weighs a pound and it's free, postpaid to any address. It should be worth many dollars to you.

Cyphers Incubator Co., Dept. 56
Factory and Home Offices, Buffalo, N. Y.

New York, N. Y. 23 Barclay Street
Boston, Mass. 12-14 Canal Street
Chicago, Ill. 340 N. Clark Street
Kansas City, Mo. 317-319 Southwest Blvd.
Oakland, Cal. 1569 Broadway.
London, England. 121-123 Finsbury Pavement.

A PAIR OF POLAND-CHINAS—This photograph was taken by Dave Risk, famous photo and sketch artist. The pigs are the boar KLEVER'S BEST, 104,856, and the sow JAUNITA, 14,672, champion and grand champion at the American Royal Show of 1911. Exhibited by G. M. Curnutt, Montserrat, Mo. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

I'll SHOW You How to Make Biggest Profits

I won't *drop* you as soon as you buy one of my incubators or brooders. I'll *show* you how to make the *most money at least cost.* I'll send you my famous

Poultry Lessons Free —including personal attention and advice that no other maker can give, lessons before you buy—before you start—when you start—while you are hatching—how to make the biggest hatches and raise biggest broods.

SUCCESSFUL INCUBATORS and BROODERS are making biggest profits for others, everywhere, in *every* climate. Gilcrest won't let *you* go wrong with *his machines.*

Send Your Name to Gilcrest for facts about Gilcrest's World's Best Incubators and the way he helps to make you most "*successful*" with them. Address, personally, J. S. GILCREST, Pres. & Gen. Mgr.

DES MOINES INCUBATOR CO., 161 Second Street, DES MOINES, IOWA

NOTE—"Proper Care of Chicks, Ducks and Turkeys"—Sent for 10 cents

Send Me Your Name NOW on a Postal

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

Ten big-bone, long-bodied ready-for-service Boars. You need one and the price is reasonable. Write.

KIRBY STOCK FARM, Marmaduke, Ark.

BLUE RIBBON HERD POLAND-CHINA HOGS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description. **JOHN McLAUGHLIN, R. F. D. No. 1, Marmaduke, Ark.**

CARPENTER'S LIKENESS.

Forty Poland-Chinas and Durocs sold in November and December.

Fifty more to be sold at 20 per cent. discount, if paid for in January.

Must make room for spring farrow. We have the goods to make good. Easy feeders, big litters, money makers.

WILDER CARPENTER,

Grand View Breeding Farm, Marmaduke, Ark.

DUROC-JERSEYS Thrifty Fall Pigs at very reasonable prices.

S. O. ALBIN, Siloam Springs, Ark.

TRUMANS' PIONEER STUD FARM,

America's Largest and Oldest.

Importers of

SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for Catalogue.

Address,

J. G. TRUMAN, Manager, Bushnell, Ill.

DUROC-JERSEY HOGS.

Choice Spring Gilts and Boars by Wonder H, 84,797, Belleville Col., 95,535, B. & C.'s Col. II., 105,671. Also a few Rose Comb W. Wyandotte Cockerels. Prices reasonable.

H. H. HOFMANN, Route 1, Belleville, Ill.

WHEN PLANKING DOWN HARD CASH

for Big-type Prolific Pork Machines, any age or sex, **YOU WIN** if the last word is from

J. P. VISSERING, - Box 1, - Alton, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

ROSE COMB BROWN LEGHORNS

and R. C. R. I. Reds, score birds, $2.00 to $5.00 each, according to score; unrecorded birds, $1.00 each. Eggs from either variety. High-scoring birds, $3.00 to $15.00 each. **Poland-China Pigs.** Orders booked at $15.00 each at weaning time. Write for further particulars.

D. F. BEAUCHAMP, Meredosia, Ill.

Tamworths The hog that puts vigor, proficiency, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.

W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.

50 Head of Pedigreed **DUROC RED SPRING PIGS** at farmers' prices.

CHAS. DORR, Osage City, Kansas.

PURE-BRED REGISTERED ANGORA GOATS

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guranteed.

R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

ELMER GIMLIN, Taylorville, Ill., White Wyandotte Specialist. Exclusive business. Duston strain. Stock, $2 each; 15 eggs, $1; $3 per 50; $5 per 100. Catalogue free.

JACKS AND SADDLERS.

Eighty-five registered Kentucky Mammoth Jacks and Jennets; fifty registered Saddle Horses (Stallions, Mares, Geldings and Colts, of the best Denmark and Chief families). Tamworth and Hampshire Swine and big Black Pigs. We would be glad to have you visit our farms or write for catalogue.

J. F. COOK & CO., Box No. 436 B, Lexington, Ky.

43 Varieties Poultry, Pigeons, Ducks, Geese, Turkeys, Guineas, Inbubators, Dogs. Catalogue 3 cents. **MISSOURI SQUAB CO., St. Louis.**

REGISTERED POLAND-CHINAS.

Splendid Pigs for sale, eight to ten weeks old, at $10.00, from best strains. Give us a trial and we will please you.

BARLAND BROS., Barland, Miss.

55 BREEDS Pure-bred **Chickens, Ducks, Geese, Turkeys,** also **Incubators, Supplies** and **Collie Dogs.** Send 4c for large Poultry book, Incubator Catalog and Price list. **H. H. HINIKER, Box 54, Mankato, Minn.**

ENNIS FARM—GOLDEN SUNSET POULTRY.

Single Comb Buff Orpington and White Leghorn Cockerels, $2.00 each; trios, $5.00. Buff Drakes, $3.00 each. Eggs in season: S. C. Buff Orpington, Rhode Island Red and White Leghorn. Buff and Indian Runner Ducks. Bourbon Red Turkeys. "Remember the Golden Sunset Strain Poultry."

ALBERT S. ENNIS, 712-21 Central National Bank Building, St. Louis, Mo.

REGISTERED POLAND-CHINA PIGS,

Either sex, of the half-ton kind. The very best breeding. They are beauties. Special prices for thirty days.

ALFRED A. NIEWEG, Lois, Maries Co., Mo.

LARGE YORKSHIRE SWINE.

THE BREAKFAST-BACON HOG.

Also produces finest quality of sweet, tender, juicy, fresh pork. Pure-bred.

HARDY, VIGOROUS, PROLIFIC, KIND.

Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

T. C. KIMBER, P. O., Pilot Knob, Mo.

HOGS! HOGS! For Sale: REGISTERED Poland-China and English Berkshires. The best of breeding. For prices see and write

S. Y. BURKS, Bolivar, Mo.

CLOVERDALE FARM—Breeders of Jacks and Percheron Horses.

Twenty Registered Kentucky Mammoth Jacks, three to four-year-olds, fifteen Yearlings and Colts subject to registry. Some nice Percheron Stallions and Mares. Write for circular of the Cloverdale Jacks, Percherons, Tamworth Hogs and Rhode Island Red Chickens.

H. T. BROWN & CO., Lexington, Ky.

POLAND-CHINAS OF BEST STRAINS.

Service Boars of 200 to 250 pounds at $20.00; also Bred Gilts and Summer and Fall Pigs of the leading strains known for large litters and size as well as for quality. Barred Plymouth Rock Cockerels of Thompson Ringlets and Latham's at $2.00 each. Eggs in season. Satisfied customers in thirty-six states. Catalogue free.

A. F. SIEFKER, Defiance, Mo.

SAWYER'S INDIAN RUNNER DUCKS. Good enouh to win in any show. Drakes with light fawn heads. Also White Chinese Geese for sale. Write for prices.

W. M. SAWYER, Lancaster, Mo.

CHOICE LOT OF BERKSHIRE PIGS

for sale. One good Herd Boar, a grandson of Masterpiece, 77,000. These are all the Large English Berkshires of the most popular breeding; also one extra fine Roan Shorthorn Herd Bull for sale. Some choice B. P. Rock Cockerels. Call or write **E. L. JOHN, Owner Broadway Stock Farm, Broadway, Maries County, Mo.**

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

BLOODED STOCK NOTES.

Mr. S. O. Albin, of Siloam Springs, Ark., who is advertising Duroc-Jersey swine, is in Benton county, on the Kansas City Southern Railroad. He is nicely situated to ship pigs to Southwest Missouri, all of Arkansas, Oklahoma and to Texas. He has some fine September and October pigs that should soon be moving.

Messrs. H. T. Brown & Co., of Cloverdale Farm, near Lexington, Ky., are breeders of Percheron horses, mammoth jacks, Tamworth swine and Rhode Island Red chickens. They have an office in Lexington, 156 West Short street, where visitors and customers are welcome. See advt. in breeders' column, page 20.

At the Chicago International Live Stock Exposition, fifty-one head of Aberdeen-Angus cattle averaged $171.00 per head. The average of the twenty-seven females was $153.00, and twenty-nine bulls, $191.25.

E. L. John, of Maries county, Missouri, is an advertiser who came back directly he had more stock for sale. He is at Broadway, between two good shipping railroads, the Rock Island and the 'Frisco.

At the sale of Herefords held at the Chicago International Live Stock Exposition, fifty-one head averaged $286.30. Perfection Lass, 342,053, went to J. P. Cudahy, at Kansas City, at $2,000, and two young bulls were sold for a thousand dollars each.

The 1912 catalogue of Trumans' Pioneer Stud Farm, Bushnell, Ill., is now at the printers. A recent sale by this firm was to that young, enterprising breeder, L. P. Miller, of Knox county, Illinois. He selected an imported grey Percheron stallion weighing 2,000 pounds, four years old, one of the kind that are so much sought after and seldom found.

We cannot mention all our live stock breeders in this edition, but we recommend them all to our patrons. Fine stock at fair prices is the rule, with good value for the money.

The Shorthorn cattle sold at the Chicago International Live Stock Exposition of 1911 averaged $311.50 for forty-three head. The top price for a bull was $700, paid by Ed W. Monnier, of Elizabeth, Ill.; and the top price for a cow was $825, paid by F. W. Harding, of Waukesha, Wis.

RECORD DRAFT MARE SALE.

At the draft mare sale by Trumans' Pioneer Stud Farm, Bushnell, Ill., all previous records were broken, the top price being for Billingborough Belle, champion Shire mare at the Illinois State Fair, to John J. Mitchell, President of the Illinois Trust and Savings Bank, Chicago, at the record price of $6,200. Mr. Mitchell is owner of the world's champion Shire stallion Dan Patch, purchased by him from the Trumans at $10,000.00. The same purchaser also bought Bollam Lady at $4,500; Duchess of Westminster, champion at Wisconsin State Fair, at $1,300; and Coldham Charm, champion at the Minnesota State Fair, reserve champion Iowa and Wisconsin State Fairs and International, at $4,000, her dam being Coldham Surprise, sold by the Trumans at the record price up to that time of $3,600, to George M. McCray. The foal, Dan Patch's Daughter, was also sold to Mr. Mitchell at the record price of $1,600. This foal was bred by Messrs. White & Son, of Blandinsville, Ill., her dam having been purchased by them in one of the Truman auctions.

Your Name Will Get $2 Eggs

For 50 Cents Per Sitting

The White and Brown Leghorns are the greatest layers in the world. I keep 2000 of the celebrated Chamberlain laying strains on my Experimental Farms, and to increase the sale of my Perfect Chick Feed, I will send to any one who will send me their name so I can send them my Perfect Chick Feed Catalogue, 2 sittings of Single Comb Brown or White Leghorn Eggs for $1 for the 2 sittings. Not less than 2 sittings sold. White or Barred Plymouth Rock or Rhode Island Reds or Silver or White Wyandotte or Rose Comb Brown Leghorn or Single Comb Black Minorca Eggs, $1 per sitting. W Orpington Eggs, $2 per sitting. 13 to a sitting. Large white Pekin Duck Eggs, $1 for 10 Eggs. Indian Runner Duck Eggs, $2 for 10 Eggs. This is a rare chance to get a start of extra fine stock. Send Post Office order on St. Louis and have your orders booked early. Get our prices on Old Trusty Incubators, freight prepaid.

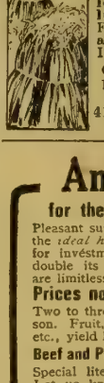
W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*)
KIRKWOOD, St. Louis County, MO

The FARMER'S SON'S GREAT OPPORTUNITY

Why wait for the old farm to become your inheritance? Begin now to prepare for your future prosperity and independence. A great opportunity awaits you in Manitoba, Saskatchewan or Alberta, where you can secure a Free Homestead or buy land at reasonable prices.

NOW'S THE TIME

—not a year from now, when land will be higher. The profits secured from the **abundant** crops of Wheat, Oats and Barley, as well as cattle raising are causing a steady advance in price. Government returns show that the **number of settlers in Western Canada from the U. S. during the last year was upwards of 125,000 and imigration is constantly increasing.**



Many farmers have paid for their land out of proceeds of one crop.

Free Homesteads of 160 acres and pre-emption of 160 acres at $3.00 an acre. Splendid climate, good schools, excellent railway facilities, low freight rates; wood, water and lumber easily obtained.

For pamphlet "Last Best West," particulars as to locations & settlers' rate apply Supt. Immig., Ottawa, Can., or Can. Gov. Agt.

Canadian Government Agent, 125 W. 9th St. Kansas City, Mo. C. J. BROUGHTON, 412 Merchants Loan & Trust Bldg., Chicago, Ill.

An Open Winter

for the man living in the Southeast.

Pleasant summers and mild winters make the South the *ideal home country*. Wonderful opportunities for investments in land which will soon be worth double its present cost. Its producing qualities are limitless.

Prices now range from $10 an acre up.

Two to three crops from the same soil per season. Fruit, truck, alfalfa, corn, cotton, wheat, etc., yield large profits.

Beef and Pork produced at 3 to 4 cents

Special literature on each State. Let us know which interests you. Write at once.

M. V. RICHARDS,
L. & I. Agt., South. Ry., Room 71, Washington, D. C.

NEW RUPTURE CURE

DON'T WEAR A TRUSS.

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. **Binds and draws the broken parts together as you would a broken limb.** No salves. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01.

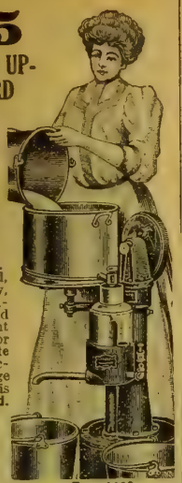
CATALOGUE FREE.

C. E. BROOKS, 59 State Street, Marshall, Mich.

RICE, New Crop, 100 lbs., FREIGHT PREPAID your station, $3.50 to $5.00; free samples. **BEAUMONT RICE EXCHANGE, Box 765, Dept. 12, Beaumont, Texas.**

FREE BOOK! to **GAS ENGINE OWNERS** Write us and we will tell you how to overcome your IGNITION TROUBLES. Let us explain to you how to double the efficiency of your engine and save money. MOTSINGER DEVICE Mfg. Co., Mfrs. of Ignition Specialties, 296 Water St., Lafayette, Indiana, U S A

$15.95 AND UPWARD



AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, **on trial, fully guaranteed,** a new, well made, easy running separator for $15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for **small dairies, hotels** and **private families.** Different from this picture, which illustrates our large capacity machines. The bowl is **a sanitary marvel, easily cleaned.** Gears thoroughly protected. **Western orders filled from Western points.** Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:

AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N.Y.

SELLING HORSES AT ST. LOUIS.

The Methods of the Firm That Transacted the Largest Business in the Year 1911.

The sale of horses at a great central market in the interest of the shipper is no small proposition. It requires a full equipment, men of talent, good financial standing, untiring energy, skill, ability, superior management and a great receiving and distributing center to work in.

MR. T. H. HOLLAND,
Head of the firm of Holland, Nugent & Maxwell Bros., horse and mule commission salesmen at the St. Louis National Stock Yards.

The firm of Holland, Nugent & Maxwell Bros. was organized three years and five months ago, and since then has become the selling agency of the largest number of horses and mules in the world, and a few brief remarks concerning them is not out of place at the close of the most successful year.

Mr. T. H. Holland is chief auctioneer, head of the firm, and it is he who dictates the personal letters of advice to shippers. "Give honor and credit where it is due," said he, "and we are obliged to confess that our success in a great measure is due to the magnificent service of the Stock Yard Company. All that pertains to yard management is absolute perfection. Not only is the expense of yardage and feed less than at other markets, the service is better, and it is the only market where men are furnished by the Yard Company to clean the horses on arrival. We always are able to improve the condition of the horses between arrival

MR. JOSEPH NUGENT,
Master of the sale ring, auctioneer and sale manager for Holland, Nugent & Maxwell Bros.

and shipment by reason of the superior accommodations.

"Another reason for our success," continued Mr. Holland, "is, that this is a fresh horse market. The consignments come direct from farming sections and are shipped from here right into the hands of the retailers. Horses are bought to be sold again, and the quickest, best and safest route with the least money to come out of the horse is via St. Louis. We can supply any class of buyers and save them time and money by the ease and rapidity in which carloads can be collected for shipment."

Mr. Holland is assisted in the auction ring by Col. Ike Howard and Ab. Guy, of Indianola, Iowa, and together with Mr. Joseph Nugent they keep a red-hot auction going on Monday and Tuesday of each week in the year.

Mr. Joseph Nugent also looks after

MR. JOHN K. MAXWELL,
Of the firm of Holland, Nugent & Maxwell Bros., specially skilled in preparing horses for the sale ring, also buyer on order for Southern interests.

all horses sold in their auction ring and rejected by the inspectors, seeing that justice is done between the shipper on the one hand and the buyer on the other. All horses have to be as represented, and none are rejected without just cause.

In this great firm, one of the partners, Mr. John K. Maxwell, looks after the trimming, bedding, sacking and getting the horses ready for the auction ring. He also fills orders for horses in the Southern trade besides having general supervision of receiving and shipping.

A commission firm in the horse trade always buys and sells horses just the same as a commission firm in the cattle trade sells fat cattle and buys feeders. Holland, Nugent & Maxwell Bros. buy horses on orders, and this branch of the trade is in the hands of Mr. Geo. Nugent. He will average three express loads of horses a week to Philadelphia, another to Boston. To the largest retailer of horses in the state of Maine he shipped fifty loads in the year 1911. He furnishes regular supplies to the McHenry Horse Exchange of New Orleans, La., besides other important points in the East and South.

MR. GEORGE NUGENT,
Of Holland, Nugent & Maxwell Bros. He attends to filling orders for Eastern trade and is remarkably gifted in getting satisfactory shipments together.

The mule trade of Messrs. Holland, Nugent & Maxwell Bros. is characteristic of the firm. The mule sales are conducted by Lan Morris and Ed Conway, both men of high ability and national reputation. All mules are sold at private sale, and, as there is a city of mule dealers in and around the National Stock Yards, the salesmen have a strenuous time.

Most of the horses and mules for sale by Holland, Nugent & Maxwell Bros. arrive on Sunday and are met at the chutes by members of the firm, who take every possible care of them. When the auction begins, everything is ready, and as the rush begins the traffic is kept open, so that late arrivals are at no disadvantage.

Shippers of horses or mules in the country and buyers of horses and mules in car lots in any section will find it to their interest to keep in touch with the firm of Holland, Nugent & Maxwell Bros. at the National Stock Yards, where the receipts were 170,000 head, against 105,000 at Chicago, 85,000 at Kansas City, 4,000 at St. Joseph, and 32,000 head at Omaha.

OBTAIN STRAWBERRY CATALOGUE.

It is early to plant strawberries, but not too early to obtain and study a reliable catalogue. Mr. W. F. Allen, of 116 Market street, Salisbury, Md., has 120 acres planted in strawberries, and he will furnish plants true to name. See his advertisement in this edition.

The farmer must increase his individual yields, first, because small yields are unprofitable; and, secondly, because increased yields will be necessary to feed the people.

Push and energy put a young man to the front; also pull and energy.

FARM AND RANCH LANDS.

ARKANSAS.—Richest lands in the state, cut up plantations, that will grow fifty bushels of corn to the acre with ordinary cultivation. Prices strictly reasonable. Write for particulars to **L. M. Allen,** Rock Island Lines, 411 LaSalle Station, Chicago, Ill.

ARKANSAS.—Lands on the Cotton Belt Route in Arkansas are offered for sale at remarkably low prices. All farmers and "intend-to-be farmers" should post themselves. Write for free books showing the best locations. Address, **E. W. LaBeaume,** G. P. & T. A., 1419 Pierce Bldg., St. Louis, Mo.

LOUISIANA.—Rich plantations on the Rock Island Route cut up into smaller tracts and for sale at $25.00 an acre. Splendid opportunity for Northern corn farmers who know good land when they see it. Write for particulars to **L. M. Allen,** Rock Island Lines, 411 LaSalle Station, Chicago, Ill.

FLORIDA.—HOW TO RAISE CROPS THE YEAR ROUND. Buy Georgian Heights, Florida, land, where the climate and soil will produce twelve months in the year. There is no better land in Florida than at Georgian Heights, only fourteen miles from Jacksonville. Now being sold by the owner. **J. T. George,** Wainwright Bldg., St. Louis, Mo.

MISSISSIPPI.—Splendid farm of 460 acres on Southern Railway, with small peach orchard. All fenced, with first-class house, two wells, several springs. Situated with one end in corporation limits of county seat and railroad town. Magnificent opportunity for combination dairy, vegetable and poultry farm. Market right in town at summer health resort or at Memphis. Owner is too rich and too old to handle it and will sell at a bargain. Address, **Philip H. Hale,** 3550 Vista Ave., St. Louis, Mo.

TEXAS.—Many of the very best farms and farm lands are to be found on the line of the Cotton Belt Route in the state of Texas. A reference to that country will be found on page 2 of this paper. Send in your name and receive free books concerning the rich land bargains to be had on this line. Address, **E. W. LaBeaume,** 1419 Pierce Bldg., St. Louis, Mo.

To Buy, Sell or Exchange Property, address **Northwestern Business Agency, Minneapolis, Minn.**

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND,** 7910 Adams Express Building, Chicago, Ill. **BLUE GRASS FLOCK OF SHROPSHIRES. WILLARD MILLER,** R. F. D. 2, Anita, Iowa.

VIOLIN FREE

This is a fine, handsome, clear toned, good sized Violin of highly polished, beautiful wood, ebony-finished pegs, finger board and tail piece, one silver string, three gut strings, long bow of white horse-hair, box of resin and FINE SELF-INSTRUCTION BOOK.

Send us your name and address for 24 packages of BLUINE to sell at 10 cents a package. When sold return our $2.40 and we will send you this beautiful Violin and outfit just exactly as represented.

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If you are honest and ambitious write me today. No matter where you live or what your occupation, I will teach you the Real Estate business by mail; appoint you Special Representative of my Company in your town; start you in a profitable business of your own, and help you make big money at once.

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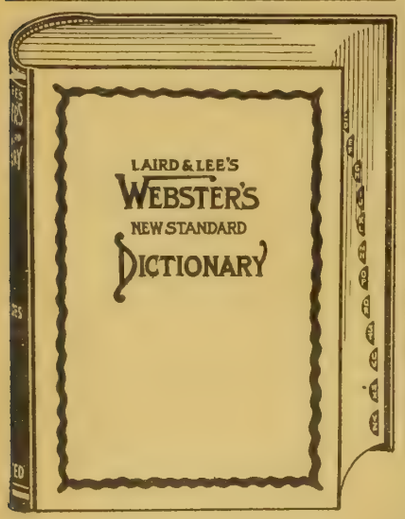
President

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, special thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new



words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave.. St. Louis, Mo.**

A GARDEN OF ROSES FREE!

Fine, Sturdy Plants.

The Most Delightful Subscription Premium Offered by a Farm Paper.

The National Farmer and Stock Grower has again decided to send out a collection of eight choice everblooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction.

Little wonder that plants so boldly decorative in outline and bearing flowers of such exquisite coloring, so marvelously formed, should be the most popular. Roses are of the greatest value and importance in the adornment of the home grounds, giving a finished and very artistic appearance even to those of moderate dimensions. The varieties of to-day are models of excellence and beauty and can be planted with absolute success. Those named below are the choice, new, hardy everbloomers, full of vigor and wonderful productiveness, and they will thrive vigorously and bloom most lavishly all summer long. Not only has great care been used in the selection of these varieties, but careful methods are used in packing them for shipment, thus avoiding all damage while in transit. We guarantee plants to reach you in good growing condition, and with each package we send complete directions for planting, care and culture.

Etoile de France.

This rose has been selected from the unlimited list of hardy red roses as being the acme of perfection, one possessing every distinctive attribute which adds to its beauty and appeals to all. A giant in hardiness and sturdiness, the bush grows upright, covered with beautiful bronzy green foliage and forming a magnificent bush, which is an ornament to all gardens. The growth is so luxuriant and lusty that great masses of the most beautiful roses imaginable are borne all summer. The flowers are glorious in form, perfectly molded, with large, heavy petals of splendid substance, forming an elegant bud, while the open flower is massive, deep and cup-shaped. The fragrance is delicious and the color exquisite, a clear, rich, velvety crimson. It certainly is one of the finest of all garden roses.

President Taft.

In the superabundance of now famous everblooming pink roses it would seem impossible at first thought to choose the one of superior merit. We have no fear, however, of the result of your opinion when you have tried out this superb newcomer, for it is absolutely distinct, there being no variety in any class showing the marvelous beauty of this magnificent kind. It has that which is of prime importance—a hardy, vigorous constitution—forming a symmetrical bush, and by reason of its unusually vigorous habit it makes a sturdy plant, with large, heavy, insect-proof foliage. It blooms continuously from the first days of spring throughout the growing season, a single plant producing innumerable flowers on stiff, strong stems well above the foliage. The flowers are glorious in form, perfectly molded, with heavy petals of splendid substance, forming a long-pointed bud, while the open flower is large, full, deep and well filled. The fragrance is delicious beyond description, while the color is a beautiful sparkling pink, so vivid as to fairly startle one with its brilliancy. This is a rose among roses, and its introduction marks an important epoch in the rose world.

Yellow Kaiserin.

Without this rose the most valuable collection of hardy everbloomers is incomplete, and it is one which will thrive under most unfavorable conditions of soil or treatment. It is an exceptionally rapid grower, producing a succession of bloom from early spring until late fall. The large double flowers are of artistic formation, a rich canary yellow, deliciously fragrant, retaining their freshness of odor and beauty of form long after being fully developed. It well deserves a prominent place in the most beautiful gardens.

White Killarney.

The wonderful new "Irish Beauty" which has carried off every prize when exhibited and set everyone to raving over its surpassing beauty and elegance. A description cannot do justice or convey to you the marvelous beauty of this rose. In habit of growth it is a robust grower, free branching, having an abundance of rich green foliage. The buds are exquisitely long and pointed, unfolding broad, wax-like petals into enormous semi-full flowers of pure snow white which retain their freshness of form and purity of color for an extensive time.

Helen Gould.

This is the most valuable and satisfactory red rose for general planting ever introduced, and no garden collection would be complete without it. In habit of growth it is vigorous and robust, throwing long, strong shoots from the roots, which are clothed with clean, heavy foliage, making an excellent setting for the fragrant, beautiful flowers. Great masses of splendid, rich, velvety roses are produced all through the summer, impressing everyone with their superiority and great beauty. The buds are of unusual size and exquisitely shaded, the petals of which are smooth and velvety.

Marigold.

The sight of this grand rose never fails to create a desire to possess the flower, and a more valuable variety for outdoor planting does not exist. It is a fine, upright grower of free branching habit and as a liberal and continuous bloomer it is unsurpassed, heading the list for size, fragrance and beauty of form of flowers. It is impossible without seeing it to conceive of the wonderful beauty and splendor of the deep, full flowers, which are a clear, saffron yellow, opening canary with dark, golden shadings.

Clothilde Soupert.

This rose well deserves the title of "Premium Bedding Rose," and is one of the few varieties with which all can succeed in producing flowers under house or pot cultivation. It is extremely hardy and a vigorous, healthy grower, quickly developing into a fine, shapely bush, which is covered with clusters of beautiful roses through the entire growing season. This rose may be potted for house culture, and if given ordinary care will produce an abundance of bloom, frequently hiding its foliage with flowers. Through the hottest summer months, when other plants show a withered, sickly condition, this rose continues to grow and bloom, and its beautiful white, pink-tinted flowers always appear charmingly fresh and sweet.

Everblooming Crimson Rambler.

The advent of the famous Crimson Rambler produced most startling results, the only possible flaw to be found was its habit of blooming but once during the season. So for years it has been the aim of every rose grower to produce an everblooming type, and this has now been accomplished in the production of this variety. The plant is of very vigorous growth, making shoots from eight to ten feet during the season. It is magnificent in bush form, completely covering itself with bright green and glossy foliage. The flowers are produced in great pyramidal clusters, the individual flowerets measuring from one to two inches in diameter. The color is the brightest crimson, so vivid as to fairly startle one with its exceeding brilliancy, and, best of all, it blooms from early spring until along late in the autumn, proving a constant source of pleasure and delight.

Our Special Offer.

Send us sixty cents, by money order preferred. We will send you The National Farmer and Stock Grower for one year. We will send you direct by mail, postpaid, the full set of eight hardy, everblooming Roses. We will also send you a 16x20 inch picture entitled **"The American Beauty Rose."** The picture is most beautiful. There is a great bunch of roses resting on the white linen cloth of a table. It is glorious, magnificent. Send us sixty cents. The paper can go to one address, the picture to another and the roses to another, or all three to one address. The roses are sent out directly it is safe to dig them in the spring.

The Aviation Cap.

This is so easily made, so cheap and so convenient that it is little wonder it still holds a place in public favor; in fact, it is more popular, if possible, than last year, and is worn by old and young alike.

While the two-color schemes are much in favor, as light blue with dark blue rim, white with red or blue, and gray with any preferred trimming being much in vogue, many still prefer the solid color, especially white, which is becoming to all faces and ages.

From three to five skeins of Germantown yarn are required, the amount depending upon the size of the head and the shape of cap fancied. The four-ply yarn, large and cord-like, works up in more fanciful form, and is more quickly knit, though the ordinary yarn may be used. Work always with a double thread, using a large bone crochet hook.

Make a chain of five stitches, join. In this crochet twelve double crochet, and unite into a circle. Throw thread over hook, take up the farthest thread only of the stitch between the first of the d. c.'s, thread over hook, pull loop through, thread over and pull through the same loop again. You now have five stitches on hook. Thread over, and pull through all five at once. This makes one "puff." Make another in the next stitch in the same way. About every fourth stitch make two puffs in the same stitch to increase the width properly. Knit about six rounds in this way, making the crown somewhat pointed.

Knit four or five rows straight (without widening) for the rim. Then make four rows to turn up by turning the work over, knitting alternately from the right and wrong side, or the last rows may all be knit from the wrong side, according to taste. Finish by running a band of black velvet ribbon around the edge of the rim, or complete with a pompon or a ribbon bow of harmonizing shade. The crocheting should be done very loosely.—Bessie L. Putnam.

HOW TO GET BETTER LIGHT From KEROSENE (Coal Oil)

Recent test by Prof. Rogers, Lewis Institute, Chicago, and Prof. McKergow, McGill University, Montreal, on leading oil-burning lamps show the Aladdin Mantle Lamp is the most economical and gives over twice as much light as the Rayo and other lamps tested. It is odorless, safe, clean, noiseless. Better light than gas or electric. Every Aladdin Lamp fully guaranteed and protected by patents in nearly every country on earth. Our burners fit your old lamps. To introduce the Aladdin, we will give

ONE LAMP or BURNER FREE

in each neighborhood. Send postal with name and address, ask for catalogue M. **AGENTS** Ball sold over 1000 on money back guarantee; not one returned. Bruner sold 800 in 15 days. Ask for liberal agency proposition. Sample lamp furnished.

MANTLE LAMP COMPANY, 182 Aladdin Building, Chicago, Ill.

300% Profit!

If hogs are the "mortgage lifters" in the corn belt, what would you call them in Arkansas and East Texas, where, according to *government test*, they can be fattened at 1½ *cents per pound*. Farmers there have *proved* that an acre of peanuts will put on 1,200 pounds of pork—*three times* as much as an acre of corn. Peanuts, grown on land there that can be bought for $10 to $20 per acre, will return $80 *per acre* when marketed through pork. And peanuts are grown by the *same methods* used for corn.

On account of the mild, healthful climate, and the *splendid* variety of stock feeds which can be grown on lands along the

Cotton Belt Route in Arkansas and Texas

a sow will stand more frequent breeding and will bring bigger litters than the same grade sow elsewhere. Mr. Hays, of Waldo, has a Tamworth hog which brought 48 pigs in *fourteen* months. This is unusual, of course, but *two big litters* can be *counted* on, each year. The same conditions that make hog raising so profitable, make any line of stock raising pay *big* in Arkansas and Texas.

There are many sections in Arkansas and Texas that are *just suited* for your line of farming—where you can buy *many* acres with the price of every *one* you now own—get the benefit of the *big* boost in land values sure to come—live in a mild climate where you can do money making work *every* month—without sacrificing *anything* in living conditions that you now have. Telephones, good schools, rural delivery, modern towns, close markets—you'll find them all through Arkansas and East Texas.

On the 1st and 3rd Tuesday of each month there are very low round trip excursions to Arkansas and East Texas via Cotton Belt Route, allowing 25 days for trip and *free stop overs*. Plan to go on the *next* one.

Get our new free books

—written by a practical farm man, who went from county to county and talked with the farmers themselves and got pictures of their places. 115 pictures and 100 pages of plain farm facts, describing every kind of farm opportunity Southwest. Nothing will convince you like these statements from your own people. Write today.

E. W. LaBEAUME,
General Passenger Agent
1419 Pierce Bldg., St. Louis

COTTON BELT ROUTE

Up-to-date Country Homes.

There is every reason why farm houses should be the best homes in the nation. Up to the present time the dwellers in the country have been content to have the dwellers in the cities have the fine, well-provided homes, with all appliances for health and convenience. But a change is fast coming over the rural sections of the country.

Here and there we run across a farm home that is as good as any in the cities. We have in mind a farm house that cost in the neighborhood of $5,000. It is wired for electricity, because it is expected that before long a cross-country electric line will supply electric light. It is well sewered and has a perfect system of water works of its own, the water for which is pumped by a windmill erected solely for the use of the house. There is no attempt to make the barn windmill do double service.

The problems connected with making a first-class country home are generally less than in the city. The sewage can usually be taken care of by running a sewer pipe from the house to a box in the ground a hundred feet or more from the house. If this box is tight, so that nothing but the sewage can get in, save where the water flows out, the result is a little septic tank that works to perfection, destroying the organic matter in the sewage and allowing the partly-purified water to run off without notice by anyone. Other pumping machines can be used in place of the windmill, if so desired.

The modern home in the country can have every convenience that the city home has. Take the single matter of drinking water. Of course, if there is a deep well to supply a tank above the house, the problem of water pressure and supply is already settled. But where no pumping power is provided, it is easy to run a pipe from the well to the house and have connections made in different parts of the house and the necessary pumps supplied. There are still millions of farm houses where the water from the well is brought in pails instead of in pipes. This is really absurd, when the first cost of laying pipes and installing pumps is so small, and the cost of keeping in repair is only that of keeping the pump washers in proper state.

When the well is being considered it should be placed at a good distance from any privy or barn, that the water may not be contaminated. Many farm wells are altogether too close to barns, privies, hog pens and poultry houses, but at the up-to-date houses they are at a healthful distance from all such places.

The telephone system now serves the up-to-date country home and many others. Small local systems also frequently connect the house with the barn and other outbuildings that are much used, such as the work shop.

In the up-to-date country home there is now to be found many an appliance for lessening the work in the house. Kitchen cabinets are common and the pantry arrangements are as good as in any city homes.

This is a reform that is filled with promise of better things for the mistress of the country home, who has too often been neglected and left to her own devices and her overwork.

Our Best Asset.

Health is the greatest asset of the nation, the community, the individual. We do not realize its value until we lose it, yet then we readily admit its importance. At this season, when the system is stuffed with the good things stored away for the winter, we are in greater danger than at any other time of the year.

In olden times it was quite the fashion in spring to resort to blood purifiers to straighten out the clogged system; but we now know there is a better way, even though we sometimes fail to observe the rules. In cold weather we relish the rich, heavy foods and partake of them too freely. While in moderation once or twice a day they may be safely indulged in, when it comes to making three meals a day of meat, mince pies and doughnuts, with possibly a midnight lunch of the same character sandwiched in, this is more than anyone can stand.

If a simple breakfast could be substituted for the hearty one, there would be fewer doctor's bills. Buckwheat cakes with sausage are a temptation, we admit; but why not vary them by alternating with the saner food, toast and cereals? There are so many prepared foods on the market. Then there are Graham gems, rice, baked apples and many other simple dishes which are quite as palatable as the richer ones, which are bound to breed trouble later.

Carnegie clings to his simple morning meal, though millions are at his disposal. Fortunately, he is well aware that overindulgence in food would soon put a stop to his personal enjoyment. It is worthy of note that wherever we go, it is those who cling to the simple diet who are spared the trouble and worry of "dieting." Our health is too important a matter to be juggled with; and if we wish to keep well we will eat with moderation and come out in the spring with digestion unimpaired through high living.—Bessie L. Putnam.

SULTAN'S CREED—Polled Durham bull. Age, June, 1910, photograph as a junior yearling. Exhibited by J. H. Miller, Peru, Ind. Winner of prizes in the State Fair Circuit and junior champion of the breed at Chicago International Live Stock Exposition of 1911. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

The Fruitman and Gardener.

There is a fine monthly paper called the Fruitman and Gardener that stands high with growers of large and small fruits. It is useful in any state and of practical value on any farm. It is edited by men of ability and is in every way worth the money it costs. We have adopted the Fruitman and Gardener as a companion publication to The National Farmer and Stock Grower, and it is a combination hard to beat. Anyone who will send us 50 cents can combine The National Farmer and Stock Grower and the Fruitman and Gardener, both papers, one year. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The Buttercup Cream Separator is advertised on page 8 in the Waterloo Gasoline Engine advertisement. Don't fail to read about it and write to the Waterloo Gasoline Engine Company, 228 West Third Ave., Waterloo, Iowa.

On December 12th it was reported that Natchez, Miss., will have a public park and city Fair Grounds on the order of the Dallas Fair. Deeds conveying to the city the Auburn and Sunnyside properties, comprising 161 acres just beyond the city limits, were filed by S. B. Duncan, of Issaquena county. The property was left by Steven Duncan, a millionaire of Adams county, who died last year.

LIGHT UP!

You can transform any kerosene (coal oil) lamp or lantern into dazzling brilliancy with our wonderful **Bright Light Burner.** 50 candle power invisible and **unbreakable Steel Mantle.** Brighter than electricity, better than gas or gasoline, and **perfectly safe.** No generating—simply light like any kerosene lamp. Nothing to get out of order. Positively will not smoke or flicker.

AGENTS WANTED EVERYWHERE. Sells like wildfire. An opportunity of a life time, work all or spare time. Experience unnecessary. Make big money—be independent. Write today. Act quick—territory going fast. Complete sample, postpaid, **30c, 4 for $1.00. Money back if not satisfactory.**

BRIGHT LIGHT CO., Dept. 64, Grand Rapids, Mich.

Use KEROSENE Engine FREE!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing.

Gasoline Going Up!

Automobile owners are burning up so much gasoline that the world's supply is running short. Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline. No waste, no evaporation, no explosion from coal oil. Cylinders cannot carbonize

Amazing "DETROIT"

The "DETROIT" is the only engine that handles coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Basic patent—only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Complete engine tested just before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric-lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate amazing, money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, we will allow you Special Extra-Low Introductory price. Write!

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

MISSOURI'S SHOW HERD WINS FAME AND MONEY.

A Remarkable Record Made Last Year by the Steer Exhibit of the College of Agriculture.

A total of fifty-four prizes won, carrying a money award of $1,204, in competition with the herds of the leading breeders of the world. This is the remarkable record of the show herd of the Missouri College of Agriculture, as shown by the report just made by the Professor of Animal Husbandry to the Board of Curators.

Of the fifty-four prizes, six were championship awards; twenty-five were first prizes; seven second prizes; twelve third prizes; three fourth prizes; one fifth prize and one twelfth prize.

One animal alone, the grade Hereford calf Disputer, bred, fed and exhibited by the college, took four champion prizes and six first prizes, bringing in a money premium of $355.

All of these prizes were won at the big Stock Shows of the country. The first showing of the College herd was at the Interstate Live Stock Show at St. Joseph, Mo., where eleven steers won five first prizes, two second prizes and two third prizes. The same eleven animals were shown next at the Missouri State Fair at Sedalia. Here they captured three champion prizes, seven first prizes, one second prize and four third prizes. The herd kept up its winning record at the American Royal Live Stock Show at Kansas City, taking one championship, eight first prizes, two third prizes and one fourth prize.

Two of the steers were sold and only nine were taken to Chicago to enter the world competition at the International Live Stock Show. Here again the College herd more than held its own, adding to its list of winnings two champion prizes, five first prizes, three second prizes, four third prizes, two fourth prizes, one fifth prize and one twelfth prize.

Disputer, the Hereford steer, was champion steer under twelve months and champion grade Hereford. He also won first prizes in the senior grade or cross-bred calf class, senior grade Hereford calf, and the Clay, Robinson & Co.'s special classes. It is noteworthy that the college in the last three years has twice placed a steer among the champion groups at Chicago. The other was Deserter, who, in 1909, was reserve champion.

Grand Champion Sheep.

Looking at the picture does not clearly convey the impression that the grand champion wethers weighed 165 pounds, but they did. They were grand champion sheep at the International Show of 1911, and were sold by Clay, Robinson & Co. at $7.60 per 100 pounds. They were fed and exhibited by J. Orton Finley, of Oneida, Ill.

For the first time in the history of the International Show, aged wethers won the sweepstakes over lambs. They were the pick of three carloads bought at South Omaha last August by Clay, Robinson & Co. at $3.35, averaging 132 pounds. They were out of medium wool Merino ewes by thoroughbred Cotswold bucks, raised by J. A. Delfelder, of Wolton, Wyo., who is a pioneer flockmaster of Wyoming, and President of the Wool Growers' Association of that state. Upon reaching the Finley farm, the wethers were put on blue grass, timothy and clover pasture. On September 1 they were started in a little feed of ear corn, which was gradually increased, and a little oil meal was added the middle of September. Along the middle of October they were put in a dry feed lot and fed alfalfa in the place of given the run of a pasture. About six weeks before being shipped the feed of ear corn was changed to shelled corn, because they would not take enough of the corn off the cob to make a satisfactory flesh gain. September and October, when very wet and warm weather prevailed, were the worst fall feeding months Mr. Finley ever experienced. For some years Mr. Finley has been one of the largest and most successful car-lot sheep exhibitors at the International. Last year he captured every premium except one offered for range-bred sheep and lambs, and took third premium with his native lambs. Mr. Finley is seen standing in the background of the photo.

MRS. ELLA D. ROWLAND,

Of the Zillah section of the Yakima Valley, winner of $500.00 in gold for the best twenty-five box apple display, any variety, grown anywhere. This was Nov. 4th, 1911, at the New York Land Show.

Mrs. Rowland's apples—Winesaps—scored 982 5-6 points out of a possible 1,000. While her exhibit competed with not only the finest samples from all other districts of the Yakima Fruit Valley, there were samples of the best produced in many other sections of the country, thus without a doubt the Rowland Winesaps proved to be the equal of any grown anywhere; and as a clincher of the fact it may be stated that Robert Johnston, of Fruitvale, another important part of the great Yakima Valley, scored second, with 978.7 points, making the contest between Yakima Valley fruit raisers the feature of that great show. Both of these winners own high-class orchards, located in territory which, only a few years ago, like all other sections of this valley, was a dense mass of sage brush, giving proof of the argument that Yakima Valley, in the state of Washington, will and does produce the best fruit that grows.

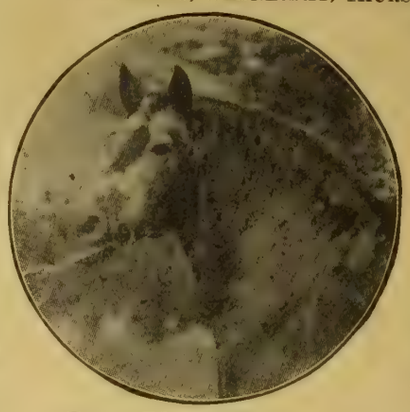
BREEDERS' SALE

400 HORSES 400

In Coliseum, BLOOMINGTON, ILLINOIS,

JANUARY 23, 24, 25 and 26, 1912.

ON TUESDAY, WEDNESDAY, THURSDAY AND FRIDAY WE WILL SELL



300 IMPORTED and NATIVE-BRED Registered Percherons, Belgiums, French Draft, Shire and Clydesdale Stallions and Mares.

100 Head of Imported Stallions and Mares that will land by sale day.

150 Head of Imported Stallions and Mares that have been here a year.

150 Head of the BEST Registered Mares that ever went into an auction ring.

50 Head of Imported Fillies, one and two years old.

100 Head REGISTERED STALLIONS of the very choicest of breeding and individuality.

On Friday, January 26, 1912,

100 HEAD Registered Trotters Grade Draft, Single Drivers, Saddle and All-Purpose Farm Horses, Stallions, Mares and Geldings.

100 Head Ponies IMPORTED and NATIVE-BRED REGISTERED Shetland, Welch and Cross-Bred, from the best breeders in the state. Stallions and Mares, good enough to head any herd; Mares and Geldings broke and safe for your wife or child to drive.

CATALOGUE READY JANUARY 8, 1912.

D. AUGSTIN. **C. W. HURT, Mgr., Arrowsmith, Ill.**

THE GALLOWAY PLANT AT WATERLOO, IOWA, is one of the foremost manufacturing establishments in the country. It is represented in this edition of The National Farmer and Stock Grower by an engine advertisement on page 11 and a manure spreader advertisement on page 6. "Bill" Galloway, as the principal owner is called, has recently established an Agricultural Club at his works, the club building appearing in the foreground. This building was finished at a cost of $65,000, and is for the comfort of farmers visiting the works. All the dairy products used in this great establishment are supplied from "Bill" Galloway's own farm, just outside of Waterloo, where he keeps a large herd of the finest Holstein and Ayrshire cattle and raises chickens by the hundreds to supply eggs and poultry for the club table.

BETTER CISTERNS --- WHY?

To protect the health of every member of your family. Medical experts have pronounced the brick and wood cistern to be the cause of many cases of sickness.

A Cistern to be perfectly sanitary must be made so tight that no impurities can possibly get through. This can only be accomplished by using the Steel Cistern.

STEEL ROOFING Of All Kinds,

Stock and Storage Tanks, Wagon Tanks, Etc.

Send for Free Catalogue.

O. K. HARRY STEEL WORKS, 2353 Papin Street, ST. LOUIS, MO.

MUSIC TAUGHT FREE

Home Instruction

We want to advertise and introduce our home study music lessons into all parts of America, and will give you absolutely free instruction if you will simply recommend the INTERNATIONAL INSTITUTE to your friends after you learn to play. We successfully teach Piano, Organ, Violin, Mandolin, Guitar, Cornet, Banjo, Cello and Sight Singing. You may not know one note from another; yet, by our wonderfully simple and thorough method, you can soon learn to play. If you are an advanced player you will receive special instruction. Our lessons are sent weekly. They are so simple and easy that they are recommended to any person or little child who can read English. Photographs and drawings make everything plain. If you accept our free tuition offer you will be asked to pay only a very small amount (averaging 14 cents a week) to cover postage and necessary sheet music. We have successfully taught others and we can successfully teach you. Write today for our **Free** booklet, which explains everything. It will convince you and cost you nothing. **INTERNATIONAL INSTITUTE OF MUSIC, 98 Fifth Ave., Dept. 358, New York.**

$3.50 Recipe Free For Weak Kidneys.

Relieves Urinary and Kidney Troubles, Backache, Straining, Swelling, Etc.

Stops Pain in the Bladder, Kidneys and Back.

Wouldn't it be nice within a week or so to begin to say goodbye forever to the scalding, dribbling, straining, or too frequent passage of urine; the forehead and the back-of-the-head aches; the stitches and pains in the back; the growing muscle weakness; spots before the eyes; yellow skin; sluggish bowels; swollen eyelids or ankles; leg cramps; unnatural short breath; sleeplessness and the despondency?

I have a recipe for these troubles that you can depend on, and if you want to make a **quick recovery**, you ought to write and get a copy of it. Many a doctor would charge you $3.50 just for writing this prescription, but I have it and will be glad to send it to you entirely free. Just drop me a line like this: Dr. A. E. Robinson, K-1174 Luck Building, Detroit, Mich., and I will send it by return mail in a plain envelope. As you will see when you get it, this recipe contains only pure, harmless remedies, but it has great healing and pain-conquering power.

It will quickly show its power once you use it, so I think you had better see what it is without delay. I will send you a copy free—you can use it and cure yourself at home.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.

Sprays of Forget-me-nots.

No. 614.—Design for embroidering sprays of forget-me-nots. Suitable for lingerie blouses, children's dresses and for all objects for which small flowers are appropriate. The price of the pattern is 10 cents.

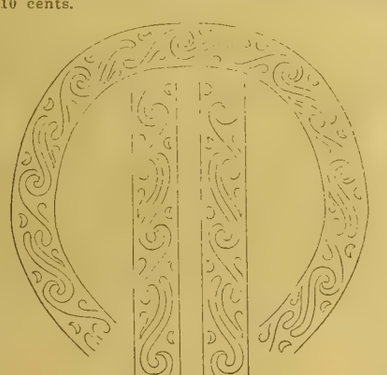
No. 617.—Design for an embroidered doily six inches in diameter. The price of the pattern is 10 cents.

Infant's Clothing.

No. 616.—Design for embroidering an infant's robe dress. Transfer patterns for yoke, front, sleeves and neck are given. The price of the pattern is 10 cents.

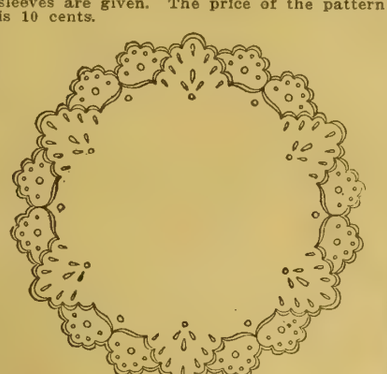
An Envelope Bag.

No. 618.—Design for an embroidered bag in envelope shape. The work can be done in beads, in solid embroidery or in outline or cable stitch. The price of the pattern is 10 cents.



A Two-inch Banding.

No. 613.—Design for banding two inches wide. Especially adapted to May Manton's Pattern No. 7218. To be embroidered with beads or French knots. A curved band for a low-neck gown and straight banding for sleeves are given. The price of the pattern is 10 cents.



Good-size Center Piece.

No. 615.—Design for an embroidered center cloth twenty-two inches in diameter. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Ah! There's the Rub.

"Ladies hoping to annex husbands in leap year will do well to trust in Providence, but they shouldn't forget to keep their powder dry."—Washington Star.

About Curing Sick Hogs

How To Prevent Hog Cholera

The Merry War Powdered Lye Treatment

By E. Myers.

E. Myers, President, E. Myers Lye Company, St. Louis, Mo.

Not a single year passes but severe outbreaks of Hog Cholera occur in nearly every state.

If the aggregate loss could be ascertained definitely, its total would be in the seventh column—millions.

To no other single source can such enormous and rapid losses be traced—thus in all probability, no other disease is of such vast economic importance to the American hog raiser as Hog Cholera.

It has been so often stated by experts on hog diseases that hog cholera is incurable, that many hog raisers have come to accept that opinion as final. On the other hand there are many others whose experience in the treatment of swine diseases gives weight to THEIR opinion who just as stoutly maintain that hog cholera, when treated in the early stages, IS curable. Moreover there is ample proof to back up this belief for it can be stated without fear of successful contradiction that there are numerous cases on record where cholera has been effectually stamped out of entire herds and the sick hogs completely cured. In fact there really seems no necessity of a hog raiser being forced to see his hogs dying off today like flies without being able to help them through to health.

It is undeniably true, however, that it is far easier to PREVENT hog cholera than it is to cure it. It forcibly emphasizes the truth of the adage that "an ounce of prevention is worth a pound of cure". Therefore it behooves every farmer who is looking forward to pork profits that are worth while, to be well informed regarding the most effective means of preventing this terrible scourge before it has any chance to work havoc in the herd.

Positive measures for prevention are first; thorough precautions against any cholera conditions which may exist in the neighborhood—and then a vigilant, scientific treatment of the entire herd by feeding daily, a portion of Merry War Powdered Lye with the regular night and morning rations. This is most effective and is also inexpensive.

Upon premises which have sheltered diseased hogs the greatest cleanliness should prevail at all times and extreme sanitary measures should be adopted before feed lots, troughs, pens, etc., can again be considered safe. Rake up and burn all loose straw and litter. Get a spray pump and spray thoroughly all permanent structures, such as sheds and pens. For this purpose, make a solution of Merry War Powdered Lye in the proportion of one can to about eight or ten gallons of water, stirring well until thoroughly dissolved. Use this spray mixture liberally. Do a thorough job of it—squirt it into all cracks and crevices. Clean up every nook and corner which might, by any possibility, harbor any of the disease germs. Stables, barns, kennels and poultry houses can also be disinfected and purified with this same solution. Whenever practical to do so, it is a mighty good idea to change the entire location of the hog pasture and erect new pens and sheds. The pork profits of the average farmer are well worth all this care.

It has been amply demonstrated that hogs which are well nourished with a properly balanced ration of Merry War Powdered Lye as per directions given herein are not liable to contract cholera—and big hog profits are worth this proper feeding.

If the above precautionary and preventive measures are adopted there will be little danger of an outbreak of hog cholera or any other infectious disease. And the cost is ridiculously small.

Years of experiment and thousands of tests have conclusively proven that Merry War Powdered Lye is not only the best protection against hog losses ever discovered, killing worms, preventing hog cholera, rendering hogs immune to infectious diseases, keeping them on their feed, with hearty appetites and keen relish; toning them up, making them fat and sleek, insuring prime condition for top notch prices in the shortest possible time—but, also, that it is the least expensive remedy any hog raiser can use.

Its use by thousands upon thousands of hog raisers everywhere has resulted in unanimous and enthusiastic praise over the truly wonderful results attainable by regularly feeding Merry War Powdered Lye.

It is to be regretted that some commercial lye makers and some dealers are trying to persuade hog raisers that any lye will do as well for hogs as Merry War Powdered Lye.

Merry War Powdered Lye is especially prepared by a scientific secret process in which is contained just the right combination to produce healthy, fat hogs. The makers of regular commercial lye do not understand the combination and lye preparation necessary to produce these results.

Some dealers not familiar with the difference between Merry War Powdered Lye for hog use and other lye have been known to recommend the use of other lye in cases just because they did not happen to have Merry War Powdered Lye in stock at the time. This is a grave mistake—do not permit your dealer to make this error; be sure that you use only Merry War Powdered Lye for use in feeding hogs.

Hog raisers will find Merry War Powdered Lye a profit earning investment if fed regularly every day with the daily ration. The directions for feeding Merry War Powdered Lye should be carefully followed. They are: Mix one tablespoonful of Merry War Powdered Lye with slop for 10 hogs or ¼ can with a barrel of slop. Stir well and feed every night and morning. Where hogs are kept on dry ration, mix ½ can of Merry War Powdered Lye to each barrel of drinking water. If hog raisers will start litters from sound, healthy parents in new, clean quarters and begin feeding Merry War Powdered Lye from the time the young pigs are six weeks old, worms and Hog Cholera will henceforth be unheard of factors in figuring hog profits.

All who are interested in keeping their hogs free from disease should write to E. Myers Lye Co., Dept. 22, St. Louis, Mo., and ask for a free copy of booklet "How to Get the Biggest Profits From Hog Raising."

Only 40 Cents

Anti-Nicotine Calabash Pipe

THIS splendid Calabash is modeled on the lines of the original African Calabash Gourd. I have placed in it my famous Anti-Nicotine Bowl, made of a clay-like material which absorbs the nicotine and uses it to color the pipe like the finest Meerschaum. **Three for One Dollar** You do not have to "break in" this pipe. There are no vile fumes. It is always sweet, clean, dry. With German Silver mountings, 40 cents each, three for a dollar. Sent prepaid anywhere with a copy of our fine catalog of smokers' articles. Send today. Money back if not satisfied. H. Menges, The Smoker's Friend, 266 Menges Bldg., St. Louis, Mo.

ASTHMA CURED TO STAY CURED

No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease. **FREE TEST TREATMENT** including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.** Dept. N, American Express Building, Chicago.

GRAY HAIR Can be restored to natural shade to STAY DARK and will be beautified. Don't waste money and take risks with questionable dyes or stains. Get our BIG BOOK on the Hair. We will send it FREE, in plain wrapper, postpaid. Address Koskott Laboratory, 1269 Broadway, 268 A, New York, N.Y.

WE PAY $80 A MONTH SALARY and furnish rig and all expenses to introduce our guaranteed stock and poultry powders; money-back guarantee; outfit free; new plan; steady work. Address BIGLER CO., X 356, SPRINGFIELD, ILLINOIS

Rats and Mice.

It is not what they eat so much as what they waste that makes these rodents so very expensive to the farmer. Rats especially have the habit of rendering a bin of apples a complete mush of chewed bits in a surprisingly short time. Their habits are disgusting in the extreme, and from a sanitary as well as from a financial point of view war should be waged upon them most vigorously until they are exterminated.

They are too shrewd to fall into the same trap which has caught a mate, and one must be continually devising new tricks to get ahead of those that have grown wise. Covering the trap with old carpet, changing its location, varying the bait, smoking the trap, these and many other variations have been made, and still the pest seemed to increase faster than the inmates of the rat graveyard.

As a bait for either rats or mice we have found nothing which they like better than seeds of pumpkin, squash, cucumber or other seeds of the gourd family. If the mouse trap fails to spring easily, a drop or two of melted paraffine will fix this bait so firmly that the mouse must give an extra pull to dislodge it and so spring the trap.

But a good cat or two are, after all, better and less bother than traps. Even though they do not catch all the rodents, their presence is so annoying that those of the pests which do not fall a prey to their claws will finally hunt more congenial quarters. Their soft tread gives a constant feeling of insecurity which animals so cunning as those you wish to dislodge will very quickly appreciate. They are alert at night, just the time when the pests want to get in their work. Concrete walls will aid. Wire screen cloth is a barrier which they cannot penetrate. But cats are an enemy which they will not tolerate, even though it means the hunting of a new home.—Bessie L. Putnam.

Breaking the Daily Monotony.

Any round of duties, regulary performed, becomes at times monotonous. We may groan at the monotony, but the likelihood is that we will pray for it back again, once it is disturbed and our lives thrown into wholly new channels. I remember a woman who said she hated housework, despised the washing and scrubbing, the sweeping and dusting that were necessary to keep her house sweet and clean; and she detested cooking and went about the preparation of her meals in an indifferent manner. Then one day she and her husband disagreed about some trifling matter, and while the wife was away for an hour in the afternoon the man returned to the house, packed his suit case and departed. When the woman returned she found a note from her husband, saying that in one year from that date he would return with the hope that things would be different then. Well, the monotony of housework and cooking was broken for that woman all right. She said that when she saw her neighbors preparing their meals and going about their menial household tasks, she envied them from the bottom of her heart, and thought them the most blessed women to have someone for whom they could cook and clean. The husband came back before a month was past, for he truly loved his wife and she loved him. But from that time on the woman counted it her blessed privilege to do what before she had looked upon as drudgery.

Often we do much toward making our tasks unnecessarily monotonous. Why cannot a woman as well keep her kitchen work table before a window as up against a blank wall? She will have better light for her work and she will have an outlook. Suppose she sees no more than a patch of blue sky occasionally flecked with the white of a cloud, or the green branch of a tree with a bird tilting upon it, won't these carry her to another world than the warm kitchen? True, she may look and not see, but let her make it her business to see. And what suggestions just this bit of a view may give! How many promises brought to mind! What a symbol of resurrection and life is the leafy tree, so short a time ago stripped of all its leafy beauty! What a reminder of heavenly care is the tilting bird, for the Father is mindful of every one that perishes! You see, monotonous though the task in itself may be, we can keep our thoughts from tracking always along the same dead level.

It is true in whatever we do. If we go to the store every day, there may be several roads that lead to the store and we can take them turn about and we can open eyes and ears to things of interest on the way. And also to humor. There are so many funny things in the world. Why, we are very funny ourselves, if we could only see it. How many good laughs we miss because we go along so consumed with serious thoughts about our own little selves and our own little lives that we do not hear or see the humor in things happening all about us. And what medicine a good laugh is! I have known a headache to be driven away by a hearty laugh. One girl cured a tendency to the blues and incessant grumbling by thinking several times a day of the funniest things she could and by keeping her eyes open for amusing things. Then she enjoyed them to the full and dwelt upon the humorous side until she laughed heartily. Those daily laughs straightened all the ugly kinks in her brain and now she can laugh without trying.

During this season there is a happy look on most faces and a feeling of good will thrills in the air. We have stepped out of our own little narrow road, so closely hedged in by self, to give of our substance and of ourselves to others. We are doing kind, good, little acts, that ordinarily we might not take the time or trouble to do. At the anniversary of the Savior's birth we are reminded of God's love for man, and so strive to show our love for our friend and neighbor.

We are having a wonderfully happy time over it all, but in a little while we will go back to that narrow road so closely hedged in by self. That is, unless we take the true meaning of the Christmas season into every day of our lives, allowing it to touch with new meaning every task and pleasure that comes our way. Then, indeed, will it be a Merry Christmas and a Happy New Year.—Janet Thomas Van Osdel.

Sister Woman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send you, your daughter, your sister, your mother, or any ailing friend, a full 50-cent box of Balm of Figs Compound absolutely free. It is a remedy for the treatment of woman's ailments, and I want to tell you all about it—just how to use it yourself—right at home without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—let me prove it to you, and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so quickly and surely cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with any form of female weakness or diseases so common to women.

This 50c box of Balm of Figs Compound will not cost you one cent

I will send it to you absolutely free, to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to prove my faith by sending out these 50-cent boxes free. So, dear reader, irrespective of your past experience, write to me at once — today — and I will send you the treatment entirely free by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the very best test of anything is a personal trial of it, and I know a 50-cent box of Balm of Figs Comcound will convince you of its merits. Nothing is so convincing as the actual test of the article itself. Will you give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a 50-cent box of this remedy absolutely free. Address,

MRS. HARRIET M. RICHARDS, Box E 18, JOLIET, ILLINOIS

SILVER SECRET—Polled Durham bull. Age, January 4th, 1910, photo as junior yearling. First-prize winner and reaching junior championship honors in State Fair Circuit of 1911. Owned and exhibited by J. H. Miller, Peru, Ind. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

At the National Wool Growers' Association meeting President Gooding said: "Wages in Australia are only 15 or 20 per cent. less than in the United States, but sheep owners there are allowed to fence the government range at three cents per head per year, and, owing to the fences, one man can care for five times as many sheep as in the United States."

TOBACCO HABIT CONQUERED IN 3 DAYS

I offer a genuine guaranteed remedy for tobacco or snuff habit in 72 hours. It is mild, pleasant, strengthening. Overcomes that peculiar nervousness and craving for cigarettes, cigars, pipe, chewing tobacco or snuff. Tobacco is poisonous and seriously injures the health in several ways, causing such disorders as nervous dyspepsia, sleeplessness, gas, belching, gnawing or other uncomfortable sensation in stomach; constipation, headache, weak eyes, loss of vigor, red spots on skin, throat irritation, catarrh, asthma, bronchitis, heart failure, lung trouble, melancholy, neurasthenia, impotency, loss of memory and will power, impure (poisoned) blood, rheumatism, lumbago, sciatica, neuritis, heartburn, torpid liver, loss of appetite, bad teeth, foul breath, lassitude, lack of ambition, weakening and falling out of hair and many other disorders. It is unsafe and torturing to attempt to cure yourself of tobacco and snuff habit by suddenly stopping—don't do it. The correct method is to eliminate the nicotine poison from the system, strengthen the weakened, irritated membranes and nerves and genuinely overcome the craving. You can quickly and easily quit tobacco and enjoy yourself a thousand times better while feeling always in robust health. My FREE book tells all about the wonderful 3 days Method. Inexpensive, reliable. Also Secret Method for conquering habit in another without his knowledge. Full particulars including my Book on Tobacco and Snuff Habit mailed in plain wrapper free. Address:

EDWARD J. WOODS, 534 Sixth Ave., 515 C, New York, N.Y.

The Twice-a-Week ST. LOUIS REPUBLIC

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Democratic newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

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Published at Chicago. The oldest, largest and best Poultry Journal in America. Beautifully illustrated. Issued on the first of each month.

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THE ST. LOUIS REPUBLIC TWICE-A-WEEK EDITION for one year.
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THE AMERICAN POULTRY JOURNAL for one year.

Address,
THE HALE PUBLISHING CO.,
3550 Vista Ave., - St. Louis, Mo.

Floral Gossip.

A single plant well cared for is worth more than a dozen of neglected ones. The woman who is eternally looking her plants over, noting the fading of a single leaf or the appearance of a stray insect, may be called a crank; but she knows what she is doing, and her plants thrive as a result. House plants to do their best need more than the regular amount of watering; individual oversight tells every time.

If you have a plant which is especially ornamental as to foliage, do not expect the blossoms to be equally charming. The dual-purpose cow is still a debatable question, and we must not expect to find all the good qualities summed up in a single plant any more than we can hope to have the acme of beef and dairy excellence concentrated in one animal.

Of the many varieties of coleus, no plant is improved by the inconspicuous blossoms, which sap some of the strength from the foliage. The ornamental foliage geraniums are not the ones which furnish the gay flowers. The farfugium loses its chief charm if allowed to perfect its cluster of small yellow flowers. Even the far-famed century plant is a delusion and a snare so far as flowers are concerned, though, happily, it seldom flowers in cultivation in the North. But the blossoms are of a greenish yellow, coarse, and anything but attractive.

The lesson is that we should make up our minds which we prefer, flowers or foliage, and choose accordingly. Not that there is never a beauty in the combination, for in almost every instance the two taken as nature devised are admirable. No other leaf could be more beautiful with the gay orange or scarlet nasturtium than the peculiar green one accompanying it, while the delicate tracery of the cypress vine is fully in keeping with the star-like blossoms. Yet any marked elaborateness of leaf shows an inferior blossom, and vice versa.

At this season the Chinese lily is a favorite, and there are many methods of growing these bulbs, each bringing good results. The main thing is to get a robust growth rather than an abundance of long, slender leaves with comparatively few flowers. If the plants are grown in water, care should be taken on the start to prop the bulbs up firmly with stones, for as the roots increase in size the tendency is to lift the plants out of the water unless care has been used to prevent. A few bits of charcoal mingled with the pebbles or concealed by them will tend to keep the water pure and sweet and obviate the necessity of renewal once or twice a week, as would otherwise be necessary.

Whether grown in water or soil, the plants should be placed in a dark room for two or three weeks until root growth is fully established. Then bring them to the light, but keep in a cool room if possible. The plants grown in soil are more robust, though the rate of growth is slower.

What shall we do with the bulbs after they are done blooming? All authorities concur in that if they have bloomed in water it is best to throw them away. The drain of flowering has been so great upon the plant as to weaken its vitality and interfere with its ripening properly. It will never again produce first-class blossoms. If the bulb has been grown in soil, condemning it for future use is not quite so pronounced; yet there is little hope that it will ever prove satisfactory again for forcing. No bulb does that. It might be set out of the way and allowed to ripen as it will and planted in the ground as soon as the weather permits. Yet it is doubtful if even this pays. For there is a knack in growing first-class bulbs which only experts understand. And with those warranted to do good work so cheap few will care to try raising those which are only of medium quality, unless it be through love of experiment. — Bessie L. Putnam.

Every-day Helps in the Home.

Every housekeeper should have a good-sized chamois leather to use as a dust cloth, as it not only removes the dust but is an excellent polisher.

To keep the windows shining, go over them with a soft cloth wrung out of clear, warm water, and then rub with a soft chamois skin wrung out of clean, warm, soft water, and this will leave the glass bright and shining.

Your matting will last twice as long if it is always swept crosswise, and then you can get it cleaner, and a good way to sweep the carpet without having any dust is to put some newspapers in water, then wring them out, tear into small pieces, and throw over the carpet, and the paper collects the dust and leaves the colors of the carpet brighter.

If there are children in the family and you have a nice floor covering on the sitting-room floor, a good way to protect it is to cover the center of the room with a large square of denim, and this is made by sewing several widths of the desired length together.

If rugs have a tendency to curl up at the edges, sew strips of stiff buckram along the edges; and one of the greatest helps in the home during the winter months is to have plenty of rugs to protect the floor coverings, and quite a number of these can be made with very little trouble or expense, and there is no better way to use up the old clothes and scraps of all kinds. It takes only a short time to prepare balls enough for several woven rugs, and these can be made as plain or as pretty as desired; but the easiest way to make a rug is with a solid center and a striped border. A rug that has done good service was made with a dark red center and entirely of woolen pieces, and all the pieces that were not red were colored a rich dark red with Diamond dye for wool, and as all the pieces did not take the colors alike, the shaded effect was very pretty, and this rug was woven with black warp, and the warp was knotted at the ends of the rug to form a fringe. Another was made of all cotton pieces and with a solid dark brown center, and the dyes for cotton were used for coloring these pieces, and the rug was woven with red warp, and the woven rugs seem to be more popular than any other kind just now. Only stout material should be used for rugs, as they are usually placed to protect the carpet and receive the hard wear, and it pays to get the best warp, as it looks better and will last longer.—M. A. T.

Plants True to Name.

Buyers of nursery plants are confronted with the problem of securing the varieties of fruits and shrubs they want. True, it is not difficult to find the names of the varieties desired in the catalogues. But after carefully unpacking, planting and cultivating, too often only disappointment awaits us at fruiting time. Because of these experiences with unscrupulous growers of nursery plants the purchasing public has rightfully grown suspicious. The result is that they have placed a premium on the man and his stock whom they can trust implicitly. It is, therefore, with considerable satisfaction that we commend the stock of W. F. Allen, of Salisbury, Md., to our readers.

Mr. Allen has 120 acres planted to strawberries alone, in which there are over 100 varieties. While he has stood by many of the old standard varieties of proven worth, he has produced many new ones of great excellence.

Besides strawberries, Mr. Allen grows raspberries, blackberries, gooseberries, currants, grape vines, California privet and other small shrubbery on a large scale.

While Mr. Allen is probably the largest grower of small fruits in America, he does not sacrifice quality and accuracy to maintain his position for quantity produced. His advertisement appears in our columns, and we suggest anyone wishing to buy any nursery plants will do well to write for the catalogue. Address, W. F. Allen, 116 Market street, Salisbury, Md.

"Forestry in Nature Study" is the title of Farmers' Bulletin No. 468, issued by the United States Department of Agriculture.

Prime sorghum at 40 cents a gallon was paid for consignments received at St. Louis late in December.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions,** backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

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Brazil to Raise More Beef.

Brazil, in South America, is an immense country, and the government caters to monopolies. One ranch of 9,000,000 acres is being established, and when fairly stocked will have 500,000 cattle. The headquarters of the syndicate will be in the city of San Paulo, 250 miles north of Buenos Ayres. The head of the concern is Murdo McKenzie, of Colorado, former manager of the Matador Cattle Company, who will receive a salary of $50,000 a year.

The Corn Market Situation.

Chicago is the indicator of the corn market, and said indications are not so bad. What did corn sell for December 30th, 1911? The answer is 68 cents a bushel; and on December 31st, a year ago, 46½ cents; on December 31st, two years ago, 61¾ cents. What does the Board of Trade expect corn to sell for, May 31st, 1912? The answer is 63½ cents. What is the expectation for July 31st, 1912? The answer is 63½ cents.

There is not enough money in the country to buy better information. If, on December 30th, 1911, Mr. Patton or Mr. So-and-So determined to corner the corn market he would start with these figures and he would consider how far he could change them by trading or other influences. "What do you think of the Chicago corn market quotation?" was asked of a grain buyer. He answered: "They are the real thing." "How are they made?" "They are made by records of contracts day by day. The last price paid is the last quotation, and every purchase is made with money."

The corn crop of the year 1911 was five hundred million bushels less than the year before, but the market indicates no shortage. There will be a shortage on many a farm, however, before the next crop is harvested, and corn ought to be raised to the greatest possible extent in the year 1912 in the interest of the farmer.

The Oats Situation.

In forty-seven years the highest price for oats was 90 cents (greenbacks) in May, 1867, and the lowest price was 14¾ cents, in September, 1896. In neither instance were the prices caused by large or small crops. The crop of 1867 was not small, and the crop of 1896 was not large.

Of recent years the size of the crop has had more to do with the price than formerly. The crop of 1909 being large, sold at moderate prices; the crop of 1910 being the largest ever known, sold at low prices; and the crop of 1911 being rather light, is selling at strong prices.

On December 30th, 1911, at St. Louis, cash oats were quoted at 48 cents, against 50½ cents a bushel the month before, 31½ cents December 31st, 1910, and 45½ cents on December 31st, 1909. So much for cash grain sold on delivery at St. Louis.

At Chicago, where the great grain trading is done, the December oats option was closed out at 46½ cents, being about 16½ cents above the same quotation the year previous.

In regard to the future, there were only two living indicators on December 30th, 1911; one was the May, 1912, quotation, 47⅝ cents, and the other, July, at 43⅝ cents. These are indicators that the men who deal in grain believe there will be a pretty good oats crop this year.

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FASHIONABLE WINTER DESIGNS.

No. 6971—7224.—Chiffon velvet is extremely shionable this season and is always becoming, but this model is a good one for mpler fabrics as well. White broadcloth ould be lovely made just in this way with ce for the guimpe portions, or French rge could be combined with velvet or ith lace or with fancy silk.

No. 7229.—The frock that is made with gh or Empire line is extremely becoming the younger girls and is greatly in vogue. his dress is made of striped challis with alloped edges and chemisette of tucked uslin banded with lace; but any pretty asonable material is appropriate.

No. 7253.—The narrow circular skirt is uch liked this season and is treated in any ways. This one shows fringe applied indicated lines that gives the effect of apery. Crepe de chine with wide silk inge and the lower part of the skirt faced ith velvet would make an exceedingly ndsome effect.

No. 7214—7166.—Just such a costume as is one belongs in every woman's wardbe. It is practical and very useful. It is ouble-breasted and can be made from the vorite serge or cheviot, from plain color well as from mixtures and the collar and ffs and revers can be treated in a number ways. They can be of velvet or satin, or the material of the coat. Plain colored oadcloth on mixed suitings and serge is uch liked and champagne or chamois lor is exceedingly smart.

No. 7208.—The double-breasted reefer coat is a smart one for the little boys and thoroughly comfortable. A great many different materials are being used for such coats. Frieze is a favorite, mixed cheviots are being much worn, and what are known as overcoatings, herring-bone stripes and diagonal mixtures are being much used.

The price of each pattern is 10 cents.

SUITABLE DESIGNS FOR ADULTS AND CHILDREN.

No. 7237.—Full sleeves joined to the blouse below the shoulder line make one of the very latest features of dress. It can be made without the peplum and is equally well adapted to the high and natural waist line. It is made of satin with the revers and belt of velvet and the chemisette of lace.

No. 7152.—The blouse suit is always one that the little boy likes to wear. This one is made of dark blue serge with collar and cuffs of white, but cuffs of the same are somewhat more practical, and the collar, being adjusted, always can be of white linen. Both the blouse and the knickerbockers are extremely simple. Serge, cheviots, heavier washable materials and shepherd's check are liked by all mothers.

No. 7221—7215.—The evening gown made with a long tunic is always a beautiful one and is one of the smartest of the season. This would be beautiful made of chiffon, bordered and plain, combined with velvet ribbon with crystal trimming.

No. 6963—7149.—Short tunics that suggest the Greek idea are very pretty for young girls. This one is made of crepe meteore and the blouse is trimmed with little silk braid and iridescent beads. Pretty, light-colored crepe de chine or chiffon broadcloth would make up charming and smart in the extreme.

No. 7225.—Sleeves that make a part of the blouse yet are not distinctly in kimono style are among the newest and latest. Rose-colored cashmere or voile would be charming, and light-colored cheviots and broadcloths are being much used for dresses of the sort.

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No. 7204—7149.—The peplum blouse is an unquestioned favorite. It appears in many variations, but this one is exceptionally smart. It is made of French serge, and is such a favorite, and is trimmed with soutache braid. Dresses such as this one are made from many different materials, but light-weight serge and broadcloth are pronounced favorites for simpler occasions. For more dressy ones can be used messaline, crepe de chine and cloth in white or a pale color.

No. 7223—7222.—Satin as trimming for wool is among the best-liked effects of the season. Here is a gown that shows it combined with checked voile and there is additional trimming of embroidered batiste that gives a very dainty effect. This model could be made more elaborate by using silk in place of the voile, or, again, entirely different materials could be combined. Velvet could be used in place of satin and the gown proper made from striped silk, of plain crepe de chine or any similar material.

No. 7242—7232.—French serge makes one of the best-liked materials for afternoon dresses. If the high collar is not liked, the neck can be finished without and with short sleeves. This pretty and attractive model can be made of velvet, velveteen or corduroy.

No. 7236.—The skirt that is overlapped in place of being seamed is a fashionable one. The skirt is an excellent one made of velvet, velveteen, corduroy, serge or broadcloth.

No. 7143.—The apron that is both pretty and practical is one with many advantages. This one is made of white linen with the bands of embroidery in a little cross-stitch design and would be childish and attractive. The front can be cut in one piece or in two, with a seam in the center, as best suits the material. The back edges are finished with hems and the pockets are arranged on indicated lines.

No. 7211—7171.—This model would be an excellent one made of chiffon broadcloth, crepe de chine or voile. If the fancy trimming material is not liked, plain velvet or satin could be substituted, or striped silk could be used to make a good effect.

No. 7217.—The boy's overcoat that can be worn with a slightly open or closed neck, as occasion demands, is sure to be comfortable. This one is made of herring-bone material and finished only with stitched edges, but it can be made with collar of velvet, if liked. Mixtures and plain colors both are used for coats of the kind. Blue and Oxford chinchilla are warm and serviceable.

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A Judicial Somersault.

Broadway heard with some surprise that H. A. Du Souchet, the author of "The Man From Mexico," is a candidate for Justice of the Peace in the hamlet in which he pays taxes in New Jersey. Why should he want to be a Jersey Justice has the big street guessing, says the New York correspondent of the Cincinnati Times-Star. The obverse of the proposition is the wonder why Jersey should want him to be a justice. "Away back in 1878," said one of the old-timers, "Du Souchet was a Justice of the Peace down on the New Mexico line. In those days tarantulas and Indians were the chief native products of that region. Residents wore their guns handy, and train robbery was considered a profitable and not discreditable form of speculation. One day the Chico Kid, being very drunk, insisted on being arrested. The Marshal didn't want to arrest Mr. Kid, but the latter insisted.

"'I wanna plead guilty to drunkenness and disturbin' thuh peace," said the Kid to Justice Du Souchet.

"'I will have to fine—' began Du Souchet.

"'What?' howled the Kid. Fine me? Why, you pin-eared, yaller-livered, pigeon-toed ole maverick, there ain't enough Justices in New Mexico to make me pay a fine. I—'

"But Justice Du Souchet interrupted him urbanely.

"'I was about to say,' said he, 'that I will have to find time to get real well acquainted with you, Mr. Kid. In the meantime, suppose we go and have a drink.'"

"Who's Who?" and "What's What?"

Several years ago a mother decided that, so far as possible, she would have her two boys answer their own questions, beginning with "who" and "what." Every woman who has dealt with growing children knows that a large share of the questions begin with one of these words. So Mrs. Brown went to a neighboring printing office and had cut for her several hundred cards of a convenient size for handling and filing. Then she went to a stationery shop and purchased guide cards, on the raised tip of which she had her boys print two sets of the alphabet. With their own tools the boys then made a cabinet containing four drawers. Two of these were given over to "Who's Who?" and the other two to "What's What?" and the respective drawers were so labeled. Then the boys began to keep their ears and eyes open. If they saw in the paper the picture of an inventor or any other person of note, they immediately cut out the picture with whatever interesting notes might accompany it, pasted it on one of the blank cards and filed this card away in its alphabetical place in the "Who's Who?" drawer. Or it might be an article on aluminum or astronomy that would attract the boys. Such things would be clipped, pasted on the cards and filed in the "What's What?" file in proper alphabetical order. In time the boys had a handy reference file which they made frequent use of and which they looked upon as especially valuable because they had themselves compiled it. And it did have a value to them that no encyclopedia could have. Its compilation had taught them to read discriminatingly, placing only what they considered of real value in their file. It had taught them self-dependence in gaining information, and it had taught them the value of the filing system and the need of accuracy in keeping it up-to-date in order to make it of greatest benefit.

The boys are a healthy, energetic pair, overflowing with life, and needed just some such outlet for their activity. On rainy days or winter evenings they often work on their files and get so much pleasure out of them that they never guess they are really attending one of the best schools in the world.—Janet Thomas Van Osdel.

The "Spitting Devil."

"I am going to let you decide, my boy," said Jack's mother. "This telegram says that grandmother is very ill and wants me to come. Father may not be back before midnight. Will you be afraid to stay alone with little Janie?"

His mother couldn't see the lump in his throat that Jack bravely swallowed. She only heard his "Of course I'll do it, mother."

The house that always seemed so cheery with mother it it was a gloomy enough place without her. The nearest neighbor lived three miles away, so there were no other children to play with. Between doing up the chores and amusing Janie the morning passed somehow. At noon he brought out the bread and milk and the plate of ginger cookies for lunch. He pulled little Janie's chair up to the table near the window and they began their meal. Suddenly Janie held out her arms in the direction of the window and called: "Tum, pretty kitty! See, Jack, pretty kitty!"

Jack looked and saw something that made his little heart beat hard and fast. For there, sniffing around the outhouses, was a huge wildcat. Jack knew the beast would soon come to the house, for the cattle were out on the range and there was nothing in the barns to satisfy the appetite of the wild creature. Quickly the boy ran to the doors and windows and made them fast, although he well knew a pane of glass or a door lock would not keep out the cat if he wanted to get in. His father's gun and powder horn were on the shelf, but he did not know how to use the gun. And then, like a flash, he remembered the "Spitting Devil" which his father had made for them one Fourth of July. It was harmless, but so awful!

As quickly as his shaking hands could do it, Jack emptied the powder from his horn into a big pan and wet it. Then he grabbed up the broom and jammed the wet powder between the stalks until the broom was honeycombed with powder. Next he picked up an old flannel dust-cloth and wound it around the broom. Then he poured a little coal oil over it all.

While he worked he watched the wildcat and he now saw him turning toward the house. He must act quickly. Rushing to the kitchen stove, Jack seized a stick of burning wood and threw it on a stone near the kitchen door. As he stood looking through a crack in the door waiting for the cat to draw near enough, he could hear Janie, still in her high chair, talking to herself and calling the big kitty to come to her. That made him feel very brave in spite of the fact that his teeth were chattering and his knees nearly knocking together.

But the cat was turning onto the patch leading to the kitchen door. Jack threw open the door and thrust the prepared end of the broom upon the burning stick of wood. Instantly it burst into flame and the whole thing began to spit and sputter. There would be no explosion, just a fierce spitting, but the wildcat did not know that, and as Jack rushed down the path, pointing the "Spitting Devil" directly at him, the brute stopped short, stood staring, stupefied and fascinated for a moment, then he dropped his tail between his legs, turned and made for the woods as fast as he could go.

Jack's father got home about dark, and when he heard the story, he was sure he had a little hero for a son.

Jack has done some big hunting since that day, but he says he has never seen another animal so frightened as was the wildcat when it saw the harmless "Spitting Devil" in the hands of a scared little ten-year-old boy.—Janet Thomas Van Osdel.

Her Offering.

She was a plain, common-sense country girl who had been trained to sew in the old-fashioned way, making quilts in which there were no "cat's teeth," and doll's clothing which "fitted to a T." Later she was her own dressmaker, and when the high school stage was reached she picked up dollars for her own dainty dresses through sewing for neighbors.

And when others were making Christmas presents she turned aside from the dressmaking which would bring in money for the graduating outfit next June, and from the dainty gifts she would have been glad to make for friends, and devoted her attention to a little waif whose whose mother was kept so busy supplying food for the family that she had no time for dressmaking, even if she had had the ability. The little one had never owned a dress that was neatly made, and because of lack of clothes she had been dropped out of school.

From one of her own dresses the school girl made a neat, serviceable dress for the child. A mate volunteered from her own and a sister's outgrown clothing a thick white dress for next season and a winter dress for "best." Her mother furnished new underwear. A friend found a pair of outgrown arctics. From a bit of bright yarn was evolved a neat skating cap, knit large enough to protect her ears, and there was enough yarn left to knit a pair of mittens. Odds and ends that were doing no good were collected and put to good use for the wee mite. The result was that when her original benefactor was ready to make her trip to the neighborhood where the child lived, a new suitcase was found necessary, her own being entirely filled with clothing for the child.

And the little one's pleasure at receiving the dainty dresses which fit as well as those of other children was a sight that will long be remembered by her fairy godmother. "Now you can go back to school," exclaimed her mother, and the child was delighted with the prospect.

The thought came to those who had seen the girl's labors, and noted how skillfully she had refashioned the old clothing to look almost as well as new, that in every community there is material for some of this home missionary work, and that the doing of it is much better than spending the same time and probably more money in making Christmas gifts which are not really needed.

We are apt to look upon an article after it has passed the original stage of usefulness in our family as fit only to turn to some other use in the home, even if it be only carpet rags; and in the effort to thus utilize there are warm cloaks which are outgrown that might better be handed down to some little one needing them in the original form or remodeled.

It is always well when sorting over discarded garments to strive to find some one that they will still serve. In cities the rummage sales look after these things. But there is room in the country for generosity. Neither disgrace nor insult should attach to the plan. In some of the best families hand-downs are accepted in the true spirit. And certainly if the service of any article can be prolonged thus it is a pleasant duty to see that it is wisely placed.—Bessie L. Putnam.

At the close of the Old Glory sale held at Madison Square Garden, New York City, during the week ending December 2d, 1911, it was found that 778 head of light harness horses had passed under the hammer for a total of $327,200, an average of $420.50. No better prices have been realized at a public sale of horses in the history of the turf.

ELEGANT THIN MODEL 20 YEAR WATCH

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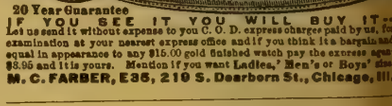

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IF YOU SEE IT YOU WILL BUY IT. Let us send it without expense to you C. O. D. express charges paid by us, for examination at your nearest express office and if you think it a bargain and equal in appearance to any $15.00 gold finished watch pay the express agent $3.95 and it is yours. Mention if you want Ladies,' Men's or Boys' size.

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This is a true 1¾-inch Pocket Compass purchased from a reliable house. It is a fancy, nickel-plated, open-face, watch-shape Compass, with a silvered dial, and it weighs less than one ounce. Every farmer or ranchman should have one in his pocket. Send us One Dollar and we will send you The National Farmer and Stock Grower for one year, and we will also send you this Pocket Compass by mail postpaid. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

SELECTED POETRY.

THE JANUARY SONG.

old crow wingin' 'crost de sky so cold
an' gray;
clear his throat a little an' he holler
down good-day.
does his best at singin', but his music's
mighty pore;
has been out in de weather till his
throat is gittin' sore.
t he says: "Dem yuther birds dat made
de concert sweet an' gay
ne travel wif de sunshine; dey has faded
clean away.
singin's easy when de flowers is bloomin'
sweet an' strong,
t dey leaves me here alone to sing de
January song!"

says to him: "Ol' Mistah Crow, yoh
music's kind o' tame,
t I sho'ly does appreciate yoh tryin', jes'
de same,
r's always cheer an' comfort whar de
world is fine an' bright,
t de friends don't mostly linger when dey
takes away de light;
even if de song yoh sings ain't melody
clear through,
shows yoh good intentions. It's de bes'
dat yoh kin do.
when den sunshine birds again comes
loiterin' along,
hold kind recollections of yoh January
song."

—Washington (D. C.) Star.

THE PEASANT'S PRAYER.

e roan cow rests content under the trees
at shade the lane's end. Bumblebees
th golden thighs grip the sweet flowers
the sun-lighted bridal wreath. No
showers
ve laid the dry loam, and dust veils
e dragman's team as wearily it trails
e warping frame over the ocher ground
ping to the blue marsh edge. The main
sound
fitful creaking of the half-shadowed mill
at rests from labor, like a true bard, until
ne god's good wind comes on to bid it
move.
song but the faint cooing of a dove,
ely on the barn-ridge, mourning a mate.
re in my tired heart, early and late,
dows, dim lights, sounds of forgotten
years:
sorrow-songs from memory of tears.
ave not known great love—the less to
grieve—
hated aught but to its course must
cleave.
books of wisdom, mirth and things of
beauty
ould not give the hour forepledged to
Duty
ling on busy hands. Ill fares the Soul,
und my life of labor scroll on scroll
wonders I can not read, music unheard
my dull ears. How understand the word
night stars speak and language of the
winds?
ss is pasture, wheat bread. To other
minds
mbols of God, mystery divinely sweet;
us—man, cow, or bee—but straw and
meat.
e the gray toil; all sweet illusion yours.
grant me yet one dream—one that
secures
childish hope of comfort in the grave
love beyond! This gone, what do we
peasant's save?

—Ivan Swift, in the Outlook.

THE EDUCATED CATTLE.

vas punchin' cows one season, as I'm
very proud to state,
a ranch whose wealthy owner was a
Harvard graduate,
the punchers he selected, 'cept a couple
of guys like me,
s a lot of college students that had
taken their degree.

we taught 'em cattle punchin' and' they
taught us classic Greek,
we spent the evenin's learnin' of the
proper way to speak
en addressin' cows in Latin er in Arabic
an' such,
we learned to swear in Sanscrit, which
amused us very much.

ey filled us full of Horace an' of Mr.
Vergil, too,
our heads was fairly bustin' with the
Latin that we knew,
we used to sing the cattle little odes
that Horace wrote,
ich the same was very soothin' if you
struck the proper note.

en we went to town for pleasure an'
some pretty lofty jinks,
was allus usin' Latin as we ordered up
our drinks.
ough the people thought us locoed an'
plum crazy in the head
en we talked to 'em in language which
was lively though 'twas dead.

w the p'int of this here story is a simple
one to tell,
em cattle learned to listen when they
heard a Latin yell;
the calves they had that season
wouldn't take a single stride
less we wore a toga and a laurel wreath
beside:
we had to dress like Horace, which is
most amazin' hard
en your pony's kind of skittish an' a
buckin', nasty pard;
at last we got 'em herded in a manner
that would suit,
we coaxed 'em through the gateway by
a-playin' on a lute.

Says the owner: "This is classic," as we
went an' closed the gates;
"But I ain't a-raisin' cattle to be college
graduates;
So hereafter we'll punch cattle speakin'
plain United States."

—Berton Braley.

MY GUIDE.

There is no faith in this desert waste,
For the winds have swept the shifting
sands;
The trail is blind where the storms have
raced,
And a stranger, I, in these fearsome
lands.
But I journey on with a lightning trend.
I do not falter nor turn aside;
For I see his figure just ahead—
He knows the way—my guide.

There is no path in this trackless sea;
No map is lined on the restless waves;
The ocean snares are strange to me,
Where the unseen wind in its fury raves;
But it matters naught; my sails are set.
And my swift prow tosses the seas aside;
For the changeless stars are steadfast yet,
And I sail by his star-blazed trail—my
guide.

There is no way in this starless night;
There is naught but cloud in the inky
skies;
The black night smothers me, left and right,
I start with a blind man's straining eyes;
But my steps are firm, for I can not stray;
The path to my feet seems light and
wide;
For I hear his voice: "I am the way!"
And I sing as I follow him on—my guide.

—Robert J. Burdette.

WOMAN.

To man a woman is a source
Of constant glad surprise.
He always finds new meanings in
The riddle of her eyes.
And though at times she will not do
As he would fain demand her,
He likes her all the more because
He cannot understand her.

She fascinates him every time
And wins him with her wiles.
She drives him to despair and then
She cheers him with her smiles.
And though she sometimes is perverse,
Though he at times may flout her,
Of this you may be very sure—
He'll never be without her!

—Somerville (Mass.) Journal.

THE DANCE PROGRAMME.

Caller, let no echo slumber.
Fiddler sweatin' like a steer.
Hoof a-poundin' at the lumber,
Makin' noise the stars could hear.
Hug the gals up when we swing 'em,
Raise 'em plum off of their feet,
Balance all, ye saddle warmers!
Rag a little! Shake yer feet!
On to next 'un an' repeat!
Balance to the next in waitin'!
Promenade an' off you go!
Seat yer pards an' let 'em blow.

—Springer, N. M.

A SPIRITUAL SUGGESTION.

There comes a Spring for every snow,
For every death a life hereafter;
And they whose tears have bitterest flow
Shall fill their lips with sweetest laughter.

—Rose Terry Cooke.

Sorrow of the Microbes.

"The germ theory, thanks to the study of hygiene in the schools, is familiar even to our children," said Dr. Charles T. Atkens, President of Susquehanna University, in an address at Selinsgrove.

"Two little Selinsgrove urchins played in their mother's kitchen the other day while the cook boiled some water. Hearing the sound of the boiling, they drew near the gas range.

"'What is in that pot?' asked the first urchin.

"'Water,' said the second. 'Just water.'

"'What is the sound I hear, then, brother?'

"'Sister, it is the microbes crying.'"—New York Tribune.

He Knew.

"The object of the average explorer seems to be to acquire enough material for a lecture."

"Yes; that is my wife's aim when she explores my pockets."—Louisville Courier-Journal.

Nifty.

"How does this noted healer, who cures his patients by touching them, differ from a regular physician?"

"Why, he touches them before he cures them." — Cleveland Plain Dealer.

FARM with a TYPEWRITER

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Pen-written letters are decidedly out of date for a live, wide-awake farmer.

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Correspond. Typewritten letters look business-like and trustworthy. No better introduction than a good typewritten letter.

Copy Letters. A Typewriter will make a copy of your letter same time it writes. Copies protect you, remind you!

Educate the children. A Typewriter helps your boy or girl to spell, punctuate, write good English; fits them for good positions in city or town.

Improve the long winter evenings. Get busy with a typewriter. Let the boy or girl help you in your correspondence, etc

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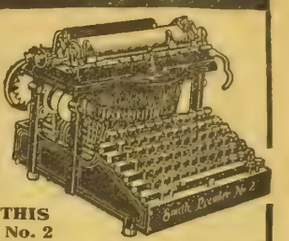

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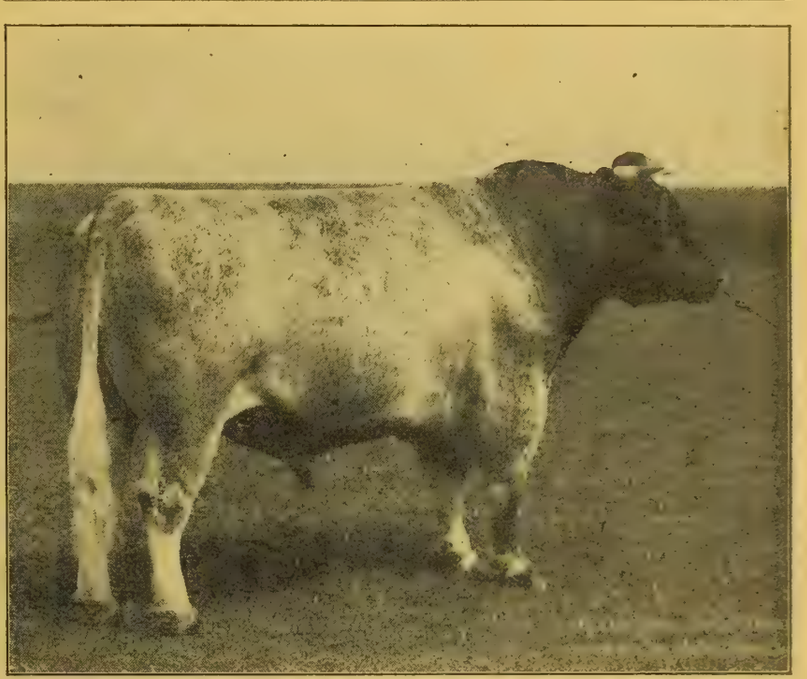

IMP. BRITISH GLORY, 180,304—Shorthorn bull. Owned by C. F. Curtiss, of Rockwood Farm, Ames, Iowa. BRITISH GLORY was shown at nine Fairs in Central Illinois and won nine firsts and eight sweepstakes prizes. He has been at the head of the Rockwood Farm Herd of Shorthorns during the past five years and has proven himself a sire of exceptional merit. This is a sample picture of famous animals collected for publication in the Book of Live Stock Champions mentioned on page 8 of this paper.

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ECZEMA CAN BE CURED TO STAY, and when I say cured, I mean just what I say—C-U-R-E-D, and not merely patched up for awhile, to return worse than before. Now, I do not care what all you have used, nor how many doctors have told you that you could not be cured—all I ask is just a chance to show you that I know what I am talking about. If you will write me TO-DAY, I will send you a **FREE TRIAL** of my mild, soothing, guaranteed cure that will convince you more in a day than I or anyone else could in a month's time. If you are disgusted and discouraged, I dare you to give me a chance to prove my claims. By writing me to-day you will enjoy more real comfort than you had ever thought this world holds for you. Just try it and you will see I am telling you the truth.

Dr. J. E. Cannaday, 684 Park Square, Sedalia, Mo.

References: Third National Bank, Sedalia, Mo.

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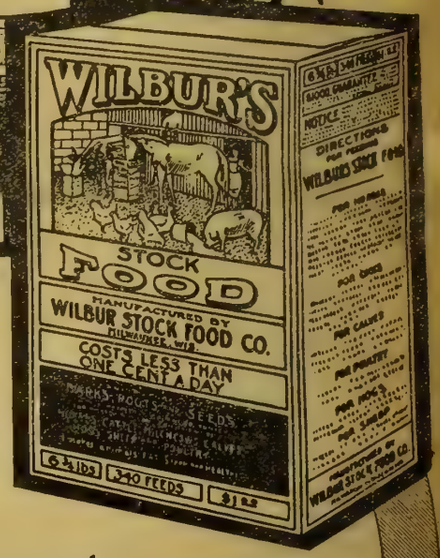

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National FARMER

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65 Head of High-Class Registered Jacks and Jennets.

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Nothing priced or sold before the sale. Every animal guaranteed as represented. Sale under cover with comfortable seats and fire. Special train from Sedalia to Smithton and return on day of sale. Free conveyance from Smithton to sale.

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Write for catalogue and come to this Great Sale.

L. M. MONSEES & SONS, Smithton, Mo.

REMEMBER THE DATE—TUESDAY, MARCH 5th, 1912.

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and Stock GROWER

My Farewell Car

By R. E. Olds, Designer

Reo the Fifth—the car I now bring out—is regarded by me as pretty close to finality. Embodied here are the final results of my 25 years of experience. I do not believe that a car materially better will ever be built. In any event, this car marks my limit. So I've called it My Farewell Car.

My 24th Model

This is the twenty-fourth model which I have created in the past 25 years.

They have run from one to six cylinders—from 6 to 60 horsepower.

From the primitive cars of the early days to the most luxurious modern machines.

I have run the whole gamut of automobile experience. I have learned the right and the wrong from tens of thousands of users.

In this Farewell Car, I adopt the size which has come to be standard—the 30 to 35 horsepower, four-cylinder car.

Where It Excels.

The chiefest point where this car excels is in excess of care and caution.

The best I have learned in 25 years is the folly of taking chances.

In every steel part the alloy that I use is the best that has been discovered. And all my steel is analyzed to know that it meets my formula.

I test my gears with a crushing machine—not a hammer. I know to exactness what each gear will stand.

I put the magneto to a radical test. The carburetor is doubly heated, for low-grade gasoline.

I use nickel steel axles with Timken roller bearings.

So in every part. The best that any man knows for every part has been adopted here. The margin of safety is always extreme.

I regard it impossible, at any price, to build a car any better.

Center Control, Finish, Etc.

Reo the Fifth has a center, cane-handle control. It is our invention, our exclusive feature.

Gear shifting is done by a very slight motion, in one of four directions.

There are no levers, either side or center. Both of the brakes operate by foot pedals. So the driver climbs out on either side as easily as you climb from the tonneau.

The body finish consists of 17 coats. The upholstering is deep, and of hair-filled genuine leather. The lamps are enameled, as per the latest vogue. Even the engine is nickel trimmed.

I have learned by experience that people like stunning appearance.

The wheel base is long—the tonneau is roomy—the wheels are large—the car is overtired. Every part of the car—of the chassis and the body—is better than you will think necessary. No price could buy anything better.

Price, $1,055

This car—my finest creation—has been priced for the present at $1,055.

This final and radical paring of cost is considered by most men as my greatest achievement.

It has required years of preparation. It has compelled the invention of much automatic machinery. It necessitates making every part in our factory, so no profits go to parts makers.

It requires enormous production, small overhead expense, small selling expense, small profit. It means a standardized car for years to come, with no changes in tools and machinery.

In addition to that, by making only one chassis, we are cutting off nearly $200 per car.

Thus Reo the Fifth gives far more for the money than any other car in existence. It gives twice as much as some.

But this price is not fixed. We shall keep it this low just as long as we can. If materials advance even slightly the price must also advance. No price can be fixed for six months ahead without leaving big margin, and we haven't done that. The cost has been pared to the limit

Catalog Ready

Our new catalog shows the various styles of body. It tells all the materials, gives all specifications. With these facts before you, you can easily compare any other car with this Reo the Fifth.

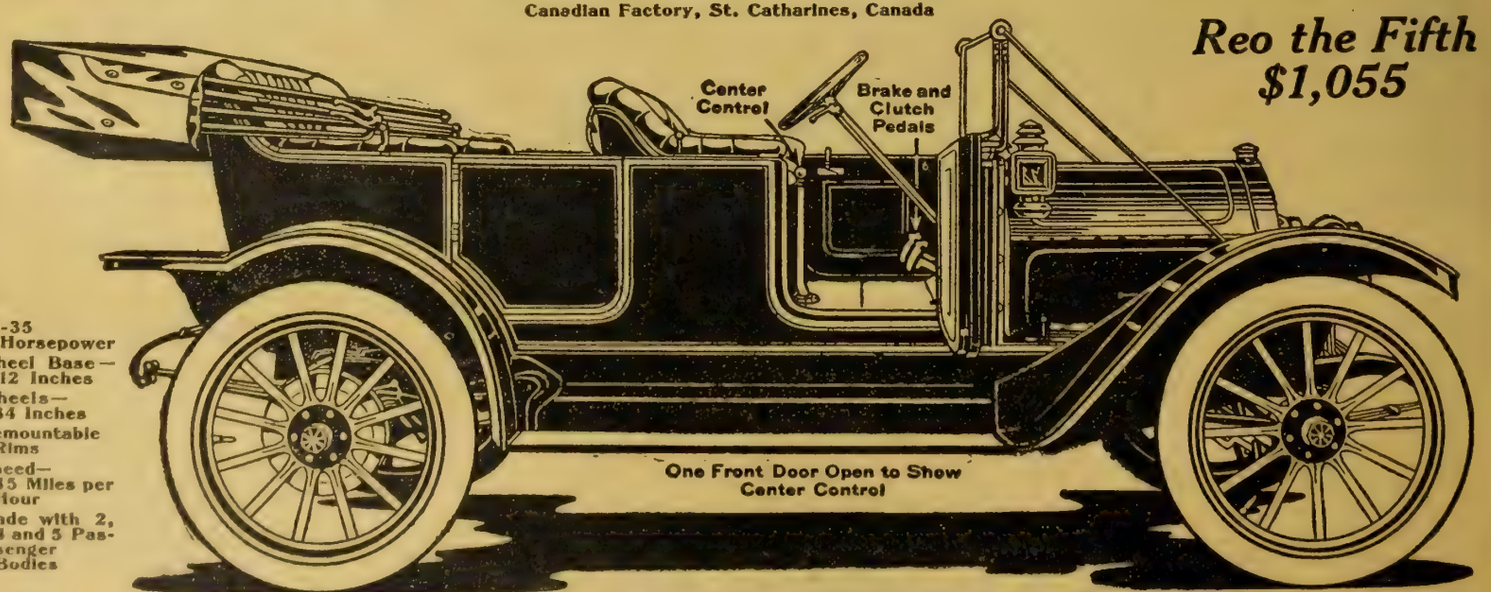
If you want a new car you should do that. Judge the facts for yourself. Don't pay more than our price for less value. After 25 years spent in this business, here is the best car I can build. And the price is $1,055. Don't you think you should know that car?

Write now for this catalog. When we send it we will tell you where to see the car. Address—

R. M. Owen & Co., General Sales Agents for **Reo Motor Car Co., Lansing, Mich.**

Canadian Factory, St. Catharines, Canada

Reo the Fifth $1,055



One Front Door Open to Show Center Control

30-35 Horsepower
Wheel Base—112 Inches
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Speed—45 Miles per Hour
Made with 2, 4 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip-cover, windshield, gas tank and speedometer—all for $100 extra. Self-starter, if wanted, $25.00 extra.

Caring For the Apple Orchard.

The man that owns an apple orchard should become an extensive reader of literature touching its care. There are numerous mistaken ideas prevalent, which can only be eliminated from common practice by a fuller knowledge of cause and effect of different operations.

Take the matter of orchard cultivation. Some orchardists say it is always beneficial, while other orchardists say that it can be very easily overdone. To what extent it should be done will depend very largely on the richness of the soil and the supply of moisture the soil contains.

If the orchard is in very rich soil, the cultivation should be sparingly done, as too much cultivation will lead to a growth of wood that will be detrimental to fruit production. If the soil is not very rich, the cultivation can be freely given in the early part of the growing season, from April to the end of July. Cultivation should not be given later than the end of July for two reasons: First, a fall growth of wood may result, which would not have time to harden up before the stopping of growth in the fall. This will expose the new growth to winter killing. Second, the late cultivation will loosen up the dirt over the roots and the ground would not work back to a hard condition before it freezes up. The frost will strike much deeper than if the ground had not been disturbed late in the season. Often the killing of the roots by freezing results in the death of the tree.

The pruning of fruit trees is done at any time of year, but the winter is a good time, because the one that does the pruning has more time than he has in the summer. Some argue that the tree is dormant, and not therefore injured as would be the case in the summer time. It is doubtful if this is a matter of consequence. The bleeding of the tree in the growing season is not a serious matter; for it must be remembered that if a branch is not needed in the summer time it is continually taking sap out of the tree and its leaves are evaporating it into the air in large quantities. The loss from the evaporation through the leaves is probably much greater than the loss from the so-called bleeding. But as winter is a good time for this work, it is best to do it at that time.

A little pruning should be done every year, and a tree should not be permitted to go for six or seven years, with the idea of doing the pruning all at one time. This frequently results in so butchering a tree that will be set back for several years. A tree should not be allowed to get too thick, nor should it be pruned out so much that its branches will not protect its limbs from the sun.

In every orchard of considerable size, spraying must be resorted to, if the ravages of fungous diseases and of insects are to be prevented. The spraying, to be effective, must often be done in the spring, in the midst of the spring rush of work. But there is no avoiding this unhappy combination. The best way out of the difficulty is to make thorough preparation in the winter, so that when the day comes when the first spraying must be done, everything will be in readiness. The non-preparation beforehand is one of the prime causes of the neglect of the spraying operation. The details of the process must be learned by the study of many kinds of literature on many kinds of insects and fungoids. The spraying machine companies furnish a large amount of this kind of literary material.

Human Effort the Big Thing in Agriculture.

The great thing in agriculture is human effort. It is the variable factor that is responsible for the great difference in results obtained by different cultivators of the land.

There was a time when land in the West was worth a few dollars an acre only. The same land is now worth $100 an acre or more. The difference is due to human effort.

When the land was low in price it was just as valuable from the fertility standpoint as it is now; but the man had not come to take the value and market it.

We are learning that the great difference between two farms is not so much the amount of fertility in the soil as the difference in the men that are managing them.

It is not infrequently the case that one man makes a success of a farm where another man has failed. The writer knows of two different farmers, each owning a good farm, advantageously situated near a good-sized city. One man has made a great success of his farm, while the other man has just existed, but has been continually pinched for money.

The man who has only existed has done very little work in the last twenty years. He has had a boy working for him who has done most of the work on the farm. The owner has been taking life easy. He spends a large part of his time with his pipe and papers and much of the rest of the time is spent loafing about grocery stores in the city. He has kept out of debt because his farm is a good one, but his wife has been a slave to her household duties and has settled down to a life of semi-seclusion. She works from early morning till late at night and says her husband is lazy. The only kind of agriculture that suits this man is a kind that runs itself. He has a good-size orchard and a big pasture for the feeding of a few cows and other stock, as it is easier to have the cattle harvest the grass than to do it with machinery and human effort.

The other man has a good farm, but he is a worker. He finds less time for reading than he would like to have, but he is full of enterprise as to the productiveness of his acres. He carries on mixed farming and finds employment for himself from one year's end to the other. He employs considerable extra help to assist himself and sons.

His "truck" wagon is frequently seen on the streets exchanging agricultural products for money. It is said that he is very successful and that his bank account is a strong one. His wife is not forced to do all her own work and finds time and opportunity to take part in the social life of the community.

The farm of the prosperous farmer is a delight. The buildings are all well painted and the orchards and gardens well kept. Flowers bloom in the front yard. The owner can sleep in peace, for there is no mortgage on his place and the "wolf" is far from his door.

In the case of the comparison made it was not so much a difference in knowledge as in energy and enterprise. The man that had trouble to make a mere living was a reader of agricultural papers and books and talked big about how to do things. His information was all right, but he had not enough will power to resist the temptation to consider his own ease above everything else.

In agriculture, labor must always count for a great deal in the effort for success.

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Won a Third Corn Prize.

Clark Reibel of Arbela, Mo., won a third prize at the Missouri State Corn Show with ten ears of Yellow Dent Corn which he raised. The seed corn from which this prize corn was grown was a single pound furnished him by The National Farmer and Stock Grower as a subscription premium in February, 1911. The original seed came from the farm of D. L. Pascal, De Witt, Iowa, who has a prize-winning strain of Reid's Yellow Dent which he obtained from the originator of that breed of corn. Last year Clark Reibel won two prizes with seed corn furnished by this office.

From Argentine to Liverpool.

Developments in connection with the importation of meat from Argentine have been so rapid of late, says the London (England) Meat Trades Journal, that there is almost feverish anxiety among the shipping companies engaged in this trade to enlarge their fleets, whilst the formation of new combines for the purpose of securing a wider market for the traffic is an indication of the efforts that are now being made to control shipments of meats from the South American Republic. There are at present 139 vessels holding the refrigerating machinery certificate at Lloyd's Register, mostly carrying cargoes from Argentine, and twenty-seven are being constructed. A steamer was recently launched at Hartlepool for the Argentine trade which is said to be the largest meat carrier ever built. It has an insulated carrying capacity of over 405,000 cubic feet. She is to be employed in the new fortnightly express service between River Platte and Liverpool.

The three most important points for the export of cotton are Galveston, New Orleans and Savannah.

In the culture of flax, Russia is first, and the other countries are nowhere.

Look for Rose Premiums on page 31.

New Idea Manure Spreader Never Clogs

Don't be pestered and made out of sorts by having a spreader that clogs. You don't have to. Get one that spreads wider, evener, carries a bigger load and has a score of other advantages—the New Idea.

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With Rubber Tires, $18.45. Your Wheels Rerubbered, $10.30. I make wheels ¾ to 4 in. tread. Tops, $6.50. Shafts, $2.10; Repair Wheels, $5.95; Axles $2.25; Wagon Umbrella free. Buy direct. Ask for Catalog 67
SPLIT HICKORY WHEEL CO., 567 F St., Cincinnati, Ohio.

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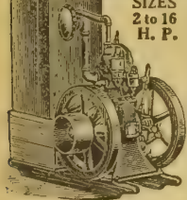

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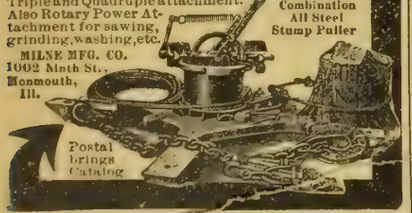

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Fully illustrated descriptive catalogue sent free on request to interested parties. Address
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WAGON SENSE
Don't break your back and kill your horses with a high wheel wagon. For comfort's sake get an
Electric Handy Wagon
It will save you time and money. A set of Electric Steel Wheels will make your old wagon new at small cost. Write for catalogue. It is free.
ELECTRIC WHEEL CO., Box 40, Quincy, Ill.

THE SEWING AWL.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Missouri Farms and Improved Acreage.

According to the census of 1910, there are 277,244 farms in Missouri, 34,591,241 acres in farms, of which number 24,581,186 acres are improved. The average size of a Missouri farm is 124.8 acres. The average value of land per acre is $41.80, and the average value per farm is $7,405.

ONE THOUSAND BROOD MARES

To be Sold at Public Auction at the St. Louis National Stock Yards.

During the last week in February, Monday, 26th; Tuesday, 27th; Wednesday, 28th; Thursday, 29th; and on Friday, March 1st, Messrs. Campbell & Reid and Western Sale Stables Company will hold an extraordinary sale of horses at the St. Louis National Stock Yards. The offerings will consist of the usual supplies of domestic horses for sale in the auction ring, only that a large number of shippers will concentrate a fine line of geldings at this sale. There will also be some Western range horses and range mules. The principal interest in this sale, however, will be a round thousand of brood mares from Illinois, Iowa, Kansas and Nebraska, which will arrive in good condition and be sold in bunches to fit the market. This is practically a sale of farmers' horses, assembled at the greatest horse concentration center at the least possible expense to be charged to the animal. This will be the first actual brood-mare sale at auction at a first-class market center. Later on some advertising will be done to bring buyers and sellers together. All who are interested should address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Cash Wheat at St. Louis.

On January 31st 1912, cash grain at St. Louis sold as follows: No. 2 red wheat, $1.00 to $1.01¼; No. 3 do., 98½ to 99½c.; No. 4 do., 94 to 97c.; No. 2 hard, $1.03 to $1.12; No. 3 do., $1.01 to $1.12; No. 4 do., 93 to 98c. No. 3 corn, 65c.; No. 4, 64c.; No. 3 yellow, 65 to 65½c.; No. 3 white, 66 to 67c. No. 2 oats, 52½c.; No. 3, 51½c.; No. 4, 50½c.; No. 2 white, 54 to 54¼c.; No. 3 do., 53½c.; No. 4 do., 52 to 52½c.; standard, 53¾ to 54c. No. 2 rye, 95¼c.

Live Stock Shippers' Movement.

On Saturday, February 17th, there will be a meeting of live stock shippers at Mexico, Mo., to take into consideration the recently advanced commission charges on cattle, hogs and sheep at the St. Louis market. It is the intention to organize a Missouri Shippers' Association and probably establish a commission company. The committee in charge of a working plan consists of H. D. Wilcox, of Randolph; Henry Gant, of Audrain; J. F. Rumans, of Monroe; W. D. Harrington, of Chariton; H. C. Newmier, of Macon; B. O. Henseley, of Montgomery; Jas. H. Starr, of Boone; S. B. Houston, of Saline; W. P. Hawkins, of Pike; G. G. Terry, of Calloway; J. R. Brown at large, and J. D. Taylor, Counsel. The Secretary is Chester G. Starr, of Centralia, Mo.

Our Live Stock Supply.

The Crop Reporting Board of the United States Department of Agriculture estimates that the domestic animals on farms and ranges amount to 20,699,000 milch cows, 37,260,000 other cattle; 65,410,000 swine, 52,362,000 sheep, 20,508,000 horses, and 4,362,000 mules. The census, taken April 15, 1910, enumerated 20,630,122 milch cows, 41,13,744 other cattle, 58,185,676 hogs, 52,447,861 sheep, 19,833,113 horses, and 4,209,769 mules.

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Give most power with least expense for fuel. Run on common coal oil, gasoline, distillate, or alcohol. Simplest—safest—most durable—easiest to start—smoothest running. Ask about our 30 days'
Genuine Free Trial
Most liberal trial proposition ever made. If you are not perfectly satisfied, you pay nothing. Our new 1912 model now ready for delivery. Write for introductory prices. They will surprise you.
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KINGMAN'S STALK CUTTER Saves Your HORSES

Puts pressure in front of axles, thus relieving neck weight on team. **SPRING HITCH prevents heavy jar on team** so often found on other cutters. Cylinder or cutter head can be raised or **given extra pressure,** by lever within easy reach of driver; drag hooks can be raised by hand or foot lever to clear them of trash; no **axle through cylinder,** which prevents trouble of stalks winding around it and **clogging machine.** Frame **built of iron and steel;** wheels extra strong. Whole machine BUILT FOR SERVICE. Shipped as nearly set up as possible thus saving you trouble. Write us.

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International Corres. Schools, Box 1153 Scranton, Pa.

Potato Market at St. Louis.

Wholesale prices for car-lot consignments, January 31st, at St. Louis, were as follows, quote by the bushel: Northern Ohios, sacked, $1.15 to $1.20, the latter price for extra fancy Red River stock; Minnesota Rurals at $1.00 to $1.10; Wisconsin Rurals at $1.00 to $1.08; dusty Rurals at $1.00 to $1.10, delivered; Burbanks at $1.05 to $1.12.

The Oats Market Situation.

Again an advance is recorded in the price of oats. Since we began to review the oats trade this particular cereal has been quoted as low as 30 cents a bushel.

We feel awfully sore when oats sell lower than 45 cents a bushel, and during nine months of last year there was occasion to be sore. Just now things look better and cash oats at St. Louis advanced from 48 cents on December 31st to 52¼ cents a bushel at the close of trading, July 31st.

On December 31st, 1911, the May option in oats was quoted at 47⅝ cents a bushel, and on January 31st the same option was advanced to 51⅞ cents a bushel. The July oats quotation on December 31st was 43⅝ cents, and on January 31st it had advanced to 47¼ cents.

It was the big oats crop of 1910 that set back the price of oats, and it was the moderate crop of 1911 that caused the reaction. The oats market is not high, neither is it low. Oats at 50 cents is practically the same as wheat at a dollar.

The Market For Wheat.

January is an off month in speculative trading. All eyes are centered on the May option, which calls for deliveries May 31st, which is four months from January 31st. In this four-month period almost anything is likely to happen. The May option closes before the new crop is in harvesting distance, and the principal factors are, first, the quantity of the old crop in sight and the estimates of the new crop. The market reports of wheat can be compared with the thermometer. Any hour of the business day you can ascertain how high or low the market is, but the market report cannot foretell the future price any more than the thermometer can indicate future temperatures.

On December 30th, at the St. Louis market, we left cash wheat No. 2 selling at 96½ cents a bushel, and we find that on January 31st St. Louis cash wheat is selling at $1.00 to $1.01¼. We leave St. Louis at that, and it is gratifying to learn that St. Louis is a pretty good market for wheat.

Looking to Chicago for the speculative market, we left the May wheat option closing on December 31st at 99 cents a bushel, and we find on January 31st that the market has advanced to $1.02½ to $1.02⅝, a small but substantial gain, which indicates that the trade believes that there is no decline in sight.

The July option, which is influenced by the coming crop, is not so good an indicator from a farmer's standpoint. We left the July option quoted at 94⅝ cents on December 31st, and we find the quotation to be 95¾ cents on January 31st. There is some little satisfaction in this, but not much.

Home-grown Nansemond sweet potatoes were selling at 75 to 85 cents a bushel, and Bermuda and Queen at 65 to 75 cents a bushel. This at St. Louis wholesale market, February 1st.

CONSIDER NOW

what it will cost and how much money you will save on your next season's fertilizer bill if you should buy your

Nitrate of Soda

and other Farm Chemicals and mix them yourself

Your own brand MIXED AT HOME will be better than any patent brand and is sure to have in it just what you want.

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with the **Johnston Corn Binder.** The old, wasteful, drudging way is gone. In its place is the economical, easy, quick, modern method—the Johnston way. **Johnston Farm Machines** have represented implement **quality** for 60 years, do still and always will.

THE JOHNSTON CORN BINDER handles "down" corn, tall corn, short corn—all kinds of corn in all kinds of places. The big drive wheel; balance and distribution of weight; dust proof roller and brass-bush bearings; natural inclined elevation; **automatic gates;** perfect bundle tier; steel bundle carrier; special chain adjustment; right hand levers; strong, compact steel construction; light, straight draft; and perfect operation are a few of its winning points.

Johnston Harvester Co., Box 117-H, Batavia, N.Y.

Write today for 1912 Catalog—Free. Full of information for farmers. Tells of Johnston quality machinery.

Extent of Missouri Farms.

In the state of Missouri there are 277,244 farms and 194,286 are operated by owners and managers, and 82,958 are operated by tenants. In Missouri there are 455 farms under three acres; 8,561 from three to nine acres; 10,740 from ten to nineteen acres; 47,398 from twenty to forty-nine acres; 74,178 from fifty to ninety-nine acres; 80,020 from 100 to 170 acres; 32,109 from 175 to 259 acres; 19,812 from 260 to 499 acres; 3,427 from 500 to 999 acres; and 544 farms of which the extent is 1,000 acres and over.

Virginia is reported to be making considerable advances as a creamery state. A meeting of creamery men has just been held at Charlottesville.

Egg dealers are having the utmost difficulty in quoting eggs high to the consumer who buys and low to the farmer who produces and sells.

Quality You Can't Equal —a Price You Can't Beat!

Direct From Factory—Freight Prepaid

Here's the Genuine—All Others are Weak Imitations

Let us *show* you! Send name on postal for book and price. Detroit-American is first *genuine* tongueless disc ever invented! Features protected for 17 years by *patents.* All other "tongueless" discs are built like old styles with tongues cut off. Years behind the Detroit-American. No one else will give you 30 days' trial with *money in your pocket—no deposit—freight paid, cash or credit* and *factory prices!* No other harrow *good enough* to *sell itself.*

Detroit-American Tongueless Disc

Sold Direct from Factory Complete, with Hitch Free. The only all steel tongueless disc made. Practically no chance of breakage—no repairs—no delays—no waiting for new parts—no express bills. Steel wheels have wide tires. Steel axle is high arched and gives good clearance. Trucks are flexible. Wheels pass over uneven places and stones without disturbing balance. Double levers—each section works independently. Adjustable holddowns insure uniform depth of cut. Disc sections do not strike together. End thrust taken up by a hard maple ring bearing. Only harrow with steel separators between blades. Hitch free to suit size of harrow.

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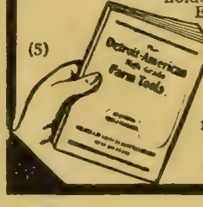

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9045 **Hastings Street** **Detroit, Michigan**

New Labor Saving —Farm Machine—

Without putting you under any obligation I will send you this new, all steel, shaft drive

LUTHER FARM TOOL GRINDER

for try-out on your farm, just to show how easy it is to keep farm tools keen and bright with the rapid **Dimo-Grit** sharpening wheels, how much better you can do your work and the time and money it will save.

Use the machine for **30 Days Free,** put every tool in fine shape—if you don't want to keep it, send it back—guaranteed for 5 years. Money back any time within 1 year.

FREE TRIAL OFFER—Write for 40 page book, also circular containing special introductory offer. Write today. Address C. J. Luther, Pres.

Luther Grinder Mfg. Co. 257-A Stroh Bldg., Milwaukee, Wis.

Fertilizing the Corn Crop.

"Most certainly, under ordinary circumstances, the corn grower should make use of every bit of barn manure he can save on his farm. The average ton of barn manure supplies about ten to fifteen pounds of nitrogen, five to nine pounds of phosphoric acid and ten to fifteen pounds of potash. We have already discussed the availability of these elements in this kind of manure. The fertility added by the growth of the leguminous crop, such as clover preceding corn, would be in about the state of availability as are the elements in barn manure. We would draw the attention of the corn grower that the amount of plant food supplied in barn manure is not in correct balance for best results from the corn crop. This is an exceedingly important point. The farmer knows that he can get good results by feeding ensilage to his stock during the early period of their fattening, but he also knows that he must add some concentrates carrying a high percentage of protein during the finishing period, so that the animals may put on flesh. In just the same way the corn grower, while he may supply a large amount of nitrogen and some of the other food elements by the growing of nitrogenous crops preceding corn, and by the application of barn manure, must supplement these with a fertilizer carrying a medium amount of available nitrogen, a fairly liberal amount of phosphoric acid and potash. This will be found in the use of 400 to 600 pounds of a fertilizer analyzing about 2 per cent. nitrogen, 8 per cent. phosphoric acid and 4 per cent. potash. We have gotten good results from corn by applying half of this fertilizer sown broadcast just before the last disking of the corn field preparatory to planting, and applying the other half through the fertilizer dropping apparatus of the corn planter.

"May we again emphasize the great necessity of all of the good practices of corn culture when fertilizers are used so that the best results may be obtained. The land must be drained; it must be sweet; it must contain a good supply of vegetable matter and moisture; crop rotation should be observed and all available barn manure should be added to the corn field. These good practices should be supplemented by the final and telling good practice of balancing the plant food by the addition of a judicious amount of suitable available fertilizer.

"Various ideas are prevalent as to the best fertilizer to use, as to the best quantity to use and as to the best shape in which it should be. We have known of good results where lime has been applied alone, since lime upon the soil corrects the acidity of the soil and puts it in such condition that the beneficial bacterial life reproduce and thrive in it. Lime also sets free a large amount of plant food and may actually set free more plant food than the plants can take up, resulting in a loss of soil fertility. We have also known of good results coming from the use of barn manure alone where the land had not been cropped to its limit in previous seasons. The papers are now freely discussing the benefits arising from the use of ground phosphatic rock applied to the soil alone with barn manure and with lime. We would suggest that it is important not to confuse the returns from such an application with the returns that would be gained from the application of lime or barn manure alone. The phosphoric acid in phosphate rock is in the three-lime form, in which form it is found in use already. It is a well-known fact that while phosphorus is in this form it is insoluble in water. It, therefore, appears to us as doubtful policy to add to soil still more of this unavailable phosphoric acid. In the manufactured fertilizer this phosphate rock has been treated with just sufficient sulphuric acid to change the three-lime form of phosphate rock to a one and two-lime form, the first of which is readily soluble and the second more slowly soluble in water. The idea prevails in some sections that this treated plant food contains an amount of sulphuric acid which renders the soil sour. This is entirely contrary to fact where the fertilizer has been well manufactured, which covers 95 per cent. of the cases in these days of keen competition.

"The farmer is surely safe in using this form of plant food, and not only safe but wise, inasmuch as this treated phosphate plant food is readily available to the growing plant. Again we repeat that the results obtained where the crude rock has been applied with manure and lime it appeared to us to be largely due to the action of the lime and manure. We would also like to see investigated whether or not equally good results could not have been obtained by the addition of lime or manure alone. Most certainly we recognize that the crude form of the phosphatic rock applied to a very sour soil would readily provide some phosphatic plant food, inasmuch as the acid of the soil would react on the otherwise insoluble phosphorus in the gorund rock, but very few of the corn-belt soils are sour."—From address by Prof. Henry G. Bell, before the Ohio Corn Show Association, January, 1912.

The Mule Was Uninjured.

Senator John Sharp Williams, whose supply of darky stories seems inexhaustible, tells this new one:

"I was proceeding leisurely along a Georgia road on foot one day, when I met a conveyance drawn by a mule and containing a number of negro field hands. The driver, a darky of about 20, was endeavoring to induce the mule to increase its speed, when suddenly the animal let fly with his heels and dealt him such a kick on the head that he was stretched on the ground in a twinkling. He lay rubbing his woolly pate where the mule had kicked him.

"'Is he hurt?' I asked the older negro, who had jumped from the conveyance and was standing over the prostrate driver.

"'No, boss' was the older man's reply; 'dat mule walk kind o' tendah for a day or two, but he ain't hurt.'"

In the year 1909 the United States wool production was 328,000,000 pounds, and the imports were 263,940,000 pounds. Who says wool cannot come in under present tariff laws?

Good Crops of Oats were Formerly the Rule; Now a Good Crop is the Exception.

One reason is starvation—the lack of the right kinds of plant food in the right form, available at the right time. The result is weak plants that grow slowly, yield light, chaffy grain and fall an easy prey to rust, blight and insects.

POTASH

has been shown to greatly decrease the liability of the small grains to attacks of rust, as well as lodging because of weak straw. Be sure that your oats fertilizer contains 6 to 8 per cent. Potash. Ask your dealer to carry such brands, or Potash Salts, to enable you to bring the brands up to this standard.

If he will not, we will sell you Potash in any amount from a 200 pound bag up. Write for prices and for our book on fertilizer formulas and how to adjust them.

GERMAN KALI WORKS

Baltimore: Continental Building Chicago: Monadnock Block
New Orleans: Whitney Central Bank Building

Let Galloway Save You $25.00 to $40.00 on a Manure Spreader

If you'll send a postal for my Special 1911 Spreader Offer, I believe we can make a deal. If we do, you'll save at least $25.00, perhaps $40.00, according to size and style you want. And you get a free trial and a guarantee that would break me if my Spreader wasn't *right*. I know I *have* to go *high on quality* and *low on price*, because I sell by mail. The other fellow is right on the ground to *persuade* you personally. My *quality* and price has to do all *my* persuading. Let me try it. Our capacity is 42,000 spreaders this year in order to quote the low prices I do—30 to 365 days free trial and my long time binding guarantee in writing. $25.00 to $40.00 saved—think of it! That's fair, isn't it? If you can think of a fairer proposition than I'll make you, I'll print it in my next advertisement.

Prices, $39.50 Up. Freight Paid

Get your pencil or pen right now, and send me a postal for my big Spreader Book, showing 5 styles and sizes, from $39.50 up. I'll send the book free and a proposition that will make you do some tall thinking whether you buy from me or not. Address

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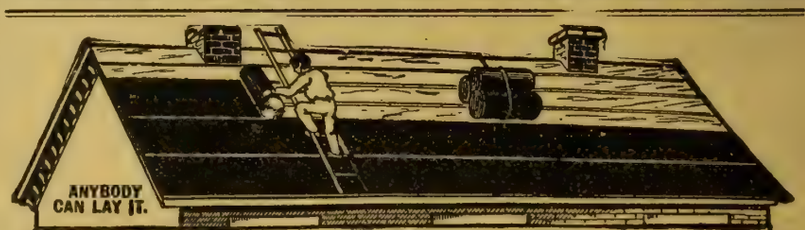

Rubber Roofing

Warranted For Twenty-Five Years.

FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
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TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept. 161, East St. Louis, Ills.

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions for a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of

hand and prevents chafing. The strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth or other unavoidable influences the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

The World's Supply of Meat.

In recent years the meat-eating population of the world has increased considerably faster than meat production until it is safe to assert that there will be a struggle from now on in all well-populated nations to obtain meat. We have not the statistics before us, and reliable figures are hard to obtain, but we have the satisfaction of knowing the change of conditions we have actually seen, the evolution from a surplus to a deficit; the change from an abundance of meat to a comparative shortage.

We have seen the time when ordinary, every-day restaurants could put a good loin beef on the counter or dining table for a quarter of a dollar, and we have lived to see the same beefsteak invoiced on the bill of fare for 45 to 50 cents.

In the higher class of restaurants a dainty single tenderloin used to be served up at 50 or 60 cents, at most, and now the same dainty tenderloin is quoted at 90 cents or a dollar.

We have seen the surplus cattle of the United States unloaded at Birkenhead, near Liverpool, and we now hear that the same slaughtering plants are idle because there is now no surplus of cattle arriving from the United States on the hoof.

We can see from the export statements that dressed-beef shipments from the United States to Great Britain are becoming smaller and smaller, and finally we are told that the cattle production in the great South American grazing grounds is less than formerly; that exports now made in great quantities cannot possibly be kept up.

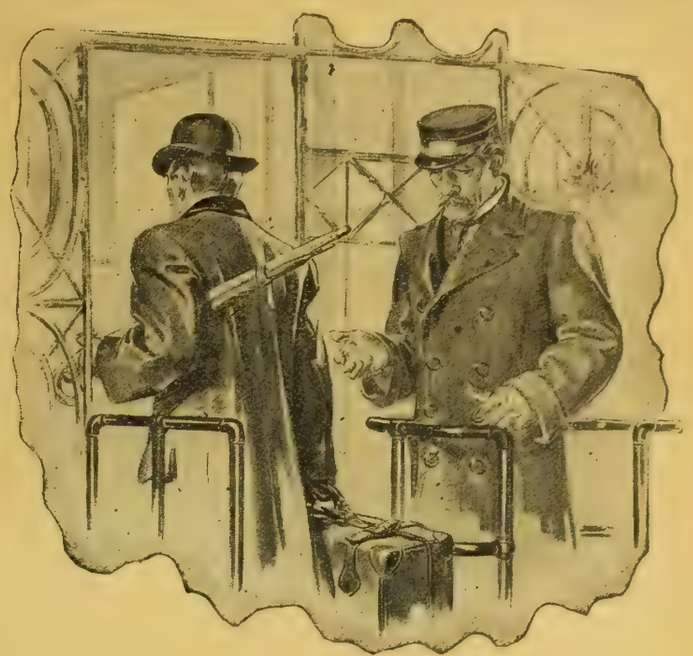
For four years the North American companies doing business in the Buenos Ayres district have increased their output direct to Liverpool; but now comes Senor Jose Maria Palma, himself an investigating stockman, who criticises the Argentine government statistics, claiming an annual Argentine surplus of half a million head of cattle, and he says no annual surplus exists, and, on the contrary, the herds of the country are diminishing, anl, unless a reaction sets in—that is to say, unless the excessive slaughtering of cows, and above all calves, is stopped—they will not be able to entertain the idea of supplying Europe with live stock, as before long Argentine will be hard pushed to meet the wants of the cold-storage works now in existence.

This is a new feature in the world's meat situation. We know that much of the meat from South America is in the hands of our own American packers. They will ship from Argentine to Great Britain so long as that is the highest market, but when the highest meat market is in the United States, we can look out for Argentine grass beef to come in at New York, New Orleans and Galveston. But we take some comfort in the assertion that Argentine cannot keep up the gait that has been set.

We therefore advise all cattle raisers to stick to their business; to study their end of it, which is to produce beef cattle of quality as cheaply as possible. Don't feed, raise and produce on a basis to sell at a profit only on a high market, but produce with true economy of production, so that profits can be obtained almost on any kind of market, which is easier to say than to do, but it can be done, and it certainly ought to be done on the markets we have to-day and the markets we are likely to have in the near future.

Great Britain, Germany and France, in the order named, are the principal countries importing American cotton.

Look for Rose Premiums on page 31.



The Howard Watch

EVERY year, Nine Hundred Million passengers use the railroads of this country—traveling on "HOWARD Time."

The HOWARD Watch is officially certified and adopted for trainmen's use on 180 of the leading American railroads.

But in fact, wherever you find men who insist on the value of time you will find owners of the HOWARD Watch.

One great sign of the advance of agriculture is the fact that Farmers and Stockmen are buying HOWARDS—just as they are insisting on the best in every other line.

As a practical man, the farmer is certainly in position to appreciate *the finest practical watch in the world*—the watch, moreover, that is carried by the leading men of every practical occupation.

A HOWARD Watch is always worth what you pay for it.

The price of each watch is fixed at the factory and a printed ticket attached—from the 17-jewel (*double roller*) in a Crescent *Extra* or Boss *Extra* gold-filled case at $40, to the 23-jewel at $150—and the EDWARD HOWARD model at $350.

Find the HOWARD jeweler in your town. When a man makes a permanent investment like the purchase of a HOWARD Watch he naturally wants to *see* what he is buying—he wants to get the jeweler's expert advice. The HOWARD Watch is sold only by legitimate jewelers—and not every jeweler can sell you a HOWARD. The jeweler who can is a representative merchant—a good man to know.

Send us your name on a postal card and we will send you—FREE—our pamphlet, THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

E. HOWARD WATCH WORKS

Dept. No. 122, Boston, Mass.

$10.00 **Factory to Farm** NO AGENTS NO MIDDLEMEN

14 in. Double Shin S. B. Plow

with Extra Share all Soft Center, 13 in. Rolling Coulter, $1.00 extra.

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Plows Only
12-in. $8.50
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18-in. $10.95
Sulky Plow $25
Gang Plow $39
1000 other articles.

SEE WHAT IT MEANS

64-Tooth Lever Harrow $8.50
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14-in. Imp. Lister $17.75
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Best Sewing Machine Guaranteed equal to any $50 machine, $17.50
Steel Range, high closet and Reservoir $19.50
Good Top Buggy $29.10
12-16 Disc Har. $17.00

Walking Cultivator 4-Shovel, $11.70; Riding Cultivator, $20.50; Corn Planter, complete with 80 rods of wire, $30.25

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The National Farmer and Stock Grower.

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Office of Publication, 3550 Vista avenue, St. Louis, Mo. Bell Phone: Grand 400.

A New Dairy Champion.

A new dairy champion has arrived in the Holstein cow Pontiac Clothilde De Kol, 2d. She has just produced 25,318 pounds of milk in a year with an average butter-fat content of 4.02, which credits her with 1,017.28 pounds of butter-fat during the year. Pontiac Clothilde De Kol, 2d, is the property of Stevens Bros. Co., of Liverpool, N. Y.

Horseradish at St. Louis, February 1st, was selling at $4.50 to $5.75 per barrel.

Increased Horse Power

Humor your horses by properly padding their collars and they will repay you with better work. **Ventiplex Pads** are the kind to use, because they are made of ventilated fabric, which allows a free circulation of air under the collar. This keeps the shoulders dry and cool, preventing gall and sores.

You can use your horses every day. Ventiplex Pads wear longer, prove more satisfactory, and cost no more than other kinds. You will be glad you bought one.

Most dealers have them, but if yours has not send us his name and we will forward a sample quickly. **Patented Sept 20, 1910.**

Our folder will interest you. It is free for the asking.

What is your address?

We also make the famous "Stay-On" Blanket.

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TRADE MARK Ventiplex PADS

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the use of a Hercules Stump Puller. Bumper crops instead of stumps. Big money in place of taxes. $1,200 from 40 acres the first year—$750 in extra crops every year after. Get the catalog of the

Triple Power **Hercules** Genuine Steel **Stump Puller**

You can clear an acre of stumps a day. 30 days' free trial. Guaranteed 3 years. Special introductory price proposition. Write today for big free catalog.

HERCULES MFG. CO.
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GRAND SUBSCRIPTION OFFER.

A Splendid Magazine One Year, The Ladies' World — National Farmer and Stock Grower One Year—Eight Standard Grapevines —All For One Dollar.

This is a startling subscription offer, especially valuable to farmers' families and to anyone who owns a home. **"The Ladies' World** is a monthly magazine, forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful splendidly edited, lovely stories, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. **The National Farmer and Stock Grower** is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets. Collection of **Eight Two-year Standard Grapevines.** These grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe; **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Sale of Horses and Mules.

Holland, Nugent & Maxwell Bros. sold 1,267 horses at auction on Monday and Tuesday, January 29th and 30th. Buyers were plentiful, and all offerings sold good. The Southern horses sold better, and there was a splendid demand for 1,200 to 1,400-pound chunks. Heavy draft horses were a little lower and slow. The mule trade was the best in three months. T. H. Holland, addressed at National Stock Yards, Ill., will give personal attention to correspondence from buyers or shippers.

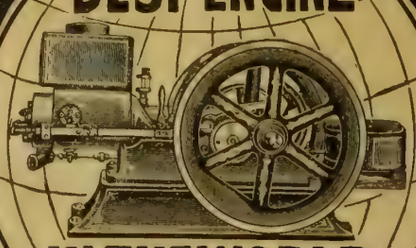
The Corn Market Situation.

On January 31st, at the St. Louis market, no sale of No. 2 cash corn was made, but No. 3 sold at 65 cents. No. 2 would probably have sold at 66 cents, which is four cents higher than on December 31st, 1911. The St. Louis market holds up well, and, as is understood, all this cash grain is entering into consumption, there being a good commercial side to these transactions.

Now comes the speculative market at Chicago, which gives us the only indications of the future. Without the future trading there would be no sign to indicate whether corn will or would sell high or low three months from now. Some people think it would be a good thing, and so it would be for sharks and swindlers.

On December 31st corn for May 31st delivery was quoted at 63½ cents a bushel, and on January 31st the same quotation was advanced to 67½ cents a bushel, which is a substantial advance, indicating that corn is good property in the minds of those who put up the cash money to buy it. Furthermore, the July option has advanced also. We left it on December 31st quoted at 63½ cents a bushel, and thirty days later we find it at 67⅝ cents. Farmers will see from this that until after next July the majority of the grain dealers believe corn will sell on the market not far from 65 cents a bushel. When such an opinion is backed by money to buy in advance on such a basis, a corn grower can count his corn as "good as wheat in the mill."

THE BEST ENGINE IN THE WORLD



WATERLOO BOY

Two gold medals, at two International Expositions, in open competition with the leading manufacturers, not only of this country, but of every nation of the globe. THAT is real **proof** that the **Waterloo Boy Gasoline Engine** is the best engine built today. And the real importance of this great double victory is the fact that it was won, not by a specially designed engine prepared and primed particularly for the contest, but by a **regular Waterloo Boy TAKEN FROM STOCK.**

Thousands of these engines are in regular daily use on farms all over the world, and **you** can buy an exact duplicate of this medal winner for your own work. This supreme make-good quality of the

WATERLOO BOY GASOLINE ENGINE

is built into it—it is best from foundry to testing room. **Best** and **simplest** in **material, in workmanship and in many important features of design which are found on no other engine in the world.**

The speed lever which works like the throttle of a locomotive and regulates the speed while the engine is running, is an **exclusive Waterloo feature,** and it alone adds $20.00 to $50.00 to the value of your engine. Many other features are just as important—our patented mixer which does away with the expense and bother of a pump; new type igniter that never misses a spark; automatic fuel regulation making it the cheapest to run; frost proof construction.

Burns either Kerosene or Gasoline— starts easy in the coldest weather. All parts are interchangeable and it is so simple that a child can run it.

The Waterloo Boy is no experiment—it is the oldest successful farm engine on the market and has made good for nearly 100,000 farmers for over 19 years—**some of your neighbors among them.** Built in one of the biggest engine factories in the world, with a capacity of 130 complete engines per day, nearly 40,000 per year.

Let the other fellow experiment—you use his experience and buy a **Waterloo Boy** in the first place. **Get the certainty of absolute satisfaction at the *lowest price ever made on a reliable engine.***

5-Year Guarantee. Catalog and full details FREE. Write today.

WATERLOO GASOLINE ENGINE CO.,
228 W. 3rd St., WATERLOO, IOWA.

AWARDED GOLD MEDAL at INTERNATIONAL Gasoline and Oil ENGINE SHOW, BUDAPEST, HUNGARY. JULY, 1911

AWARDED GOLD MEDAL at INTERNATIONAL EXPOSITION, Turin, Italy. September, 1911

[Please mention National Farmer and Stock Grower.]

Best Watch in the World.

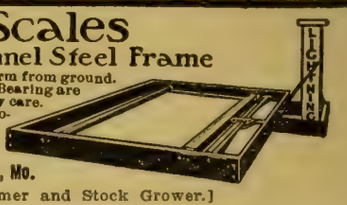
One hundred and eigthy of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

At St. Louis, broom corn is selling at $100 to $185 per ton, according to quality.

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

[Please mention National Farmer and Stock Grower.]

FRAZIER'S DISTEMPER CURE

Guaranteed

To Cure and Prevent other Colts and Horses in same stable with the sick ones from having Distemper, Influenza, Epizootic, Pinkeye, Shipping Fever, Catarrhal Fever, Coughs, Colds and all Diseases of the Horse, affecting the Nose and Throat. $1 bottle holds eight ounces, three times the quantity of the 50 cent size. Send for free Horse Booklet. Sold by all druggists or prepaid from

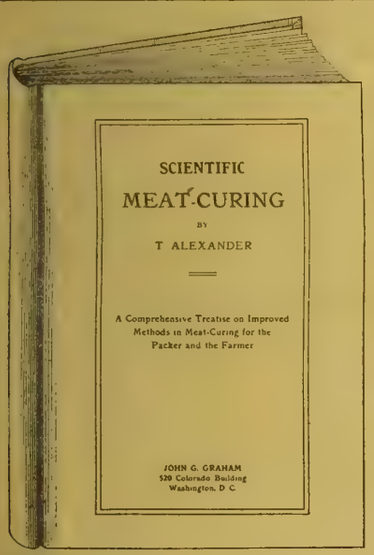
BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

[Please mention National Farmer and Stock Grower.]

SCIENTIFIC MEAT CURING.

A Booklet For All Farmers, Stockmen, Butchers and Packers.

There is a book on meat curing. It is descriptive of the methods used by the most expert of all the butchers and packers. It is actually a text book for the curing of all meat products. It includes elimination of animal heat, difference between weight alive, dressed and cold, with shrinkages; table for making different strengths of pickle, mild and strong cured meats, temperatures, pumping, pumping pickle, pumping of hams, calas, picnics, etc. Time in pickle for different weights, curing pickle for hams, etc.; sweet pickle bellies, time for smoking, number of days in cure per pound, overhauling, handling old meats, soaking, washing, soaking first-grade bellies, soaking beef hams, long and short cut tongues, dry salt meats, temperature of smoke house, time for smoking to prevent skippers, kind of wood to use, use of sawdust for color, smoking S. P. meats, summer schedule, smoking colored and uncolored meats, first-grade hams, beef hams, No. 1 pork hams, picnics, No. 1 bacon wide, No. 1 bacon narrow, with shrinkage, smoking tongue, firing house for S. P. meats, coloring, use of liquid smoke, and insect-proof covering. Instructions for preparing



mess beef for curing, chopping and scoring, mess chucks, mess rumps, curing mess beef, packing for curing, S. P. beef hams, beef rump butt cure, Antwerp beef hams, overhauling, packing mess beef for shipment, weights summer and winter, amount of capping salt to be used for Northern and Southern points, Scotch buttock cure, dry cure shoulder clods, dry cured boneless beef, beef tongue cure, weights and strengths of pickle to use in shipping, beef tongue smoking ages, for export shipment, handling and curing of lamb tongues and tables showing the strengths of pickle from day to day from which the amount of solids taken up by the meat can be computed. The book includes table giving average weights of the various cuts of pork, veal and mutton, lists of the different standard brands of sausages, giving per cent. of beef and pork used, parts of the carcasses and the amounts of cereal used, and the constituents of the cereal used in sausage, etc.

We have adopted the booklet "Scientific Meat Curing" as a subscription premium to be furnished subscribers to The National Farmer and Stock Grower. Send us sixty (60) cents by money order and we will send you The National Farmer and Stock Grower for one year and you can select one copy "Scientific Meat Curing" as a premium, to be sent postpaid, safe delivery guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

DEEP WELLS A NECESSITY.

If the world is to make the sanitary progress in the next decade that is due mankind, care must be given to providing pure water. The health of both man and the domestic animals calls for deep wells to penetrate hundreds of feet into the earth and bring from beneath the solid rock the pure liquid, unadulterated by surface drainage. Such wells are not to be thought a luxury for only a few. Every farm needs one. The mammoth catalogue of the American Well Works, Aurora, Ill., gives much valuable advice on this subject. It is free to those who write for it and mention the name of this paper.

Seed advertising on page 12.

Native Cattle at St. Louis.

On the last day of January, at St. Louis, thirty-four Iowa steers, 1,399 pounds average, sold at $7.50 per 100 pounds; 1,191-pound natives at $7.05; 1,244-pound steers at $6.85. Choice to prime native steers of the favorite weights were quoted at $8.50 to $8.75 per 100 pounds.

Look for Rose Premiums on page 31.

$25 an acre. 2 crops a year.

Just look at this corn. Some of these stalks have 3 ears. Can you beat corn like this anywhere? What would you have to pay for land that would grow corn like this in the northern corn belt? You can buy all you want of this kind of corn land in Arkansas and Louisiana at from $25 to $50 an acre.

The big river bottom plantations are being cut up into smaller farms. No where is there another such a chance for corn growers to make money.

You would be more than satisfied with this land if you only got one big corn crop a year, but you can get two —one corn and the other potatoes, oats, cowpeas or other similar crops.

Corn, Cowpeas and Potatoes yield $106 an acre a year

Mr. S. W. Day, a native of Iowa, raised 50 bushels of corn, 6 bushels of cowpeas, and 90 bushels of potatoes to the acre, this past year, on his farm near Alexandria, Louisiana. These crops brought him $106 an acre. It cost him $25 an acre to make them, leaving $81 an acre net profit.

Mr. Day's neighbors are also doing wonderful things, for it is easy for a good farmer to succeed where the soil is so rich, the growing season so long, the rainfall abundant and so sure, that *there has never been a crop failure from drouth.*

Not only do these corn growers get big yields, but they get big prices, too. The big export market of New Orleans is near at hand, and Louisiana corn brings about 10¢ a bushel more than northern corn because it contains less moisture and is ready for export as soon as it is harvested.

Prof. H. M. Cottrell, an expert of national reputation, formerly Professor at the Kansas and Colorado agricultural colleges, and now Agricultural Commissioner of the Rock Island Lines, has made a very careful inspection of many of these corn lands. It is Prof. Cottrell's expert opinion that no where in America is there a better opportunity open for corn growers to make money than there is in these Arkansas and Louisiana corn lands.

Better look into this proposition at once. If you are renting, your rent money will quickly pay for a better farm in Arkansas or Louisiana; if you want a place for the boys you can buy them one of these rich river bottom farms, as good or better than yours, for one sixth the cost.

You will find this southland a delightful and exceedingly healthful place to live. The people are good neighbors. Rural Free Delivery, Telegraph, Telephones are everywhere; good markets are accessible and are shipping in farm produce because the local supply is not equal to the demand.

You owe it to yourself to investigate this at once. If you are interested, drop me a line saying how many acres you would want; whether you own a farm at present, and how many acres. You will be given careful, personal, individual attention, and the best unprejudiced advice as to where and how to get one of these splendid corn land farms at a price much below its actual worth.

Book on Scientific Corn Raising, FREE.

Rock Island

Prof. Cottrell's book, "How to Double the Yield of Corn," is the result of years of experience, experiment and study. It is worth dollars to any farmer who will read it and follow the advice it gives. You may have a copy free, if you will write me today. I will also send you a book written by Prof. Cottrell, telling more about these wonderful corn lands.

The statements herein made have been fully investigated and can be absolutely relied upon.

L. M. Allen, Passenger Traffic Manager, Rock Island Lines, 411 LaSalle Station, Chicago

John Sebastian, Third Vice-President

Use KEROSENE Engine FREE!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing.

Gasoline Going Up!

Automobile owners are burning up so much gasoline that the world's supply is running short. Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline. No waste, no evaporation, no explosion from coal oil.

Amazing "DETROIT"

The "DETROIT" is the only engine that handles coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Basic patent—only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 1 to 20 h. p.; in stock ready to ship. Complete engine tested just before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric-lighting plant. **Prices (stripped), $29.50 up.** Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate amazing, money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, we will allow you **Special Extra-Low Introductory** price. Write!

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

Conclusions on Cream.

Several professors of dairying were engaged in experimenting to obtain a better knowledge of the factors affecting the percentage of fat in cream. The final conclusions were as follows:

"If cream is tested correctly and if the tests of different lots of cream from the same patron vary, then these variations must be due to variations in the richness of the cream. It is impossible to procure cream of exactly the same richness from different skimmings from the gravity can.

"The richness of cream from a farm separator is primarily determined and regulated by the cream screw. The richer the milk the richer the cream if all conditions remain the same, for the ratio of skim milk to cream remains constant. During early summer months the milk is usually comparatively low in fat. Advance in lactation period and change from succulent to dry feed cause milk to become richer in fat. The first drawn milk is much poorer in fat than the strippings. The greater the amount of milk running into a separator of a definite capacity per hour the thinner will be the cream. The greater the speed of the separator the richer the cream. If the speed is too slow a large amount of the fat is lost in the skim milk. Warm milk produces more and thinner cream than cold milk. The proper temperature to separate milk on the farm is from 90 to 95 degrees Fahrenheit and immediately after it is drawn. The more water or skim milk used to flush the bowl of the separator the thinner will be the cream. The most satisfactory cream for the creamery is that which tests about 35 to 40 per cent. fat.

"If the tests are to be uniform and accurate, the cream must be in such condition, when sampled, that a fair and representative sample can be taken. If, at the time of sampling, the cream is too thick, is tough, dry and leathery on the surface, is partly churned or curdy, it is very difficult to secure a fair sample, and tests of such cream are likely to be irregular as well as inaccurate.

"In order that the cream may be in proper condition for sampling and testing upon delivery to creamery, the farm separator should be thoroughly cleaned and scalded after each separation; after separation, the cream should be immediately cooled and kept cool by setting in cold water; the cream should be stirred occasionally; the cream should be delivered in clean cans not less than twice per week in winter and three times per week in summer; in transit the cans should be covered with a dry blanket or jacket in winter, and with a wet blanket or jacket in summer; cans should be reasonably full of cream in transit to prevent churning."

Ayrshire Official Records.

A new list of official records of Ayrshire cows was published at the annual meeting of the Ayrshire Breeders' Association.

In the mature class, Netherhall Brownie, 9th, owned by Mr. J. W. Clise, Redmond, Wash., gave a rceord of 18,110 pounds of milk, 820.91 pounds of fat, equal to 958 pounds of butter, with 4.69 per cent. fat.

In the three-year-old class, McAlister's Betty, owned by Mr. Percival Roberts, Jr., Narberth, Pa., gave a record of 14,208 pounds of milk, 581.41 pounds of fat, equal to 678 pounds of butter, with an average of 4.19 per cent. fat.

The average result of the advanced registry work during the past year was, sixty-eight two-year-olds averaged 7,610 pounds of milk, 306.52 pounds of fat, equal to 353 pounds of butter, with an average of 4.04 per cent. fat.

Thirty-six three-year-olds averaged 9,318 pounds of milk, 374.41 pounds of fat, equal to 432 pounds of butter, with an average of 4.14 per cent. fat.

Twenty-four four-year-olds averaged 8,723 pounds of milk, 349.93 pounds of fat, equal to 408 pounds of butter, with an average of 4.12 per cent. fat.

Ninety-seven mature cows averaged 9,923 pounds of milk, 332.03 pounds of fat, equal to 442 pounds of butter, with an average of 3.875 per cent. fat.

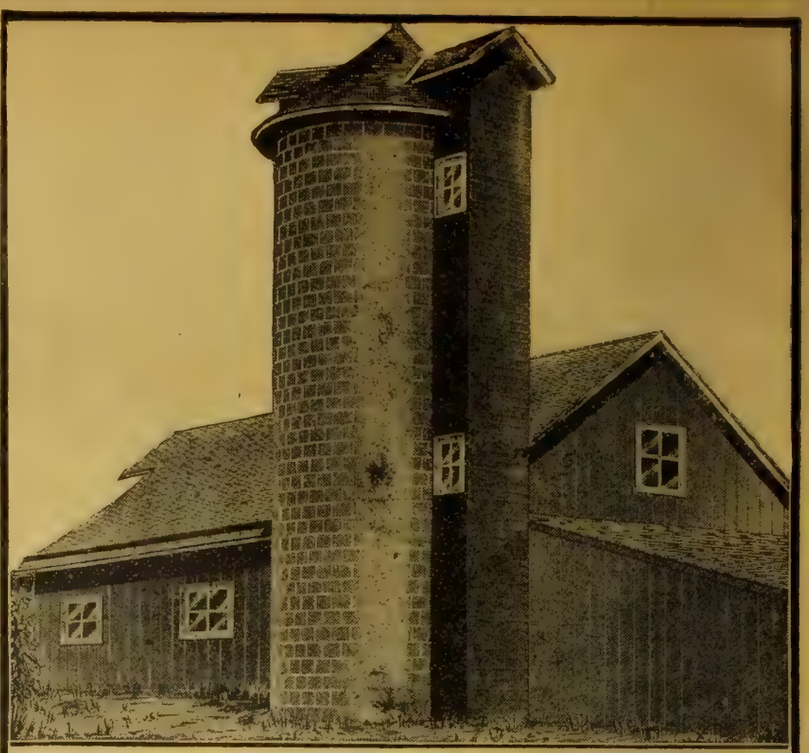
The average of the whole cows and heifers is 8,850 pounds of milk, 351.21 pounds of fat, equal to 408 pounds of butter, with an average of 4.04 per cent. fat.

The report of the work for the past year shows the largest official records for the different classes in the world for Ayrshire cattle.

Sensible Cold-storage Regulation.

The Cold-storage Commission appointed by the Governor of Massachusetts last year to carefully look into the cold-storage business has sent in its report to the Legislature. It is a document of several hundred pages, and goes into details in regard to the effects of storage on food products. Its findings are on the whole favorable to the cold-storage system as practiced in the state. Its recommendations are by no means radical, and for the most part quite reasonable. First, it would place the whole cold-storage business under the supervision of the Board of Health, and that a time limit of twelve months be placed on holdings. Second, products should be marked with date of receipt and withdrawal. Third, reports of holdings should be made at stated times.

The commission is of the opinion that cold storage is not detrimental to public health and is not a factor in the high cost of living, but rather the reverse. It is a regulator of prices, and tends to steady values, which is what the friends of cold storage have always argued, and if the Legislature adopts most of the recommendations and makes a law to carry them into effect, there will be little or no complaint. However, it must be kept in mind by lawmakers that the least restrictions put on the handling of food products the better for consumers. Every restriction adds to the cost of the product, and the consumer has to pay it in the long run. Some of those interested in cold storage believe that it would be better to let the business alone altogether; but if laws must be enacted they should be national in their application and uniform all over the United States. Different laws in each state make a great deal of trouble.—Boston Correspondence New York Produce Review.



The A. P. Grout Vitrified Tile Silo

THE cheapest and best because *absolutely indestructible.* Proof against Fire and Wind; proof against warping and wear and weather. Tile filled with concrete and otherwise reinforced. Guaranteed for 25 years.

Send for the Book which will open to you a mine of facts on the Silage and Silo questions. It will explain to you the extraordinary advantage in this Silo over any other style now made.

"Silo Profits"—FREE

This book will be a big help to you whether you are going to buy now or not. We do not ask you to take our plain statement; we back it up with the facts—with the "reasons why."

The book, "Silo Profits" tells *why* the ensilage is kept sweet and sanitary; preserving the highest possible per cent of nutrition; *why* the rats are kept away from the fodder; *why* our Vitrified Tile Silo has greater strength than any other; *why* there is no possibility of shrinkage, leaks, or other damage; no need of the expense for repairs, painting or insurance.

And the book tells *why* you do not need to pay a high-priced mechanic to erect the Vitrified Tile Silo. Let us send you this valuable information.

Agents Wanted: It is no trouble to sell this Silo; write today.

St. Louis Clay Products Co.,

Room 1601, Third Nat'l Bank Bldg. - - St. Louis, Mo.

(Please mention National Farmer and Stock Grower.)

$29.50 Buys This Elegant Top Buggy.

WARRANTED FOR Five Years.

Retail Price $60.00. Buggies, Surreys, Spring Wagons, Farm Wagons. We have cut out our Jobbers, our Wholesalers and our Retailers and offer YOU their profit. Write today for our

Free Catalog and Delivered Prices.

Mutual Carriage & Harness Mfg. Co.

Station 47 G, East St. Louis, Ill.

THE most complete implement book published. Illustrates and describes the best line of farm tools made. Tells when and how to use them. It answers every question about farm machinery. No farmer can afford to be without this book. Write for it today.

John Deere Plows, Cultivators, Harrows and Farm Tools

Trade-marked goods that have received the gold medal at every world's fair and international exposition since 1840. The world's best in farm implement building. Everything from the smallest walking plow to an engine gang—high class and up-to-date. Have the best. The John Deere trade-mark protects you against inferior goods. Take no chances.

No matter what implement or farm tool you want, write us what it is and then be sure to ask for the big illustrated book, "Better Farm Implements," package No. X-7.

Get Quality and Service—John Deere Dealers Give Both

JOHN DEERE PLOW CO.
Moline, Ill.

Good and Bad Care of the Dairy Cow.

Ideals have changed in fifty years as to the methods that should be employed by dairymen and farmers in the care of dairy cows. Formerly it was believed that the dairy cow needed a summer temperature and that she was very susceptible to wintry blasts. But in the last fifty years there has been a good deal of experimentation, out of which has come much valuable information.

Tests have been made in midwinter of giving the dairy cows the chance to lie in a place protected from the winds or in the sweep of the winds. More than one dairyman has found his cows at such a time lying in the draft rather than in some corner protected from the wind.

To coop dairy cows up in close barns heated to summer temperature is the surest way of spreading tuberculosis among them. Dairy cows cannot stand as much cold as can beef cows, but they can stand a good deal, more than can human beings and yet be comfortable. It is being gradually learned that the dairy cow loves fresh air as much as do other animals and the fresh-air cranks among humans.

Cement floors are of the greatest service in the care of dairy cows. They make cleanliness more possible than before cement floors came into use. Cleanliness is essential for the health of the cows and for the health of the human beings that consume the products of the dairy cow—milk, cream and butter.

There are those that object to the cement floors because they say cement floors are cold for the cows to lie on and are slippery for them to stand on. But both objections are easily met. The coldness can be done away with by an abundance of bedding, and the slipperyness by making the cement rough instead of smooth where the cows are to stand. The roughness is only enough to remove the excessive smoothness complained of.

Too many dairy cows are kept in semi-darkness in the winter for months at a time. If stables such as these must be used, the cows should be allowed to remain out of them a great deal, both summer and winter; but it is far better to make light and dry cow stables. Light does not cost very much, generally only the cost of the extra windows, and light is a help to health and happiness.

Good, succulent food summer and winter is a great help to the health and productiveness of the cow. Good silage is the best food for this purpose in winter and may also be advantageously fed in summer. It is an all-around-the-year feed. There is no succulent food that is as cheap as silage. It is nearer the normal food of the cow than any other except green grass. Happy is the dairyman that has a good silo filled with good silage.

Feeding cows on timothy hay is one of the very wasteful methods that should long ago have gone out of use. Timothy hay is badly balanced, and is still worse when balanced with corn meal. It is comparatively low in protein, as is corn meal. Moreover, it is worth too much money on the market for horse feed to make it advisable to feed it to dairy cows. Clover hay is far better, as it has in it more protein. Clover hay and silage tend to balance each other and are logical feeds for dairy cows.

The Butter-fat Demand.

With butter-fat now selling higher than it ever sold before and with a general shortage of real good milch cows throughout the country it is advisable for farmers to milk all available cows, to separate the cream from the milk and to sell the cream at the nearest and best market. To raise the calves on skim milk is an easy matter, and there is absolutely no reason why butter-fat should not be marketed from farms having but few cows. Butter-fat is easily separated from the milk by the farm cream separators advertised in this publication. See that these advertisements receive your attention.

Helps For Dairymen.

The Southern Railway has appointed Mr. Carlton Ball Assistant Dairy and Poultry Agent, with headquarters at the Western agency of the Land and Industrial Department, Chemical Building, St. Louis, Mo. Mr. Ball is a graduate of the Kentucky Agricultural College and is experienced as a specialist in dairy and poultry husbandry, and his appointment is in the pursuance of the policy of the management of the Southern Railway in the development of the territory served by it. Mr. Ball will devote his entire time to advising dairymen and poultrymen along the St. Louis-Louisville lines as to different problems that confront them in their work as well as assisting in every way the development of these important industries.

Look for Rose Premiums on page 31.

DE LAVAL Cream and Butter Triumph as Usual At National Dairy Show

Cream and butter produced through the use of DE LAVAL CREAM SEPARATORS made the usual clean sweep of all Highest Awards at the great 1911 National Dairy Show (including the annual convention of the National Buttermakers Association) held in Chicago October 26th—November 4th, just as has always been the case since the organization of the National Association in 1892.

WHOLE MILK CREAMERY BUTTER

The sweepstakes or highest award in this class was won by A. J. Anderson; Otisco, Minn., with a score of 97.50, who says: "I have been using De Laval separators for ten years and would not think of using any other."

FARM SEPARATOR BUTTER

The sweepstakes in the gathered cream factory made butter class was won by R. O. Brye, of the Readstown Creamery Co., Readstown, Wis., with a score of 97.33, this prize winning butter being made from the cream of farm patrons using De Laval separators exclusively.

Mr. Brye says. "I was raised on a dairy farm, where my father used a De Laval separator, and my own separator experience covers a period of twenty years. I have found the De Laval machines everything that is claimed for them."

HIGHEST PRIZE CREAM EXHIBIT

The highest award for cream was made to Nichols Bros., Bloomfield, Ky., with a score of 98.80, who say: "If we didn't use the best separator we could not have made this record. Our experience has proved the De Laval the only separator that 'delivered the goods'."

DE LAVAL PRODUCTS ALWAYS SUPERIOR

Would-be competitors are naturally forced to make many claims for their separators. But the superiority of De Laval cream and butter, as evidenced by the winning of all highest prize awards the world over for twenty years, is something so overwhelming as to be indisputable and unanswerable even by the most reckless would-be competitor.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

[Please mention National Farmer and Stock Grower.]

During the month of January cold-storage creamery butter at wholesale reached 38 and 38½ cents a pound on the New York market, and finest creamery reached 42 cents, the highest point since January, 1883.

"EVERYBODY"

Can Afford a Gasoline Engine With Galloway's New Low Prices

1½ HP $27.50

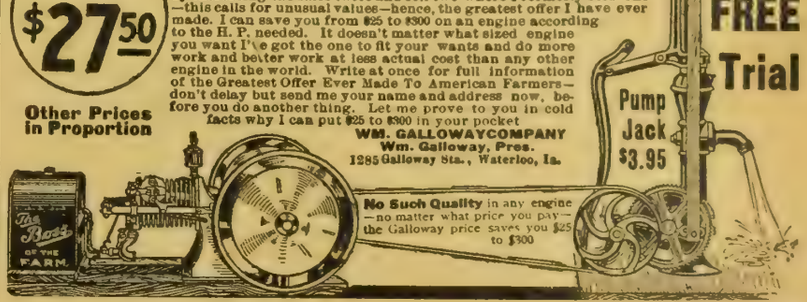
Other Prices in Proportion

You've never before heard of such startling values—I've never offered anything like them and you know full well that no one else has ever come anywhere near my regular prices. But this time I've a startling reason—*I want 10 men in every township in the county to own and operate a Galloway Engine*—I've decided to double my factory capacity by increasing the sales twice and sell two where I formerly sold one—this calls for unusual values—hence, the greatest offer I have ever made. I can save you from $25 to $300 on an engine according to the H. P. needed. It doesn't matter what sized engine you want I've got the one to fit your wants and do more work and better work at less actual cost than any other engine in the world. Write at once for full information of the Greatest Offer Ever Made To American Farmers—don't delay but send me your name and address now, before you do another thing. Let me prove to you in cold facts why I can put $25 to $300 in your pocket

WM. GALLOWAY COMPANY
Wm. Galloway, Pres.
1285 Galloway Sta., Waterloo, Ia.

30 Days FREE Trial

Pump Jack $3.95



No Such Quality in any engine—no matter what price you pay—the Galloway price saves you $25 to $300

HUNDREDS OF CARLOADS OF
FRUIT AND ORNAMENTAL TREES

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RAW ROCK PHOSPHATE.

Not a Fertilizer, Although It is Sold as Such.

In our January edition we stated how raw rock phosphate had been pronounced absolutely worthless as a fertilizer because it is not available as plant food in reasonable time. In continuing the subject we desire to say that we see no reason why raw rock phosphate should be sold and classed as a fertilizer when it is really nothing of the kind.

We have before us a card issued and endorsed by the Raw Rock Phosphate Propaganda, which is entitled "What Fertilizers Are Worth," and purports to show the real and relative value of one ton of each of several fertilizers as given by the Illinois College of Agriculture. The card graciously permits that one ton of fresh farm manure has a value of $2.34 a ton; acid phosphate (the available phosphate) has a value of $15.00 per ton; and the ton of raw rock phosphate is valued at $30.00 per ton.

The greatest advocate of raw rock phosphate does not claim that, standing alone, used by itself, it gives any practical immediate returns. It is only ground rock, and in our opinion its probably worth as ground rock is about the same as ground limestone. If the treatment by stable manure transforms it into a fertilizer, the manure is valued too low and the rock is valued too high.

We approached this subject for the purpose of advocating the use of raw rock phosphate as a fertilizer, if it was possible to do so. We had read much in its favor and considerable that was said against it. We found it listed in with fertilizer material in company with recognized fertilizers, and we put it up to the professor, who appeared to be responsible for the list, saying: "How long does it take to render these goods available as plant food?" and then, being held responsible for advocating it, he said: "In my opinion it has no practical value. The experiments showing gains in crops would very likely show just as well without it, the highest authorities do not regard it as a fertilizer, and only under special conditions can the raw rock phosphate be used to any advantage, and, generally speaking, it is not a fertilizer until it is treated to change its form."

That is not all we had read and heard but it suffices for the present. It is a case for appeal to higher authority. Raw rock phosphate is being sold at $8.00 to $9.00 per ton—say that it costs $9.00 per ton distributed on the farm by the manure spreader. It is being sold under representation that it is worth $30.00 per ton. One writer stated that in Ohio experiments the profit on it was estimated at $50.00 per ton. The claims of the salesmen know no limit. When it comes to demonstration they are backed by voluminous evidence, which generally rests upon the better tillage, the manure, the green crops, the other fertilizer.

We have an Agricultural Department at Washington. We have no doubt raw rock phosphate has been considered there and experimented with. A Farmers' Bulletin issued by the United States Department of Agriculture advising farmers to pay $8.00 to $10.00 per ton for raw rock phosphate would have some standing with farmers and certainly would with at least one farm paper editor who will gladly advertise it freely.

We brought this subject up to get it decided. We are tired of reading one authority saying this, another saying that, another silent, and interested parties making all kinds of extravagant claims. So far as we have gone we take this position: Raw rock phosphate is to an available fertilizer very much the same as pig iron is to the steel rail; raw rock phosphate is not generally high enough grade to be a commercial product when treated in the usual way; therefore is still an unavailable crude product, and its transformation into a fertilizer, except by chemical treatment, is still an open question and not by any means settled in its favor.

Extract From Bulletin No. 160, Vermont Agricultural Experiment Station, Burlington, Vt., June, 1911.

The ingredients with which the sundry kinds of deficient plant food (nitrogen, phosphoric acid, potash and often lime) are associated vary widely. There are many of them. Some may be useful, some harmless or inert, some, indeed, at times may be harmful. The form in which the plant food occurs, moreover, is important as an index of its availability, and, hence, of its service to plant life. Thus, for example, phosphoric acid, united with but one part of lime, is soluble in water and promptly assimilable by plants; and when associated with three parts of lime, as it is in raw rock phosphate, it is insoluble and available at best with extreme slowness. A fertilizer may carry its nitrogen in the form of crude leather, its phosphoric acid may be derived from undissolved rock and its potash from green-sand marl. Such a material would be almost useless to crop growth. The "forms" in which the elements are present in the above cited case are undesirable, in that they are unavailable, for the reason that the several solvents of the plants and soils are not strong enough to break down such combinations, as must needs be done before plant food can be used. When, however, the phosphate rock is treated with sulphuric acid and its phosphoric acid is thus made soluble, it becomes available and desirable, for plant roots can disintegrate the new union and use it. When this happens, the phosphoric acid has not been changed in any respect, but its "form" has been altered. "Form" then discloses character. An analysis which showed the gross amounts of the sundry plant foods without disclosing their forms would obviously fail in its mission.

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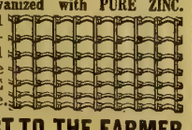

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The February Hay Market.

The following sales were made at S. Louis just as the month of February was opening up: Sales on St. Louis Side—One car Red Top at $15; two cars clover-mixed at $20, one delivered to East Side; one car do. at $21. Timothy—One car thrashed at $16; one car No. 3 at $19.50; one do. at $20; two cars No. 2 at $21.50; one do. at $22; four do. at $22.50; three No. 1 at $23; four do. at $23.50; three do. at $24, two delivered; two high No. 1 at $24.50. Clover—One car No. 2 at $18; one do. at $19; four No. 1 at $20. Prairie—Part car slough grass at $12; one car and part car No. 2 at $14; one car do. at $15; seven do. at $15.50; four scant No. 1 at $16; nine No. 1 at $16.50; one do. at $17; three good do. at $17.50. Alfalfa—One car No. 1 at $19; one choice at $20.50. On East Side—Timothy—One car No. 2 at $22; two No. 1 at $23; one do. at $23.50; two do. at $24, delivered to St. Louis; two high No. 1 at $24.50, do. Alfalfa—One car No. 2 at $18.

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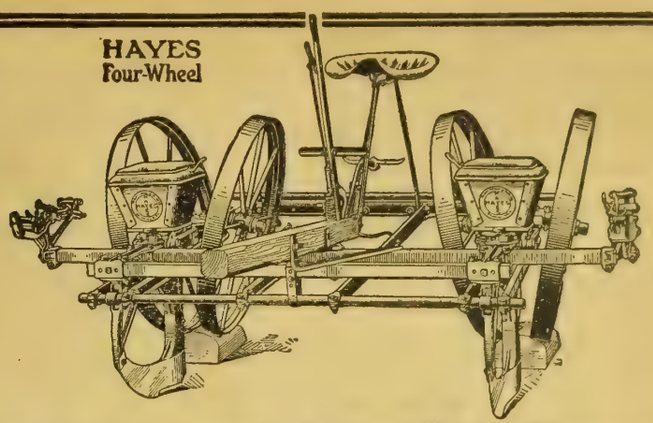

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Concerning Seed Corn.

Farmers' Bulletin No. 415, by Prof. C. P. Hartley, of the United States Department of Agriculture, can be had by any farmer who will take the trouble to write a postal card asking the Hon. Secretary of Agriculture, Washington, D. C., for a copy. In the line of illustration it contains: A field of corn showing a good method of selecting seed; an ideal method of treating seed ears by stringing them immediately after they are gathered; seed ears suspended by means of wire racks made from electrically-welded fencing; seed-corn racks made from electrically-welded wire fencing, showing the method of construction; also a wire crate for storing seed corn in winter; a good rack for drying seed corn.

The subjects treated upon are: "Small yields due to poor seed corn can be prevented." "The very best seed is available at ripening time." "Where to obtain the best possible seed corn." "Corn breeding a special line of work." "What constitutes good seed corn." "How to gather seed corn." "Make seed-corn gathering a special task." "Propagate only from the best producing plants." "Treatment of seed immediately after gathering." "Destroying weevils or grain moths." "Winter storage of seed corn." "Preventing injury from weevils and grain moths." "Testing the germination of seed corn." "Grading seed corn." "Method of shelling." "Seed ears should first be nubbed." "Hand shelling is the best method;" and "Summary."

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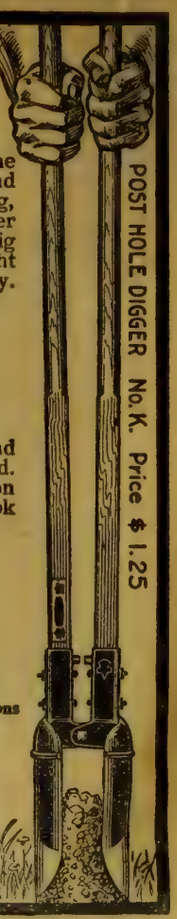

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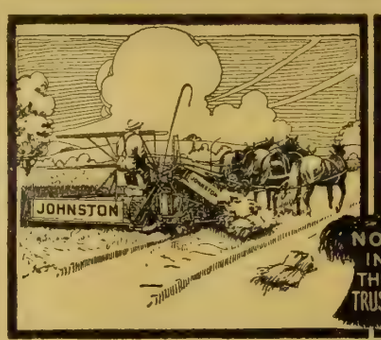

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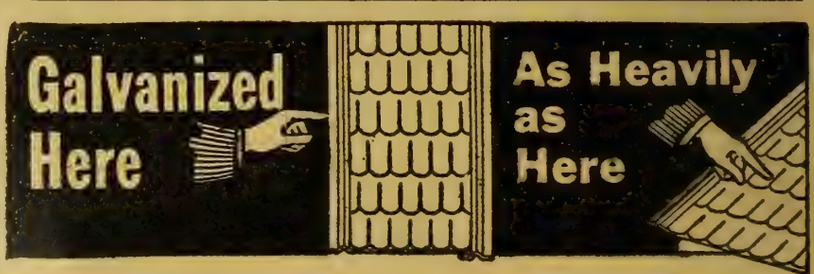

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Starting Plants.

While there are some plants in some localities which can be more cheaply bought than raised, there are a few which it pays to start in the kitchen window. If you have some special kind of tomatoes which are a favorite—and few have not—seeds should be sown in February, and then you will be sure of your plants. If depending upon the greenhouse stock, it is usually hard to find out what varieties they carry.

Old berry boxes which have passed their stage of usefulness for fruit are excellent, being small, furnishing drainage and air. They are about the size usually required for a single kind of plants, and the labels are easily made on the box with a lead pencil.

Select rich earth. Leaf mould, soil from an old fence row, mixed with an equal part of thoroughly decayed fertilizer from the cow stable, should prove satisfactory. Sift it if inclined to be lumpy, for the seedling may find it difficult to reach the surface otherwise. Warm it thoroughly and make it moist with warm water before putting in the seeds.

If you are in haste, soak the seeds in warm water for a few hours before planting, which will hasten the germination. Scatter them evenly over the surface, but strive to avoid any places where a bunch will struggle for existence on a single bit of earth. This stunts on the start. The seed should be sown thick enough that each plantlet will aid the others in lifting up the soil, but not so thick that they will be crowded for room. Cover with soil and firm it down. Keep in a warm place. The top of an incubator is an ideal spot for this, the machine furnishing the steady warmth at the roots, day and night.

When the plants appear they should be given all the sunlight possible, and kept moist. An oversupply of moisture may induce the fungus growth popularly known is "damping off."

When the plants have reached the stage of the third leaf they may be shifted to individual pots. The old way was to let them grow together in a thick mass. Then when the time for transplanting to the garden came they were more or less stunted and the roots closely intertwined. Modern culture finds it profitable to re-pot as the florists do; it may be several times.

If you have not the tiny pots of clay, hunt up some more of the berry boxes. Wet the soil thoroughly, and after a few hours remove a half dozen of the largest plants into each of the boxes. It may be that they will require shifting again before the final planting, one plant being eventually sufficient to fill a box or oyster can. Then when the time comes to plant out it can be done with little disturbance to the roots, which will by this time have filled the pot. Soak them well with tepid water for a few hours and plant deep, so deep that the point on the stem at the surface when planted shall now be well below it. This will give the deep rooting which defies summer drouth.

As the plants increase in size, gradually accustom them to the outside air during warm days. They should gain strength as well as size. Turn them daily to avoid their becoming one-sided in development in the effort to seek the light. And if the soil shows signs of exhaustion, a dose of liquid manure applied once a week may be used. This, however, should be made very weak at first and the results closely watched, for an overdose upon the tender rootlets would prove fatal.

Be generous in planting your seed. If you strive to sow only enough for personal use an accident or bad luck may leave you with scant supply. A few extra plants will serve to make a good neighbor a better one. And while you may not care to transplant for others, if those for your own use are duly removed, the remainder will thrive fairly well in the original bed.—Bessie L. Putnam.

The Horse and the Motor.

"You still stick to that old ten-year-old nag of yours, I see, Blithers," said Dubbleigh. "Why don't you get a motor?"

"Well," said Blithers, "I've sort of found that there is more style to a 1902 model horse than there is to a 1902 model car." — Harper's Weekly.

Good Work by the Rock Island.

The farm educational work being done by the Rock Island Lines is bringing good results. During July, 1911, a wheat campaign was conducted by the company's Agricultural Commissioner, Prof. H. M. Cottrell, in the state of Kansas. Eighty-five stops were made by the Wheat Special and lectures were given by experts on the proper methods of seed selection, soil preparation and other features of improving the yield of wheat. Particular stress was laid on the need for working the ground immediately after harvest, in order to prevent loss of moisture during the summer months. Result? A canvass made some time ago indicated that never in the history of wheat growing in Kansas had the ground been better prepared than it was during the past fall. The wheat came up with a fine stand and now the snows of a particularly severe winter give indication of a bumper yield. The railroad company, of course, isn't responsible for the snows, but even with ample moisture there would be no assurance of a good yield had not the ground been properly prepared in the fall. This indicates not only that the company's agricultural department knew when to strike the blow for better wheat, but that the farmers of Kansas realize that the wheat experts know their business, and they are willing to follow their advice. Let the good work go on. As stated in a previous issue, a copy of the book "How to Double the Yield of Corn" by Prof. Cottrell, can be had by addressing L. M. Allen, Rock Island Lines, 411 LaSalle Station, Chicago, Ill. See land advt. on page 9.

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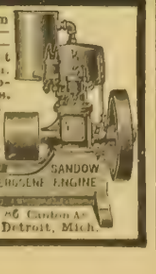

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Where the Dairy Interests Stand on Oleomargarine Legislation.

The existing oleomargarine law was framed with a desire to promote commercial honesty and to protect both consumer and producer.

The food value of oleomargarine does not depend on its color, while the dishonest sales of the article are possible solely on its color being such as to counterfeit butter; the fallacy of the claim that oleomargarine is colored to make it more palatable is shown by the fact that different colors are natural to different products; that no color is—in and of itself—more palatable than another—the color desired for oleomargarine is the color of butter.

In consideration of these facts, the present law was enacted with the idea (1) of reducing the tax on natural oleomargarine from two cents per pound to a nominal figure for administrative purposes, so that the consumer could get it as cheaply as possible; and (2) of increasing to ten cents per pound the tax on oleomargarine when colored so as to be a counterfeit of butter.

The Commissioner of Internal Revenue asserts now that this law has been to an extent a disappointment for three reasons: (1) Adverse decisions of some courts as regards certain administrative features; (2) Adverse decisions of the courts through the presence of the word "artificial" before the word coloration; (3) The great disparity—forty to one—in the tax on colored and uncolored oleomargarine. The first objection has been removed by a recent decision of the Supreme Court. The Dairy Union Directors, after a full consideration of existing conditions, and taking counsel of those representing the National Grange, the Farmers' National Congress and other organizations, has decided to meet the other objections to the law, and also to show that the dairymen do not want "to tax the poor man's butter" or "to add to the cost of living" by favoring a reduction of all taxes to a nominal figure. But the dairy interests will insist that no oleomargarine shall be manuafctured or sold in imitation or semblance of butter of any shade of yellow.

The Dairy Union believes that the line between genuine and dishonest oleomargarine is based on color, and that some form of color regulation is necessary to maintain that line. A bill has been drafted expressing the ideas of the Union, and members of Congress should be promptly informed by letter and telegram of the wishes of the dairyman. Lose no time. GEORGE M. WHITAKER,
Secretary National Dairy Union.

JACKS AND JENNETS.

Visit to the Champion Breeding Establishment of the United States.

A visit to Limestone Valley Farm, two miles north of Smithton, Mo., in the month of January, was quite opportune, for the reason that the annual sale of jacks and jennets for the year 1912 is advertised for Tuesday, March 5th, and that date is approaching rapidly.

Smithton is on the Missouri Pacific Railroad, six miles east of Sedalia, and Limestone Valley Farm is in easy driving distance from either Sedalia or Smithton. Mr. L. M. Monsees, owner of Limestone Valley Farm, was born and reared in that vicinity, and his driving team knows the road to Sedalia

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6. It is easiest and quickest washed by the same centrifugal force which skimmed the milk.
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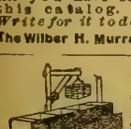

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better than they do to Smithton; in fact, Sedalia is the gathering point for those who attend the Monsees sales of jacks and jennets. Mr. Monsees always arranges for a special train from Sedalia to Smithton on the day of sale, and he carries out his friends and customers from Smithton to the farm.

The catalogue of the sale of jacks and jennets was in the hands of the printer at Sedalia when we called. We noticed from the proof sheets that the offerings will consist of thirty-seven jacks and twenty-eight jennets, all registered in the Jack Stock Stud Book. There are about a dozen of the offerings sired by Orphan Boy, the grand champion at the St. Louis World's Fair, and several by Limestone Monarch, a sire that Mr. Monsees values on a par or better than Orphan Boy.

The pictures in the catalogue show that the offerings look very much alike, black jacks, black jennets, black colts, black fillies with white points and mealy noses. Breeding on this farm is not chance work. Being asked in regard to the uniformity of the stock Mr. Monsees explained that the herd was built that way. He said: "We know what to expect from the breeding stock that we have, and so does everyone who has bought stock at Limestone Valley Farm. We are as sure of our colors and quality as the Hereford cattle breeder is of getting a white-faced calf."

Mr. Monsees said that the foundation of the Jack Stock Stud Book was imported stock, but it was no longer necessary to import jacks or jennets for the reason that in the hands of American breeders the stock has been improved 25 to 40 per cent. This has been done in fifty years since the first importation.

The business of raising jacks and jennets is not overdone and very likely never will be. The very best of the jacks are used for stud farm improvement and the others to raise mules. The demand for jacks for mule raising alone is sufficient to insure good sale for all available jacks. According to the census of 1910, there are now 4,027,000 mature mules at work on farms and in cities and villages of the United States, and only 427,000 mule colts growing up to replace those that are worn out. In a year or two there will be a shortage of work mules which will be difficult to fill, especially with superior mules from the best class of jacks and from good mares.

In speaking of the quality of the jacks and jennets of Limestone Valley Farm, it is only necessary to refer to the St. Louis World's Fair. The exhibit of jacks and jennets was the greatest the world has ever seen, the prize awards were the most generous, the competition the keenest, the judgment the highest.

Limestone Valley Farm not only received 75 per cent. of the prizes, including four championships and two grand championships; Limestone Valley Farm received the largest amount in dollars and cents paid to any one exhibitor of any class of stock. Such an endorsement ought to be sufficient, especially when it is stated that the march of improvement still goes on, and Orphan Boy and Belle of Limestone, the grand champions at the St. Louis World's Fair, are surpassed by jacks and jennets since raised on the farm.

For the catalogue of the sale to be held at auction Tuesday, March 5th, 1912, address L. M. Monsees & Sons, Smithton, Mo.

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and Almanac for 1912 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. Only 15c. C. C. SHOEMAKER, Box 945. Freeport, Ill.

Your Name Will Get $2 Eggs

For 50 Cents Per Sitting

The White and Brown Leghorns are the greatest layers in the world. I keep 2000 of the celebrated Chamberlain laying strains on my Experimental Farms, and to increase the sale of my Perfect Chick Feed, I will send to any one who will send me their name so I can send them my Perfect Chick Feed Catalogue, 2 sittings of Single Comb Brown or White Leghorn Eggs for $1 for the 2 sittings. Not less than 2 sittings sold. White or Barred Plymouth Rock or Rhode Island Reds or Silver or White Wyandotte or Rose Comb Brown Leghorn or Single Comb Black Minorca Eggs, $1 per sitting. W Orpington Eggs, $2 per sitting, 13 to a sitting. Large white Pekin Duck Eggs, $1 for 10 Eggs. Indian Runner Duck Eggs, $2 for 10 Eggs. This is a rare chance to get a start of extra fine stock. Send Post Office order on St. Louis and have your orders booked early. Get our prices on Old Trusty Incubators, freight prepaid.
W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*)
KIRKWOOD, St. Louis County, MO

Some Things That Count in Poultry Keeping.

The matter of roosts does not receive enough attention generally. In many poultry houses the number of roosts is not enough, and the result is that some of the fowls form the habit of roosting in undesirable places, such as on the edge of the nests or even in the nests. The roosts should be more than the poultry need, and this will eliminate the habits of roosting in other paces than on the roosts.

Roosts should be movable. The writer has tried various kinds of movable arrangements with varying success. The simplest has proved the best. It consists of a discarded ladder across two pieces of upright planks. The planks are only three feet long and have cross pieces nailed to the bottom to keep them upright. The fowls seem to enjoy roosting on the ladder, and it can be easily removed for cleaning out the house, which is done periodically.

Clean nests are an absolute necessity, if the fowls and eggs are to be kept clean. Even if no disease or lice are present, the straw should be often renewed. It is better to do this than encourage the multiplication of possible germs that get into the nests. Where lice and mites are present in a flock it is probable that the nests prove helps to the distribution of the pests and frequent renewal of the nest material will greatly help to prevent the spread of the pests.

Lice and mites are looked upon by many poultry raisers as inevitabe. But this is an error. It is possible to have flocks entirely free from mites and lice and keep them so. There are many poultry establishments with hundreds of fowls existed. If one starts with an incubator and builds up a flock entirely free from these pests there is no great danger of introducing them, except in the purchase of new fowls. In the purchase of new fowls, see that the flock from which fowls are to be taken are also free from lice and mites, or do not buy the fowls. In this day there is no reason why professional poultry raisers should send out fowls from flocks infested with lice or mites.

Fowls are great drinkers and should be kept constantly supplied with water. In cold weather there is some difficulty in doing this, but it can be done. There are appliances on the market that can be purchased, but there are also home-made arrangements that are good. One poultry raiser has quite a large dish, which, when full of warm water, is set in a bed of hay, which protects it on the bottom and around the sides. It acts like a hay stove to a limited extent, and the water keeps free from ice during an entire day. This scheme can be modified to meet any condition. Of course the cold gets at the top of the water, but its effect is slow if the dish is quite deep; the deeper it is the slower the effect of the atmosphere on it.

Fowls that have been sick with contagious disease are dangerous to well fows. It is often safer to kill them at once and lose them than to attempt to cure them.

Sent on Trial.

If you are sick you can get a full-size one dollar box of Bodi-Tone on twenty-five-days' trial. If it benefits you, you pay $1.00 for same. If it does not help, pay nothing for it. This is the way Bodi-Tone is being offered to the sick in the large announcement on the last page of this paper and the way thousands have already been cured by it.

To Produce the Perfect Egg.

How to produce the perfect egg is explained in Feathered Life as follows:

"When the white of an egg is watery it shows that one is not feeding a good, well-balanced ration. The lack of protein in feeding does it. Fourteen and one-half per cent. of the egg is protein. This can be remedied by feeding plenty of clover, wheat bran and wheat middlings. As a result, the white of the egg is thick and attractive. Ten and one-half per cent. of the egg is fat; that is the yellow. If the yellow is pale, it can be colored by feeding.

"How often an egg in the winter is found with the shell so brittle that it won't stand shipping. Sometimes one finds an egg with nothing but tissue—no shell at all. What is the matter with that hen? The shell is composed of lime, and it is a great drain on the hen's system to produce the shell. Clover is rich in protein, and it is rich in lime, but in addition to this slake a little lime and put it in the shell box; the hens will go there if they require it, and the result will surprise one if he tries it. Break an egg in a saucer and see the result of proper feeding. The white of the egg is thick, heavy, it is attractive, nutritious; the yellow is the golden hue desired and the shell is firm and strong and will stand shipment. There is the perfect egg, just brought about by thinking the matter over carefully and feeding intelligently."

The Slater (Iowa) Creamery is disposing of by-products and skim milk by feeding hogs for market.

There Should Be A Copy Of This Book On Every Farm

You need it for the information it contains on the care and use of saws and tools. It points the way to greater economy and satisfaction through the use of

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YOU CAN DO BOTH by taking the agency now for **"Empire" Fertilizers** which are good sellers because of their long established reputation for giving results that pay. Any farmer will take pride in selling these brands because he knows he is giving his friends a good bargain. Our years of experience insure every pound.

Send a postal card for our proposition; and our representative will call and talk it over with you.

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ON 30 DAYS' FREE TRIAL

As a special advertisement for our incubator and poultry supply department we will sell 5,000 widely known LITTLE RED HEN 60-EGG INCUBATORS, at only $4.90. Guaranteed to hatch as large a percent of fertile, strong healthy chicks as any incubator made, regardless of name, make or price. Possesses the most perfect heating system of any incubator. Made with automatic heating regulator. Therefore egg chamber temperature is always uniform. No cold side. Every egg is proper warmth all the time. Consequently greatest hatch will result. Best, latest improved features. Lumber is especially selected. Clear grain kiln dry lumber, guaranteed not to split or warp. Walls are 4 thicknesses—one of inch lumber—then a layer of best insulating, next a layer of asbestos and last a lining of 1-2 inch lumber. High angle steel legs. Glass door. Best safety metal lamp. Hot water heating system. Heavy tubular copper tank. Metal jacketed heater. Full directions with each incubator.

60 EGGS **4.90**

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Send Us $1.00 deposit and we will send you this high grade finely finished latest improved Little Red Hen Sixty Egg Incubator, by freight subject to examination. The balance $3.90 and freight charges you can pay the agent after you have examined the incubator and found it perfectly satisfactory, the greatest incubator bargain in the world and a much better incubator than you could buy elsewhere for $8 to $10. Then take it home and try a hat hing

Try it 30 Days at Our Risk If you do not find it the best hatcher you ever saw or heard of, or if for any reason whatever you are dissatisfied with the incubator, return it at our expense and we will refund your $4.90 and transportation charges. Order the incubator today, or if you are interested in a larger incubator *write for our big, free special incubator catalogue*, which illustrates and describes our other high grade incubators holding 60, 120, 175 or 240 eggs at $4.90 to $16.75. Brooders for 60, 120, 175 or 250 chicks at $3.90 to $9.50. Also startling low prices on poultry supplies of all kinds. Write today.

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Please mention Nat. Farmer and Stock Grower.

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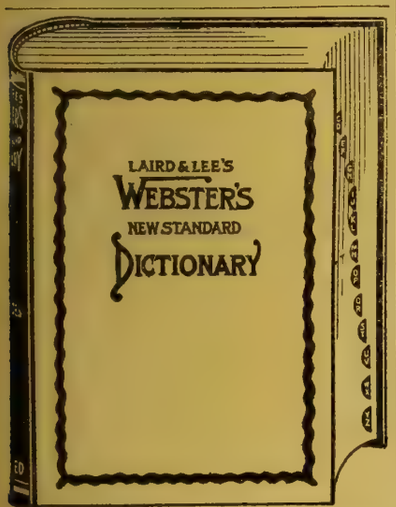
This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book,



756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, special thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Brilliant Light From Coal Oil.

The Home Supply Company, 278 Home Building, Kansas City, Mo., are offering one person in each locality to whom they can refer new customers one of their Beacon Burners free. It gives a better light than gas or electricity at one-sixth to one-tenth the cost. Drop them a post card to-day, mentioning The National Farmer and Stock Grower, and secure the free burner for your district.

First Colorado Lambs.

First Colorado lambs to arrive at the Chicago market this season made their bow to the packers January 15, and comprised a two-double-deck consignment from the feed-lot of Henry Seth, of Monte Vista, in the San Luis valley district. They averaged eighty pounds and sold at $7.15 per 100 pounds. The first Colorado lambs last year arrived January 3 and sold at $6.60 per 100 pounds. This item is from Clay, Robinson & Co.'s Live Stock Report.

How Many Eggs Will a Hen Lay?

Experts state the hens of the United States lay an average of 60 eggs each a year. Take an ordinary flock, cull out the old, the weak and the poor ones, saving only the pullets and yearling hens that are active layers and the average can be brought up to 120 eggs a year per hen. Thorough culling will double the egg production without increasing by a single cent the cost of production. There are many large flocks that average 12 dozen eggs per year per hen, and every poultry raiser should determine to keep his flock up to or above this standard. A few flocks average 175 to 180 eggs and the best breeders are trying to establish flocks of hens that average 200 eggs per hen a year. They have not succeeded as yet.—From the Southwest Trail.

Have You a Chronic Illness?

If you have, you will surely be interested in the Bodi-Tone trial offer, which is printed on the last page of this paper. Bodi-Tone, which is now three years old, has made a great record in such cases. The manufacturers believe in it, for they will send you a box to try, no matter how old, hard or obstinate your case may be. If it does not help you, you need not pay for it.

We learn from the Milk Reporter that after January 1, 1912, all creameries that ship milk to New York City will have to possess a permit to do so, and unless the condition of the plant scores a certain number of points, no permit will be issued until the plant's score is raised to the standard.

Horse Secrets and Horse Sense

A Liberal Supply of Both for a Dollar

The "Horse Secrets" are told by Dr. A. S. Alexander, the celebrated veterinarian, in a book of that name. This book is the only one in existence which exposes all the tricks that unscrupulous horse dealers and "gyp" traders are up to—such as "shutting a heaver" and "plugging a roarer," the "Bishoping" Trick, the "Widow Dodge" and all the other ways of "fixing" a horse. Saves you from being "stung" by professional dopesters, and gives you the laugh on these slick scamps. Also contains many valuable secrets for feeding and conditioning stock, curing evil habits, etc.

Seven editions of "Horse Secrets"—75,000 copies in all—have been distributed by Farm Journal in the past two years, to the great discomfiture of horse-trading swindlers. We will send out many thousand more this winter.

"Horse sense"—as applied to farming, fruit growing, poultry raising, stock breeding and household economy—is imparted through the pages of Farm Journal.

Edited by men who, most of their lives, have had roosters for alarm clocks and learned farming by making a living at it, there's no flub-dub or hothouse theory in Farm Journal—just sound, practical, common-sense teachings which are coined into cash by those who study and apply them.

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If you order promptly, we will send, absolutely free, "Poor Richard Revived"—our splendid new Almanac for 1912.

FARM JOURNAL, 257 N. Clifton St., Philadelphia

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

POULTRY AND PET STOCK.

A turkey dealer in Vermont tells the American Cultivator that the practice of marketing turkeys in droves has not wholly disappeared from the East. He says it is still a common practice to collect droves of turkeys in Canada and drive them over the border, when they become "Vermont turkeys."

At the greatest English Poultry Show the three largest number of individual entries were: Orpingtons, 918; Wyandottes, 763; and Langshans, 238.

At Madison Square Garden, New York, in December, there were 684 Plymouth Rocks exhibited, 572 Wyandottes, and 634 Orpingtons.

E. B. Thompson, of Armenia, N.Y., who has been breeding Barred Plymouth Rock chickens for thirty years, sold eggs and birds to the total of $52,430 during the year 1911. If this is not success in poultry raising we would like to know what is.

In the year 1909 Russia produced 1,594,000,000 pounds of flax, and all the other countries of the world produced a total of 278,000,000 pounds.

15.95 AND UPWARD

AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for $15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Gears thoroughly protected. Western orders filled from Western points. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:

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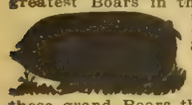
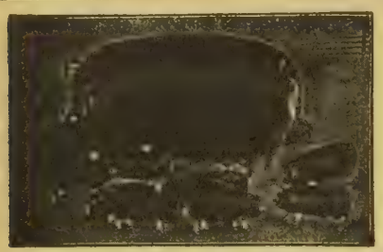
BLUE RIBBON HERD of POLAND-CHINAS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description. **JOHN McLAUGHLIN,**



R. F. D. No. 1, Marmaduke, Ark.



CARPENTER'S LIKENESS.

Forty Poland-Chinas and Durocs sold in November and December.

Fifty more to be sold at 20 per cent. discount, if paid for this month.

Must make room for spring farrow. We have the goods to make good. Easy feeders, big litters, money makers.

WILDER CARPENTER,
Grand View Breeding Farm, Marmaduke, Ark.

DUROC-JERSEYS Thrifty Fall Pigs at very reasonable prices.
S. O. ALBIN, Siloam Springs, Ark.

TRUMANS' PIONEER STUD FARM,
America's Largest and Oldest.

Importers of
SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for Catalogue.

Address,
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DUROC-JERSEY HOGS.

One Yearling Boar by W. R.'s Chief and out of a Liberty Chief dam. One Spring Boar by B. & C.'s Col., II., and out of a Crimson Wonder, III., dam. Fall Pigs of either sex; best of breeding.
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WHEN PLANKING DOWN HARD CASH

for Big-type Prolific Pork Machines, any age or sex, **YOU WIN** if the last word is from
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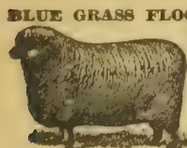
BLUE GRASS FLOCK OF SHROPSHIRES.



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and R. C. R. I. Reds, score birds, $2.00 to $5.00 each, according to score; unscored birds, $1.00 each. Eggs from either variety. High-scoring birds, $3.00 for 15 eggs. **Poland-China Pigs.** Orders booked at $15.00 each at weaning time. Write for further particulars.

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Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guranteed.

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Choice Scotch Collies, all ages. A No. 1 Stud Dogs. Guard and companion for the little boy or girl. Very handsome, pedigreed and all right. **R. FLEMING, Cuba, Kas.**

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55 BREEDS Pure-bred **Chickens, Ducks, Geese, Turkeys, also Incubators, Supplies and Collie Dogs.** Send 4c for large Poultry book, Incubator Catalog and Price list. H. H. HINIKER, Box 74, Mankato, Minn.

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Single Comb Buff Orpington and White Leghorn Cockerels, $2.00 each; trios, $5.00. Buff Drakes, $3.00 each. Eggs in season: S. C. Buff Orpington, Rhode Island Red and White Leghorn. Buff and Indian Runner Ducks. Bourbon Red Turkeys. "Remember the Golden Sunset Strain Poultry."

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Either sex, of the half-ton kind. The very best breeding. They are beauties. Special prices for thirty days.

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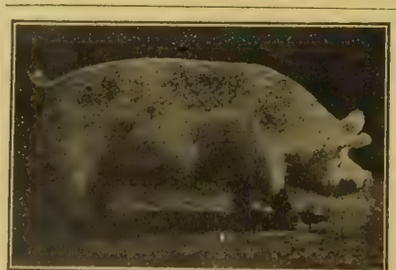

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HARDY, VIGOROUS, PROLIFIC, KIND.

Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

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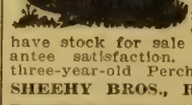
Fifty head of extra-fine Brood Sows and Gilts bred for early litters; also some fine Open Gilts. We have a lot of nice Fall Pigs of both sexes; also a few extra good young Boars that will make Show Hogs. If you want hogs that are bred right, with size and quality, write us. We have stock for sale at all times and guarantee satisfaction. An extra-fine coming three-year-old Percheron Stallion for sale.



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HOGS! HOGS! For Sale: REGISTERED Poland-China and English Berkshires. The best of breeding. For prices see and write **S. Y. BURKS, Bolivar, Mo.**

POLAND-CHINAS OF BEST STRAINS.

Service Boars of 200 to 250 pounds at $20.00; also Bred Gilts and Summer and Fall Pigs of the leading strains known for large litters and size as well as for quality. Barred Plymouth Rock Cockerels of Thompson Ringlets and Latham's at $2.00 each. Eggs in season. Satisfied customers in thirty-six states. Catalogue free.

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CHOICE LOT OF BERKSHIRE PIGS

for sale. One good Herd Boar, a grandson of Masterpiece, 77,000. These are all the Large English Berkshires of the most popular breeding; also one extra fine Roan Shorthorn Herd Bull for sale. Some choice B. P. Rock Cockerels. Call or write **E. L. JOHN, Owner Broadway Stock Farm, Broadway, Maries County, Mo.**

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Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

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Twenty Registered Kentucky Mammoth Jacks, three to four-year-olds, fifteen Yearlings and Colts subject to registry. Some nice Percheron Stallions and Mares. Write for circular of the Cloverdale Jacks, Percherons, Tamworth Hogs and Rhode Island Red Chickens. We pay express on all Jacks shipped West.

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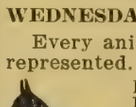
PUBLIC SALE! PUBLIC SALE!

Of 25 Head of High-class Registered Black Jacks and Jennets at
JACKSON, MISSOURI,
WEDNESDAY, FEB. 14th, 1912.



Every animal guaranteed to be as represented. Nothing priced or sold privately after catalogued. If interested, **Write For Catalogue** and come to the sale. You will not be disappointed but highly pleased with the offerings. **Catalogues are now ready to mail.**

W. F. SCHADE,
Jackson, Cape Girardeau County, Mo.

REPLACES THE GRINDSTONE.

Everybody hates the grindstone. For centuries it has been a symbol for back-breaking work. Emery farmers have tried and found far from satisfactory. Emery spoils more tools than it is worth by drawing the temper and leaving a rough cutting edge.

The discovery of the new sharpening substance Dimo-Grit has changed all this. It is as hard as the diamond itself. In fact, it was discovered in the course of experiments to produce artificial diamonds. Its extreme hardness is what makes it possible to cut steel rapidly without heat. Emery and the grindstone produce heat and cause it to wear away fine particles of steel, whereas a substance as hard as Dimo-Grit cuts it away in minute shavings. It is particularly adapted to steel and leaves a smooth cutting edge.

This new grinding substance is mounted on a foot power machine and makes it the ideal sharpening device. The machine is made entirely of steel, with shaft drive, enclosed gearings and dust-proof bearings. It can be run by either foot or engine power.

This machine is put up by the Luther Grinder Mfg. Co., of 357-A Stroh Bldg., Milwaukee, Wis. We feel sure that any of our readers who deal with them will find them responsible and reliable in every way.

When last heard from at St. Louis, fancy Red Globe onions were selling at $1.55 to $1.65 per bushel; white onions at $2.00; and yellow Californians at $1.30.

ALBERTA'S GRAIN CROP

Reports from the grain fields of Alberta, Western Canada, show splendid yields of wheat, oats and barley.

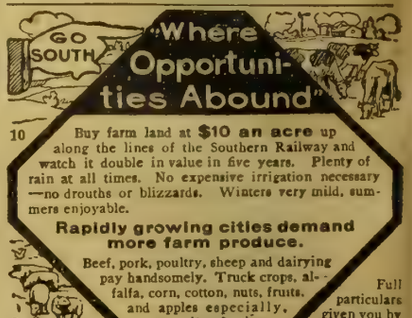
Many farmers have paid for their land out of the proceeds of the crop of 1911.

At exhibitions throughout the U. S. wherever the grain from this Province has been shown it has received the highest commendation.

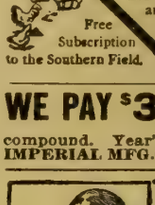
Free Homesteads of 160 acres and adjoining pre-emptions of 160 acres (at $3 per acre) are to be had in the choicest districts. Schools convenient, climate excellent, soil of the very best, railways close at hand, building lumber cheap, fuel easy to get and reasonable in price, water easily procured, mixed farming a great success.

Write as to best place for settlement, settlers' low railway rates, pamphlet "Last Best West," and other information, to Supt. of Immigration, Ottawa, Can., or to Can. Gov. Agt.

Canadian Government Agent,
125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
112 Merchants Loan & Trust Bldg. Chicago, Ill.


GO SOUTH
"Where Opportunities Abound"
10
Buy farm land at $10 an acre up along the lines of the Southern Railway and watch it double in value in five years. Plenty of rain at all times. No expensive irrigation necessary—no drouths or blizzards. Winters very mild, summers enjoyable.
Rapidly growing cities demand more farm produce.
Beef, pork, poultry, sheep and dairying pay handsomely. Truck crops, alfalfa, corn, cotton, nuts, fruits, and apples especially, are making Southern farmers rich.
Free Subscription to the Southern Field.
Full particulars given you by
M. V. Richards, L. I. Agt., So. Ry.
Room 71, Washington, D.C.

WE PAY $36 A WEEK AND EXPENSES to men with rig to introduce poultry compound. Year's contract.
IMPERIAL MFG. CO., Dept. 38, Parsons, Kans.



FAULTY METABOLISM
AS A COMMON CAUSE OF DISEASE,
is the subject discussed in Bulletin No. 1 of the Shafer Pathological Laboratory. The Bulletin is sent free on request and will prove interesting to everyone in Pain and Poor Health.
Address: John F. Shafer, M. D.
406 Penn Ave., Pittsburg, Pa.

WATCH RING & CHAIN FREE
FOR SELLING POST CARDS

We positively give FREE a STEM WIND, STEM SET, BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 5 years, and a beautiful Ring set with an Im. Diamond, for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch, Ring & Chain. **WILLARD WATCH CO., Dept. 227, CHICAGO**

FREE! We give this fine, sweet-toned violin, good white horse hair bow and box of rosin for selling only 5 dozen **MOTTO PICTURES** at 10c each. We trust you. Send for pictures today—When sold, send $2.00 and Violin and Complete Outfit will be sent you promptly. Satisfaction guaranteed.
ALTON WATCH & MDSE. CO., Dept. 1408 Chicago, Ill.

Don't Wear a Truss

FREE

STUART'S PLAS-TR PADS are different from the truss, being medicine applications made self-adhesive purposely to hold the parts securely in place. No straps, buckles or springs—cannot slip, so cannot chafe or compress against the pubic bone. The most obstinate cases cured. Thousands have successfully treated themselves at home without hindrance from work. Soft as velvet—easy to apply—inexpensive. Awarded Gold Medal. Process of recovery is natural, so no further use for truss. We prove what we say by sending you Trial of Plapao absolutely FREE. Write TODAY.

TRIAL OF PLAPAO
Address—PLAPAO LABORATORIES, Block 57 St. Louis, Mo.

FARM AND RANCH LANDS.

ARKANSAS.—White county is the best all-around section. Has the best land at lowest prices. Large list of farms at $8.00 to $15.00 acre. **L. E. Moore,** Searcy, Ark.

ARKANSAS.—Lands on the Cotton Belt Route in Arkansas are offered for sale at remarkably low prices. All farmers and "intend-to-be farmers" should post themselves. Write for free books showing the best locations. Address, **E. W. LaBeaume,** G. P. & T. A., 1419 Pierce Bldg., St. Louis, Mo.

LOUISIANA.—Rich plantations on the Rock Island Route cut up into smaller tracts and for sale at $25.00 an acre. Splendid opportunity for Northern corn farmers who know good land when they see it. Write for particulars to **L. M. Allen,** Rock Island Lines, 411 LaSalle Station, Chicago, Ill.

DO YOU WANT GOOD FLORIDA LAND? I own **Georgian Heights, Florida,** fourteen miles from Jacksonville. This is good land and a good class of people are buying. I will give you a valuable Town Lot with each five-acre tract purchased. Price for five-acre tract, $300.00. Reasonable terms. **J. T. George,** Wainwright Bldg., St. Louis, Mo.

MINNESOTA. — Farm lands for sale. Northern Minnesota; good, level land; the best of soil; the cheapest land in America, considering the quality. Easy terms; small cash payment. Have money to loan to purchasers; low rate of interest. I want a few good men in Iowa, Illinois, Indiana, South Dakota and Minnesota to sell land for me. **George W. Elder,** Thief River Falls, Minn.

TEXAS.—Many of the very best farms and farm lands are to be found on the line of the Cotton Belt Route in the state of Texas. A reference to that country will be found on page 2 of this paper. Send in your name and receive free books concerning the rich land bargains to be had on this line. Address, **E. W. LaBeaume,** 1419 Pierce Bldg., St. Louis, Mo.

To Buy, Sell or Exchange Property, address **Northwestern Business Agency, Minneapolis, Minn.**

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

A Very Successful Prescription.

The combination of remedies used in the manufacture of Bodi-Tone is proving a wonderfully successful prescription for old,chronic ailments. The makers of Bodi-Tone publish this prescription broadcast, so all may read and judge it for themselves. Bodi-Tone contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Read the trial offer on last page No one need pay a penny for Bodi-Tone until they have tried it.

DEAFNESS AND HEAD-NOISES.

Joyful News For Sufferers — Interesting Book Given Free.

Those who have tried in vain to regain good health are the persons that are strongest in their praise of a new remarkable home treatment. After being wholly or partially deaf for many years, and after trying numerous medicines, apparatus, treatments, ear-devices and aurists' prescriptions in vain, legions who are now cured unite in telling of the wonders being accomplished by Dr. George E. Coutant, 228 A, Station E, New York, N. Y. He describes his method in a very interesting illustrated treatise which he will send without cost, to anyone who writes him, merely asking for the free book.

We advise all who are troubled with their hearing or with ringing noises in the head, to take advantage of this liberal free offer.

"There is only one way to get ready for immortality, and that is to love this life and live it as bravely and cheerfully and faithfully as we can."—Van Dyke.

BLOODED STOCK NOTES.

Right in the heart of the Illinois milk-producing district is Mr. J. W. Farrell, owner of "The Pines" Herd of Holstein Cattle, and he will furnish pure-bred and high-grade Holstein calves at reasonable prices. His card is in our breeders' columns.

Sheehy Bros., R. F. D. 1, Hume, Mo., have a coming three-year-old Percheron stallion for sale in addition to their Poland-Chinas. Hume, Mo., is in Bates county, on the western border of the state, a junction point of the 'Frisco Line and the Kansas City Southern. The herd is headed by a first-prize boar at the Missouri State Fair.

Scotch Collies are offered for sale by R. Fleming, Cuba, Kas. He has advertised in this paper before. Collies are true farm dogs and can be trained to be very useful, especially with sheep.

This is a good time to write Trumans' Pioneer Stud Farm, Bushnell, Ill., for catalogue. A splendid consignment of Shire horses is arriving, also a special consignment of Percherons. Messrs. Trumans are absolutely reliable, and a visit to the farm is a revelation to those who are looking for first-class draft horses.

Kirby Stock Farm, Marmaduke, Ark., advise us that again there are more fine pigs for sale that are ready for shipment and can be bought at bargain prices. This is a very good herd—a pioneer herd of pure breeding of Poland-Chinas in Arkansas.

Chas. Ford, of Mortonsville, Ky., breeder of Tamworth swine, has all sizes for sale. He is owner of a premium herd, having won 100 ribbons in one season.

Attention is again invited to the card of Mr. T. C. Kimber, breeder of Yorkshire swine, whose card will be found on page 20. He has a splendid breeding herd of improved large-style Yorkshires. His postoffice address is Pilot Knob, Mo.

Attention is invited to the advertisement of Mr. W. F. Schade, of Jackson, Cape Girardeau county, Mo., who is advertising the sale of twenty-five head of high-class, registered jacks and jennets on Wednesday, February 14th, 1912. This advertisement arrived just before publication and had to be squeezed in small space on page 21. This is Mr. Schade's third annual sale. He is a representative breeder and Sheriff of the county.

International Crop Information.

A cablegram dated January 20th, 1912, from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, giving the following information:

"The area sown to winter wheat in Belgium this season is 104 per cent. of last season's area; in Spain, 95 per cent.; in France, 112 per cent.; in Great Britain, 106 per cent.; in Canada, 97 per cent.; in British India, 99 per cent. The weather conditions in the countries named are favorable for winter cereal crops and their germination is regular.

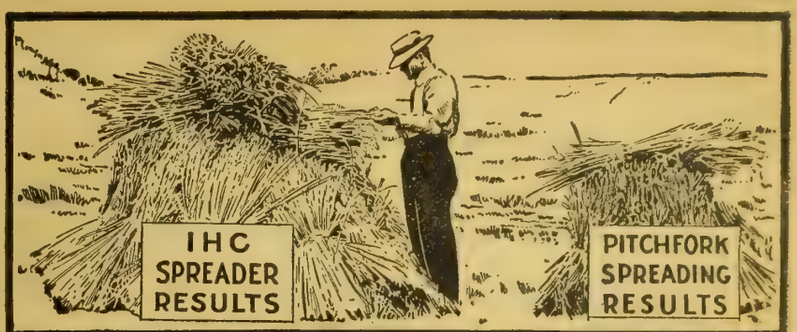
"The production of lint cotton in Mexico, this season, is 347,000 quintals (76,500,000 pounds); in British India 5,628,000 quintals (1,240,750,000 pounds); in Egypt, 2,860,000 quintals (630,500,000 pounds).

The combined production of lint cotton of the three countries named. this season, is 115.8 per cent. of last season's production."

Apple Market at St. Louis.

On January 31st, at St. Louis, Ben Davis apples were selling from $1.50 for common to $2.25 per barrel for fancy, and other varieties accordingly. Willowtwigs at $2.50 to $3.25; Roman Beauty and other fancy varieties (No. 2), at $3.00 to $3.50 per barrel; No. 1 at $3.00 to $3.75; Winesaps at $2.75 to $3.75; Geneting at $2.00 to $2.75; Baldwin at $2.50 to $3.25; Spy at $2.90 to $3.25; Greenings at $3.00 to $3.25.

New York Danish cabbage were selling at $26 to $39 per ton at St. Louis on opening day of February.



How Do YOU Spread Manure

THE above illustration shows the difference in crops, between the I H C way of spreading manure—and the pitchfork method.

The pitchfork way is slow, hard, and disagreeable, wastes much of the value of the manure, and the results hardly justify the labor and time invested.

The I H C Spreader cuts the manure into fine shreds, spreads it evenly, and makes the work easy. Spreading manure the **I H C way** is bound to result in better soil, bigger crops, and more profits.

I H C Manure Spreaders

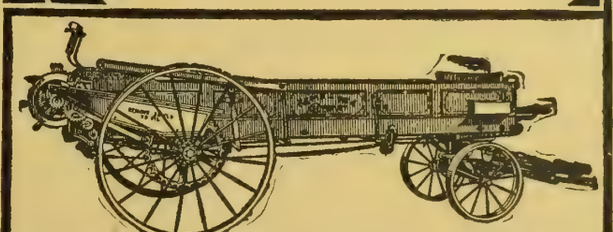
Kemp 20th Century, Corn King, Cloverleaf

are simple, strong, and durable. They have many advantages that make them superior to other spreaders.

All working parts are extremely simple and wonderfully strong. The beater driving gear is held in a single casting, so that there is no binding—no cutting of parts caused by the gears springing out of alignment. The roller bearing support for the apron reduces the draft. The levers are convenient. The feed changing device can be shifted quickly and easily. The wide range of adjustment allows you to spread manure heavy, medium, or light, as your judgment tells you is best for the soil.

Whether you have a large or small farm, or want a spreader for orchard use or truck gardening—there is an I H C that will suit your requirements. Why not see the I H C local dealer at once? Get a catalogue from him, or, if you prefer, write direct.

International Harvester Company of America
(Incorporated)
Chicago USA



I H C Service Bureau

The purpose of this Bureau is to furnish farmers with information on better farming. If you have any worthy question concerning soils, crops, pests, fertilizers, etc., write to the I H C Service Bureau, and learn what our experts and others have found out concerning these subjects.

Dried and Evaporated Fruits.

Not much evaporated fruit is arriving at St. Louis, therefore quotations are not very close. Evaporated apple rings—Fair, 5½ to 6c.; choice, 7 to 7½c.; fancy for facers more; evaporated quarters at 5½ to 6½c.; cores and peelings at 1 to 1½c.; chops, 1 to 1½c. per pound. Sun-dried apples—Prime quarters, 8c.—fancy worth more; poor to fair at 6 to 7½c.—rings and irregular cuts less than quarters. Peaches—Prime choice sun-dried halves at 9 to 9½c. per pound.

1912 Pratt-Forty

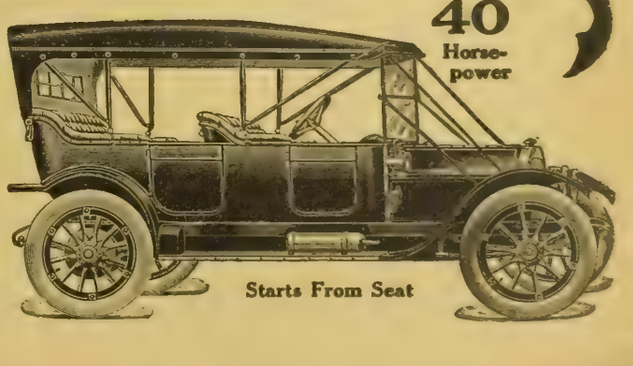
Fourth Successful Year

Backed by 39 Years' Manufacturing Experience

Guaranteed for one year. Self-Starter, 120-inch Wheel Base, Unit Power Plant, Three-point Suspension, Bosch Magneto, Demountable Rims, 36x4 inch Tires, Inside Control Levers, Electric Side and Tail Lamps. List price Model "H," $2,000, fully equipped, Mohair Top, Windshield, Speedometer, Prest-o-lite Tank, etc.

There are many localities where we have no agent, and if you will write us, we will send you our catalog and interesting proposition on a car for your own use. We also make a full line of carriages and harness.

ELKHART CARRIAGE & HARNESS MFG. CO.
Elkhart, Indiana



Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone getting up a club of four subscriptions and sending in $2.40 will be credited with one book and one-year's subscription free.

Presents a Girl Can Make.

Christmas is over, but the occasion for giving small gifts is continually coming up. Birthdays, removals, visits from friends, these and other things make the small gifts fit in nicely. And the girl who can fashion these trifles herself is gaining a lesson in self-dependence.

A beautiful handkerchief case is made by using a handkerchief with an edge embroidered in scallops. Turn the four corners toward the center, making them meet at that point. Baste the edges of the smaller square thus formed and work a row of feather stitching in light pink or blue a seam from the edge. Fasten three of the corners together and weave a bit of half-inch ribbon the color of the feather stitching alternately above and below the points where the edges come together, these having first been caught together at each point in the scalloped edge with a thread of white. To the remaining point attach a small bow of the ribbon, and this serves as the flap for the neat little envelope intended for the safe keeping of handkerchiefs. If a new kerchief is placed therein as a part of the gift, the use of the article becomes self-evident.

A yard of fine linen for handkerchiefs will make six, and if there is a narrow border left along one side it may be used in ties, jabots or some of the other fashionable neck wear. A narrow hem-stitched border gives an edge always in favor. Select some fancy letter or letters and place your pattern under the cloth, carefully drawing the design upon the thin goods with a pencil, to be embroidered later. A single initial is best for the first attempt. Later, one may combine into a monogram, using a different stitch in embroidery for each letter. This gives a touch of distinction which the stores are not able to furnish.—Bessie L. Putnam.

Selecting Flower Seeds.

If you want to attain the highest results in floriculture, make it a point to specialize along lines with which you have the most marked success, and then gradually increase your field. There are certain plots which seem well adapted to the sweet pea, while others are just the surroundings for the pansy. Yet neither would do its best in the ideal plot of the other.

Remember that florists are continually growing better strains of every species. The pansy of to-day is not the one of twenty years ago, and the modern sweet pea has several advantages over its ancestor. Besides, nature requires the introduction of new strains. If you cling to your own seed, saved year after year, you will in time find that it has "run out," as surely as your poultry. Make it a point to get a new stock occasionally. You certainly allow yourself some luxuries, and there are none more cheap or satisfactory to the flower lover than an occasional new packet of seed.

Study the needs of certain species. If you have a sunny exposure next to a glaring white wall, try scarlet salvia or California poppy; but if your flower bed is perpetually shaded, pansies and ferns would be more suitable. A sandy or gravel soil will be a nice foundation for a lily bed. and the petunia will thrive almost anywhere if it can get the sunshine.

Start fine seeds in boxes. Asters and cosmos will repay this extra labor, the latter rarely coming into flower much in advance of the frosts unless some such precaution is taken. If you want to combine flowers and shade for a porch screen, the old-fashioned morning glory still has many advantages; while for a hanging basket or the edge of a porch box the ice plant is unique and cool looking. Avoid cheap seeds and "novelties." Standard sorts offered by standard firms are most trustworthy.—Bessie L. Putnam.

Value of Soil Surveys.

Many of the states in the Union are paying considerable sums of money for the survey of the soils of the different localities found in them. The labor performed is large in amount and is expensive. In the state of Illinois the work of surveying the soil began about eleven years ago and is far from being completed. It has been carried on by money appropriated by the state. The beginning was $10,000 a year, but the appropriation is now $60,000 a year.

The work is expensive, because only first-class men can be employed. The men that go out to make the surveys have to be men who can be depended on to do their work in a manner that can be relied on. Every little way, samples of soil are taken at different depths, and records have to be made of the location and contour of the land.

When these samples are taken to the one place in each state, where they are analyzed, they have to be carefully labeled and classified, for their number has to be legion.

The men that analyze these samples must necessarily be those who have had courses in chemistry and whose experience is such that they will not make a mistake. Such men cannot be secured at a nominal price, and have to be fairly well paid.

The value of soil surveys is not fully apparent to the masses of the people, because it is a matter requiring a long time to perfect, and it will take other years to enable even our best farmers to lay hold of the truths brought to light and utilize them for what they are worth.

A soil survey is as necessary as a geological survey or a geographical survey. The soil survey corresponds to the survey that mariners make of the depths and shallows of the sea. That is a work that has been going on for hundreds of years and is still in progress by the maritime nations of the world. It seems like doing a great deal of work for small results, but it is one of the absolute necessities.

Our soil surveys are as necessary to agriculture as the sea surveys are to our commerce. Many a farming enterprise has made shipwreck because the possibilities of the soil were not understood.

The soil survey maps are interesting things to study. They show many things about the soils that throw a flood of light on the agricultural operations to be pursued.

As fast as the counties are surveyed for soil formations and soil contents the farmers should make a study of the soil maps and learn the deficiencies of their soils. In many cases the analysis shows just what fertilizers should be applied to each kind of soil. In time this information will mean the saving of very large sums of money now wasted in the purchase of fertilizers unsuited to the soil on which they are used.

The soil survey means more intelligence in farming in the future. By the information thus gained it will be possible for a man to know in advance by actual experiment what kinds of crops are likely to do best on his soils.

E. Myers, President, E. Myers Lye Company.

Let Me Show You How Merry War Powdered Lye Cures Sick Hogs

All the talk in the world won't kill one single hog worm—won't cure one single sick hog—but if I, by personally presenting these facts to you, can but persuade you, Mr. Hog Raiser, to give MERRY WAR POWDERED LYE a fair, common sense feeding trial, I will have done you the greatest favor any one man can do another by putting you in touch with the best hog conditioner, cholera and worm cure the world has ever known.

This sounds like "big talk", but I know whereof I speak because I have spent years in untold experiment and test after test has resulted in unanimous, enthusiastic praise from thousands of Farmers and Hog Raisers all over the United States who have fed MERRY WAR POWDERED LYE regularly every day with their hog rations—and with wonderful results—proving beyond all shadow of doubt that MERRY WAR POWDERED LYE WILL DO THE WORK—AND THAT NOTHING ELSE WILL.

The Cost is But a Trifle

Merry War Powdered Lye is NOT ONLY the BEST protection against hog losses ever discovered—preventing Hog Cholera; killing worms; rendering hogs immune from infectious diseases; keeping them on their feed, with hearty appetites; toning them up; making them fat and sleek; insuring prime condition in the shortest possible time for top notch prices—BUT it is the LEAST EXPENSIVE AS WELL.

For Hog Cholera

The following letter is but a sample of hundreds that come every week, telling how happy hog raisers are with Merry War Powdered Lye.

H. G. Acker, Chickasha, Okla. "I have been feeding Merry War Powdered Lye some two months, and it expelled worms after the first few feeds."

I can show you all the proof you want—as many letters like this as desired.

Feed Merry War Powdered Lye Daily

—and begin today—the sooner you begin, the sooner I will prove to your complete satisfaction that Merry War Powdered Lye makes good every claim—and 10c will make the test.

Important Warning

Some commercial lye makers try to persuade dealers and hog raisers that any lye will do what Merry War will for hogs—but it will not, it can't—because no other lye maker knows the secret process that makes Merry War Powdered Lye safe to use in Hog Feed—they don't know the combination in Merry War Powdered Lye that produces the fat, healthy hogs.

Merry War is the only Lye which is absolutely safe to feed your hogs—the greatest Hog Remedy the world has ever known, and Hog Raisers who make the mistake that any lye will do the work claimed for Merry War Powdered Lye—fail to obtain results—pay the penalty in loss of hogs and are sorely disappointed.

Merry War Powdered Lye comes in 10c cans; full cases of 4 dozen cans for $4.80—at Grocers', Druggists' and Feed Dealers'—there are no substitutes.

Follow These Directions

Mix one tablespoonful Merry War Powdered Lye with slop for ten hogs, or a half can with barrel of swill. Stir well and feed EVERYDAY, night and morning. If your hogs are on a dry feed ration, mix a half can Merry War Powdered Lye to each barrel drinking water.

Kettle Powdered Lye For Soap Making

If you want the best lye, exclusively for Soap-Making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—but DON'T feed it to your hogs. Feed Only Merry War Powdered Lye To Your Hogs.

At All Leading Dealers

Most dealers handle Merry War Powdered Lye. If yours can't supply you, write us, stating dealers' names—we will see that you are supplied and will also send you, free, a valuable booklet, on "How to Get the Biggest Profits From Hog Raising."

E. MYERS LYE COMPANY, Dept. 22 ST. LOUIS, MO.

"Keep busy," says a book on self-help; that is, wind the eight-day clock every day, if you can't think of anything else to do.—Exchange.

$3.50 Recipe Free For Weak Kidneys.

Relieves Urinary and Kidney Troubles, Backache, Straining, Swelling, Etc.

Stops Pain in the Bladder, Kidneys and Back.

Wouldn't it be nice within a week or so to begin to say goodbye forever to the scalding, dribbling, straining, or too frequent passage of urine; the forehead and the back-of-the-head aches; the stitches and pains in the back; the growing muscle weakness; spots before the eyes; yellow skin; sluggish bowels; swollen eyelids or ankles; leg cramps; unnatural short breath; sleeplessness and the despondency?

I have a recipe for these troubles that you can depend on, and if you want to make a **quick recovery**, you ought to write and get a copy of it. Many a doctor would charge you $3.50 just for writing this prescription, but I have it and will be glad to send it to you entirely free. Just drop me a line like this: Dr. A. E. Robinson, K-1174 Luck Building, Detroit, Mich., and I will send it by return mail in a plain envelope. As you will see when you get it, this recipe contains only pure, harmless remedies, but it has great healing and pain-conquering power.

It will quickly show its power once you use it, so I think you had better see what it is without delay. I will send you a copy free—you can use it and cure yourself at home.

Can you add $850 to your surplus, yearly?

The *average net* surplus of *every* family in the St. Francis Valley of Southeast Mo., is $850 *yearly*—the *highest* average in America.

If *you* had alluvial soil *fifty feet deep* to work with, it wouldn't take *you* long to get rich. Mr. Bennson, an Iowa man, planted his first crop in St. Francis Valley between thickly strewn stumps, yet made 90 bushels of corn per acre. Mr. Mahoney, an Indiana man, last year sold $2700 worth of clover seed from 150 acres of land which, the same year, had produce a *big wheat crop.* Along the

Cotton Belt Route in Southeast Missouri

you will find hundreds of farmers who have made enough from their *first* year's crops to pay for both land and *clearing.* Crops never suffer from drouth, for a turn of the plow brings up ample moisture. Pastures are green *every* month; seven months are without frost. The biggest, best-paying markets are *close by.* Lumber is so cheap that homes are built for $100 a room. Roads, schools, churches and society are of the best. *Right now* you can buy some of the *richest land* in the world, in this valley, at $20 to $30 uncleared, up to $50, cleared; land that will *pay for itself* the *first* year. The Government reports this the *fastest growing section* of America—if you delay going, you will not only miss out on the *best* tracts but pay *more* for what you get.

On the 1st and 3rd Tuesday of each month there are very low round trip excursions to this section via Cotton Belt Route, allowing 25 days for trip and *free stop overs.* Take advantage of the *next* excursion and *investigate* this fertile valley.

Get our new free book

—the most complete farmer's guide to this country ever published, written by a practical farm man, who personally went over every mile of this section and got the farmers' own statements about their success there. Scores of farm and stock pictures. Write today for your free copy.

E. W. La BEAUME,
General Passenger Agent
1419 Pierce Bldg., St. Louis

COTTON BELT ROUTE

The Reo Trucks and Motor Cars.

R. M. Owen & Company continue to book a large number of orders for their light delivery Reo trucks which are on exhibit at the big Madison Square Garden Show, New York. R. E. Olds, President of the Reo Motor Car Company, says that one user of these popular trucks reports that for the last six months his Reo truck covered 4,553 miles, making 3,773 stops. His six-months' expense for gasoline, oil and repairs was $78.86—fifty cents per day, which is less than 1¾ cents per mile. He earned with the truck, during those six months, $900.54, or $150 more than he paid for the truck. This is but one instance of hundreds of others where the Reo truck has shown its supremacy over the horse, both in economy and efficiency. The Reo trucks are not alone money makers but are thoroughly reliable and efficient under all sorts of road and weather conditions. Where horses groaned and bled in the deep snow and on the slippery and icy pavements during the recent blizzards, and as a natural result thereof serious congestion of traffic followed, the Reo truck performed its strenuous duties with as striking regularity and dispatch as it does in more favorable weather. Unusual interest is being shown in these light delivery power wagons by wholesale and retail merchants whose trade demands prompt, economical and reliable delivery of goods. For particulars concerning Reo the Fifth Motor Car or Reo Truck please mention this paper and address R. M. Owen & Company, Lansing, Mich. See advt. on page 2.

Holstein-Friesian Records.

In the tests of Holstein-Friesian cows and heifers that were made in December, 1911, there were sixty-five animals, of which two-fifths were heifers with first or second calves, produced in 338 consecutive days 912,729.5 pounds of milk, containing 3,143.563 pounds of butter-fat, thus showing an average of 3.44 per cent. fat. The average production for each animal during the average period of 338 days was 14,042.0 pounds of milk, containing 483.63 pounds of butter-fat, equivalent to over 564.24 pounds of the best commercial butter per year. In this herd, in addition to the milk and fat, twenty-seven animals were tested for total solids. These twenty-seven animals produced 384,034.9 pounds of milk, containing 13,340.79 pounds of butter-fat and 46,118.89 pounds of solids, the average production for each animal being 14,223.5 pounds of milk, containing 494.10 pounds of fat and 1,708.11 pounds of total solids. The average per cent. fat was 3.47, and the average per cent. solids, 12.01; the proportion of fat to solids not fat being as 1 is to 2.46. That is, these cows produced 2.46 pounds of digestible food other than fat for every pound of fat produced. These figures are furnished by Malcolm H. Gardner, Superintendent of Advanced Registry.

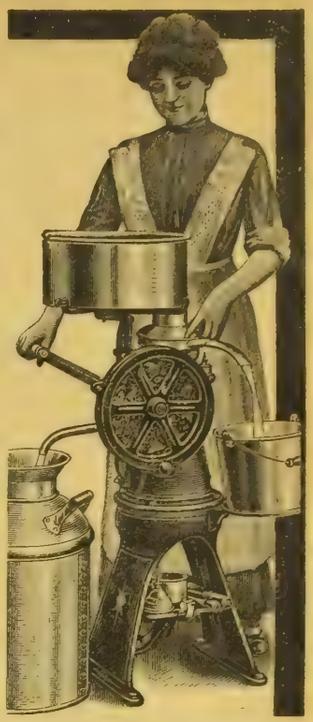
Keeping the Boys and Girls on the Farm.

To keep the farmers' boys and girls in the country is a problem affecting every agricultural district in the United States. The universal opinion of the farmers throughout the country, as voiced to the National Country Life Commission, was, that the present system of education in the district schools in a large measure is responsible for the exodus of the youth of the country to the city; that the curriculum, owing to its failure to instruct in the spirit of the farm is strongly influencing the children away from rather than toward rural pursuits.

Recognizing fully the importance of the problem of conserving for the country a larger portion of its young people and of directing them in childhood to appreciate the dignity and independence of farming as a profession, Secretary Fisher, of the Department of the Interior, has authorized the Reclamation Service to co-operate with the Department of Agriculture, the various state and county authorities, in a practical plan, which it is believed will materially promote a solution of this problem on the irrigation projects of the goverment.

On a number of these projects the old-fashioned one-teacher district schools have been eliminated and consolidated or centralized graded schools have been established. Sufficient land has been set aside or donated adjacent to these schools to permit the platting of small tracts for planting. A course in elementary agriculture is to be taught and an actual demonstration of irrigation and cultivation is to be given with prizes for the best results. To further these plans the Reclamation Service will furnish free of charge the water for irrigation; the Department of Agriculture and State Experiment Station will supply seeds and expert instructors. This Western experiment will be viewed with absorbing interest by the farmers all over the land.

$27.65 Buys a Big Business Cream Separator



Every Economy Chief Cream Separator is built for the business dairyman from the 300 pounds per hour machine priced at $27.65 to the 600 pounds per hour machine at $42.35. The frames are big and solid and extra heavy, mounted on a broad base and free from vibration when running.

Guaranteed to be the closest skimmers in the world on any kind of milk—new, old, warm or cold. The bowls have only five parts, are solid steel, light in weight, easily handled, and of enormous strength. Are self draining and practically self cleaning.

New models for 1912 are the best ever. We have no competition where quality and skimming capacity are considered. Our big fast skimming practical dairy machines cost you less money than the small toy household or table machines of other makes. Our guarantee is plain. It says that the Economy Chief will take more cream from any milk under any conditions than any other separator made. If it doesn't, send back the machine and get your money.

290,000 Economy Chief Cream Separators are now in use. Sixty days' trial to every buyer. Most liberal exchange offer for old separators of any make. Our terms suit everybody.

No. 23A91	300 pounds per hour skimming capacity.	Price, **$27.65**
No. 23A92	400 pounds per hour skimming capacity.	Price, **34.90**
No. 23A94	600 pounds per hour skimming capacity.	Price, **42.35**

Use This Coupon RIGHT AWAY!

SEARS, ROEBUCK AND CO., Chicago, Ill.
Send me a copy of your new 1912 Economy Chief Catalog free and postpaid.

Name _____

69N74 *Postoffice* _____

R.F.D. No. _____ *State* _____

P. O. Box No. _____ *Street and No.* _____

Are you interested in our exchange offer? _____
(Please answer yes or no.)

Sears, Roebuck and Co., Chicago, Ill.

A Seven-foot Rain.

The Weather Observatory at Manila reports seven feet of rain. The Director says: "We do not know of any instance in which similar torrential rains have been registered in any other part of the globe." On July 11th thirty-two inches of water fell from the skies, and in three days the rainfall reached a total of over eighty-eight inches."

"In reading over the statute book you may notice that the language of the laws frequently dates from the sixteenth century, and sometimes the purpose of them is as far out of date."—Globe-Democrat.

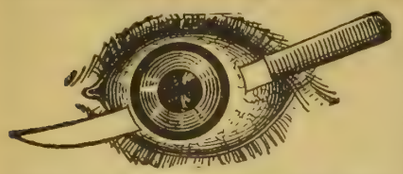
LIGHT UP!

You can transform any kerosene (coal oil) lamp or lantern into dazzling brilliancy with our wonderful **Bright Light Burner.** 50 candle power invisible and **unbreakable Steel Mantle.** Brighter than electricity, better than gas or gasoline, and **perfectly safe.** No generating—simply light like any kerosene lamp. Nothing to get out of order. Positively will not smoke or flicker.

AGENTS WANTED EVERYWHERE. Sells like wildfire. An opportunity of a life time, work all or spare time. Experience unnecessary. Make big money—be independent. Write today. Act quick—territory going fast. Complete sample, postpaid, **30c, 4 for $1.00. Money back if not satisfactory.**

BRIGHT LIGHT CO., Dept. 64, Grand Rapids, Mich.

EYES CURED



WITHOUT THE KNIFE

Grateful Patients Tell of Almost Miraculous Cures of Cataracts, Granulated Lids, Wild Hairs, Ulcers, Weak, Watery Eyes and all Eye Diseases—many have thrown away their glasses after using this magic remedy one week. Send your name and address with full description of your trouble to the H. T. Schlegel Co., 6164 Home Bank Building, Peoria, Ill., or fill out the coupon below, and you will receive by return mail, prepaid, a trial bottle of this magic remedy, that has restored many almost blind to sight.

FREE. This coupon is good for one trial bottle of Schlegel's Magic Eye Remedy sent to you prepaid. Simply fill in your name and address on dotted lines below and mail to the H. T. Schlegel Co., 6164 Home Bank Building, Peoria, Ill.

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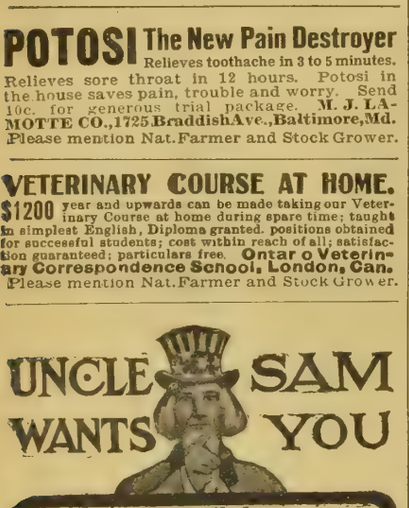
Please mention Nat. Farmer and Stock Grower.

POTOSI The New Pain Destroyer
Relieves toothache in 3 to 5 minutes.

Relieves sore throat in 12 hours. Potosi in the house saves pain, trouble and worry. Send 10c. for generous trial package. **M. J. LAMOTTE CO., 1725 Braddish Ave., Baltimore, Md.**
Please mention Nat. Farmer and Stock Grower.

VETERINARY COURSE AT HOME.

$1200 year and upwards can be made taking our Veterinary Course at home during spare time; taught in simplest English, Diploma granted. positions obtained for succeseful students; cost within reach of all; satisfaction guaranteed; particulars free. **Ontar o Veterinary Correspondence School, London, Can.**
Please mention Nat. Farmer and Stock Grower.



Over 2000 Railway Mail Clerks to Be Appointed Soon

Examinations Everywhere May 4th

Every second week off duty at full salary.

Rapid advancement to higher Government Positions.

No "Layoffs" because of STRIKES, FINANCIAL FLURRIES or THE WHIMS OF SOME PETTY BOSS.

THE POSITION IS YOURS FOR LIFE.

Country residents and city residents stand the same chance for immediate appointment.

Common sense education sufficient. Political influence NOT REQUIRED.

We are Preparing Candidates Absolutely Free of Charge

Write immediately for schedule showing the places of the May 4th examinations. Don't delay. Every day you lose means the loss of just so much coaching before the rapidly approaching examinations.

FREE COACHING COUPON

FRANKLIN INSTITUTE, Dept. T 107, Rochester, N. Y.

The coupon, properly filled out, entitles the sender to free sample questions, a free copy of our valuable book, "GOVERNMENT POSITIONS AND HOW TO OBTAIN THEM," and to consideration for FREE COACHING for the Civil Service Examination here checked.

..Railway Mail Clerk. [$800 to $1400]
..Postoffice Clerk..... [$600 to $1200]
..Postoffice Carrier..... [$600 to $1200]
..Rural Mail Carrier.. [$500 to $900]
..Customs Positions... [$600 to $1500]
..Internal Revenue.... [$700 to $1800]
..Stenographer..... [$800 to $1500]
..Clerk in the Departments at Washington. [$800 to $1500]

Name.....

Address.....

Use this before you lose it. Write plainly.

The Joke on Bill.

Bill Mink is a waiter in a small restaurant on Broadway, near Forty-third street and Bill is a great "kidder," declares the New York Telegraph. He never loses an opportunity to "josh" somebody, and once in a while he springs a joke that is really good. But recently Bill Mink's exuberance received a slight setback. It was like this:

A vaudeville actor entered the restaurant, accompanied by his father, a tall, lanky farmer from up-state. They took a seat at the counter, and Bill approached for their orders.

"Kin I have some water?" asked the farmer, first.

"Yes, indeed, and Nap-kin, too," replied Bill, smiling pleasantly.

It confused the farmer a little, but he quickly recovered. "Well, gimme some water first," he said.

"Wet or dry?" asked Bill.

The farmer became a little bit mixed up again. He didn't reply to that.

"Maybe you'd like it medium," Bill continued. "How would a little damp water do?"

The farmer was surprised. He had always been in the habit of paying anywhere from ten cents to half a dollar at the opry house to hear jokes cracked. Bill gave him the water.

"Now what are you going to eat?" asked Bill, as he juggled a salt cellar and a water glass. (Bill is quite a juggler, too.)

"What kind of pie you got?" asked the farmer.

Bill named the kinds over. There were nine of them.

"How's that?" asked the farmer, blandly.

Bill named them over again. There were still nine of them. When he finished the farmer got his revenge. He waited till all was still, in order that everyone near by might hear, and then said:

"Wall, I guess I'll take a little magpie. Got any?"

Well, sir, you should have seen Bill Mink.

International Information.

A cablegram from the International Institute of Agriculture, Rome, Italy, dated January 29th, 1912, received by the United States Department of Agriculture, gives the following information:

"The estimated production of wheat in Argentina this season is 91,374,000 cwt. (equivalent to 170,565,000 bushels of 60 pounds each); in New Zealand, 3,475,000 cwt. (or 6,487,000 bushels of 60 pounds each).

"The estimated production of wheat in the Southern Hemisphere this season is 105.5 per cent. of the production of last season, or 156,000,000 cwt. (equivalent to 291,200,000 bushels of 60 pounds each).

"The estimated production of oats in Argentina is 17,381,000 cwt. (or 60,833,500 bushels of 32 pounds each); in New Zealand, 5,342,000 cwt. (or 18,697,000 bushels of 32 pounds each).

St. Louis Live Stock.

St. Louis National Stock Yard receipts for the month of January were 73,255 cattle, 333,984 hogs, 78,316 sheep, 18,731 horses and mules. These figures show an increase of 97,624 hogs, 18,159 sheep and a decrease of 4,114 cattle and 11,591 horses and mules.

A car-load of wheat straw sold in St. Louis recently at $8.00 per ton.

I Guarantee to Cure

ECZEMA
TO STAY CURED!

It is also called

SALT RHEUM, SCALD HEAD, TETTER, ITCH, WEEPING SKIN, MILK CRUST, PRURITUS—these are different names, but all mean one thing—ECZEMA.

DR. J. E. CANNAD... THE DOCTOR W... TREATS NOTHI... BUT ECZEMA.

I prove every word that I have said—I give to every sufferer

A FREE TRIAL

just to show you that you need my treatment. It is yours for the asking. If you have been to other Doctors, if you have taken patent medicine, and used lotions and salves till you are disgusted, write to me—I will send you ABSOLUTELY FREE OF CHARGE, A TRIAL TREATMENT. There are no strings to this statement. There is not one cent to pay—not a penny accepted. I know what my trial treatment will do; I know that it will convince you more than anything else on earth that you need my treatment.

Don't Miss this Chance for a Cure

If you are SUFFERING FROM ECZEMA you can only be cured one way—REMOVE THE CAUSE. What is the cause? ACID IN THE BLOOD. How do you remove it? By cleansing the blood of the ACID.

My treatment is soothing—relieves the dreadful itching at once and cures the disease quickly. You don't have to take treatment for months and months. ONLY ONE CASE IN TEN needs the second treatment—ONE IN FIFTY needs the third—think of that!

What Eczema Is

Eczema is a disease of the blood and affects all parts of the body—the face, lips, ears, hands, feet, genital organ, etc.

SYMPTOMS.—Yellowish red eruption; the pimples or patches may swell and the itching is so great the person will scratch the top off, then they bleed and dark scales form; there is an oozing of matter. In some the skin cracks and bleeds. Itching is terrible; a person suffering will scratch till they bleed. Scales form on parts of the body, where the clothing comes in contact.

Reliable Beyond Question

This is a statement from the bank of my home town, where I've done business for years.

THIRD NATIONAL BANK
UNITED STATES DEPOSITARY
CAPITAL STOCK $100 000 SURPLUS AND PROFITS $45,000
SEDALIA MO

Sedalia, Mo., Jan. 1-1910.

TO THOM IT MAY CONCERN:-

Dr. Cannaday, of our city is a physician, making a specialty of ECZEMA. We have handled his business exclusively for one year and eighty four days. His patients deposit their money with us, in their OWN HAND, to be paid to the doctor, if his treatment is satisfactory. If we remember correctly, we have been called upon by only FOUR of his patients for their money, and it seemed then, that the fault was more with the Express Companies than with the treatment failing.

Considering the number of cases he treats, we regard his success as remarkable. We consider him perfectly reliable, and assure those placing their money with us a fair, square, business deal.

Yours truly

Ten Years Guarantee

I positiveiy Guarantee that every case cured by me will stay cured **10 years! It must be good** or it could not be sold this way.

Strong as Rock of Gibraltar

I am a graduate from two leading medical schools. I am the holder of a GOLD MEDAL taken in Competitive Examination. Does this not show that I am fully qualified? I will send you my book, showing endorsements of business men of all classes. Also testimonials and pictures from cured patients everywhere. Some of them may be YOUR NEIGHBORS.

MY BOOK

is the most complete book ever sent out. I explain every form of the disease plainly and fully. I show pictures of many severe cases, which are extremely interesting. I send you names of thousands who have been cured and are grateful.

DR. J. E. CANNADAY
221 Park Square, Sedalia, Mo.

Dr. J. E. Cannaday
221 Park Square
Sedalia - - Mo.

FREE OFFER—CUT HERE

Please send without cost to me prepaid, Free Trial Treatment, also copy of your Free Book.

Name.....

Address.....

.....

Treatment and literature sent in plain wrapper.

No Wonder He Blanched.

Wife—"Wretch! Show me that letter."

Husband—"What letter?"

Wife—"That one in your hand. It's from a woman, I can see by the writing, and you turned pale when you saw it."

Husband—"Yes; here it is. It's your dressmaker's bill."

She Counted Up.

She—"How could you do such a thing as kiss me while I was lying asleep in the hammock this morning?"

He—"I only stole one little kiss."

She—"Don't tell fibs—I counted up to seven before I woke up."—Fliegende Blaetter.

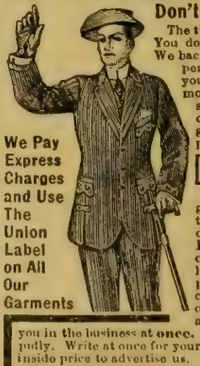
Empire Fertilizer Caused Gain.

"I purchased of Culberhouse & Salmons, dealers in Empire Fertilizer, one and one-half tons of the Cotton Grower. I put it on fifteen acres of upland as near 200 pounds to the acre as I could, and, taking in consideration the excessive rains in August, and then a little later the cotton worm that eat all the leaves and young bolls, my yield was 30 per cent. more than it had ever been before." — H. A. ZIMMERMAN, Jonesboro, Ark. For particulars address Empire Carbon Works, 421 Locust street, St. Louis, Mo.

YOU'R THE MAN

We Will Make You Prosperous

EVERY day of your life you can make from $5 to $10 selling our "Made-to-Order" Suits, Pants and Overcoats.



We Pay Express Charges and Use The Union Label on All Our Garments

Don't Delay, Write Us At Once

The time to start in is right now. You don't need money or experience. We back you with our capital and experience—we will instruct you and you can commence making big money at once. The original style snap that we embody in our clothes combined with the elegant fit a man gets makes him a permanent customer for you.

QUICK SALES—BIG PROFITS

That's what interests you. We give our agents exclusive territory. Send us your name and address and we will forward you Free our agent's handsome outfit containing samples of the latest styles together with fashion plates of the newe t metropolitan creation, also measuring tape, order blanks, instruction chart, and everything necessary to start you in the business at once. Territory is being taken up rapidly. Write at once for yours. You can get your own suit at inside price to advertise us.

Remember We Back One Man Only in this way—in each locality. You have no time to lose. This is a chance of your lifetime. Act quickly. Send your name and address today for big Free outfit.

REGAL TAILORING CO. 532 Regal Bldg., Chicago, Ill.

The Best Way to Cure Pork.

Prof. H S.. Mobley, Fayetteville, Arkansas, has used for years a system of curing meat that has been followed with success in his family in Virginia from generation to generation since Colonial days. It has been tested by hundreds of people in many Southern States and every one has found it more reliable for home curing than any other method. Professor Mobley furnished his method to the Agricultural Department of the Rock Island Lines for distribution.

A day should be selected for killing when the temperature is low enough to insure a thorough cooling by the following morning, the hogs being dressed and hung over night.

On the morning of the day the hogs are killed, for each 400 pounds of meat make a brine as follows: 20 gallons of rain water; 30 pounds of salt; 8 ounces of baking soda; 10 pounds of brown sugar; 1 gallon of molasses (use good molasses, not the adulterated kind). This fluid should be boiled and skimmed in the morning and left to cool in a shady place. When cool, add 5 ounces of saltpeter. Dissolve the saltpeter in warm water and stir thoroughly.

The following morning cut up the hogs as usual, and pack in barrels. Put the sides of the meat or middlings in the bottom and the shoulders next, and the hams on top of these, all with the skin side down. Weight the meat down well and pour the brine over until the meat is completely covered. Then cover the top of the barrel with some good thick covering that will prevent evaporation.

Look at the meat often enough to see that the brine has not evaporated so as to leave any meat exposed. If it should become exposed, more brine should be added. The meat can be left in the brine indefinitely, but if it is desired to smoke the meat, it should be taken out in about six weeks.

If our Southern farmers will use this method and cure their own meat at home, they will save a neat sum each year.

If it has been your custom to put up the supply of family meat by curing with dry salt, and do not care to risk all of it by another method, then try a barrel or two, using the above plan and compare the results.

Why the Fat Lady Sighed.

"Heigho!" sighed Mrs. Stoutly. "You used to sit with your arm around my waist, John, but you never do it any more."

"I'm sorry, dear," replied Stoutly, "but there are some things that are beyond my reach."—Exchange.

Fertilizer Doubled the Yield.

"I bought one-half ton of Empire Fertilizer from E. Falkner, of Clifton. On five acres of cotton land where I used it, I feel assured in saying that the crop was double in yield. It was longer lint and better in every way. The cotton opened earlier than the unfertilized cotton, and I was able to get my last picking off much earlier. In a season of early frost this early maturity means a saving practically of the whole of the third picking. I am satisfied with results." Yours truly, M. I. BROWN, Clifton, Tenn. For further particulars address Empire Carbon Works, 421 Locust street, St. Louis, Mo.

Oklahoma Cattle at St. Louis.

On January 31st, at the St. Louis National Stock Yards, J. I. Clare & Son, extensive feeders of Oklahoma cattle, marketed 1,247-pound steers at $7.00 per 100 pounds; also 1,231 and 1,235-pound steers at $6.90 per 100 pounds.

Top Cattle at Chicago.

At Chicago, on January 31st, twenty head of Aberdeen-Angus steers, 1,440 pounds average, topped the market at $8.75 per 100 pounds. They were shipped by J. G. Filey, of DeSoto, Iowa, and fed by M. J. Mullen, of Adel, Iowa.

Top of the Quarantine Market.

J. M. Dobie, of Live Oak county, Texas, shipping from Oklahoma feed lots, marketed six cars of 1,236-pound steers at $6.30 per 100 pounds, and a load of 1,030-pound steers at $6.00. H. M. Stonebreaker, shipping from Tulsa county, Oklahoma, marketed a good string of steers weighing a little under 1,050 pounds at $6.00 per 100 pounds.

Hog Prices at St. Louis.

On January 31st, at the St. Louis National Stock Yards, the top of the market for hogs was $6.50 per 100 pounds, and the bulk of the hogs sold at $6.15 to $6.35 per 100 pounds. A. T. Nelson, of Linn county, Missouri, topped the market with hogs averaging 251 pounds.

When you buy good paint you buy protection

Your farm buildings require protection, and anything that is worth protecting is worth protecting well. Poor paint even when renewed frequently fails to protect, therefore, good paint is a good investment.

You know this, but you may ask how you are to know that Sherwin-Williams paints are the best paints. Our answer is, because they have made good for the last forty years and because during that time we have built up the largest paint and varnish business in the world—a result which could never have been accomplished without **right quality products.**

Again, we use only the best raw materials, most of which we secure from our own mines, smelters and oil mills, and develop ourselves, in order that absolutely good quality may be assured. The right proportions of these materials are selected from time tried and tested formulas and ground thoroughly together by powerful machinery.

Whatever it is about your farm that needs painting, there is a Sherwin-Williams product made especially for it that will cover more surface at less expense in proportion to durability than any other surface covering material.

Our free book tells just what paint to buy

for every surface on the farm and just how to apply it. This book is free. It should be in the hands of every farmer. Send for it today.

SHERWIN-WILLIAMS PAINTS & VARNISHES

Sold by dealers everywhere. Ask for color cards. Address all inquiries to
The Sherwin-Williams Co.,689Canal Road, N. W., Cleveland, O. In Canada, to 639 Centre Street, Montreal

DISEASE GERMS.

The distemper germ is a deadly enemy to healthy, growing colts. And just as sure as you do not take steps to stop the ravages of this germ just so sure will your colts come down with distemper, pink-eye, coughs, influenza and catarrhal diseases. The above diseases may be prevented by using Frazier's Distemper Cure. It purifies the blood, kills the germs and cleans the system of all contagion. Send postal card to-day for free horse booklet. $1.00 size bottle holds eight ounces, three times the quantity of the 50 cent size. Sold by druggists, or prepaid from the manufacturers, Binkley Medical Co., Dept.H, Nappanee,Ind.

The January supply of cattle at Chicago was 8,400 less than January of last year; hogs increased 239,000; sheep increased 150,000; horse receipts decreased 1,100.

WONDERFUL FAT REDUCTION.

Mis A. Smith lost 80 pounds of excess fat, A. M. Burch lost 56 lbs., Miss Susie Evans lost 105 lbs., J. G. Fromm lost 50 lbs., Mrs. Elizabeth Jessup lost 75 lbs., Mrs. Ed. Hall lost 61 lbs., Mrs. C. M. Finch lost 54 lbs., F. F. Parsons lost 58 lbs., Mrs. Dora Harrison lost 73 lbs., Mrs. J. H. Wooldridge reduced waist measurement 10 inches. Miss Bockner lost 55 lbs., L. Kraxberger lost 97 lbs., and these are but a few of hundreds of marvelous cases of fat reduction of which printed testimonials are published, with full addresses and mailed free upon request to any over-stout person. Moreover, a free proof treatment of a remarkable remedy will be given. All will be sent free, postpaid, under plain cover, confidentially. It is only necessary to write to Dr. H. C. Bradford, 20 E. 22d St., 287 E, New York, N. Y., and ask him to mail his free treatment with testimonials which proves how fat can be quickly, easily and permanently reduced, the form beautified and vigor and health restored. What it has done for others, it can do for you.

Matchless Fence.

SPRING STEEL, COIL WIRE, SQUARE MESH.

HOG TIGHT, BULL PROOF, MULE-HIGH.

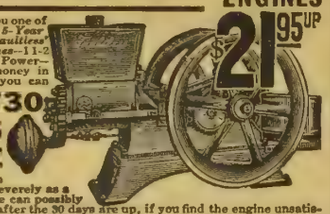
Best and Strongest Made.

Twice as Strong as Ordinary Wire. Stretches Anywhere. Easy to Put Up.

Every rod carries our broad guarantee. PRICES REDUCED FOR FEBRUARY. Sample piece free, also splendid booklet, "ON BUILDING FENCE." Ask for it. It's worth dollars to you.

Estab. 1874. A. J. CHILD & SONS, Box No. 77. St. Louis, Mo.

FIVE-YEAR **GUARANTEED** GASOLINE ENGINES



We will send you one of our high-grade *5-Year Guaranteed "Faultless" Gasoline Engines*—1-2 to 12 Horse Power—without any money in advance, and you can

USE IT 30 DAYS FREE

at our risk. You can test it as severely as a Gasoline Engine can possibly be tested, and after the 30 days are up, if you find the engine unsatisfactory for any reason, return it at our expense. Our prices are lowest.

We Beat Them All $21.95 **for a 1½ Horse Power Engine**
Think of it, only

Correspondingly low prices for 2 1-2, 4 1-2, 6, 8 and 12 horse power engines. Anyone can run them. Simply constructed. No complicated parts. Operate as perfectly, wear as long and develop as much power as any engines made, regardless of name, make or price. Possess every good feature of every high grade engine and many features controlled alone by us. To illustrate: Four-cycle; water jacketed; hopper cooled; make and break ignition, speed control lever; governor controls fuel supply; uses fuel according to load; simple, positive mixing device. If interested write and say: "*Send me your big, free, Special Gasoline Engine Catalogue*," and see for yourself all about our wonderful 30-day free trial without any money in advance, our **5-Year Guarantee** the big, fine pictures of all our Gasoline Engines and our marvelously low prices. Write today.

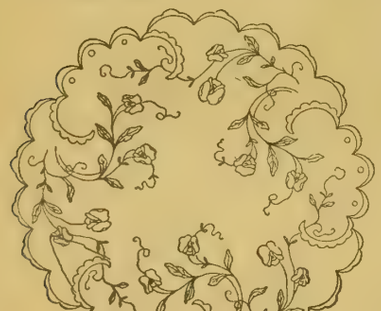
Farm Implements For All Purposes For All Sections

Latest Improved Standard Makes. Fully Guaranteed. Sent on Free Trial. Half your dealer's price. Walking plows, $2.00 up; Sulky plows, $24.50 up; Disc Harrows, $13.00 up; Cultivators, $2.60 up; Grain Drills, $10.35 up; Corn planters, $8.10 up; Mowers, $33.00 up; Feed cutters, $2.25 up; Feed grinders, $8.70 up, and every other kind of farm implement at proportionately low price. If interested, write and say: "*Send me your big, Free Farm Implement Catalogue*," and see our wonderful low prices and great liberal free trial offer.

JOHN M. SMYTH MDSE CO. 180-194 W. Madison St. **Chicago**

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.



Twenty-two-inch Center Cloth.

No. 623.—Design for an embroidered center cloth twenty-two inches in diameter. The price of the pattern is 10 cents.

Lilies of the Valley.

No. 625.—Design for embroidering sprays of lilies of the valley; can be used for many purposes. The price of the pattern is 10 cents.

Very Neat Casie Designs.

No. 626.—Design for an embroidered pin or veil casie. The price of the pattern is 10 cents.

Bulgarian Wrist Bag.

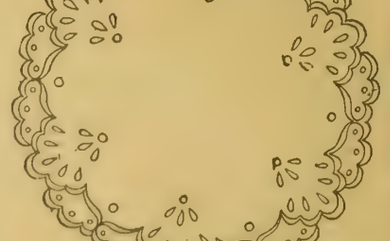
No. 624.—Design for an embroidered wrist bag in Bulgarian style, including the pattern of the bag. The price of the pattern is 10 cents.

Splendid Handkerchief Case.

No. 622.—A design for an embroidered handkerchief case. To be folded at the center with the edges laced together at the sides. The price of the pattern is 10 cents.

Infant's Kimono Sacque.

No. 620.—Design for embroidering an infant's kimono sacque. Especially adapted to May Manton's Pattern No. 6228. The price the pattern is 10 cents.



Nine-inch Doylis.

No. 619.—Design for embroidered doylis nine inches in diameter. Four transfers are included in each pattern. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Sister Woman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send you, your daughter, your sister, your mother, or any ailing friend, a full 50-cent box of Balm of Figs Compound absolutely free. It is a remedy for the treatment of woman's ailments, and I want to tell you all about it—just how to use it yourself—right at home without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—let me prove it to you, and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so quickly and surely cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with any form of female weakness or diseases so common to women.

This 50c box of Balm of Figs Compound will not cost you one cent

I will send it to you absolutely free, to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to prove my faith by sending out these 50-cent boxes free. So, dear reader, irrespective of your past experience, write to me at once — today — and I will send you the treatment entirely free by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the very best test of anything is a personal trial of it, and I know a 50-cent box of Balm of Figs Comcound will convince you of its merits. Nothing is so convincing as the actual test of the article itself. Will you give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a 50-cent box of this remedy absolutely free. Address,

MRS. HARRIET M. RICHARDS, Box E 18, JOLIET, ILLINOIS

A Beauty Recipe.

Unlike most beauty recipes, this one is guaranteed to bring beauty to whomsoever will persistently try it and will use it without fail on every possible occasion. And the older the user becomes the more noticeable will be the good effects of carrying out this beauty hint.

A German-American woman about forty years old gave it to me. The little woman has one of the most beautiful faces I have ever seen. Her nose is not a classical one, and her hair is neither abundant nor is it of an unusually attractive color. Nevertheless you will look long at her face and then turn to look again. You will decide that it would be a most desirable face to have near you all the time. And the more you see it the more you will admire it.

One day I said to her: "Matilda, you have the best-looking face I have ever seen. How does it happen that your face wears the same sweet look every minute of the day and even under the most trying circumstances?"

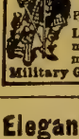
She laughed her delightful laugh as she replied: "I have never dared be anything but pleasant in my thoughts or words or actions. When I was a very little child my mother one day said to me: 'Tilda, if you are cross; if you fret and worry, and if you think hateful thoughts about other people, you will grow into an ugly-acting and a very homely-looking old lady, and the older you grow the uglier you will be, for each unkind thought and word and deed will help to make you ugly. But every kind thought you have, every good word you say and every helpful deed you do will help to make you beautiful.'" — Janet Thomas Van Osdel.

ASTHMA CURED TO STAY CURED

No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease. **FREE TEST TREATMENT** including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.** Dept. N, American Express Building, Chicago.

WE PAY $80 A MONTH SALARY and furnish rig and all expenses to introduce our guaranteed stock and poultry powders; money-back guarantee; outfit free; new plan; steady work. Address BIGLER CO., X 356, SPRINGFIELD, ILLINOIS

Army Auction Sale Bargains



Army Revolvers	$1.65 up	Army Tents	$1.40 up
" R'p't'g Rifles	1.48 "	" Swords	.30 "
" Shotguns	2.25 "	" Uniforms (new)	1.25 "
" Haversacks	.10 "	" Leggins, Pair	.15 "
" Saddles	3.00 "	" Gloves, "	.22 "
Pistols, ass't'd	.50 "	" Overcoats	2.50 "

Large catalogue with 1912 supplement 388 pages, regular military encyclopedia 5000 illustrations (ready February), mailed 25c stamps. FRANCIS BANNERMAN, Military Goods from Gov't Auction, 501 Broadway, N. Y.

Elegant Thin Model 20 YEAR Watch $3.75

Hunting case beautifully engraved, gold finished throughout, stem wind and stem set, fitted with 7 jeweled American lever movement, guaranteed 20 years, with long gold finished chain for Ladies' vest chain or fob for Gents.

$3.75 Double

Case

Guaranteed 20 Years

IF YOU SEE IT YOU WILL BUY IT. Let us send it C.O.D. for examination at your nearest express office, and if you think it a bargain and equal in appearance to any $15.00 gold finished watch pay the express agent our special sales price $3.75. Mention if you want Ladies', Men's or Boys' size. Diamond Jewelry Co., A 32, 3198 Dearborn St., Chicago, Ill.

BETTER CISTERNS --- WHY?

To protect the health of every member of your family. Medical experts have pronounced the brick and wood cistern to be the cause of many cases of sickness.

A Cistern to be perfectly sanitary must be made so tight that no impurities can possibly get through. This can only be accomplished by using the Steel Cistern.

STEEL ROOFING Of All Kinds, Stock and Storage Tanks, Wagon Tanks, Etc.

Send for Free Catalogue.

O. K. HARRY STEEL WORKS, 2353 Papin Street, ST. LOUIS, MO.

98 cents

Post Paid

Guaranteed 5 Years

To advertise our business, make new friends and introduce our great catalogue of Elgin Watches we will send this elegant watch to any address by mail, post paid for ONLY 98 CENTS. Regular gentlemen's size, open face, full nickel silver plated plain polished case, Arabic dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. In addition to the watch, and without any extra charge whatever we send five Mdse. Certificates worth one dollar each when used as part payment on purchases from our catalogue. Send this advertisement to us with your name & address and 98c, and watch & certificates will be sent by return mail post-paid. Satisfaction guaranteed or money refunded. Send 98c today as this advertisement may not appear again. R. E. CHALMERS & CO., 538 S. Dearborn St., CHICAGO

Play the Piano In One Hour

Without Lessons or Knowledge of Music You Can Play the Piano or Organ in One Hour.

Wonderful New System That Even A Child Can Use.

FREE TRIAL

She Doesn't Know One Note From Another, But Plays Like a Music Master.

Impossible, you say? Let us prove it at our expense. We will teach you to play the piano or organ and will not ask one cent until you can play.

A musical genius from Chicago has just invented a wonderful system whereby anyone can learn to play the Piano or Organ in one hour. With this new method you don't have to know one note from another, yet in an hour of practice you can be playing the popular music with all the fingers of both hands and playing it well.

The invention is so simple that even a child can now master music without costly instruction. Anyone can have this new method on a free trial merely by asking. Simply write, saying, "Send me the Easy Form Music Method as announced in The National Farmer and Stock Grower. The complete system together with 100 pieces of music will then be sent to you Free, all charges prepaid and absolutely not one cent to pay. You keep it seven days to thoroughly prove it is all that is claimed for it, then if you are satisfied, send us $1.50 and one dollar a month until $6.50 in all is paid. If you are not delighted with it, send it back in seven days and you will have risked nothing and will be under no obligations to us.

Be sure to state number of white keys on your piano or organ, also post office and express office. Address Easy Method Music Company, 2738 Clarkson Building, Chicago, Ill.

Dirty-air Diseases.

Julia hates to get a whiff of fresh air in winter. She would gladly sleep with her window closed at night if she were allowed to do it. She hates to venture out to school when it is cold weather. One day I placed a bowl of very dirty water before her when she was about to make her toilet and said: "Here, Julia, is the water for you to wash your face in. I am sure it is the kind you will enjoy!" She looked at me in horror, for the maid is a very dainty one, and then she cried: "Why, auntie, what do you mean by bringing me this dirty water. It is somebody else's dirty wash water, I am sure."

"Oh, your sister Margaret did wash in it," I replied, "but of course you would not mind that. I don't think that is really as bad as to insist on breathing all night the dirty air that has come from Margaret's lungs as well as your own, for that air is full of poisons, and this water is hardly that. You know Margaret begged to have the window open, but you refused, so you both had to breathe air that was more foul than this wash water, and that poisoned air will do you far more harm than a bath in this water."

Then Julia had a little lecture on the dirty-air diseases. She may still shrink from the fresh air until she has so accustomed herself to it that she learned to really enjoy it, but her lesson has been learned and she will sleep with closed windows and huddle in an ill-ventiated house all day, only with a troubled mind and the dread that she is contracting some dread disease.

She was much surprised and thoroughly shocked when she learned that the dread consumption of the lungs and pneumonia, besides several other diseases, are due chiefly to a lack of clean air in abundant quantities.

We are having a cold winter that will do much toward killing germs in the air. If people live rightly this winter there should be little sickness during the coming spring and summer. But here is where many are going to err: They will seal their house against the slightest draught of fresh air. They will stay in the house for days together and will go out only when it is absolutely necessary. Over and over again will they breathe the air polluted by many members of the family all housed together in this almost air-tight house. Then by the time spring comes on there will be illness abroad, or it may run on for months before tuberculosis or some other dread disease shows. But so surely as men and women insist upon taking foul air into their lungs and refuse to breathe the life-giving oxygen, in some way they must feel the bad effects from such ill-treatment of their bodies. Pure air is never the cause of disease. It is the lack of it that is bringing many to early graves. And just as much pure oxygen is needed in the coldest winter weather as in the hot days of summer.—Janet Thomas Van Osdel.

"Affinity" Fiction.

Any person who pays the least attention to the present-day fiction is aware that a large per cent. of the popular books deal with an "affinity." The term has largely lost its original meaning and is now popularly used to designate a third person who comes between husband and wife and usually is the cause of a divorce.

A favorite theme with the least thoughtful of popular fiction writers is to have a couple wed, presumably with love as the foundation of the marriage, then later on they drift apart, a third person comes in, and the wife or the husband is cast off like a worn-out shoe for a new one.

Young people, and many older ones, too, devour these stories. They weep with the wife who has lost her husband's love. They rejoice when she is freed and takes another husband. Such reading is harmful in more ways than one, but the great, big evil that it is doing is in making the young people take a light view of marriage. They are beginning to consider divorce as no disgrace or sin. Why, divorced persons are allowed in the best society! Divorced and re-married, sometimes several times, they still remain members of the church and best society, at least in much of the fiction they do, and it is from the world of fiction that young people are gleaning many of their views of life.

A Wisconsin librarian is making an effort to have this "affinity" fiction barred from the circulating libraries. She is also planning to visit the publishers of popular fiction with a view to placing before them a few facts as to the harm which much of the reading matter they are putting on the market is doing. There is a hope that such stories will be "turned down" by the publishers of repute, and in their place will be accepted wholesome, worth-while reading matter, that will help the young people to sane, natural views of life at the same time that it furnishes them the entertainment they seek in the world of fiction. In the meanwhile, every reading person is to some extent responsible for such stuff being placed on the market. Book houses do not publish what is not read, and when people refuse to purchase and to read this class of story, the publishers will soon enough refuse to accept it for publication.—Janet Thomas Van Osdel.

Strawberry Plant Bears Monthly.

A strawberry plant, imported from Siberia last spring by Edward Dixon, of Forest Grove, Ore., bears fruit every month in the year, the berries being white in color when fully ripe. The berries are not so large as the Oregon berry. The flavor resembles that of a pineapple. Blooms and fruit are found on the plant every day in the year. However, the best season for bearing is from August 1 until about the end of the year.

The berries hang in clusters on a long, slender stem. Each plant has several stems, on which the fruit grows. The stems with leaves bear no fruit. Instead of propagating new plants from runners, as is the case of native strawberries, in this species the parent plant is broken up, the several fruit-bearing stems are separated and planted individually.

Mr. Dixon predicts that the plant in a few years will become of commercial value to the state.—New York Sun.

Be sure to read about our hardy rose premium offer which will be found on page 31 of this paper.

FAT is Dangerous

It is Unsightly, Uncomfortable, Spoils the Figure, Causing Wrinkles, Flabbiness and Loss of Vigor.

Let me send you my Proof Treatment absolutely Free; I Have Safely Reduced Many of Excess Fat, a Pound a Day.

Note what my treatment has done for others; let me reduce your weight.

Lost 51 Pounds. Mrs. W. D. Smith, Box 34, Abbott, Me., writes: **"I have lost 51 pounds** by your treatment. I used to have heart trouble and shortness of breath; now I am well and can walk and work with ease."

Permanent. M. E. King, 5634 Spaulding Ave., Chicago, writes: "By the Dr. Bradford Method **I reduced 35 lbs.** eight years ago; haven't gained an ounce since. Rheumatism also cured."

Lost 112 Pounds. W. C. Newburn, Contact, Nev., writes: "I have lost 112 lbs., am **wonderfully benefited** in heart and general vigor. Can climb mountains easily now."

Lost 98 Pounds. Mrs. J. H. Wooldridge, Galena, Mo., writes: "My figure and appearance have been wonderfully improved; have lost 98 lbs. **Friends amazed."**

Many other testimonials from well known persons will be mailed with **FREE PROOF TREATMENT.**

I could fill every page of this journal with testimonials from grateful patients.

It is dangerous, unsightly, uncomfortable, and embarassing to be too fat. Excess fat weakens the heart. The liver, lungs, stomach and kidneys become diseased, the breathing becomes difficult and the end may come in **HEART FAILURE** and sudden death. You may save yourself from these **DANGERS.**

I want to prove to you that my treatment has positively reduced legions of persons to normal, no matter where the excess fat was located, stomach, bust, hips, cheeks, neck. Weight is quickly and safely reduced without tedious exercise or starving. Eat what you like. **Your figure will be beautified; wrinkles disappear.** Rheumatism, asthma, shortness of breath, kidney and heart troubles usually leave as the fat goes away. I will send you without a cent of charge to you my PROOF TREATMENT FREE.

FREE

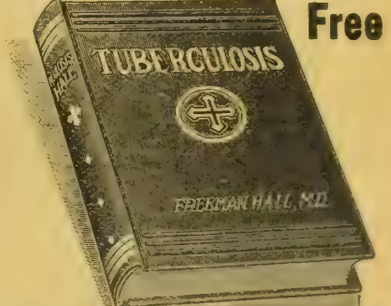
Don't miss this offer. My PROOF TREATMENT is FREE. It should make you feel better at once. I will also send you **Free** my **new book of advice,** together with testimonials from many well known people. **Write to-day. DR. H. C. BRADFORD, 287-I Bradford Building, 20 East 22d St., New York**

NOTE.—Dr. Bradford is a diplomated, practising physician, licensed and registered by the State of New York; famous many years as a specialist in reducing fat and improving health by scientific, gentle, home treatment.

Consumption

Its Diagnosis, Treatment and Cure

Free



NEW TREATISE ON TUBERCULOSIS

By FREEMAN HALL, M. D.

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma or any throat or lung trouble, or are yourself afflicted, this book will help you. Even if you are in the advanced stage of the disease and feel there is no hope, it will instruct you how others, with its aid, cured themselves after all remedies tried had failed, and they believed their case hopeless.

Write at once to The Yonkerman Co., 5254 Water St., Kalamazoo, Mich., and they will gladly send you the book by return mail Free and also a generous supply of the New Treatment absolutely Free, for they want you to have this wonderful remedy before it is too late. Don't wait—write today. It may mean the saving of your life.

STOMACH SUFFERERS

Avoid Dangerous Operations. Let Me Send You a

Free $1.00 Bottle

of My Wonderful STOMACH REMEDY

I will guarantee it to cure the most chronic cases and I want every one suffering from **Stomach, Liver or Intestinal Troubles** and **Gall Stones** to send at once for a **Free Bottle.**

Don't allow your Stomach Trouble to become so bad that an operation is necessary. Don't permit an operation until you have at least tried this FREE Bottle.

It is a postive and permanent cure for

STOMACH, LIVER AND INTESTINAL TROUBLE, GASTRITIS, INDIGESTION, DYSPEPSIA, PRESSURE OF GAS AROUND THE HEART, SOUR STOMACH, DISTRESS AFTER EATING, NERVOUSNESS, DIZZINESS, FAINTING SPELLS, CONSTIPATION, CONGESTED AND TORPID LIVER, YELLOW JAUNDICE, SICK HEADACHE, APPENDICITIS AND GALL STONES.

The above ailments are mainly caused by the clogging of the intestinal tract with mucoid and catarrhal accretions, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two before you feel its great benefits—only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to, and I again repeat I will send the complete $1.00 treatment to you absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from Gall Stones. I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once.

I have watched sick people for years and have reached out my hands to thousands in the great depth of the Valley of Dispair and brought them into the light of life and happiness. I want you, and each one suffering to know the full joys of living with every part of your system in beautiful accord and in absolute perfect harmony. This is possible if you will take this wonderful remedy. A FREE BOTTLE will positively prove it.

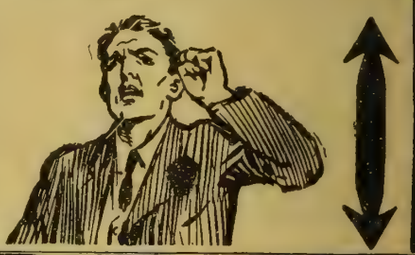
Don't Lose Hope

Why suffer with stomach trouble? Why give up hope—and despair of ever being cured? If other treatments have failed and you feel disheartened, don't allow it to discourage you from sending for this **Free** bottle. Don't say to yourself that it will not help you, before you have tried it, as it costs you nothing to take this wonderful remedy and judge for yourself its marvelous powers. You will, like the thousands of others who have been cured, bless the hour and offer fervent thanks for this wonderful remedy that has brought back your health.

Don't suffer all this pain; don't dose yourself with every medicine and try every treatment, when Mayr's Wonderful Stomach Remedy, which has cured and made thousands and thousands of sufferers happy is offered to you. Mayr's Wonderful Stomach Remedy is absolutely pure and harmless. It is guaranteed under the Pure Food and Drug Act—Serial No. 25792. This medicine has been successfully taken by children of nine years of age, and by old people of eighty-eight years and will not harm you in any way.

Why suffer with those horrid griping pains that cut like a knife? They rob you of all the sweets of happiness. Each morning means another day of torture and agony; each meal is looked forward to with pain. No matter what you eat, you suffer. Life is one continual round of "Don't eat this and don't eat that." You can't sit down to a table, spread with necessities of life and know that you are going to enjoy them; that they are going to be turned into rich, red blood and strength which will give you vitality, health and happiness.

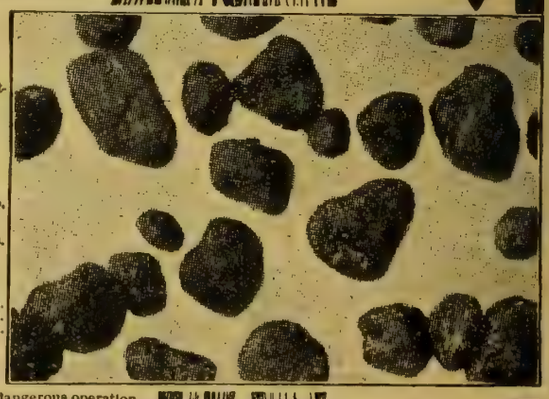
Below we show an exact Photograph—actual size of Poisonous Catarrhal Mucoid and Bile Accretions removed by my remedy. They are the causes of about 99% of all Stomach, Liver and Intestinal Ailments.



Almost every one who takes it declares that they have not felt so well in years **since they have taken the first bottle, and this benefit is an entirely natural one, as the remedy contains no opiate, stimulant or any poisonous or injurious ingredients whatever.** They are able to eat anything they want—even forget they have such a thing as a stomach. No more of the gnawing, aching dull sensations, no more paroxysms of pain, belching of gases, and other symptoms of indigestion that stomach trouble produces.

A Few Names of People who have taken My Wonderful Stomach Remedy—and who state they have been CURED of various Stomach, Liver and Intestinal Ailments and Gall Stones.

Phil Strain, Bloomington, Ill.
Alma Loving, Russellville, Miss.
Mrs. Thomas Mulvihill, Detroit, Mich.
Mattie Kirkham, Fountain Head, Tenn.
W. G. Riddell, Burlington, Ky., Rd. No. 9
Mrs. E. P. Cady, Auburn, N. Y.
H. D. Chappell, Agt. Amer. Exp. Co., Scotland, Archer Co., Tex.
W. H. Kingsley, Beulah, Miss.
J. W. Blackburn, Fryatt, Ark.
Henry Oaks, New River, Tenn.
Henry Thomas, Mahrud, Miss.
Mr. M. A. McCann, Norwalk, Ohio.
Ralph Johnson, McComb, Miss.
Rob. Eggers, Trade, Tenn.
Mrs. Callie Wells, 1123 Harrison St., Guthrie, Okla.
S. R. Allen, Buckeye, W. Va.
Chas. L. Morse, 8 Pearl St. Middleboro, Mass.
W. P. Cole, Medina, Tenn.
Fred Zwicke, Grand Rapids, Wis.
Estelle McAllister, Ludlow, S. D.
B. A. Dooley, 92 Union St., Clinton, Mass.
Mrs. E. C. Daughtery, Conway, Pa., Beaver, Co.
Sarah E. Johnson, 1107 Bell St. Mt. Vernon, Ill.
Mrs. D. Burghduff, 75 Walnut St., Auburn, N. Y.
John Driver, Dunkirk, Ind.
W. D. Barr, 601 Walnut St., Irwin, Pa.
Mr. W. E. Cobb, Wichita Falls, Kans.



Read These Letters

WHAT A PROMINENT PHYSICIAN HAS TO SAY OF MY WONDERFUL STOMACH REMEDY.

Sept. 12th, 1911.

Mr. Geo. H. Mayr, Chicago, Ill.

Dear Sir:—My wife received your letter and treatment a few days ago. She took the medicines as per directions Saturday with wonderful results, as she passed a large quantity of gall stones of various sizes. I will send you a money order herewith for balance of treatment. Have recommended you to several that I know need your treatment. I have practiced medicine 20 years and have used Olive Oil treatments for a long time for my wife, and I can assure you that your combination greatly surprised me. You shall hear from me again soon.

Yours gratefully,
ERNEST VINCENT, M. D.

WHAT A TRAINED NURSE HAS TO SAY.

Aug. 24th, 1911.

Mr. Geo. H. Mayr, Chicago, Ill.

Dear Sir:—To begin with I am a trained nurse, and I had two patients that the doctors seemed unable to reach with their medicines and were trying to persuade the patient to submit to the knife. A friend who has tried your Wonderful medicine proposed that I recommend it to my patient, so I did. They agreed to try the medicine if I would try the sample on myself. To please my patients was why I sent for the sample. I know that your medicine is wonderful because it has cured Mrs. Clark Fitzsimmons of Orofino, Idaho and Mrs. Charley Frear of the same place. I am very glad that I was able to recommend your medicine to them.

LIBERETTE HAVEL, Trained Nurse,
Box 284, Orofino, Idaho.

CURED AFTER FIVE YEARS SICKNESS.

Mr. George H. Mayr, Chicago, Ill.

I am pleased to inform you that I ordered a full treatment the latter part of March. It cured me after a five years spell of sickness. I ordered a free bottle for a neighbor. Now I must tell you it is through me you are getting so many orders from Willard and Yellon Post Offices. I sojourned through Eastern Colorado and sang your praises and left your address wherever I went. I have not written you at an earlier date as I have just waited to see if I stayed cured before I let you know. Your remedy is surely a wonder. The Doctors told me I had appendicitis and would soon die if I were not operated on, I was lying in bed about all the time with misery most of the time for five years. I took treatment during March, have been busy ever since. It is the only medicine that hit the sore spot.—L. C. MOREHEAD, Willard, Oklahoma.

Doctor Said Cancer of the Stomach

July 22, 1911.

Mr. Geo. H. Mayr, Chicago, Ill.

Dear Sir:—I write you this morning that I took my last drop of medicine yesterday morning and am now free from gall stones. It has made a new man of me. Sleep well, eat what I want and feel fine. No soreness left but I have some large boils. I think it drove them out. The Doctors said I had cancer of the stomach, and nothing would do but to be operated on, but they were mistaken. I have spent lots of money before and only got temporary relief, but I assure you I feel all right now. Passed about 400 gall stones.

Yours truly, WM. CAMPBELL,
Denver, Missouri

More Benefit Than From a $100 Treatment

May 31, 1910.

Mr. Geo. H. Mayr, Chicago, Ill.

I rec'd the treatment you sent and can truthfully say I got more benefit from it than from a hundred dollar treatment I took last winter.

Very Respectfully,
MISS F. A. HARNESS,
1020 Pacific Ave., Bremerton, Wash.

Fill out this FREE coupon now and mail to me. The full $1.00 bottle will be sent you without delay. Send no money—your name and address on the coupon is all—MAIL IT TODAY—WRITE PLAINLY.

GEO. H. MAYR, MFG. CHEMIST, 341 Mayr Bldg., 156 Whiting St., Chicago

Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy.

Name .....

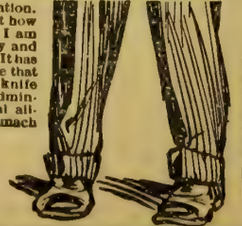
Address ..... *City* .....

County ..... *State* ..... *Express Office* .....

My last word to you—Don't permit a dangerous operation. Not until you have tried this **FREE BOTTLE.** I care not how long you have suffered or how severe your case may be, I am confident my wonderful and harmless remedy will entirely and quickly restore you to perfect health without any ill effect. It has saved thousands from operations. It should you. I believe that eighty per cent of the operations are unnecessary and the knife could be avoided if the proper method of treatment was administered. Quite often sufferers of Stomach and Intestinal ailments or Gall Stones are told they have cancer of the stomach and other rare diseases.

GEO. H. MAYR, Mfg. Chemist,
341 Mayr Building, 156 Whiting Street, Chicago

References: Mercantile Agencies or State Bank of Chicago



You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to CURE.

SMASHED PRICES ON 100 CARS OF RUBBER ROOFING

1 PLY Guaranteed 5 Yrs. Per Roll 75c | 1 PLY Guaranteed 9 Yrs. Per Roll 93c | 2 PLY Guaranteed 12 Yrs. Per Roll $1.19 | 3 PLY Guaranteed 15 Yrs. Per Roll $1.47

...y under regular mill price we just ...ught 100 cars of rubber roofing and ...long as it lasts you can have it at ...r wonder cut prices. *This is ..., rubber roofing, as good ...any rubber roofing,* re...rdless of brand or price. ...table for old ...fs, new roofs ...d over old ...ngles. Any... ...s can lay it. ...a special ...ls needed. ...coating or ...nting. Fire ...of, water ...of. Strong ...d flexible, *...aranteed 7 ...5 years,* but ...l last a life ...e. Made of ...t long fibre ...d felt. Sat... ...ted with ...-sweating, ...- evapora..., non-run... ...ge, non... ...cking spec... compound. ...th sides ...h heavily

...ATED WITH ...ERPETUAL ...COATING ...ERVATIVE

...er dries or ...ttles. Fume, ..., vapor and ...am proof. Ab...tely non-tainting. ...ls are 32 in. wide, contain 108 sq. ft. and will cover 100 sq. ft. Nails, ...ections for laying, cement for cementing laps sent with each roll.

Write for Free Roofing & Fencing Catalog --see our cut prices on mica scale roofing, gravel surface roofing, crushed slate roofing, metal roofing, metal ceilings, metal lath, roofing felt, sheeting, plaster board and every article kindred to the roofing trade.

...rder From This Offer for at these prices the 100 cars will go ...ck. Send a deposit of 1-5 the amount of order — if the order is ...0, send $1.00 deposit. If $10.00, send $2.00 and so on. State ...antity wanted, figuring one roll will cover 100 sq. ft., and we will ...d the roofing C. O. D. by freight, subject to examination. The ...ance and freight charges you pay the agent after you find the roof... perfectly satisfactory, the equal of any rubber roofing you ever ...w at double our price and a more wonderful bargain in roofing ...er than you ever imagined possible. Otherwise have the agent ...rn it at our expense and we will instantly refund your deposit.

...ire Fencing on 60 Days Trial Also we lead in lowest prices on wire fencing — all ...ds—farm fencing 11 1-2c a rod, poultry fencing—50 ft. at 65c, lawn ...ing 53-4c a ft., gates $1.79, and barb wire and fencing accessories ...rrespondingly low prices. All our roofing, fencing, etc. is illus...ed, described ...priced in our ...ch we will gladly send you free upon request. *Write for it today.*

Great Special Roofing and Fencing Catalog

...HN M. SMYTH MOSE CO. 150-194 W. Madison St. Chicago

Southwestern flaxseed is selling at $2.09 a bushel on the St. Louis market.

TOBACCO HABIT You can conquer it easily in 5 days, improve your health, prolong your life. No more stomach trouble, no foul breath, no heart weakness. Regain manly vigor, calm nerves, clear eyes and superior mental strength. Whether you chew, or smoke pipe, cigarettes, cigars, get my interesting Tobacco Book. Worth its weight in gold. Mailed free. E. J. WOODS, 534 Sixth Ave. 267 A, New York, N. Y.

NEW RUPTURE CURE

DON'T WEAR A TRUSS.

RUPTURE Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. **Binds and draws the broken parts together as you would a broken limb.** No salves. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01.

CATALOGUE FREE.

C. E. BROOKS, 59 State Street, Marshall, Mich.

BEAUTY PINS A PAIR FREE TO AGENTS.

Gold fronts. Guaranteed. Your name and address on a postal will do, if you write to-day.

E. B. COLEMAN & COMPANY,
Wholesale Jewelers' Corporation,
Equitable Bldg., - ST. LOUIS, U. S. A.
Ask for Illustrated Catalog. It is FREE.

TAPE-WORM Expelled alive in 60 minutes with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE

DR. M. NEY SMITH Specialist,
Office, 302 N. 12th St., - ST. LOUIS, MO.

AGENTS WANTED Exclusive territory. Good chance to build up permanent business. Mail us $10 for 36-pound Feather Bed and receive, without cost, 6-pound pair pillows. Freight on all prepaid. New feathers. Best ticking. Satisfaction guaranteed. TURNER & CORNWELL, Feather Dealers, Dept. 58, Charlotte, N.C. Our reference: Commercial National Bank.

MAY MANTON PATTERNS.

Very Elegant Pattern Service, With Full Instructions For Ordering and Making.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns, absolutely up-to-date, with directions for ordering.

PRETTY NIGHT GOWNS FOR ALL AGES.

No. 6620.—One-piece night gown for misses and small women. It is made in one piece, there being only the under-arm seams to be sewed up. It is slipped on over the head, and the size is regulated by means of ribbon threaded through eyelets.

No. 7080.—Square-yoke night gown for misses and small women. It is full below a square yoke and includes sleeves that are sewed to the armholes.

No. 6746.—One-piece night gown. It is made in one piece; the sleeves can be made with or without openings.

No. 7085.—Girl's square-yoke night gown. It is full below the yoke and can be made high or square and the sleeves in full or three-quarter length.

No. 7104.—Girl's chemise night gown. It is drawn on over the head, and the size is regulated by ribbon threaded through beading. The sleeves are separate and sewed to the armholes.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

FROCKS FOR YOUNG GIRLS AND LITTLE CHILDREN.

No. 7270.—Blouse for misses and small women. No. 7134.—Two-piece skirt for misses and small women. A simple blouse and skirt combined to make a most attractive frock. The blouse is cut in one piece with the sleeves. The skirt is made in two pieces that are lapped onto side panels and can be made with a high or natural waist line.

No. 7263.—Fancy blouse for misses and small women. No. 7184.—Three-piece skirt for misses and small women. A simple straight-gathered skirt finished with hem and tucks combined with a blouse that shows the very newest sleeves that can be made in three-quarter or full length.

No. 7247.—Fancy peasant blouse with tunic for misses and small women. No. 6835.—Two-piece skirt for misses and small women. This tunic frock is as simple as it is charming. The skirt is made in two pieces.

All the above patterns are cut in sizes for fourteen, sixteen and eighteen years of age.

No. 7251.—Child's dress with bloomers. A simple one-piece dress with sleeves sewed to the armholes. The opening is cut at the front a little to the right of the center, and there are bloomers to match.

No. 7257.—Child's dress. A pretty little one-piece frock with kimono sleeeves. There are two sections that are lapped onto a panel and finished with a yoke.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

PROTECTIVE APRONS FOR GROWN-UPS AND LITTLE GIRLS.

No. 6922.—Work apron. It is made with sleeves in raglan style that are extended to the neck edge. The backs are held in place by means of a belt.

No. 7193.—Work apron with body and sleeves in one. A plain apron with either short loose sleeves or long or three-quarter sleeves gathered into bands and with round, square or high neck.

No. 7088.—Work apron. It can be made either with or without sleeves, with square, high or round neck.

No. 7235.—Girl's yoke apron. A pretty little model that is simply full below a square yoke. It can be made with or without sleeves and with high or square neck.

No. 7143.—Child's apron. It can be made as illustrated, or with high neck and long sleeves. The closing is made at the back and the apron can be worn with or without a belt.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

FREE TO YOU—MY SISTER

Free to You and Every Sister Suffering from Woman's Ailments.

I am a woman.
I know woman's sufferings.
I have found the cure.

I will mail, free of any charge, my home treatment with full instructions to any sufferer from woman's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourselves at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is safe and sure cure for Leucorrhoea or Whitish discharges, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors, or Growths; also pains in head, back and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney and bladder troubles where caused by weaknesses peculiar to our sex.

I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that, it will cost you nothing to give the treatment a complete trial: and if you wish to continue, it will cost you only about 12 cents a week or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all old or young, To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in young Ladies, Plumpness and health always results from its use.

Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases, and makes women well, strong, plump and robust. Just send me your address, and the free ten day's treatment is yours, also the book. Write to-day, as you may not see this offer again. Address

MRS. M. SUMMERS, Box H - - Notre Dame, Ind., U. S. A.

At St. Louis, February 1st, No. 2 white Kaffir corn sold at $1.28 per 100 pounds.

10 DAYS FREE TRIAL We ship on approval without a cent deposit, freight prepaid. DON'T PAY A CENT if you are not satisfied after using the bicycle 10 days.

DO NOT BUY a *bicycle or a pair of tires* from anyone at *any price* until you receive our latest art catalogs illustrating every kind of bicycle, and have learned our *unheard of prices* and *marvelous new offers.*

ONE CENT is all it will cost you to write a postal and everything will be sent you free postpaid by return mail. You will get much valuable information. Do not wait, write it now

TIRES, Coaster-Brake rear wheels, lamps, sundries at *half usual prices.*

Mead Cycle Co. Dept. M270 ***Chicago***

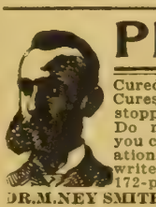
Farmers Sons Wanted with knowledge of farm stock and fair education to work in an office; $80 a month with advancement, steady employment, must be honest and reliable. Branch offices of the association are being established in each state. Apply at once, giving full particulars. **The Veterinary Science Association, Dept. 22, London, Canada.**

WATCH RING & CHAIN FREE FOR SELLING POST CARDS

We positively give FREE a STEM WIND, STEM SET, BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 5 years, and a beautiful Ring, for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch.

Ring and Chain. **WELLS MFG. CO., DEPT. 286, CHICAGO.**

SHORES-MUELLER CO.
Shores
REMEDIES
EXTRACTS SPICES
Wanted
Farmer or Farmer's Son
with rig in every County to introduce and sell Family and Veterinary Remedies, Extracts and Spices. Fine pay. One man made $90 one week. We mean business and want a man in your County. Write us.
SHORES-MUELLER CO., Dep't 65 Tripoli, Iowa



PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases.

DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

Paint Without Oil

REMARKABLE DISCOVERY THAT CUTS DOWN THE COST OF PAINT SEVENTY-FIVE PER CENT.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much. Write to Mr. A. L. Rice, Manuf'r, 66 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

Valentine Suggestions.

Children may be kept busy and at the same time educating the fingers to handiwork through the home-made valentine. It is now a very pretty custom to introduce the valentine box into the school, with the two provisos emphatically given: The valentines must all be of home manufacture, and there must be nothing to hurt the feelings of another. The names of all the pupils are then written on slips of paper, placed in a box, and each pupil draws one, to whom he is to give a valentine.

The requirement that nothing be given to detract personally from the enjoyment of another is a rule, the justice of which is self-evident. Happily, the old penny caricature is becoming more and more a thing of the past. While the comic postcard tends in some measure to keep step with it, this is as a rule less harmful. But you do not want the cards which cost money, even though only a penny. There are always some pupils who have a necessary use for all the pennies. And besides, the skill and taste developed in the valentine made by the child should not be underrated.

A few suggestions and some sheets of fancy paper will give the child employment for a few winter evenings and result in some very creditable valentines. One of the simplest and neatest is made of white paper cut into hearts of two or three different sizes and each with scalloped edge bordered with a line done in blue crayon, a dot or other ornament being placed in each scallop and the pieces held together with blue baby ribbon. The words "To My Valentine" in fancy letters may appear across the face of the upper heart.

Red cardboard and a bit of gilt paint will furnish material for the hearts seen in the fancy stores. Dainty heads cut from the magazines may adorn the center of each. Cupids are easily transferred, and darts may be gilded in various forms and fancy designs. A stencil pattern of hearts and darts could be made of thick paper, and made to do service for a number of valentines.

Tissue paper in white and colors admits of wondrous possibilities at very small cost. If you use the plain finish paper, fold a strip in quarter-inch folds, leaving a half inch plain for attaching it. Then cut across the folds in strips an eighth of an inch wide. When the slashing is completed you have a very dainty crimped fringe. Use three rows of this around the edge of a piece of oval cardboard, the middle one being preferably of some delicate tint. In the center paste a dainty picture—a photograph of yourself would be admirable; but the magazine advertisements supply a host if the photo is not at hand.

Crepe paper in delicate tints may be the foundation for numerous designs. Take a piece of cardboard of any convenient size, say three or four inches square. Cut a sheet of white crepe paper of the same size and a sheet of pink a half inch larger on each side. The margins may be plain or scalloped, as preferred. In the center of each slash two two-inch lines which cross at right angles. In the center of the cardboard paste a dainty picture. Bend the four corners of the paper forward at the points slashed and attach the sheets to the pasteboard with touches of paste or mucilage. The open portion in the center should be just large enough to show the picture.

If you have access to a fancy store, study the valentines displayed and adapt the patterns to your own materials and ability. A box of water-color paints and a sheet of drawing paper cut into small hearts, each bordered with and ornamented in some one color will require very little practice to obtain good results. And even though the first attempts may show the fingermarks of the novice, there are the larger ones of good will; and every honest and faithful attempt along any line of work gives skill for better things.—Bessie L. Putnam.

Water-drinking With Meals.

Pursuant to a tradition of long standing, it is a common custom to forbid the drinking of water at meal time. There was a time when such advice appeared most reasonable.

Professor Hawk and his pupils at the University of Illinois have been investigating, during the past few years, the correctness of the current attitude toward this question, with results quite at variance with the traditional idea. When the influence of water-drinking with meals was examined by direct experiment on man the alleged direful consequences were found missing. There were no apparent ill-effects. On the contrary, the general conclusion from all the findings was, that if water is taken with meals there is a better digestion and a more complete utilization of food. A pronounced improvement in the digestibility of fat was also observed.

Since there is a constant tendency, at least among persons whose knowledge of the given subject is slight, to carry to extremes conclusions derived from experiments, it seems worth while to add a warning against the indiscriminate and excessive use of large quantities of water. Furthermore, nothing that has been said is intended to lend any support to the American custom of drinking water that is ice-cold. The experiments of Hawk and his pupils indicate that our ideas with regard to the drinking of water must be revised, but we must wait for reports of observations from a larger body of observers. In the meantime, says The Journal of the American Medical Association, we may allow water more freely with meals, subject to the individual exceptions which experience brings out.

Regain Your Health.

You ought not to wait another day before trying Bodi-Tone, which many of your neighbors have used to the great and lasting improvement of their health. You ought to test it, because you can get it on trial and need not pay a penny unless it greatly benefits you. Read the liberal Bodi-Tone trial offer on last page of this paper and send for a box.

HEARS CHURCH BELLS AFTER LONG DEAFNESS.

For the first time in years this good lady, who has been deaf, hears the church bells. She is in ecstasy. Only this morning has she been able to hear the prattle of her grandchildren and the voice of her daughter. Twenty-three years ago she first found herself becoming deaf, and, despite numerous remedies, medical advice, hearing devices and specialists' treatments, she found it more and more difficult to hear. Of late years she was harassed by peculiar noises in the head, which added to her misery. At last she was told of a book which explains how to regain perfect hearing without costly apparatus or drugs. She got this book and learned how to quickly become freed from deafness and head noises. Observe her delight in this hypothetical illustration! Any reader of The National Farmer and Stock Grower who desires to obtain one of these books can do so free of cost by merely writing to the author, Dr. George E. Coutant, 228 A, Station E, New York, N. Y. He will be pleased to mail it promptly, postpaid, to anyone whose hearing is not good. This offer will bring joy to many homes.

The Kingman Implements.

The Kingman Plow Company, of Peoria, Ill., whose advertisement appears in this issue, are pioneers in the manufacture of labor-saving farm machinery of high grade, having been in business upward of forty years. Every Kingman machine can always be depended upon to be strictly up-to-date and made of the best steel and seasoned hickory. This firm prides itself especially on the quality of its output. A distinctive feature of this firm's business is to ship its machines as nearly set up as possible, which saves the buyer trouble and expense. The company has branch establishments at Omaha, Kansas City, St. Louis, Denver, Los Angeles, Stockton, Dallas, Milwaukee, Des Moines and Spokane. Address all inquiries to Kingman Plow Company, Dept. 101, St. Louis, Mo.

Read about our rose premium offer on page 31 of this paper.

QUICK HAIR GROWTH!

Brochure Free To You.

Would You Like Such a Result as This.

HERE IS THE TRUE METHOD

Let us prove to you that the Koskott Method of hair growing is the **genuine, scientific one.** We will send you a valuable brochure **FREE.** Our Method is directed at removing the cause, *dermodex folliculorum*—living micro-organisms—("germs") and opening the closed follicles so that the hair roots which are not dead, but dormant, (like a tulip bulb, or grass seed in a bottle) are given fertility **and a chance to grow. Ours is the treatment that MAKES GOOD** or you can use it **WITHOUT COSTING YOU A CENT.** Koskott is for men, women & children's heads, to clear scalp of **dandruff,** stop **falling hair** and to promote **growth of new hair.** We especially want you to answer this if you have wasted time & money in liquids, washes, soaps, etc., which accomplish nothing. We want to **surprise & delight you.** Write (a post card will do) mentioning you want our FREE BROCHURE.

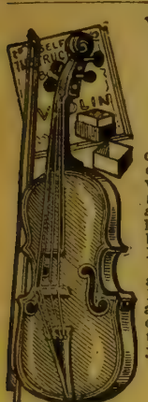
FREE

Koskott Laboratory, 1269 Broadway, 516C New York, N.Y.

MUSIC TAUGHT FREE

Home Instruction

We want to advertise and introduce our home study music lessons into all parts of America, and will give you absolutely free instruction if you will simply recommend the INTERNATIONAL INSTITUTE to your friends after you learn to play. We successfully teach Piano, Organ, Violin, Mandolin, Guitar, Cornet, Banjo, Cello and Sight Singing. You may not know one note from another; yet, by our wonderfully simple and thorough method, you can soon learn to play. If you are an advanced player you will receive special instruction. Our lessons are sent weekly. They are so simple and easy that they are recommended to any person or little child who can read English. Photographs and drawings make everything plain. If you accept our free tuition offer you will be asked to pay only a very small amount (averaging 14 cents a week) to cover postage and necessary sheet music. We have successfully taught others and we can successfully teach you. Write today for our Free booklet, which explains everything. It will convince you and cost you nothing. INTERNATIONAL INSTITUTE OF MUSIC, 98 Fifth Ave., Dept. 358, New York.



VIOLIN FREE

This is a fine, handsome, clear toned, good sized Violin of highly polished, beautiful wood, ebony-finished pegs, finger board and tail piece, one silver string, three gut strings, long bow of white horse-hair, box of resin and FINE SELF-INSTRUCTION BOOK.

Send us your name and address for 24 packages of BLUINE to sell at 10 cents a package. When sold return our $2.40 and we will send you this beautiful Violin and outfit just exactly as represented.

BLUINE MFG. CO.,
565 Mill Street,
Concord Junction, Mass.

THE GOOD OLD DAYS.

The good old days, the good old days,
When Adam and Eve wooed.
Eve did not yearn for taxicabs
Or want expensive food;
And after they were man and wife,
She did not turn her head
And point to some chap passing by
As one she might have wed.

The good old days, the good old days,
In Eve and Adam's time,
They do not keep a fourth-floor flat,
With marble stairs to climb;
He did not have to wake at five
And quit some pleasant dream,
And toddle to the basement cold
To get a little steam.

The good old days, the good old days,
Of Mother Eve's romance,
She never dragged poor Adam out
At night unto a dance;
No operas Metropolitan
E'er took him from his door.
There were no high-brow stunts like that
Good Adam's life to bore.

The good old days, the good old days,
When all the world was young;
Eve never made poor Adam eat
Boiled ham or potted tongue;
They knew not then cold-storage eggs
Or predigested chaff;
The safety razor wasn't known,
Nor was the phonograph.

The good old days, the good old days,
When Eve and Adam dwelt
In peace, he never had to wear
His trousers with a belt;
There was no woolen underwear
Or e'en a fuzzy hat,
And Eve was never known to say:
"Am I as fat as that?"

Detroit Free Press.

THE OLD EMOTIONS.

Blest be the old emotions—gladness, sorrow and care;
Tears from the heart upwelling in sympathy with despair:
Joy in a noble action, grief at another's loss,
The knightly nature of bearing with patience a heavy cross;
Scoff at the sentimental, but long as the world is true
There are hearts that will fell their pity for souls in the depths of rue.

Blest be the old emotions—the sob in the throat when men
Feel touched with the lofty pathos in music or word of pen;
The surging of happy feeling in the joy of another's life
When crowned with success at the summit of long and patient strife.
Scorn as you will the idea of softness of tear and smile,
There's something yet in the beauty of life that is not all guile.

Blest be the old emotions—and blest be the hearts that feel
The pang of a little sorrow, the leap of a joy made real;
Be not ashamed of weeping, and honor the tears that rise
From the deeps of a tender feeling when the mist-drops fill the eyes.
Be not ashamed of gladness, for a manlier thing than joy
Ne'er filled the world with beauty nor lifted it from alloy.

Blest be the old emotions—that they live and are constant yet
In an age of the rush and rumble, the worry and strife and fret;
That they claim us ever and ever and hold us true to the strong,
Sweet sense of the sentimental in picture, music and song.
Scorn it as idle fancy, but the wealth of a race is told
By the depth of its human feeling, and not by its minted gold.

—Baltimore Sun.

THE GAY LIFE.

He hurries every morning to catch a certain car;
He goes to work where hundreds of other toilers are;
His course is never varied; he has no time to stray;
The route that is the shortest he takes day after day;
He works upon a schedule that changes not at all
In winter or in summer, in springtime or in fall.

He starts in every morning, just as he did before,
To do a certain duty and never any more;
He has his thirty minutes at noon to rest and eat,
And when the day is ended he hurries to the street
To start his journey homeward, night after night the same,
Jammed in with other people who do not know his name.

He does not know his neighbors; to them he is unknown;
Beyond his little orbit his face is never shown;
He hurries every morning to catch a certain car;
At night he clings where other sad-faced straphangers are,
And wonders how the people exist out on the farms,
Deprived of social pleasures and all the city's charms.

—Chicago Record-Herald.

THE CHILDREN'S SONG.

Land of our birth, we pledge to thee
Our love and toil in the years to be,
When we are grown and take our place
As men and women with our race.

Father in heaven, who lovest all,
Oh, help thy children when they call—
That they may build from age to age
An undefiled heritage.

Teach us to bear the yoke in youth
With steadfastness and careful truth;
That, in our time, thy grace may give
The truth whereby nations live.

Teach us to rule ourselves alway,
Controlled and cleanly night and day,
That we may bring, if need arise,
No maimed or worthless sacrifice.

Teach us to look in all our ends
On thee for judge, and not our friends;
That we, with thee, may walk uncowed
By fear or favor of the crowd.

Teach us the strength that can not seek,
By deed or thought, to hurt the weak;
That, under thee, we may possess
Man's strength to comfort man's distress.

Teach us delight in simple things,
And mirth that has no bitter springs;
Forgiveness free of evil done,
And love to all men 'neath the sun.

Land of our birth, our faith, our pride,
For whose dear sake our fathers died—
O Motherland, we pledge to thee
Head, heart and hand through the years to be.

—Rudyard Kipling.

AN AMBITION.

To do my little day by day,
To help my neighbor if I can,
To strive with all my strength to play
My part as well befits a man.

To feel, no matter how I try,
My best has never been attained;
To keep an ideal always high
To see, but never to be gained.

To fail in deed, but not in thought,
To wish and strive with all my soul
For glories men have ever sought,
To sound life's depth, but not its shoal.

To live among the stars and dream,
Unwilling to be sordid clay,
And still keep hope when troubles seem
To make impossible my way.

—Detroit Free Press.

"Even the most up-to-date histories of this country say nothing about base ball; yet every history of Greece devotes approximately a chapter to the Olympian games."
—Exchange.

FARM with a TYPEWRITER

IT PAYS TO BE UP-TO-DATE

Pen-written letters are decidedly out of date for a live, wide-awake farmer.

WITH A TYPEWRITER YOU CAN

Sell your apples, potatoes, butter, eggs or stock—Typewritten Letters Bring Better Prices.

Order your 1912 grain, seed, machinery, repairs—Typewritten Letters Command Attention!

Trade. Work up a direct trade with town or city people by typewritten letters giving lowest prices.

Typewrite all your results. Know exactly what pays, what you spent, what you receive. Typewrite all accounts for easy reference!

Correspond. Typewritten letters look business-like and trustworthy. No better introduction than a good typewritten letter.

Copy Letters. A Typewriter will make a copy of your letter same time it writes. Copies protect you, remind you!

Educate the children. A Typewriter helps your boy or girl to spell, punctuate, write good English; fits them for good positions in city or town.

Improve the long winter evenings. Get busy with a typewriter. Let the boy or girl help you in your correspondence, etc.

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You can learn to work the typewriter in an evening and end by writing a letter. Speed comes with use.

NOW'S YOUR OPPORTUNITY!

In all the 25 years we have been selling Standard typewriters we do not know of such a Big Bargain as this Standard $100 Machine for $27.

The Remington Typewriter Co. recently put on the market a new model and took these No. 6 machines as part payment.

By an extraordinary deal we secured all they had. They have been thoroughly rebuilt, refinished, renickelled in our own factory. Now they Look Like New, Work Like New and will give perfect satisfaction.

Our Guarantee is equal to the manufacturer's original guarantee.

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Look us up! In Dun or Bradstreet, or ask your own bank.

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345-347 Broadway, New York.

Please send me full particulars concerning Free Trial Offer of Remington Typewriter for $27.00, without any obligation or expense on my part, as advertised in N. F. & S. G.

Name.....

Address.....

A GARDEN OF HARDY ROSES—FINE, STURDY PLANTS.

The Most Delightful Subscription Premium Offered By Any Farm Paper.

The National Farmer and Stock Grower has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee plants to reach you in good growing condition and with each package we send complete directions for planting, care and culture.

The collection, briefly stated, is: **Etoile de France,** the acme of perfection of hardy red roses; **President Taft,** an ever-blooming pink rose of superior merit; **Yellow Kaiserin,** rich canary yellow, that will thrive under most unfavorable conditions; **White Killarney,** the wonderful new "Irish Beauty," of surpassing elegance; **Helen Gould,** vigorous growing velvety red; **Marigold,** a most valuable variety for outdoor planting, producing deep, full, saffron-yellow flowers; **Clothilde Soupert,** the premium bedding rose with white, pink-tinted flowers, which always appear charmingly fresh and sweet; **Ever-blooming Crimson Rambler** is the eighth of the collection, making a total of the grandest collection ever grown.

OUR SPECIAL OFFER.

Send us **sixty (60) cents,** by money order preferred. We will send you **The National Farmer and Stock Grower** for one year. We will send you direct by mail, postpaid, the full set of **Eight Hardy, Ever-blooming Roses.** We will also send you a 16x20-inch picture entitled **"The American Beauty Rose."** The picture is most beautiful. There is a great bunch of roses resting on the white linen cloth of a table. It is glorious, magnificent. Send us **sixty (60) cents.** The paper can go to one address, the picture to another and the roses to another, or all three to one address. The roses are sent out directly it is safe to dig them in the spring.

HERE IS A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:—Gentlemen: Herewith please find sixty (60) cents. Please send me **The National Farmer and Stock Grower** for one year, the **American Beauty Rose Picture** at once, and the full set of **Eight Hardy, Ever-blooming Roses, one-year** plants, when it is safe to dig and mail them in the spring.

Name.....

Address.....

Don't Pay

Feel It First

You must be sure first, by feeling its power in your own body. You must be sure before you say a word or pay a penny. You must know *it is right*, must know *we are right*, must know *you are right*. You can be sure, can see, feel and know, by testing it for twenty-five days *at our risk*. Each day tells its own plain story, a story that has won the hearts of thousands. If you want to get well, here is your chance. Here is your chance to try, *without paying a penny*, a successful treatment which makes health by getting down to the first principles of the body, by following the only method which makes permanent health possible.

Don't pay a penny until you feel its benefits. Don't pay until you feel better all over your body. Don't pay until you feel stronger, more vigorous, eat better, sleep better, are better. Don't pay until your organs act more naturally, your pains are leaving you. Don't pay until you are sure this is the RIGHT MEDICINE for you.

This is how Bodi-Tone is being offered to every reader of this paper; this is how it is making health and saving money for the sick. If you want to stop the use of medicines, if you want to quit the doctors, if you want to stop the strain and drain of continual dosing, *tone your body and make it healthy with Bodi-Tone*, for healthy bodies need no medicine. The decision is all left to you. *You judge for yourself*, in your own time, in your own home, and judge it by what it does. It is often possible to judge within a few days, for when Bodi-Tone does its work there is a remarkable difference between the old and new body. Friends notice it, neighbors remark it and relatives rejoice in it. But Bodi-Tone wants you to take your time, *to see, feel and be sure*, to know its work is good, before you pay. Bodi-Tone does just what its name means—*cures disease by toning all the body*, and we want you to try a box at our risk and see what it will do for *your* body. Bodi-Tone is a small, round tablet, that is taken three times every day. Each box contains seventy-five of these tablets, enough for twenty-five days' use, and we send you the full box without a penny in advance, so that you can try it and learn what it is, so you can learn how it works in the body, how it *cures stubborn diseases* by helping nature to tone every organ of the body. Tone is a little word, but it means a great deal, everything in health. When all the organs are doing their part, when each is acting in a perfectly natural way, when all the functions are healthy and performed with natural vigor, when the energy, strength and power of resistance to disease are all at a n tural point, then the body is in proper tone. When disease has attacked any part, the tone of the entire physical body should be raised to the highest possible point, to make all the body help in the cure. This is the power which underlies all of Bodi-Tone's great work for the sick, this is the power it offers you to help you get new health and strength.

Not a Secret

The composition of Bodi-Tone is not a secret. Each ingredient that is used to make this splendid remedy *is fully described* in the Bodi-Tone book, sent free to every Bodi-Tone user. When you use Bodi-Tone you know just what you are using, know it is good and safe and know you are taking the kind of medicine to provide real help for the body. It is a pure remedy that satisfies the most exacting. It contains no narcotics or habit-forming drugs, nothing that can injure the stomach; it contains no ingredient that your own family doctor will not endorse and say is a good thing. It does not depend on killing pain with opium, cocaine, morphine, or other dangerous drugs It does not excite the body with alcohol, but it tones the body and cures its disorders with remedies Nature intended to tone and cure the body when that power was given them

Among the ingredients which give Bodi-Tone its great power, are Iron, to give life and energy to the Blood, Sarsaparilla, to purify it, Phosphate, to nourish the Nerves, Lithia, for the Kidneys, Gentian, for the Stomach, Chinese Rhubarb and Oregon Grape Root for the Liver, Cascara, to restore tone to Bowels and Intestines and Peruvian Bark for the General System.

Each ingredient Bodi-Tone contains adds a needed element from nature to the body. Each has work to do and does it well. We claim no credit for discovering the ingredients in Bodi-Tone, each of which has its own well-deserved place in the medical books of most of the civilized world. We simply claim the credit for the successful formula which we invented, for the way in which these valuable ingredients are combined, for the proportions used, for the curative force which thousands of sick have found in Bodi-Tone. Most of these ingredients are as old as civilization itself, for the curative forces Bodi-Tone uses are the forces which have always existed in nature for the restoration of the body. Many of its ingredients are regularly prescribed by the medical profession for various diseases and irregular conditions, being used either separately or in combinations with such drugs as each doctor may favor, for there are wide differences of opinion among the doctors of various schools. The *exact combination used in Bodi-Tone* is what makes Bodi-Tone's success in fighting disease, what makes it cure where doctors' treatments have failed. There is no other remedy made from this exact formula, which is Bodi-Tone's own, and which gives Bodi-Tone the curative and restorative power that makes possible the remarkable cures experienced by Bodi-Tone users, cures which prove the difference between Bodi-Tone and common remedies. That is why we want to send you a box of Bodi-Tone on trial, as soon as you write for it, for we know you will find it different and superior.

You Need It

If you are tired of ceaseless doctor bills and wearied of continual dosing without results, *you need Bodi-Tone right now*. If your local doctor is doing you no real good, if you have given him a chance to do what he can and the ordinary medicinal combinations he used have failed, give this modern, scientific combination of special remedies a chance to show and prove what it can do for you. Its greatest triumphs have been among men and women with chronic ailments who had tried physicians at home and elsewhere without getting permanent benefit, and for this reason all chronic sufferers are invited to *try it at our risk*.

Bodi-Tone offers its valuable services to you right now, right from this page, if you are sick, if you need medicinal help, if your bodily organs are not acting as they should, if your body is not in right and natural tone. That is what Bodi-Tone is for—to restore health, vigor, vitality and strength by restoring tone to the body.

If there is anything wrong with your Kidneys, Bodi-Tone helps to restore tone to the Kidneys, helps to set them right. If there is anything wrong with your Stomach, Bodi-Tone helps to tone the Stomach, helps to set the wrong right. If there is anything wrong with your Nerves, your Blood, your Liver, your Bowels or your General System, the health-making ingredients in Bodi-Tone go right to work and keep on working day after day, exerting always a definite action that produces curative results of the kind sufferers appreciate. If you have Rheumatism, Bodi-Tone helps to eliminate the Uric Acid from the system while it restores tone to the Kidneys, Stomach and Blood, thereby preventing a continuance of Rheumatic poison and putting new activity into muscles, nerves and joints. Bodi-Tone should be used by all women suffering from any Female Ailment, for its toning properties have been found especially valuable in such ailments. Men and women who are weak and run down from overwork, worry, or causes unknown to them, who feel their reserve force slipping away from them, and are losing their fight against the body's inefficiency, find new life in Bodi-Tone, as hundreds testify.

Easy To Get

Why delay another day, when a trial of this proven medicine is yours for the asking. Why keep on suffering, when by clipping the coupon, filling in your name and address and mailing it to us, you can get a twenty-five days' treatment of this great remedy which has already restored thousands to health, which folks everywhere are talking about. It just costs a stamp and you don't pay a penny unless it benefits you. You take no chances, for the value and curative powers of Bodi-Tone have been amply proven by three years of glorious cures. It is no longer a new remedy, but a remedy with a history—a history of cures that has astonished the doctors and delighted the sick. It has been tested in thousands of cases, covering a great variety of ailments in both sexes, at all ages.

Persons suffering from Rheumatism, Stomach trouble, Kidney, Liver and Bladder Ailments, Uric Acid Diseases, Female Troubles, Bowel, Blood and Skin Affections, Dropsy, Piles, Catarrh, Anaemia, Sleeplessness, LaGrippe, Pains, General Weakness and Nervous Breakdown, have tested Bodi-Tone and fully proven its great remedial value in such disorders.

Many who have for years been in poor health and tried most all of the prominent medicines, have found that *one single box of Bodi-Tone* did more good than *all* the others combined. Bodi-Tone makes up and repays for past sickness with a *strong and virile health* that is often better than the sufferer knew for a long time before sickness began to trouble. It makes the body right, with its maximum strength, vigor and vitality, which it may not have possessed for years previous, even when in fair health. Bodi-Tone works what seems a miracle by *putting tone where tone was needed*. Read the reports, send the coupon today, get a box promptly, and try it.

Reports of Cures

FRIEDENS, PENNA.—Bodi-Tone has done much for me. I was just all worn out and was not able to walk more than a mile before I was so weak and out of breath. I could get but little solid sleep for years and felt tired in the mornings as if I had done a hard day's work. I tried patent medicines until I was disgusted and doctor's medicines without lasting benefit. I had Catarrh and Throat trouble and my Heart, Liver and Kidneys were all more or less out of tune. When I I would lie down to sleep my nerves were all on the go with such an uneasy feeling. When I first saw the big Bodi-Tone advertisement I thought it was simply another patent medicine, but the name was attractive and I read it and sent for it. I am glad that I did, for it is the best medicine that I have ever used. I can sleep like a healthy child, walk, eat and do light work I am gaining in weight and strength every day. I am past my seventy-third milestone and am now well, cheerful, happy and contented, thanks to God and Bodi-Tone. I am feeling many years younger and am told by my neighbors that I am looking remarkably well. Mrs. ROSA SPANGLER.

COOPER, TEXAS.—I was down with Muscular Rheumatism for nine long weeks and came very near dying. My physician pulled me through, but when I got up out of bed I was so weak that I could hardly do anything. The Rheumatism had left me in such a condition that I was almost a physical wreck. My limbs and body were swollen terribly, and I was so nervous and so weak that I could not stand to do any kind of work, nor did I seem to get any better. At this time I learned about Bodi-Tone and sent for a box to try. The swelling began to leave my body within a short time after I began its use and the nervousness and weakness gradually disappeared. I could ride and plow all day before I had used two boxes, and do all of my work about the place without feeling the least worried. I feel like a different man since I began to use this remedy, and cannot praise it too highly. W. N. ROGERS.

GYPSUM, KANSAS.—When I sent for Bodi-Tone I suffered severely, and could get no relief for two years, even while taking treatment from the doctor. I thought the trouble was in my stomach, but the doctor said my Liver was enlarged. I also had Female Trouble, which was very bad. My doctor said if I did not quit work I would have to have an operation sooner or later. I was so nervous I could not sleep at night and could not settle myself to work at any one thing but a short time. I had no appetite, in fact I was so discouraged that I cared very little whether I lived or died, I was in such misery. I had not taken many more than a dozen doses of Bodi-Tone when my terrible backache all left me and the distressing bloating in my stomach disappeared. After I had been taking Bodi-Tone a little while my troubles all seemed to leave me at once, as if by a miracle. I went to bed and slept like a babe and could work all day and never feel tired. It is a wonderful medicine and so handy to take, always ready. My friends say I look as fresh and young as a girl, which shows how wonderfully Bodi-Tone has helped me. EFFIE E. DUELBISS.

Trial Coupon

Clipped from Nat'l Faamer and Stockgrower

Bodi-Tone Company, Hoyne & North Aves., Chicago, Ill.

I have read your offer of a dollar box of Bodi-Tone on 25 days' trial, and ask you to send me a box by return mail, postpaid. I will give it a fair trial and will send you $1.00 promptly when I am sure it has benefited me. If it does not help me I will not pay one penny and will owe you nothing. Neither I nor any member of my family have ever before used Bodi-Tone.

Name _____

Town _____

State _____

St. or R. F. D. _____

Bodi-Tone Company,- Chicago.

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Vol. XXVII. St. Louis, Mo., March, 1912. No. 3.

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A GARDEN OF ROSES—FINE, STURDY PLANTS.

The Most Delightful Subscription Premium Offered By Any Farm Paper.

The National Farmer and Stock Grower has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee plants to reach you in good growing condition and with each package we send complete directions for planting, care and culture.

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deep, full, saffron-yellow flowers; **Clothilde Soupert,** the premium bedding rose with white, pink-tinted flowers, which always appear charmingly fresh and sweet; **Ever-blooming Crimson Rambler** is the eighth of the collection, making a total of the grandest collection ever grown.

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and Stock GROWER

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Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions for a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of

hand and prevents chafing. The strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Seedtime and Harvest.

The Secretary of Agriculture directed an investigation to be made concerning the dates of sowing and harvesting, and that the results be published in a series of bulletins. The first of these, entitled "Seedtime and Harvest; Cereals, Flax, Cotton and Tobacco; Dates of Planting and Harvesting in the United States East of Meridians 102-104," has just been issued.

"Because southern latitudes are first to feel the advance of spring," says the bulletin, "it is quite natural to suppose that planting and harvesting always move northward with its advance. As a general fact, the progress of sowing and harvesting is northward, but there are interesting exceptions. Of cereals sown in the spring, sowing and harvesting always move in a northward direction, while of those sown in late summer or fall the sowing movement is always southward. Harvesting progresses northward in the case of all cereals except buckwheat. Corn planting progresses northward; winter-wheat sowing moves southward. The harvesting of corn and of winter wheat progress northward, but the sowing and harvesting of buckwheat progress southward."

The sections of the United States wherein corn planting begins simultaneously are shown by means of a map crossed by lines extending from east to west. As shown by this map, corn planting begins in Southern Florida and in Southern Texas about February 15 in normal years. Fifteen days later it is in progress in Northern Florida, Southern Louisiana and Central Texas, and by May 15 it has progressed as far north as Southern Maine, New Hampshire and Vermont, Central New York, Northern Wisconsin, Minnesota and North Dakota.

"In interpreting the map," to quote further, "it should be remembered that there are many causes which influence the times of sowing and harvesting, and, while a line connecting places which sow or harvest simultaneously will run in the main from east to west, there are curious irregularities, deviations here and there, depending primarily upon altitude, rainfall and character of soil. An increase in altitude is analogous to an increase of latitude, and therefore when these lines cross the higher altitudes they will naturally bend toward the south. In regions of great annual rainfall, the line will also bend southward, due to physiological peculiarities of plant growth. While the waters of the Great Lakes undoubtedly mitigate the severity of the continental climate in that vicinity, yet they also delay seasonal changes and thus retard spring growth and hence cause a later harvest. This explains why the lines in the vicinity of the Great Lakes are bent southward."

Relative to the rate of progress of corn planting, the bulletin says: "At the starting point, near Brownsville, Tex., planting begins on the average date of February 10. The movement reaches the Texas-Oklahoma line on the mean date of March 12, and, therefore, crosses Texas in thirty days, or at the rate of eighteen miles per day.

"From the time this movement starts at the Texas-Oklahoma line until it reaches the Oklahoma-Kansas line twenty-five days elapse. The distance from one state line to the other is 220 miles. Planting, therefore, moves northward through Oklahoma at the rate of nine miles a day. The rate of progress through Kansas is ten miles; through Nebraska, nineteen miles; through South Dakota, fifty miles; and through North Dakota, forty-four miles per day."

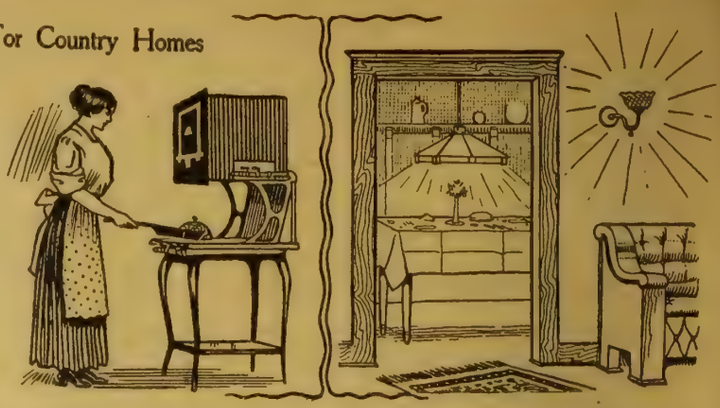
The soil temperature at which corn germinates has been ascertained by numerous tests in field and laboratory. The air temperature at which corn planting takes place in actual practice, however, has not heretofore been established, but from data assembled in this bulletin it is believed to be approximately fifty-five degrees Fahrenheit. Air temperature records at corn planting time in the vicinity of 127 cities east of the Rocky Mountains are given in tabular form.

Compilations of dates of sowing and harvesting by states, by sections of states and units (tracts of seventy miles square) are given for corn, wheat, oats, rye, barley, buckwheat, flax, cotton and tobacco; maps and illustrations explain the text; and interesting discussions are given of the phenomena of seedtime and harvest.

Mr. L. A. Snyder, of Twin Falls, Idaho, raised 430 bushels of potatoes per acre in 1911 and 644 bushels in 1910. In each year he won a $500 prize offered by the Oregon Short Line for the best yield of potatoes on one acre in Idaho, Montana, Oregon, Wyoming and Utah.

All the sheep in the state of Oklahoma would not make a large day's run for the Chicago market.

For Country Homes

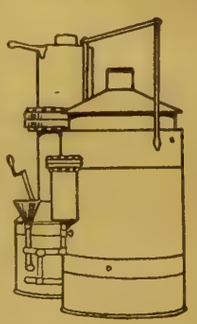


Cooking Fuel and Illuminating Gas
Made at Home with a Little Machine Like This

ABOUT once a month this machine must be refilled with gas-producing stone and wound up like a clock.

When obediently it stands idle until you start to cook or turn on the lights.

Then, with no attention whatever, it gets busy and makes gas automatically—just enough to keep your stove and your lights going.



The stone, known commercially as "UNION CARBIDE," gives up its gas when the machine drops a few lumps into plain water—a little at a time as the gas is wanted.

The gas is genuine Acetylene. Burned in handsome chandeliers it gives a flood of brilliant pure white light.

Burned in the kitchen range, it makes a hot blue fire that can be instantly turned up or down, on or off.

For both cooking and lighting it is used exactly as city gas is used by over twenty million city people.

As a fuel, it flows right into your stove without handling and burns without soot or ashes.

As a light, its white, sunlike beauty is unrivaled. Reflected from handsome globes suspended from brass or bronze chandeliers, it supplies the up-to-date city-like appearance of refinement and elegance which the average country home lacks.

Moreover, it is not poisonous to breathe, and the flame is so stiff the wind can't blow it out.

* * *

The UNION CARBIDE you dump in the machine once a month won't burn and can't explode.

In a nutshell, one of these gas machines installed in the cellar or an outbuilding of a country home solves the *lighting* and *cooking* problems for all time.

And they are so easy to install in any home without injuring walls or carpets that there are now over 180,000 Acetylene Gas Machines in actual use.

We manufacture and our agents arrange for installing thousands of them every month in all parts of the world.

There are, of course, many crude imitations of our machine on the market, but the genuine is easily distinguished by its name and our trade-mark

"Pilot" Acetylene Generators

On the first return mail we will send you free literature telling how Cornell University has been growing plants by our light — why oculists recommend it for eye-strain — why the Insurance Engineers pronounced it much safer than kerosene — how the lights can be placed in barns and outbuildings — how they can be equipped to light up without matches — and how the gas range shortens kitchen hours and makes cooking a pleasure.

With these booklets telling all this wonder story, we will send figures showing how little a "PILOT" lighting and cooking equipment will cost in your case.

Just write us how many rooms and buildings you have to light and where you are located. Address your letter to the ACETYLENE APPARATUS MFG. CO.— 68 Adams Street, Chicago, Ill.

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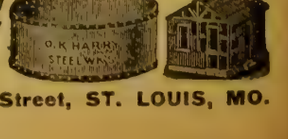

O. K. HARRY STEEL WORKS, 2353 Papin Street, ST. LOUIS, MO.

Health and Comfort on the Farm.

A very successful city attorney was telling the writer a few days ago about an orange orchard of his from which he is now gathering about $5,000 worth of oranges yearly. But the orchard is a long distance from the present dwelling place of the owner, and so all the work has to be done by proxy. The owner was asked why he did not go to the place where the orange grove is located and settle down there. He replied that he had no desire to live in the sub-tropical climate of that region, but that he hoped some time to get back to the soil. This was a surprising statement, for this man has a very beautiful home in an ideal location, and has all the comforts that modern conveniences can give. Yet he was looking forward to farm life as being better than all the luxury that the modern city can give him.

Health and comfort may be found in the city, but they are more certainly to be found on the farm. In the growing of plants and animals many a city man finds more of interest than of the dull routine of business affairs in the city. He, the city man, looks forward to the time when he can do the very things that many a farmer wishes he could escape from doing. But the city man knows that there is a ruddier health and a solider comfort to be found in the country than elsewhere.

A great many of the city men that are longing for farm life are men that were brought up on farms and learned the business of farming while they were still young. They are not inexperienced dreamers. They have tried both ways of living and know that on the farm it is possible to find the ideal condition of life.

The city man, no matter how successful he may be, cannot escape certain unhealthful conditions that surround the people in all congested localities. The rich city business man must breathe into his lungs the soot-laden air, impregnated with the vomitings of ten thousand chimneys. The examination of the lungs of some city men have shown them blackened with the coal dust so thinly intermixed with the atmosphere that it is hardly observable by the eye, when it is still making up a part of the air. On the farm the air is pure and human lungs retain their natural tints.

To the man in the great city the sun rises late and sets early, because his sky is narrowed by the towering buildings. At nine o'clock he sees the sun rise over the tops of the roofs to the east of him, and at three o'clock it sets in the west of his sky, slipping out of sight behind the roofs. His day has six hours of sunlight and eighteen hours of obscurity. On the farm the sun in the summer time is shining above the dewy hilltops early in the morning and goes down late, giving the farm dweller sixteen hours of sunlight and only eight hours of obscurity. The country sky is bounded by green fields and splendid trees, and these make a part of the comfortable conditions in the country.

Poverty and Waste.

One of the great tasks of a growing civilization is to utilize properly the things that nature produces for the use of man. The inability to avail itself of the usable things has been one of the chief causes of the poverty of the race, for poverty has been found in every nation.

What one section of the country cannot afford to buy another section has to throw away because there is no market for it. Even to-day in Washington and Oregon there are sections of land where stately trees are being cut down and burned, because it would cost more to get them to the saw mills than they would be worth.

The waste of wood is one of the wastes that is most striking, for it is observable in almost all parts of the country, with the exception of the arid and semi-arid plains. If we take a stroll through almost any private forest we will find fallen trees or the ground strewn with great branches and limbs of trees, with other limbs and branches and trunks of trees just disappearing into mold, the process of decay having well advanced.

Where mountain sides are hard to climb will be found all kinds of dead and decaying fragments of wood, over which one must climb with difficulty. The amount of wood thus going to waste in this one nation is beyond all calculation; certainly it is more than enough to warm all the houses where people every year suffer from cold. This thought is impressed more when one walks through a forest where lumbering operations are going on. The ground is littered with great, substantial chips produced by the labors of a multitude of choppers; yet they must go to decay or be consumed by the flames that run riot over them sometimes in a dry summer.

We have not yet solved the problem of preventing the decay of all kinds of food elements. The loss from the decay of fruits amounts to an unguessable figure each year. There are two parts to this loss: The loss of fruits not gathered, as the wild fruits like blackberries and blueberries, and the loss from decay of fruits that are gathered. Our canning factories do something to prevent this waste, but they do not affect the fresh fruits that are annually lost in large quantities as well as in small lots. A walk down South Water street, Chicago, the great fruit-distributing center of that city, will show at the close of any day a very large amount of decaying fruit and vegetables hauled out to be carted away. The writer remembers seeing a barrel of apples among this garbage, each apple of which had begun to rot some, but of which most of each apple was still sound. Yet there was nothing to do but dump such a barrel of fruit into the garbage heap, as it could not be sold to any retailer and no stock was available to consume it. Passing from the methods of distribution into the homes, we can each note how much waste of good material goes on through rotting and decay in various forms. Multiply this loss by twenty millions and we can form a slight estimate of what the grand total must be.

This waste has been going on since man existed in the world, and at the same time people have been suffering from hunger, cold and lack of clothing. The problems how to save and to utilize what we have is of such magnitude that it is worthy the best thoughts of our best intellects. The solution of the transportation problem is a big factor in the solution of how to prevent waste.

Household Repairs.

A good way to completely transform a bedroom when the furniture has become old and shabby is to give every piece of furniture several coats of paint. The first thing to do is to sandpaper it smooth, and while this is tedious, it is very necessary. Then give each piece a coat of white-lead paint, and when this is dry it must be followed by a second coat, and the third coat must be an enamel finish. A lovely polish may be obtained as effectually as if the most expensive workmen were employed.

The brass top of a lamp can be fastened to the bowl by applying melted alum. Melt the alum and while it is hot cover the inside of the brass top with melted alum, put in position and your lamp will be as good as new. If the brass part of the lamp has become dull or discolored, get some bronze at the drug store and put it on your lamp as you would bronze any article.

A good way to mend cracks in the floor and wall is to fill with soft putty and work it in well with the fingers; then use a knife for making it perfectly level with the boards and the wall; and the putty can be used for filling cracks in nice furniturn before painting and for mending the kitchen table, and the weekly scrubbing will have no bad effect upon it.

When hemming a table cloth, save the ravelings for darning the linen, and when a table cloth or any table linen begins to wear thin, it should have a very light rubbing in the laundry or it will soon go to pieces.

The best way to clean the old soft linen as well as the nice new pieces is to dissolve some soap chips in hot water, then stir this into warm water, put in the pieces and let them soak for an hour, then a very little rubbing and a good rinsing will leave them beautifully white.

If there are worn places in pieces of lace or nice white waists, darn them neatly and wash them in suds made with the Twenty Mule Team Soap Chips, as they soften the water and whiten the fabric, and the articles need no rubbing, as they can be cleaned perfectly by pressing and squeezing between the hands.

When table cloths become too worn for further use, cut the best parts into small cloths, and the worst worn-out pieces are invaluable in cases of illness or for wounds.—A. M. H.

Two expert poultrymen, C. B. Ford and D. W. Tobey, have started a station for milk feeding chickens at Rochelle, Ill., on the C. & N. W. Railroad, seventy-five miles west of Chicago. The plant will provide for handling 25,000 chickens.

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SPLIT HICKORY WHEEL CO., 567 F St., Cincinnati, Ohio.

St. Louis Hog Prices.

On February 29th, the St. Louis hog market had a top price of $6.60 per 100 pounds for choice loads, 248 to 296 pounds average. Mixed hogs went to the packers at $6.00 to $6.25 that classed as fair, while the better ones sold at $6.25 to $6.45. Butcher and good heavy hogs sold at $6.45 and higher. A good many lightweight hogs sold at $6.00 to $6.45 per 100 pounds.

Ten-car Shipment of Texas Cattle.

A ten-car shipment of handyweight steers that averaged a little over 1,000 pounds sold at $6.25 per 100 pounds in the quarantine division at St. Louis. They were shipped by Mars & Marshall, well-known and extensive cattle feeders of Commerce, Tex. They were two-year-olds and were meal-fed and of very good quality.

Arkansas Steers at $5.80.

The top of the Arkansas steer trade for some time was paid to R. A. McCain, of Prairie county, Arkansas. This sale was made February 28th. There were twenty-one head, 1,060 pounds average, and the price paid was $5.80. On February 29th another load of Arkansas steers, 1,013 pounds, sold at $5.45 per 100 pounds.

St. Louis Horse Quotations.

The following quotations for the general run of horses sold on the St. Louis market represent average views of the trade, as follows: Heavy draft, good to choice, $200 to $235; Eastern chunks, $165 to $200; Eastern chunks, lacking quality, $135 to $160; Southern horses, good to extra, $125 to $150; Southern horses, fair to good, $100 to $125; Southern horses, common, $40 to $65; drivers, choice, $150 to $175; plugs, $20 to $30.

GOOD BOOKS AND PAPERS.

THE SPANISH PEANUT AS FEED by H. M. Cottrell, Agricultural Commissioner Rock Island Lines. This is a very valuable contribution to agricultural literature, specifying the good points in regard to the production of Spanish peanuts, describing the country where they can be raised profitably as feed for dairy cows, cattle, hogs, sheep and horses, poultry, also a crop for dry sections. To get a free copy, write to L. M. Allen, Passenger Traffic Manager Rock Island Lines, 411 LaSalle Street Station, Chicago, Ill.

POULTRY GROWERS' GUIDE FOR 1912.—This is published by Cyphers Incubator Company, Buffalo, N. Y., and although it is for the main purpose of illustrating their incubators and brooders, it contains eight of the best poultry articles ever written. This book weighs a pound; it will cost them 16 cents to mail a copy to you, but they will send every reader of The National Farmer and Stock Grower a copy who will simply address Cyphers Incubator Company, Dept. 56, at Buffalo, N. Y., and ask for Poultry Growers' Guide for 1912.

AMERICAN FENCE NEWS.—This contains a large amount of instructive matter concerning fencing; how to buy and erect it properly in a very effective manner. Write to F. Baackes, V. P. & General Sales Agent, 72 West Adams street, Chicago, Ill., and ask for a copy. It also includes a fine line of instruction concerning steel posts and gates.

DISSTON SAWS AND TOOLS FOR THE FARM.—This is published for the purpose of showing farmers what first-class tools are like, and it is an elegant work of art. Henry Disston & Sons, of Philadelphia, have been making Keystone Brand Tools for seventy-two years. These tools are sold all over the United States. We advise our readers to address Henry Disston & Sons, Box 1537-M, Philadelphia, Pa., and ask for a copy of their Free Book of Saws and Tools.

SEED AND PLANT GUIDE.—This is a splendid seed catalogue for use of general farmers and for vegetable growers. It is handy in size and contains 160 pages of illustrations of Buckbee's "Full of Life" Seeds." Information concerning Buckbee's New Masterpiece Tomato alone is worth writing for. Free copy can be had by mentioning this paper and writing to H. W. Buckbee, Rockford, Ill.

FENCING CATALOGUE. — Kitselman Brothers, fence manufacturers of Muncie, Indiana, have just completed their large catalogue of fencing. Their prices are extremely low when you consider the high quality of their fencing. Prices range from 11½ cents a rod up. See their ad. in this issue and write them for free catalogue. Address, Kitselman Brothers, Box 261, Muncie, Ind.

HOW TO KILL QUACK GRASS.—The Department of Agriculture has issued Farmers' Bulletin No. 464 on "the eradication of quack grass." Quack grass is well known to most farmers all the way from the Atlantic to the Pacific in latitudes north of the Ohio and Potomac rivers. It is one of the most serious weed pests known in America. The grass grows under a great many different names, among them couch grass, witch grass and twitch grass. The author of this bulletin has spent a number of years making a close study of the grass under field conditions all over the Northern United States. Based on this thorough knowledge of the field habits of the grass, experimental work was started, which quickly resulted in a complete, cheap and practical method of eradicating the pest. Farmers' Bulletin 464, embodying this work, can be had by applying directly to the Department of Agriculture at Washington, D. C.

BETTER FARM IMPLEMENTS AND HOW TO USE THEM.—This is the title of the agricultural implement catalogue recently issued by the John Deere Plow Company. It is a remarkable book of 147 pages, giving illustrations of forty-two different classes of implements and including a good dozen of special articles on the use of farm implements. This particular book is the one advertised on page 7. It is included in Package No. X-7, which all farmers can obtain by writing for it to John Deere Plow Company, Moline, Ill. The chapter giving historical reference to the invention by John Deere of the first steel plow is alone worth writing for.

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Settlers are wanted—real men and women who will help develop the tremendous resources and make the country what it is bound to be—a great farming community. You will find a hearty welcome there and you will share in the profits that a new country always enjoys.

We want *you* to be one of the elect.

We want *you* to reap the reward of the man who sees ahead.

We want to show *you* where you can take a small capital and in a few years make the land earn for you a fine farm, a good home and a bank account besides.

The soil in the Panhandle is deep, rich, durable. It is well adapted to general farming and successfully grows all of the cereals, garden and (where they have tried it) orchard crops as well. Where irrigation is practiced alfalfa is a staple and there is a ready market for all that can be grown.

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Write to me this week. I will mail you our Panhandle and South Plains booklet. It tells about this great new farming country that has been prospected for years but only now is being seriously developed.

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Is triple-geared so both grinding rings revolve in opposition to each other—giving it a Double Cut and doubling its capacity.

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Also Power Grinders, Gasoline Engines, Scales, Farm Derricks.

Make $25 to $50 Weekly

selling the Automatic Combination Tool in your home county. A Fence Builder's Tool, Post Puller, Lifting Jack, Vice, Wrench, etc. Used by Farmers, Teamsters, in Factories, Mills, Mines, etc. Weight 24 lbs. Capacity 3 tons. No experience necessary. Free instruction. Write for special offer to live agents. Send no money. Name county where you live.

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Box 199 Bloomfield, Ind.

Fill your **SILO** with a **DICK** **BLIZZARD** Ensilage Cutter. Capacity, 4 to 15 tons pr hour, requiring 3 1-2 to 12 h.p. Will ship on trial, if desired.

We also sell **STOVER GASOLINE ENGINES.**
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

GOVERNMENT JOBS FOR FARMERS.

On May 4th, Railway Mail Clerk Examinations will be held everywhere. Several thousand appointments, commencing at $800 with rapid advancement to $1,100 or $1,200, will be made from these examinations, as it is a year and a half since the last examinations. Railway Mail Clerks usually have every second week off duty with full pay. The work is very pleasant, traveling continually. Interested readers should write immediately to **FRANKLIN INSTITUTE, Dept. W 107, Rochester, N. Y.,** for schedule showing examination places and for free sample questions.

A PRACTICAL FARMER desires employment on farm for the next year. Good reference furnished. Address, W. F. S., care National Farmer and Stock Grower, 3550 Vista Ave., St. Louis, Mo.

VETERINARY COURSE AT HOME.

$1200 year and upwards can be made taking our Veterinary Course at home during spare time; taught in simplest English. Diploma granted, positions obtained for successful students; cost within reach of all; satisfaction guaranteed; particulars free. **Ontario Veterinary Correspondence School, London, Can.**

BUCKEYE MOWER and BINDER **REPAIRS**
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Corn Prizes For Boys.

The Missouri Corn Growers' Association, co-operating with the Missouri College of Agriculture and the State Board of Agriculture, has perfected plants for organizing a statewide corn-growing contest among Missouri farm boys during the season of 1912. Every farm boy in Missouri between the ages of 10 and 20 is eligible to membership in this contest and should join. He will not only learn much about growing corn, but his attention will be directed to many opportunities that intelligent effort affords along other lines of good farming as well.

It is planned to enroll as many boys as possible in this contest and to give them practical instruction in growing corn. Circulars telling how to select seed corn, how to test it for germination, how to plow and prepare the ground, and how to plant and cultivate corn according to the most approved methods will be sent to each boy enrolled.

At the State Corn Show held at Columbia next January by the Missouri Corn Growers' Association valuable prizes will be offered to those boys who grow and select the best samples of corn and to those who grow the most corn on an acre of ground with the greatest profit. Last year three boys each grew over 105 bushels of corn on an acre of ground. One of these won $56 in cash prizes and sold his corn for $85. It cost him about $20 to grow his corn, which left him a net profit of $121 for his acre of corn. Prizes will also be offered at the State Fair at Sedalia and at many local Corn Shows all over the state next fall for corn grown by boys in this contest.

In many localities local corn-growing contests are being organized by County Superintendents, bankers, merchants and other business men, local Corn Growers Associations and Farmers' Clubs of various kinds, and the boys enrolled in these become members of the State Contest when their names are sent to the Secretary of the Missouri Corn Growers' Association. Where these are organized the boys should join them, but where none is organized, a boy can join the State Contest by sending his name, age and address to the Secretary of the Missouri Corn Growers' Association, Columbia, Missouri, who will enroll him and send him circulars on corn growing. This is an opportunity that no boy who wants to learn more about farming can afford to miss. Write to-day for any further information desired.—C. B. Hutchinson, Secretary Missouri Corn Growers' Association, Columbia, Mo.

Hog Raisers' Insurance.

The purpose of Merry War Lye is not to bring dead hogs to life, or even to cure the hog that has reached the dying condition, but rather to prevent disease and to restore those hogs that have begun to show signs of sickness. Merry War Lye costs but 10 cents a can, and by writing to E. Myers Lye Co., Dept. 22, St. Louis, Mo., for the booklet "How to Get the Biggest Profits From Hog Raising" you get an instruction book that is worth having. Do it now before your hogs are in danger.

Our readers will do well to read the advertisements in this paper. One or two issues every spring this publication is a little crowded, but the advertising is worth just as much to our readers as anything else we could publish at this season of the year.

IF YOU

are at all interested in

Home-Mixed Fertilizers

I would like to send you my book on the subject. It contains full information, formulas and lots of information to farmers who want to get the most and the best for their money. The book will be sent free upon request by post card from you.

Dr. WM. S. MYERS, Director of Propaganda
17 MADISON AVENUE, NEW YORK
No Branch Offices

The "Pulverator" Makes Better Seed Beds In One-Half the Time

Wonderful NEW Principle. Cultivates, Pulverizes, Levels and Packs. **All at once.** Saves Plowing, Work, Time and Money. Write for FREE literature. Address

NAYLOR MFG. CO., - - Box 43, Plano, Ill.

"NEW IDEA" Manure Spreader Full of New Ideas

Yes, sir, full of them—24 points of exclusive merit over any other spreader. Note these—carries twice the load—lighter draft—wider, evener spreading—no choking—yet it tracks with standard wagon.

Write for full Information

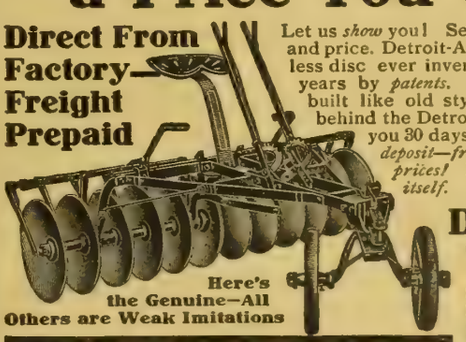
Our catalogue is a book you ought to read to find out how the New Idea Spreader has gone ahead while others stand still. Ever hear of the great Hartman contest? You never will—from others. Let us tell you. Write for complete literature today.

NEW IDEA SPREADER CO.
126 Sycamore Street, Coldwater, Ohio.

Quality You Can't Equal —a Price You Can't Beat!

Direct From Factory—Freight Prepaid

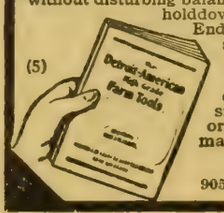
Let us *show* you! Send name on postal for book and price. Detroit-American is first *genuine* tongueless disc ever invented! Features protected for 17 years by *patents*. All other "tongueless" discs are built like old styles with tongues cut off. Years behind the Detroit-American. No one else will give you 30 days' trial with *money in your pocket—no deposit—freight paid, cash or credit* and *factory prices!* No other harrow *good enough* to *sell itself.*



Here's the Genuine—All Others are Weak Imitations

Detroit-American Tongueless Disc

Sold Direct from Factory Complete, with Hitch Free. The only all steel tongueless disc made. Practically no chance of breakage—no repairs—no delays—no waiting for new parts—no express bills. Steel wheels have wide tires. Steel axle is high arched and gives good clearance. Trucks are flexible. Wheels pass over uneven places and stones without disturbing balance. Double levers—each section works independently. Adjustable holddowns insure uniform depth of cut. Disc sections do not strike together. End thrust taken up by a hard maple ring bearing. Only harrow with steel separators between blades. Hitch free to suit size of harrow.



Mail Postal Now! Get our big book which fully explains the above and many other features. Detroit-American All Steel Harrows are made in sixteen sizes, cut from 4 ft. to 10 ft. in width, 16, 18, or 20 inch blade as ordered and cutaway style if desired. Book also shows world's best manure spreaders, engines and cultivators. Send your postal now.

AMERICAN HARROW COMPANY
9055 Hastings Street Detroit, Michigan

Parcels Post Letter Day.

March 18th falls on a Monday, and it is the day set apart for farmers to write to their Congressmen and Senators to work and vote for a good, substantial, general parcels post law. There is nothing wrong or revolutionary in this. Pretty nearly every other country has it, and there is absolutely no reason why this country should not adopt it. What is needed is a general parcels post law for the good of every citizen, no matter whether he lives in a big city, a town, a village, or on a farm. The packages should have reasonable limitations as to size and weight, and there should be no attempt to turn the mail wagon into a freight wagon.

A bill before Congress now, which has the practical endorsement of the President and the Postmaster General, appears to provide for a good beginning—beginning at the rural route. Up to date there are more petitions in Congress against parcels post than for it; it is therefore up to the farmer to put his weight and influence in the scale; therefore be sure to mail at least three letters on Monday, March the 18th, one to the Representative from your own district and one to each of your United States Senators. A sample letter would be as follows:

Sample of Letter.

Hon.....

U. S. Senator, Washington, D. C.:

My Dear Sir:—I have the honor to address you in favor of the Postoffice Department being required by law to institute a parcels post for the use and benefit of the people at large, beginning with small towns and rural carrier routes. I believe the time has come when a parcels post law is absolutely necessary for the benefit of all American citizens. With best wishes for your health and continued success as a legislator, I am, My Dear Sir,

Very Truly Yours,

Signed.....

Postoffice.. .....

Date.. .....

Such a letter, or any letter a farmer may see fit to write on the parcels post, should not be neglected. The voice of the farmer should be heard in the land and especially in Washington, D. C.

GRAND SUBSCRIPTION OFFER.

A Splendid Magazine One Year—The Ladies' World—National Farmer and Stock Grower One Year—Eight Standard Grapevines—All For One Dollar.

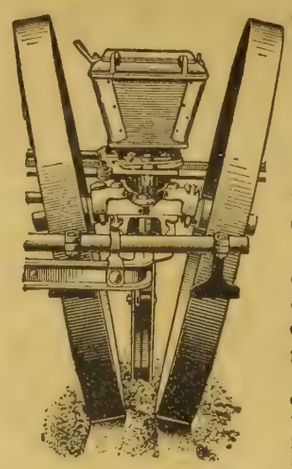
This is a startling subscription offer, especially valuable to farmers' families and to anyone who owns a home. **"The Ladies' World"** is a monthly magazine, forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful, splendidly edited, lovely stories, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets. Collection of **Eight Two-year Standard Grapevines.** These grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe; **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar. Address, **HALE PUBLISHING CO.,** 3550 Vista Ave., St. Louis, Mo.

Why Farmers Can Buy Motor Cars.

When the Reo Motor Car, which is advertised in The National Farmer and Stock Grower, was advertised at $2,200 it was not such a splendid car as it is now. And right now it is sold for $1,055. We advise our readers to study the proposition on the double page 16 and 17. The automobile is a practical necessity on every farm, now that the highest-grade cars can be bought worth the money. For five years The National Farmer and Stock Grower refused to solicit automobile advertisements for the reason that the cars were not perfect and the cost was too much. Since then the cars have become reliable and the prices reasonable.

The most independent farmer of all farmers is the stock farmer, who can market his crops on their own feet.



Why Four Wheels?

BECAUSE the wheels running on an angle **pack** the dirt around the corn leaving a loose ridge on top. **They will cover where all others fail**—even in wet and sticky ground. They open at the top and clean almost automatically; they will not clog or carry the corn over in any condition of soil.

Because the runners set back between the wheels within 10 inches of the covering point. This regulates depth of planting to the fraction of an inch. **The Hayes is the only planter made that will plant every kernel exactly the same depth.** Corn all comes up at the same time—allows cultivation 2 to 4 days earlier.

Because the ridge left over the corn prevents washouts on hillsides, gives greater sun surface and the loose soil on top permits corn to sprout and come up several days quicker. Harrowing levels this ridge and makes a clean row where the corn comes up, **saving one cultivation over the ordinary wheel.**

Because the planter is the shortest coupled and the load is carried closer to the horses, the Hayes is **the lightest draft planter made.**

You Can't Buy a More Satisfactory Planter

That's why we want you to take time to get all the facts before you make your choice. There are over 150,000 Hayes Planters in use—**every one of these machines is giving satisfactory, time-saving, money-making service,** and we can prove it.

The more you compare the Hayes with other planters, the more you will realize why it is the only perfect machine of its kind—and why there isn't any other that can compare with it when it comes right down to hard facts and results.

Investigate now, send for free booklet 'Z' that gives reasons backed by proof of use, also valuable planter facts you ought to know. A postal brings it.

The Drop That Never Fails

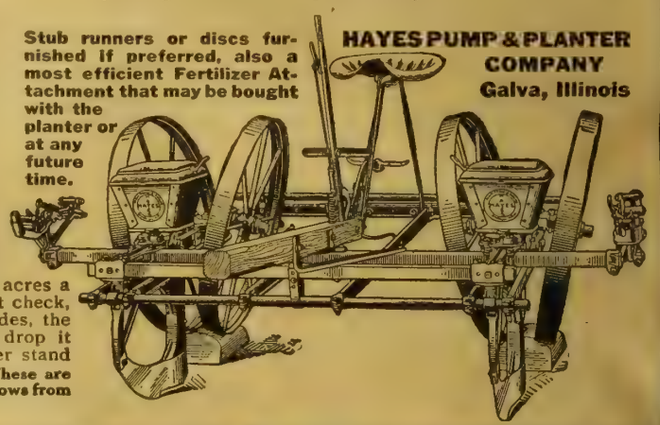
The Hayes Drop never fails. It is the simplest, most durable and most efficient ever made. Always in plain view of the operator—works perfect all the time and lasts for years. Never cracks or grinds the seed—over 40 sizes of seed plates, ground by special machinery, and the cells do not vary 1-1000 of an inch. Will drop accurately any size or shape kernel.

Checks With Absolute Accuracy

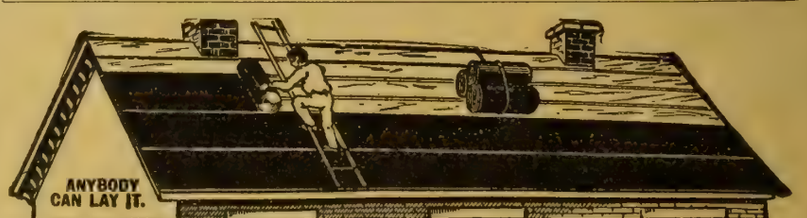
No matter how fast you drive the Hayes always plants in perfect check, the corn comes up straighter the cross rows than the way you drive. The result is that you can plant from 8 to 5 more acres a day with the Hayes, get straighter rows in perfect check, easier to cultivate and no missing hills. Besides, the Hayes will plant your corn all at an even depth, drop it more accurately, cover it better and get a better stand and larger crop than any other planter made. **These are not idle boasts, but actual facts that every Hayes user knows from his own experience.**

Stub runners or discs furnished if preferred, also a most efficient Fertilizer Attachment that may be bought with the planter or at any future time.

HAYES PUMP & PLANTER COMPANY
Galva, Illinois



HAYES FOUR WHEEL CORN PLANTER



Rubber Roofing

Warranted For Twenty-Five Years.

FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept. 233, East St. Louis, Ills.

Every Farmer Can Profit By The NEW JOHN DEERE Book

It's Free Write for it now. It illustrates and describes the best line of implements made. Tells how and when to use them. It answers every question about farm machinery. No farmer can afford to be without this book.

John Deere Plows, Cultivators, Harrows and Farm Tools

Look for our trade-mark—it will protect you against inferior, out-of-date goods. JOHN DEERE implements have taken the gold medal at every world's fair and international exhibition since 1840.

Get Quality and Service—John Deere Dealers Give Both.

Tell us what farm tool you want to know about and then ask for the big book, package No. X-7

John Deere Plow Co. Moline, Ill.

FREE

The Coming Vegetable Garden.

The seeds that are to be planted in the house should be planted as soon as possible. The pots or boxes in which they are planted should be kept out of the sunlight till the little seedlings are up. This is because the sun will bake the top of the soil or dry it out so that the sprouting seed will be deprived of moisture. This drying out of the surface is one of the most common causes of seeds not sending up plants.

Put the manure on the soil early that the early rains may be working it into the soil. It is not the solid manure that is used by plants, but manure that has been reduced to a liquid. Plants do not eat; they drink their food, and fertility is not always available fertility. It takes time to get the manure into a state where it can be used.

Heavy fertilizing is profitable on the garden for more than one reason. It assists the growth of plants and enables them to withstand drouth. If the manure is applied early and the rains wash the soluble portions deep into the soil the roots will follow and get into strata of earth where drouth will have little effect.

The vegetables we grow have originated in different ages and in different countries and are very different in the requirements for their growth. Therefore, if a garden has in it two different kinds of soil, so much the better. Some must have sandy soil and some clay soil; and if one has but one kind of soil he should not be surprised if he fails to have the best of success with certain kinds of plants.

Most plants do well in sandy loam, but a few thrive best in the very heavy clay soils. Among these are parsnips and cabbages, cauliflower and turnips. In planning for cabbages, select the heaviest clay soil available and manure it very heavily. It is surprising what heavy clay soils the cabbage finds to its liking, and it is also surprising how much manure it can use. It is a very gross feeder. The parsnip seems to have the power to drive its long root through very compact clay and get its food and moisture far below the surface of the ground. Cauliflower, turnips and Brussell's sprouts are of the same family and mature as the cabbage and thrive under the same conditions.

One cause of failure in seed germination is due to late planting. The small seeds should be planted early so they will have their struggle for life while the sun's rays are not hot enough to dry out the surface soil. The larger the seed the less does it seem to feel the effect of the drying out of the surface soil. This is probably due to the fact that larger seeds are naturally planted much deeper than small seeds.

If there is well-rotted manure about the barn-yard it should be saved for the early crops in the vegetable garden. Manure is best when applied fresh if there is time for it to decay; but if the soil has not been thus fed, well-rotted manure or acidulated fertilizers or fertilizers especially adapted to quick action are the only things to be applied for early looked-for results.

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal service the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth or other unavoidable influences the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Sandow $37.50

2½ H.P. Stationary Engine—Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil), gasoline, alcohol, distillate or gas. Sold on 15 days' trial. YOUR MONEY BACK IF YOU ARE NOT SATISFIED.

5-year ironclad guarantee. Sizes 2½ to 20 H. P., at proportionate prices, in stock, ready to ship. Postal brings full particulars free. Write for proposition on first engine in your locality. (116)

Detroit Motor Car Supply Co., 86 Canton Av. Detroit, Mich.

Jack Colt Measurement.

Editor National Farmer and Stock Grower:

Dear Sir:—Within you find exact measurements of an extra good yearling jack colt that you may have space to publish in your paper. His measurements are as follows. Height, 62 inches standard or 64 inches jack measure; heart girth, 63 inches; arm, 22 inches; foot, 14¼; knee, 14¼; cannon bone, 8½ inches; crown of head to lip, 31 inches; tip to tip of ears, 34½ inches; hock, 18 inches; flank, 69 inches; belly 73 inches; length from mouth to root of tail, 116 inches. This colt was foaled March 20, 1910; was exhibited at the Appalachian Exposition, Knoxville, Tenn., also at Tennessee State Fair at Nashville, and won first prize at both Expositions. He is jet black with white points, and styles up like a fine mule; is not fat, but in good growing condition. THOS. H. EZELL, Mill Creek Stock Farm, R. F. D. 7, Nashville, Tenn.

The Howard Watch

The HOWARD owner is ready to match seconds with all comers. He tells you what time it *is*—and his word is authority among his associates.

Why will any practical man carry a timepiece that cannot be trusted out of sight of a jeweler's window?

Why should the prosperous farmer or stockman, of all practical folk, have to depend on "setting" his watch when he comes to town?

As a matter of fact, in the progressive farming sections of this country you will find thousands of men who carry the HOWARD Watch—just as they own the most commodious buildings and the finest stock and equipment to be had.

They will tell you that the HOWARD runs absolutely true—in spite of the extremes of heat and cold; the jolt and vibration of driving a harvester or traction plow.

The HOWARD is the finest practical watch in the world.

A HOWARD Watch is always worth what you pay for it.

The price of each watch is fixed at the factory and a printed ticket attached—from the 17-jewel (*double roller*) in a Crescent *Extra* or Boss *Extra* gold-filled case at $40, to the 23-jewel at $150—and the EDWARD HOWARD model at $250.

Find the HOWARD jeweler in your town. When a man makes a permanent investment like the purchase of a HOWARD Watch he naturally wants to *see* what he is buying—he wants to get the benefit of expert advice. The HOWARD Watch is sold only by legitimate jewelers—and not every jeweler can sell you a HOWARD. The jeweler who can is a representative merchant—a good man to know.

Send us your name on a postal card and we will send you—FREE—our pamphlet, THE STORY OF EDWARD HOWARD AND THE FIRST AMERICAN WATCH. It is a chapter of History that every man and boy in this country should read.

E. HOWARD WATCH WORKS

Dept. No. 122, Boston, Mass.

Special Disc Harrow Bargain

$19.00 For Our { **Celebrated Budlong-Ladow 12-16 DISC HARROW**

—Two Levers, Oscillating Steel Spring Scrapers, Steel Weight Boxes, 4-horse Eveners complete.

Tongueless Attachment $4.00 Extra

This offer good for a short time only to get acquainted and to induce early orders and avoid the rush during the spring months.

SEND IN YOUR ORDER EARLY

HAPGOOD PLOW CO., Box 720, ALTON, ILL.

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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THE HALE PUBLISHING CO.
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Office of Publication, 3550 Vista avenue, St. Louis, Mo. Bell Phone: Grand 400.

Marketing Cattle, Hogs and Sheep.

Considering that the combined markets of Chicago, Kansas City, St. Louis, Omaha, St. Joseph, Sioux City and St. Paul to be capable of indicating the changes in the marketing of cattle, hogs and sheep from year to year, the Crop Reporter of the United States Department of Agriculture shows the combined total of cattle, hogs and sheep at those markets, and we will take those figures and look at them with an eye to future marketings.

The Number Marketed.

Year.	Cattle.	Hogs.	Sheep.
1900	7,179,344	19,160,210	7,061,466
1901	7,707,839	20,952,691	7,798,359
1902	8,375,408	17,791,341	9,177,050
1903	8,878,789	17,288,256	9,630,692
1904	8,690,696	19,072,231	9,604,512
1905	9,202,083	20,270,009	10,572,259
1906	9,373,825	19,812,594	10,864,327
1907	9,490,710	20,066,388	9,857,877
1908	8,827,360	23,481,442	9,833,640
1909	9,189,312	19,286,936	10,284,858
1910	9,265,408	15,982,648	12,407,418
1911	8,768,456	21,297,735	13,556,107

The largest number of cattle marketed was 9,490,710, in the year 1907, which was reduced to 8,768,456 in 1911. In view that government reports indicate a decreased number of cattle in the country, it will be difficult to keep up the run of 1911.

In the matter of hogs, the largest marketing was 23,481,442 in 1908, reduced down to 15,982,648 in 1910, and increasing to 21,297,735 in 1911. The government reports indicate a considerable increase in hogs, therefore we may expect good runs for the next two or three years.

Sheep marketing reached 13,556,007 in the year 1911, gaining 3,500,000 in 1911 over the year 1908. Government reports do not indicate any increase in sheep in the country in the past ten years, therefore it will be difficult to maintain the record of 1911 so far as sheep are concerned.

Greatest Book of All.

The work of printing the Book of Live Stock Champions is going on deliberately. It ought to have been issued before now, but we are printing a large edition of a fine, artistic volume, and it cannot be hurried. More than half of it is done and we hope to announce the work ready for delivery in our April edition. During the month of March we will continue to enter up a two-year subscription to The National Farmer and Stock Grower for one dollar, payable in advance, and we will send a copy of the Book of Live Stock Champions, cloth-bound, gilt title, 320 pages, as a free premium immediately after publication.

Work of Men and Women.

Lloyd George told an English audience that men make the best soldiers and women the best nurses, but that women tried being soldiers first and gave it up, thinking that such work was best suited to the intellect of men. After all, he said, the healing of wounds is a nobler work than the inflicting of them.

National Corn Exposition Prizes.

The Fifth National Corn Exposition will be held in Columbia, S. C., January 27th to February 8th, 1913. The National Farmer and Stock Grower will pay a special prize of ten dollars in cash to any and to all of our subscribers in any state who may win a first or second prize at the National Corn Exposition at Columbia, S. C. This applies to paid-in-advance subscribers of record August 1, 1912.

We will pay the prizes as they are won to boys or girls, men or women, if they exhibit a single ear or ten ears in any corn class and win a first or second prize. If they win a first or second prize at the National Corn Exposition, all that is necessary to receive one of our special ten-dollar cash prizes is to claim it by sending us the certificate of the Secretary of the show and reminding us of the subscription payment and we will look it up, and, if found to be correct, will remit the money promptly.

This offer applies equally well to exhibits of wheat, oats or barley for which the National Corn Show offers prizes. Heretofore in offering prizes we have required that the seed corn or oats or other grain from which the exhibit is grown be furnished by us. This time no such qualification is necessary. We place no limit upon the number of prizes. We will pay one hundred or one thousand of them. Our purpose is to encourage farmers, farmers' sons, farmers' daughters and farmers' wives to produce crops good enough for selections to be made to exhibit and good enough to win prizes at the National Corn Show. It is done to advertise The National Farmer and Stock Grower, to get us more subscribers than we would otherwise obtain, to advertise the National Corn Exposition and to encourage improvement in growing corn, wheat, oats and barley. Our subscribers are all eligible, providing their subscriptions are paid up from August 1, 1912, to February 8, 1913. It applies to all who have already paid their subscriptions covering these dates and to all who pay their subscriptions before August 1, 1912.

The National Farmer and Stock Grower was the first paper in the United States to offer cash prizes for grain exhibits, and we find that the more prizes we pay the more we prosper. The National Corn Exposition is a great, beneficial enterprise, wisely conducted, and we intend to do our part in our own way to help it along and to help ourselves and our subscribers at the same time.

Silo Facts

Free: This book tells the reason why you can immensely increase the profits from the same amount of feed by use of the cheapest, best and indestructible

A. P. GROUT Vitrified Tile SILO

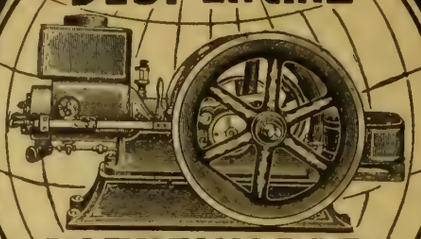
Acknowledged to be the only perfect silo material. Proof against fire, wind, weather and decay.

Rat-proof and sanitary: filled solid with concrete and otherwise reinforced. Vitrified Tile will not absorb nutriments of silage. No expense for shrinkage, insurance or repairs. Easy to erect; cannot collapse.

Agents wanted: Write for "Silo Facts."

St. Louis Clay Products Co.
Room 1601 Third Nat'l Bank Bldg.
St. Louis, Mo.

THE BEST ENGINE IN THE WORLD



WATERLOO BOY

Two gold medals, at two International Expositions, in open competition with the leading manufacturers, not only of this country, but of every nation of the globe. THAT is real proof that the **Waterloo Boy Gasoline Engine** is the best engine built today. And the real importance of this great double victory is the fact that it was won, not by a specially designed engine prepared and primed particularly for the contest, but by a regular Waterloo Boy TAKEN FROM STOCK.

Thousands of these engines are in regular daily use on farms all over the world, and **you** can buy an exact duplicate of this medal winner for your own work. This supreme make-good quality of the

WATERLOO BOY GASOLINE ENGINE

is built into it—it is best from foundry to testing room. **Best** and **simplest** in **material, in workmanship and in many important features of design which are found on no other engine in the world.**

The speed lever which works like the throttle of a locomotive and regulates the speed while the engine is running, is an **exclusive Waterloo feature**, and it alone adds $20.00 to $50.00 to the value of your engine. Many other features are just as important—our patented mixer which does away with the expense and bother of a pump; new type igniter that never misses a spark; automatic fuel regulation making it the cheapest to run; frost proof construction.

Burns either Kerosene or Gasoline starts easy in the coldest weather. All parts are interchangeable and it is so simple that a child can run it.

The Waterloo Boy is no experiment—it is the oldest successful farm engine on the market and has made good for nearly 100,000 farmers for over 19 years—some of your neighbors among them. Built in one of the biggest engine factories in the world, with a capacity of 130 complete engines per day, nearly 40,000 per year.

Let the other fellow experiment—you use his experience and buy a **Waterloo Boy** in the first place. Get the certainty of absolute satisfaction at the *lowest price ever made on a reliable engine.*

5-Year Guarantee. Catalog and full details FREE. Write today.

AWARDED GOLD MEDAL at INTERNATIONAL Gasoline and Oil ENGINE SHOW, BUDAPEST, HUNGARY. JULY, 1911

AWARDED GOLD MEDAL at INTERNATIONAL EXPOSITION, Turin, Italy. September, 1911

WATERLOO GASOLINE ENGINE CO.,
228 W. 3rd St., WATERLOO, IOWA.

[Please mention National Farmer and Stock Grower.]

Is Your Straw Stack Green?

Then Your Threshing Was Not Done by a RED RIVER SPECIAL

All threshing machines are not alike. There is one different from all others. It has a different way of taking grain out of the straw. *It beats it out* just as you would do by hand with a pitchfork. All other machines depend upon its dropping out.

This one different machine is the RED RIVER SPECIAL and you should insist upon having it do your threshing. It will save all your grain and waste none of your time.

IT SAVES THE FARMER'S THRESH BILL.

It has the Big Cylinder, the "Man Behind the Gun," the patented separating grate and check plate, the greatest separating device ever built.

The Big Cylinder drives the intermingled straw, chaff and grain against the separating grate, *beating* the grain through where the check plate catches it and delivers it to the grain pan and mill.

Ninety per cent of the grain is taken out right there.

The straw goes over upon the shakers which hold it and BEAT it until all the grain is BEATEN OUT.

In all other kinds the straw is hurried out of the machine and the grain is expected to drop out.

It doesn't. Thousands of green straw stacks every year loudly say it doesn't.

The RED RIVER SPECIAL saves all this. Insist upon its doing your work this year. ***It will save your thresh bill.*** Write us for the proof.

NICHOLS & SHEPARD COMPANY
BATTLE CREEK, MICH.
Sole Builders of THE RED RIVER SPECIAL LINE
The Red River Special Thresher — Traction Steam Engines
OIL-GAS Tractors — Stackers, Self Feeders and Supplies

Please mention National Farmer and Stock Grower.

THE SEWING AWL.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Our Grapevine Premiums.

We are crowded for space in this issue, therefore saying very little about our grapevine premiums advertised on page 6. But the offer is tremendous value for the money. The only way anyone can lose by it is by failing to take advantage of it.

Acetylene Light Apparatus.

The acetylene light includes cooking also. There is no better light, no cheaper light, no safer light, no healthier light, and none other that is as helpful to the eyes. Read page 2 and then write to the Acetylene Apparatus Mfg. Co., 68 Adams street, Chicago, Ill., asking for the "Pilot" Booklets.

Native Cows and Heifers at St. Louis.

Included in good-size lots of native cows and heifers sold to butchers at St. Louis, February 29th, were forty-four heifers, 591 pounds, at $5.90; twenty-six heifers, 761 pounds, at $5.65; sixty-six heifers, 620 pounds, at $5.55; twenty-two cows, 994 pounds, at $5.15; eighteen cows, 951 pounds, at $5.25; and sixteen cows, 832 pounds, at $3.50 per 100 pounds.

Test Your Seed Corn.

Professor L. Hegnauer, of the Illinois Agricultural College, says: "The shortage of seed corn and the poor quality of seed is universal this year. We are advising strongly that every farmer should test his seed ear by ear." This condition, however, is not limited to Illinois, as it is reported to be general.

Ladies' Style Book Free.

Beautiful styles, perfect fit and superior goods at bargain prices are the characteristics of the National Cloak and Suit Co., 280 West 24th street, New York City. See page 3 and send in the coupon.

You can take the rent money you are paying for corn land in the northern corn belt, make the first payment on a rich bottom land farm in Arkansas or Louisiana and the crops will take care of the other payments.

The big plantations are being cut up—they want good northern farmers down there—men who know how to grow corn. To such men they offer the very finest kind of corn land, at anywhere from $25 to $50 an acre. In the northern corn belt such land would be worth $150 to $200, but down there you can get all you want of it on the easiest possible terms—and it will grow two big money crops every year.

Potatoes, Corn, Cowpeas and Oats—4 Crops in 1 Year

Mr. J. T. Compton, who lives on a fine farm near Alexandria, Louisiana believes in diversified farming. He keeps every acre of his big farm working all the time. On one field he planted Irish potatoes in February and got 125 bushels to the acre. In June he planted corn, with cowpeas in between the rows, for hogs and fertilizer. He picked 40 bushels of corn to the acre and then, on October 15, he planted oats—the fourth crop on the same land. He also had one field of sugar cane that yielded 30 tons to the acre worth $3.25 to $4 a ton and one field of cotton that yielded a bale to the acre.

Such returns are not unusual, for the land is so rich, the growing season so long and the rainfall so certain that *these farmers have never had a failure from drought.*

Not only do these corn growers get big yields, but they get big prices, too. The big export market of New Orleans is near at hand, and Louisiana corn brings about 10¢ a bushel more than northern corn because it contains less moisture and is ready for export as soon as it is harvested.

Prof. H. M. Cottrell, an expert of national reputation, formerly Professor at the Kansas and Colorado agricultural colleges, and now Agricultural Commissioner of the Rock Island Lines, has made a very careful inspection of many of these corn lands. It is Prof. Cottrell's expert opinion that no where in America is there a better opportunity open for corn growers to make money than there is in these Arkansas and Louisiana corn lands.

Better look into this proposition at once. If you are renting, your rent money will quickly pay for a better farm in Arkansas or Louisiana; if you want a place for the boys you can buy them one of these rich river bottom farms, as good or better than yours, for one sixth the cost.

You will find this southland a delightful and exceedingly healthful place to live. The people are good neighbors. Rural Free Delivery, Telegraph, Telephones are everywhere; good markets are accessible and are shipping in farm produce because the local supply is not equal to the demand.

You owe it to yourself to investigate this at once. If you are interested, drop me a line saying how many acres you would want; whether you own a farm at present, and how many acres. You will be given careful, personal, individual attention, and the best unprejudiced advice as to where and how to get one of these splendid corn land farms at a price much below its actual worth.

Book on Scientific Corn Raising, FREE.

Rock Island

Prof. Cottrell's book, "How to Double the Yield of Corn," is the result of years of experience, experiment and study. It is worth dollars to any farmer who will read it and follow the advice it gives. You may have a copy free, if you will write me today. I will also send you a book written by Prof. Cottrell, telling more about these wonderful corn lands.

The statements herein made have been fully investigated and can be absolutely relied upon.

L. M. Allen, Passenger Traffic Manager, Rock Island Lines, 411 LaSalle Station, Chicago

John Sebastian, Third Vice-President

Roof Insurance With Every Roll

THIS man is laying Congo Roofing. When he unrolled the Congo he found a genuine Insurance Policy packed inside of each roll. Such a policy insures your roof for *ten years to come at our expense.*

All you have to do to make the Policy effective is to fill in the blanks with the needed information, as to where the Congo 2 or 3-ply Roofing was used, etc. Then you mail the Policy to us to sign, register and return to you.

From that time on you have a Bond issued by the National Surety Company which protects your roof absolutely for ten years. No other manufacturer dares give such a guarantee with his roof.

You can obtain a sample of Congo and a copy of this Insurance Bond without charge, by writing us for it.

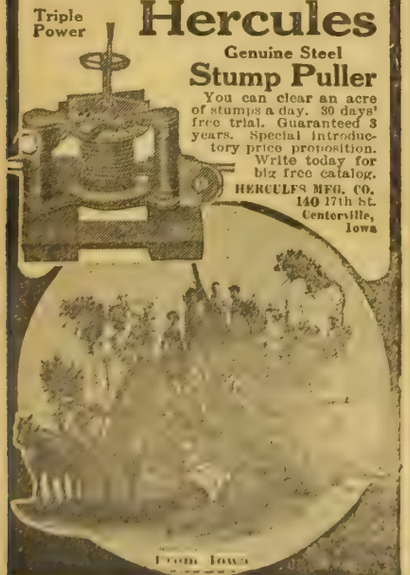
UNITED ROOFING & MFG. CO.
Philadelphia Chicago Kansas City San Francisco

The decrease of cattle in Texas in the past two years amounts to nearly a million head.

1000% Returns From

the use of a Hercules Stump Puller. Bumper crops instead of stumps. Big money in place of taxes. $1,200 from 40 acres the first year—$750 in extra crops every year after. Get the catalog of the

Triple Power **Hercules** Genuine Steel **Stump Puller**



You can clear an acre of stumps a day. 30 days' free trial. Guaranteed 3 years. Special introductory price proposition. Write today for big free catalog.

HERCULES MFG. CO.
140 17th St.
Centerville, Iowa

DAIRY AND CREAMERY.

At a Minnesota butter scoring under supervision of the State Dairymen's Association the highest quality butter from whole-milk cream was scored 96, exhibited by A. L. Radke, of Plato, and the highest scoring butter made from gathered cream was 95¼, the butter being exhibited by Chris. Jenson, of Dunnell.

On March 26th an auction sale of Holstein cattle will be held, it being the Third Annual Sale by Brookdale Stock Farm, I. J. Case, Proprietor, at Alta, Peoria county, Ill.

At North Benton, Ohio, on March 28th, Sam Werren will hold his Second Annual Sale of 100 head of Holstein-Friesians.

At the meeting of the Indiana Dairymen's Association at Lafayette, in January, the highest score in the dairy butter class was 93, an exhibit of Mrs. May Rhyan, of West Lafayette, and the highest score for creamery butter was 95, awarded to John Grosser, of Clinton Falls, Minn. Hugo O. Perner, of Bargersville, had the highest Indiana butter score, which was 94.

At the Illinois State Dairy Meeting held at Effingham in January, the highest score, 95, was received by Ed Alderman, of Capron; 94.83 by P. J. Peterson, Round Lake; and 94.66 by Van Camp at Effingham. Nineteen entries out of forty averaged 90 or better.

The pure-bred Holstein cow, Carlotta Abbekerk, 52,826, owned by the Kansas Agricultural College, has just completed a yearly official record, making 15,773 pounds of milk and 515 pounds of butter-fat, equivalent to 606 pounds of butter.

New York City received 2,404,643 packages of butter in 1911, which is 137,783 packages more than were received the previous year.

Any farmer who is not selling cream is now losing one of his greatest opportunities. Butter-fat is a great revenue producer under present circumstances.

At Elgin, on February 12th, the Butter Board of Trade voted to increase the territory covered by the organization. It was decided to include six states—Indiana, Michigan, Iowa, Minnesota, Wisconsin and Illinois. The action was taken by a vote of twenty-six favoring the proposition and nine against it.

At a recent competition by Wisconsin buttermakers the quality was the best ever scored. Out of 155 entries only four fell below 90, and twenty-nine of them scored 95 or higher. The average was 93, and the first-prize score was 97.50, by I. W. Stryker, of Nashotah.

The 155 entries of butter exhibited by the Wisconsin Buttermakers' Association at Green Bay were sold at auction at 40⅞ cents per pound to H. C. Hansen, of P. F. Braun & Co., of Philadelphia, Pa.

A train-load of cheese left Plymouth, Wis., on January 17, 1912, which is believed to break all records for size of a single day's shipment. According to the Milwaukee Free Press, there were sixteen full car-loads of cheese, containing about 480,000 pounds and valued at $64,000. The shipment followed a weather blockade, but was a remarkable shipment for all that.

St. Louis Milk Situation.

Speaking of the St. Louis milk situation Dr. Wm. Cutler, Commissioner, said in his quarterly report:

"It is a noticeable fact that some of the large distributing companies in St. Louis showed a disposition to co-operate with the Department in the matter of inspection, and where the supply was from Missouri, insisted that the milk producers comply with the orders of the Department. Much of the good work in cleaning up is due to this co-operation. In a few instances, at the order of the Department, pasteurizers were installed."

This statement as quoted accounts for the distributors of over 80 per cent. of the St. Louis milk supply supporting the pure-food laws.

Missouri gained considerable in sheep in the past ten years, but now the number is decreasing again.

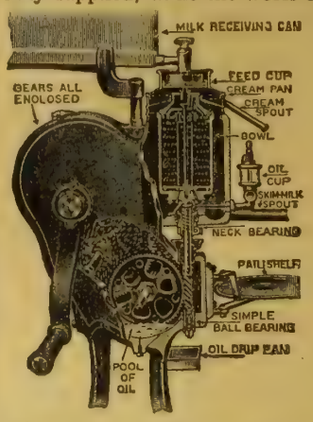
The demand for milk and cream is increasing very fast.

Our Competitors Recognize the Superiority of the INTERLOCKING

United States Cream Separator

by their recent attempted imitation of its long used oiling system.

The automatic lubricating system of the Interlocking U. S. Cream Separator represents the **most advanced ideas** in separator lubrication. Its gears and spindle bearings are **constantly bathed** in a **spray of fresh, clean oil,** automatically supplied; while the **worn out, dirty oil in turn is drained off** through the overflow tube. There is no danger of the bearings running dry. There is no necessity of using the dirty oil over and over after its lubricating qualities are all used up. **All the possible oil value is automatically secured in the most thorough yet economical manner.**



This extraordinary oiling system which is superior to all others—plus **strong accurately made gears** of the very best material and design—**explains why the U. S. Interlocking Cream Separator runs easier and has longer wearing qualities** than any other cream separator made.

If these are the qualities **you would like to have in your cream separator** ask us to give you a free, practical demonstration so that you can see for yourself that our claims are fulfilled in every particular.

To investigate is to be convinced.

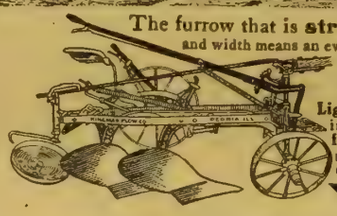
Vermont Farm Machine Co., Bellows Falls, Vt.

Distributing Warehouses in every dairy section of the country.

Please mention National Farmer and Stock Grower.

The KINGMAN PLOW cuts Uniform Furrows

The furrow that is straight, clean-cut and uniform in depth and width means an even, uniform and healthy crop—a crop that will bring in the money.



THE KINGMAN MODEL GANG PLOW makes that kind of a furrow.

The result of 40 years experience in plow building.

Light in draft: easy to operate; bottoms are flexibly attached to frame in such a way that the points of the shares enter and leave the ground **first.** The bottoms may be raised and lowered by a powerful automatic foot lift. **Interchangeable** to any style desired. Machines shipped as nearly set up as possible, thus saving customers trouble.

Write for Catalog. **Kingman Plow Co.,** Dept 101, St. Louis, Mo.

Please mention National Farmer and Stock Grower.

Phelps' Big Show-Room Buggy Book for 1912 Is Now Ready

It's the best one I have ever gotten out. It has more styles to select from, both in vehicles and harness. Why try to select a buggy from two or three shop-worn, dust-covered samples, when I will send right to your home a book that shows in big, actual photographs more vehicles than you can find in 25 stores. Local dealers carry only a few styles to select from. I make 125 styles of automobile seat buggies, surreys, phaetons, road carts, etc., and a full line of harness. All made-to-order to suit your taste.

H. C. Phelps, Pres.

Save Big Money on Split Hickory Vehicles Direct From the Factory

All explained fully and illustrated with big photographs in my big new book. It is only a question of good sound judgment to send for this free book no matter where you buy. It will cost you only one penny but it will cost me many pennies to send it to you, but I will take the chance if you are willing, because it is my only salesman and I am sure that I can not only give you a better buggy, but save you a lot of money. Will you write for the book? You are invited to do so. I will pay the postage.

H. C. PHELPS, Pres.
The Ohio Carriage Mfg. Company,
Sta. 204, Columbus, O.

2 Years' Guarantee

Don't You Want a 30-Days' Free Road Test of This Auto Seat Buggy

Please mention National Farmer and Stock Grower.

The coat that keeps out All the rain

TOWER'S FISH BRAND REFLEX SLICKER

The design shows how our REFLEX EDGES (pat'd) keep water from running in at front of coat. Every drop goes down and off, so

YOU CAN'T GET WET

MADE FOR SERVICE. SATISFACTION GUARANTEED

THE MARK OF TOWER'S FISH BRAND EXCELLENCE

$3.00 EVERYWHERE

A. J. TOWER CO. BOSTON.

TOWER CANADIAN LTD. TORONTO.

112

No More Sore Shoulders

Your team will put more heart into their work and give more service if their collars are properly padded. **VENTIPLEX** is the kind to use, because it is made of ventilated fabric which allows the sweat to evaporate and keeps the shoulders cool and comfortable.

You can use all your horses all the time, because **VENTIPLEX** prevents sore shoulders and galls. **They are worth more than other pads, but cost no more.** Your dealer should have them, but, if not, send us his name and we will send sample promptly. Patented Sept. 20, 1910. Write for our interesting folder. We also make the famous "Stay-On" Blanket.

BURLINGTON BLANKET CO.
Dept. 46 Burlington, Wis.

Ventiplex PADS

The Dairy Calf and the Dairy Cow.

A good many calves are saved for the purpose of developing them into dairy cows, but out of the multitude of dairy calves come but few good dairy cows. Many of the calves die before reaching maturity. Of the rest many are partly spoiled by bad methods of feeding and do not develop the possibilities tied up within them.

Naturally, most of the calves are brought up by hand, as milk and cream are too valuable to be fed to growing calves. This is especially true, as the skim milk with a little oil meal easily takes the place of whole milk.

Bad feeding brings on the "scours," which is probably the greatest cause of mortality among young calves. But scours are not necessary and can easily be avoided. In the feeding of young calves the milk should not be fed cold and should be given in small quantities. This will mean more care and the giving of a feed more times a day, perhaps, but the extra work will more than pay for itself in the health of the calves. The aggregate amount of milk given in a day is usually too great, and even if the calves are fed twice a day, the aggregate amount of milk should be kept down to what a calf will fully digest. The mistake comes in giving a calf all she wants to drink. This also results in the pot bellies we see on many calves and cows.

A dairy calf should not be fed in the same way as the calf intended for beef-making purposes. The constant feeding of food rich in starch tends to give the animal the qualities of the beef cow. Therefore a well-balanced ration should be fed rather than a ration overbalanced on the part of starch.

The growing calf can be fed some kinds of grain that would not be profitably fed to a mature cow. A calf under one year of age will digest grains that pass through a mature cow undigested. This is because the mature cow has four stomachs that she uses. One of these is for the first reception of the food, and nature bases it on the rough grass that a cow finds in her pasture. Corn and other grains, not being of so coarse a nature, do not incorporate with this for digestion. But the young calf does not use four stomachs and her digestive system is working on the basis of concentrated foods, such as milk and grains.

As the calf matures into a heifer she should be gently treated and frequently handled with the idea of teaching her to be milked. A heifer so accustomed to being handled will make no objection to the milking process when it has to be really begun.

Gentleness in dairy cows is a desirable quality, and it cannot be obtained without gentle treatment by the persons having the handling of the dairy cow from the time it is born to the time of motherhood. Every dairy cow should be brought up a pet and made to feel that she is loved by those having the care of her. This will make her a faithful and gentle creature.

With a score of 97½, J. J. Bruner, of Strawberry Point, won the sweepstakes prize in the whole-milk class at the butter contest of the Iowa Buttermakers' Association, and T. E. Sadler, of Oelwein, was a fine and close second with a score of 97. In the gathered-cream class, W. J. Chapin, of Woodbine, was first with a score of 96 points, and Henry Hanson, of Cylinder, was second with a score of 94½.

Butter or Oleo.

Dr. Cutler, Pure Food Inspector for the state of Missouri, endorses the following methods for finding out whether you are buying butter or oleomargarine:

Method 1. Put it in a dish over a fire. Butter will foam; oleo will crackle, sputter and give an unpleasant, greasy odor.

Method 2. Put a little of it in a glass of cold, sweet milk and stir with a paddle. Butter will divide and spread itself over the milk's surface; oleo will stick in a lump to the paddle.

Effect of Close Inspection.

The Missouri Pure Food Commissioner states that in consequence of his campaign in and around St. Louis in the interest of pure milk the conditions were improved at least 50 per cent. That is to say, improvements and sanitary methods of dairying have made better the milk supply by at least that much. Since the first inspection, separate milk houses have been built in many instances; approaches cleaned; better, cleaner feeding is now practiced; the milkers are more cleanly when milking; cobwebs have been swept away, and the barns whitewashed. In several instances sanitary pails are new used. One large supply house informs the writer that he had sold in two weeks in St. Louis more Gurler Sanitary Pails than he had sold in many years previously. Most of the remarks of the Commissioner relate to dairies in and close to St. Louis.

DE LAVAL CREAM SEPARATOR

NEW AUTOMATIC OILING

The most important Cream Separator improvement since the introduction of the present type of De Laval machines.

The new automatically oiled De Laval Cream Separators are now being supplied in all sizes, and this improvement constitutes another great step forward in cream separator construction—the one thing possible in betterment of the previous De Laval machines of the present type.

The new system of De Laval automatic oiling is distinctively different from any other splash or spray system in that there is a constant regulated feed of fresh oil and discharge of used oil. Other splash systems use the same oil over and over, until it soon does more harm than good.

In the new automatically oiled De Laval machines all gears, shafts and bearings practically float in a mist-like spray of oil and literally never touch each other during their operation.

De Laval agents will be glad to exhibit the new machines and demonstrate the working of the new automatic oiling system, which more than ever enhances De Laval superiority in every feature of cream separator practicability.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

[Please mention National Farmer and Stock Grower.]

Enumeration of Farm Animals.

The United States Department of Agriculture estimate of the number of domestic animals on farms and ranches of the United States is 20,699,000 milch cows and 37,260,000 other cattle; 65,410,000 hogs; 52,362,000 sheep; 20,508,000 horses and 4,362,000 mules. Since the census enumeration was made cattle are estimated to have decreased about 4,000,000 head, hogs to have increased 7,225,000 head; sheep, no change; milch cows, no change; an increase of 672,000 horses, and mules at a standstill. It is a year and a half since the census enumeration.

A Holstein cow in the state of Washington, Gerben Queen by name, has just made a seven-day record of 654.6 pounds of milk, containing 29.1 pounds of butter-fat; and in thirty days her record was 3,192 pounds of milk, containing 107.04 pounds of butter-fat.

"EVERYBODY"

Can Afford a Gasoline Engine With Galloway's New Low Prices

1½ HP $27.50

Other Prices in Proportion

You've never before heard of such startling values—I've never offered anything like them and you know full well that no one else has ever come anywhere near my regular prices. But this time I've a startling reason—*I want 10 men in every township in the county to own and operate a Galloway Engine*—I've decided to double my factory capacity by increasing the sales twice and sell two where I formerly sold one—this calls for unusual values—hence, the greatest offer I have ever made. I can save you from $25 to $300 on an engine according to the H. P. needed. It doesn't matter what sized engine you want I've got the one to fit your wants and do more work and better work at less actual cost than any other engine in the world. Write at once for full information of the Greatest Offer Ever Made To American Farmers—don't delay but send me your name and address now, before you do another thing. Let me prove to you in cold facts why I can put $25 to $300 in your pocket.

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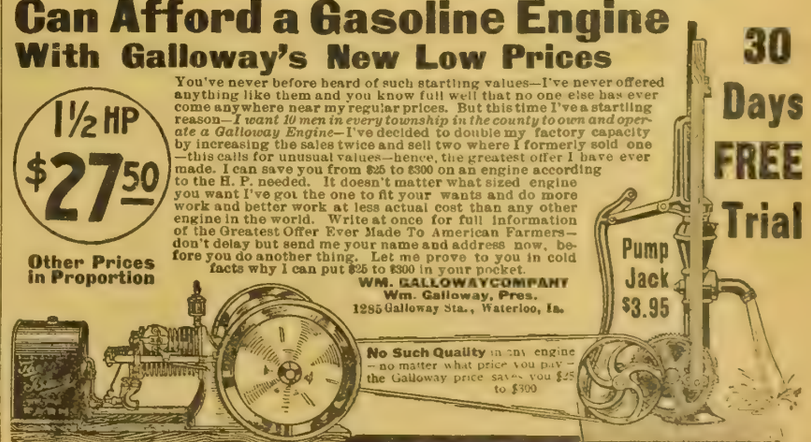

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The Market For Oats.

The oats market is not excited. Cash oats at St. Louis, on February 29th, at 53 cents a bushel, is 23 cents better than a year ago. There are not too many oats available and values are practically in line with the statistical situation. Farmers who are inclined to raise oats need not fear raising too many.

The two options in front of us are May and July. The coming crop has no influence on the May option, but it has upon the July quotation. On Januray 29th the Chicago May option for oats closed at 51⅞ cents, and on February 29th the same option closed at 52¾ cents. It will be seen from this that until the May option is closed and delivered no decline is expected. The July option is different. The trade expects a good, big crop, and the Chicago July oats option was quoted February 29th at 48½ cents a bushel. When we consider that the last July option was closed out at 38½ cents a bushel the anticipated 48½ cents a bushel for July to come does not look so bad.

Wholesale Flour Quotations.

St. Louis, Mo., February 29th, 1912: Patents at $4.40 to $4.75 in wood; straight at $3.80 to $3.90 in jute; extra fancy at $3.50 to $3.60 in jute; fancy at $3.25 to $3.35 in jute; low grades at $2.85 to $3.00 in jute. Hard winter in jute—Patents, $4.50 to $4.70; straights at $4.30 to $4.40; clear and first bakers at $3.25 to $3.60; low grades and second bakers at $2.80 to $3.00; spring patents at $4.50 to $5.00 in jute. Foregoing prices for lots from first hands on track or at depot; special brands on orders more.

Chicago Cash Grain Sales.

Chicago, February 29th: Wheat—No. 2 red, $1.01½ to $1.02½; No. 3 red, 97½ cents to $1.01½; No. 2 hard, $1.02½ to $1.05; No. 3 hard, $1.00½ to $1.02; No. 1 Northern, $1.10 to $1.13; No. 2 Northern, $1.02 to $1.10; No. 2 spring, $1.00 to $1.08; No. 3 spring, 99 cents to $1.07; No. 4 spring, 90 cents to $1.03; velvet chaff, 90 cents to $1.06; durum, 90 cents to $1.07. Corn—No. 3, 64¾ to 65 cents; No. 3 white, 63½ to 65 cents; No. 3 yellow, 63½ to 65c.; No. 4, 60½ to 62 cents; No. 4 white, 61½ to 62½ cents; No. 4 yellow, 61¾ to 63 cents. Oats—No. 2 white, 52¼ to 52¾ cents; No. 3 white, 52 to 53 cents; No. 4, 48½ cents; No. 4 white, 47 to 52 cents; standard, 52¾ to 53½ cents.

Native Cattle at Chicago.

At Chicago, late in February, native steers of the various classes were selling at $6.00 to $8.85 per 100 pounds; steers, 1,000 to 1,100 pounds, at $5.70 to $7.05 per 100 pounds; 1,200 to 1,290-pound steers at $6.75 to $7.80 per 100 pounds; and 1,300 to 1,500-pound steers, plain to choice, at $7.35 to $8.85 per 100 pounds. On February 29th the steers bringing the top price weighed 1,595 pounds.

Top of the Hog Market.

Hog sales at St. Louis, February 29th, included for D. B. Mayfield, Cooper county, Missouri, 249-pound hogs at $6.60; Richard Cook, of Audrain county, Missouri, 214-pound hogs at $6.60; and N. J. Merriott, from Fulton county, Illinois, marketed 259-pound hogs at $6.60 per 100 pounds, which was the top of the market.

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SELF-RAISING GATES lift themselves—no dragging or lugging—raise and swing over snow, grass or rubbish. Save time, temper and trouble. The "hurry-up" gates—always on the job—always work. If there is no Peerless dealer in your town, write direct.

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is known the world over as synonymous with **The Best Seeds That Grow!** Are You willing to pay a fair price for selected seeds of the choicest vegetables and most beautiful flowers? If so, it may prove of mutual interest if you **write to-day** (a postal card will do) for THE 1912 BURPEE ANNUAL. This is a bright new book of 178 pages that is intensely interesting to every one who gardens either for pleasure or profit. Shall we mail you a copy? If so, what is your address? Our address is, **W. ATLEE BURPEE & CO., Philadelphia**

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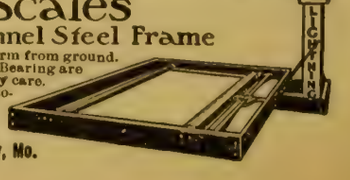

KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

Availability of Fertilizers.

If nature did not hold back some of the plant food in the soil it would soon be exhausted, simply because constant cropping would exhaust it. And we would crop it constantly just so long as there remained any available plant food to be turned into crops.

The soil may be regarded as a mass of matter containing more or less plant food, of which some is available to-day and some available later and some available still later on. One will be surprised to learn how small a percentage of plant food the earth contains; one will also be surprised to learn how long that small percentage will be made to last by reason of the wise provision which prevents rapid exhaustion. The soil contains 70 to 84 per cent. of insoluble earth which is only the holder of the more valuable plant food, just the same as water is 80 per cent. of the liquids, solids and fat that make up the total of milk. The valuable plant-forming elements of the earth are expressed in figures not amounting in each case to one per cent. of the total mass.

Average soils, however, do contain amounts of fertilizing material far in excess of what can be removed in many years of cropping, for the simple reason that nature has locked those materials up and they are so slowly available as to almost appear to represent yearly interest on the store in bank. In other words, nature provides for posterity as well as for the living, and the present wasteful generation cannot completely exhaust the soil.

But mineral fertilizer materials are found in bulk deposits which can be added to the soil under certain conditions and which can be made readily available for plant foods. These are called commercial fertilizers. There is no question concerning the availability of potash as sold on the market; neither is there any question of availability of nitrogen derived from nitrate of soda, cotton-seed meal, blood, etc. But there are two kinds of phosphoric acid now sold upon the market, one of which is available as plant food and one that is not. The acid phosphate as sold under that name is the rock phosphate treated with strong acids in order to release it quickly as plant food in the soil. This process is a violent one and it is actually forcing nature. The other form is the natural raw rock, containing phosphoric acid simply ground to various degrees of fineness; but most scientists contend that this raw rock is not available as plant food. It represents a first-class example of nature locking up valuable constituents which can only be quickly released by the forcing process.

Soils have in the main been derived from the solid rock of the earth's crust. We are told by scientists that it has taken hundreds of thousands of years of heat and cold, chemical action of air and water and the action of animal and vegetable life, including the action of micro-organisms, to turn rocks into soil, of which only a small fraction of the fertilizing content as soil is now available, and it is clearly proven that raw rock, ground or unground, although it does contain phosphorus, does not contain any plant food that is available. It is rock and nothing but rock, and the plant food can only be made immediately available by breaking it down by chemical process, which, to say the least, is expensive, and it is to avoid this expense that the rock phosphate in its raw state is sold to the farmer.

If the raw rock was available as plant food, fertilizer manufacturers would use it in their combinations and complete fertilizers to the exclusion of the acidulated rock; but they do not and cannot use it in that manner and sell their goods under the laws of different states. Neither could such combinations produce the results that would hold their trade. But the raw rock phosphate ground to various degrees of fineness is put on the market as a fertilizer and compared with fertilizers and credited with some extraordinary powers as a fertilizer. A trade has been built up on the sale of the raw ground phosphate rock upon the assertion that it does become available by certain processes of disintegration supposedly brought about by mixing it with manures, etc., and claims are advanced for it that in its unavailable form it produces greater results than if it were actually available.

It is put on the market as a fertilizer, but it is put up to the farmer that it is his business to take this crude (ground) rock and then take upon himself the matter of changing it from its natural form into that of a true fertilizer. The rock is ground, but that does not change its character. The rock may be changed in time into a fertilizer, but there is no decisive evidence to prove that with any farm process of mixing it with barn-yard manure or in acid soil that it will or does become plant food within a reasonable number of years. What has the farmer on his farm or in the soil strong enough to do what nature refused to do since the creation of the world?

Notwithstanding the rock phosphate has no immediate value as a fertilizer, its commercial agents are delivering to farmers a comparative statement, supposedly issued by the Illinois College of Agriculture, valuing acid phosphate and raw rock phosphate on the same par value, which is equal to asserting to the farmers of Illinois that ground rock known to be unavailable for plant food is worth just as much as the treated rock which has been brought into availability by the chemical process. The same statement claims that a ton of raw rock phosphate is worth 12½ tons of barn-yard manure. In consequence of these representations farmers are buying raw rock phosphate, believing that it will change its nature in a year or two, whereas it may be a hundred years before the rock phosphate is rendered available. In our opinion, the farmer who would trade a ton of barn-yard manure for a ton of raw rock phosphate would lose by the exchange, and the statement that the phosphoric acid in a ton of raw rock phosphate is worth $30.00 to a farmer should be surely divided by ten.

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Southwest Steers at St. Louis.

On the last day of February, at the St. Louis market, twenty-six head 1,400-pound native steers from Southeast Missouri sold at $7.90 per 100 pounds. They were fed by Thompson & Rader, near Marshfield, Mo.

Look Out ...ER

For Worms This Month

Look Out DA...

Read These Four Letters

I'll Stop Your Worm Losses I'll Prove It Before You Pay

Don't let worms breed **contagious diseases** among your hogs this year. Don't let them kill off the young pigs and rob you of your season's profits. You can **prevent it** if you will just take "a stitch in time." **Now** is the time when worms begin to get in their **deadly** work. **Now** they are breeding, multiplying by the millions in the stomach and intestines, and if you don't get the best of them, they will surely get the best of you. Let me show you how. I'll get rid of stomach and free intestinal worms in your hogs, sheep, horses and cattle and prove it to your satisfaction (not mine) before you pay me a cent. I'll do it with

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The Great Worm Destroyer and Conditioner

I've done it for thousands and in addition they write me they never had stock thrive better, look better and bring them such profitable returns. Here is my offer to you.

Send No Money—Just the Coupon

Simply fill in the coupon, tell me how many head of hogs, sheep, horses and cattle you have. I will then ship you enough Sal-Vet to last them 60 days. You pay the small freight charge when it arrives—put it where all your stock can get free access to it—**and they will doctor themselves.** They eat it as they do salt—just as they need it, and at the end of the 60 days if you don't feel **satisfied,** write me and I'll cancel the charge. I take your word as final—I let you act as judge of its merit—I put everything up to you. How can you risk loss—how can you let your stock drag along when they should be thriving, growing into profit when such a fair, open offer like this is put at your disposal? You have all to gain—nothing to risk. Fill out and mail the coupon **now.** Don't put it off—lest you forget. Read the letters above.

Sidney R. Feil, Pres.—*The S. R. FEIL CO.*—Dept. NF8G, Cleveland, Ohio

Prices: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12

Sal-Vet always comes in original "Trade-Marked" Packages. Never sold loose in bulk or by the pound. Look for the "Sal-Vet" trade-mark—it is your protection against imitations and substitutes

(37)

I have been in the hog business for 30 years and have tried every known remedy for hogs, but have never found anything equal to your Sal-Vet. It certainly does the work and is easy to feed. I feed it to little pigs, boars, pregnant sows and find it O. K. I will never be without Sal-Vet.

C. F. MARSHALL & SON,
Per G. F. M. Monroe, Ia.

"I had a lot of sick hogs and I lost five of them. I began feeding them Sal-Vet, my losses stopped and the hogs soon got into a fine, healthy condition.

V. P. UNDERWOOD,
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While I cannot say positively Sal-Vet kept my hogs from having Cholera, I had no such sickness while my neighbors almost without exception lost hogs from Cholera. I certainly have great faith in Sal-Vet and it is all and more than you claim for it.

J. C. CONOVER,
Chrisman, Ill.

I used your Sal-Vet regularly while feeding a bunch of fattening hogs and can say it is just the article. It made my hogs double their weight in 50 days. It is a great conditioner and worm destroyer.

E. E. SHULL,
LaCynge, Kansas.

We have hundreds more like these

Sidney R. Feil, President, The S. R. FEIL CO., Cleveland, Ohio

Ship me enough SAL-VET to last my stock 60 days. I will report results in 60 days and will then pay for it if it does what you claim. If it does not, you are to cancel the charge.

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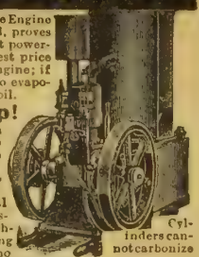

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—only engine running on coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

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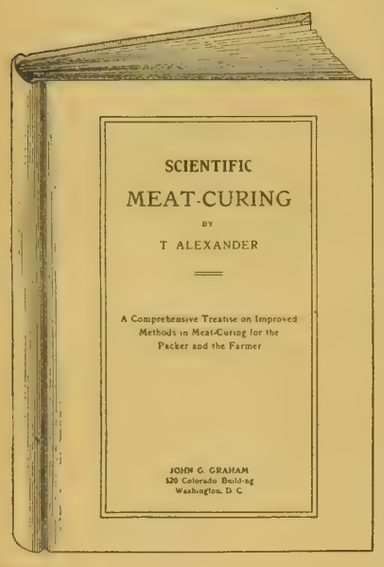

American Apples in Norway.

United States Consul P. M. Emerson Taylor at Stavanger, a seaport in Norway, reports the following to the United States Department of Commerce and Labor:

"Approximately one-half of the apples imported into Norway are American. The exact amount imported is not ascertainable, owing to the large quantities transshipped from Germany and England and not in all cases credited to the United States.

"Statistics show that in 1910 there were imported into Norway 3,279,056 pounds of apples and pears, mostly apples, pear imports being small. From Great Britain there came 1,425,732 pounds, valued at $104,215; from the United States direct, 1,099,538 pounds, valued at $80.373; from Germany, 676,236 pounds, valued at $49,417; from Denmark, 41,206 pounds; from Australia, 14,102 pounds; and from Canada, 5,610 pounds.

"The total amount of apples and pears, mostly apples, imported into this consular district in 1910 was 264,220 pounds. Apple imports are restricted, owing to the cheapness and general use of oranges, which during most of the winter season sell for 6½ to 16 cents per kilo (2.2 pounds). This makes the grade of oranges most used cost less than one cent each. The imports of oranges into this district in 1910 were 1,309,286 pounds, and into Norway 13,791,008 pounds.

Most of the American apples coming to Stavanger are purchased by local importers in Hull and Liverpool, through agents who generally buy the apples at auction and supply the Stavanger firms as the demand requires, most of the Stavanger orders being sent by telegram, the apples reaching here in two days. The price paid wholesale to the English firms for the American apples is 20s. to 25s. ($4.86 to $6.07) per barrel of sixty kilos (134¼ pounds). The duty is 0.12 crown ($0.03) per kilo, or about $1.97 per barrel.

"American apples sell at retail in Stavanger at 11 to 16 cents per kilo, the choicest varieties selling later in the season at 21 to 29 cents per kilo. Importers all state they have lost money (some report losses of $100 to $400) on American apples this season because so many failed to keep. Notices are appearing (January 17) in the local papers offering American apples that are not choice and have begun to decay at 2½ cents per kilo.

The varieties of American apples sold in largest quantities on this market are the Baldwin, Kingston, Ben Davis and Russet."

Pear Tree Pruning.

In pruning the pear tree, at least for the first three years, we follow the same rule as we do for pruning the young apple tree. In this country I think it is advisable to have more or less of an open center. We give this shape to the tree by cutting back the leader, at the time of transplanting; this induces the side branches to grow. I believe that a tree should not have more than three to five scaffold limbs, and they should not grow from about the same place but should come out from different places along the stem from two to three or four inches apart. The first year's growth should be pruned back quite severely; ordinarily, we cut considerable of this growth back leaving about six to eight inches on the limb. Always cut to an outside bud. The following year's growth as a rule is very vigorous and ordinarily there are two or more limbs growing from each of the three or four scaffold limbs that have been started. The following season, at pruning time, we should remove all of the limbs with the exception of one on each of the scaffold limbs, and the one that remains should be again cut back half or more of its growth. Cut to an outside bud. This method of pruning tends to keep the center open and at the same time strengthens the main trunk of the tree and the base of the scaffold limbs. One should also make an effort to have the lowest of the scaffold limbs come out at the southwest side of the tree. The third pruning should be similar to the second; that is, thin out the branches on each of the scaffold limbs, leaving the leader, but cutting it back again. After this pruning, pears or apples should not be cut back any more. Simply thin out the interference and those limbs that may be coming out where they are not needed. From this time on we should encourage what we ordinarily call the feathering out of the limbs, or, in other words, the formation of fruit spurs. The more the tree is cut back the more we encourage a vigorous growth, and the more the vigorous growth is in young trees the less fruit spurs there will be.

Another reason why we recommend that pear trees should have three or four or even five scaffold limbs is, that in case of blight should start, we could have some recourse in the treatment of such trouble. As a rule, the blight begins at the top of the limbs on the succulent growth. If the disease should attack the tree on any one of the limbs, we could easily remove the branch without materially affecting the size or form of the tree.—Fabian Garcia, Horticulturist, New Mexico College of Agriculture.

Farmers who can attend the Cement Show at Kansas City, March 14 to 21, will find it to their advantage to do so. Information about concrete will be easily and satisfactorily obtained that way.

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No. K504 Price $ 1.25

Go to the nearest Keen Kutter dealer and see some of these forks. You'll enjoy handling them—there's fine "heft" to them—they've got the right hang and balance—enabling you to heave a big load with ease and quickness. This can be truly said of every Keen Kutter tool. because they are adjusted perfectly. Note the quality and flexibility of the tines—how thorough the workmanship and finish.

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MANURE FORK
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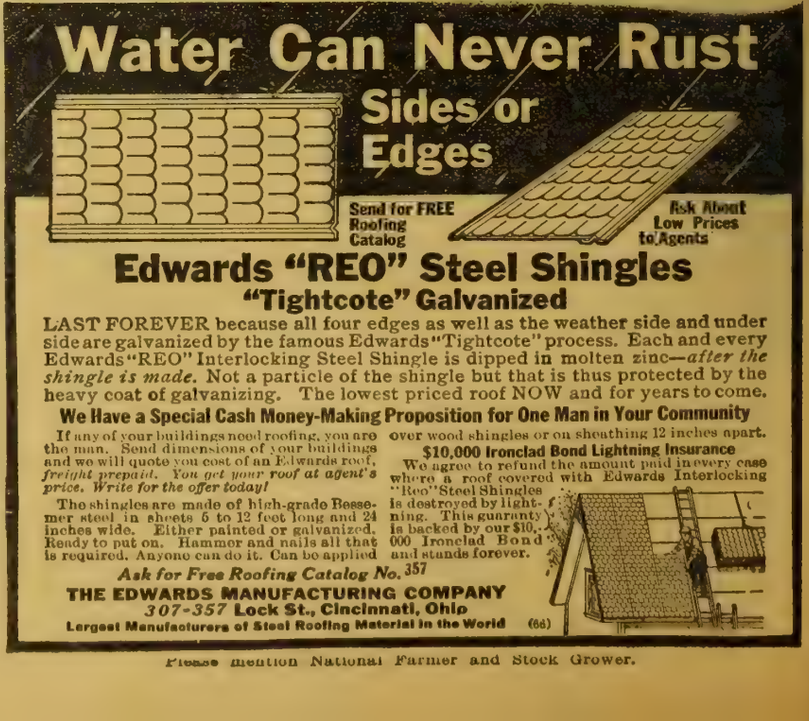

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"Tightcote" Galvanized

LAST FOREVER because all four edges as well as the weather side and under side are galvanized by the famous Edwards "Tightcote" process. Each and every Edwards "REO" Interlocking Steel Shingle is dipped in molten zinc—*after the shingle is made.* Not a particle of the shingle but that is thus protected by the heavy coat of galvanizing. The lowest priced roof NOW and for years to come.

We Have a Special Cash Money-Making Proposition for One Man in Your Community

If any of your buildings need roofing, you are the man. Send dimensions of your buildings and we will quote you cost of an Edwards roof, *freight prepaid. You get your roof at agent's price. Write for the offer today!*

The shingles are made of high-grade Bessemer steel in sheets 6 to 12 feet long and 24 inches wide. Either painted or galvanized. Ready to put on. Hammer and nails all that is required. Anyone can do it. Can be applied over wood shingles or on sheathing 12 inches apart.

$10,000 Ironclad Bond Lightning Insurance
We agree to refund the amount paid in every case where a roof covered with Edwards Interlocking "Reo" Steel Shingles is destroyed by lightning. This guaranty is backed by our $10,000 Ironclad Bond and stands forever.

Ask for Free Roofing Catalog No. 357

THE EDWARDS MANUFACTURING COMPANY
307-357 **Lock St., Cincinnati, Ohio**
Largest Manufacturers of Steel Roofing Material in the World (66)

Please mention National Farmer and Stock Grower.

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In all parts of the world—in every country on the globe — Ward's clothes are worn. They are worn by the man who wants to be well dressed and at the same time save half the usual clothing prices. No one can offer you more in the way of expert tailoring and no one will charge you so little for the best. You have your choice of hundreds of the season's choicest fabrics, of all the spring's snappy styles, of a suit all tailored, ready to ship the day your order and your measurements are received or if you prefer, we will make a suit to your special order. In any and every case we guarantee your entire satisfaction as to fit and style and wearing qualities. If for any reason you are not satisfied your money will be instantly refunded. At least investigate before you buy your spring or summer suit. You owe that much to your pocketbook. If you want a suit already tailored complete ready to ship ask for Special Ready to Wear Clothing book No. 33. If you want a suit tailored to your measure ask for book No. 38. Take your pick of these other free money saving books which present equally good values in the lines they represent. Put the numbers of the books that you want on the coupon.

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Injuries by Parasites.

Human beings, animals and plants are subject to attacks by parasites, and each species seems to have some particular parasite, which can live on no other species.

Parasites are injurious in two ways: They draw substance from the person, animal or plant on which they happen to be, and in many cases at least they transmit diseases. This latter is often the more serious phase of the attacks by parasites.

There is no doubt that several of the most dangerous of our poultry diseases are spread by the mites and lice that abound in some poultry yards and houses. At night time the insects pass freely from one fowl to another. If there is a fowl that has the roup or any other disease of a contagious nature, the germs of the disease are thus conveyed by the little marauders. It is therefore the part of wisdom for every poultry raiser to keep his poultry houses, yards and fowls free from the parasites. If they have already come into the flock, extraordinary measures should be taken to eradicate the pests. This will prove a means of checking any disease that may be in the neighborhood.

Sometimes, too, fowl parasites are on the birds in such numbers as to sap their vitality. The writer has known of sitting hens to be killed by the little red mites that infest the fowls by day and hide on the roosts and in straw at night.

Among hogs, the presence of hog lice is a detriment to thrift. They also spread hog cholera and its companion diseases from animal to animal. A great veterinary surgeon says that in the treatment of hog cholera cases he always insists on a war of extermination being waged on the lice, for in this way only can he make any progress against the disease. In fact, with the lice present there is a constant re-inoculation of animals being treated. This may not be serious after the animals have become immune to the disease, but before that time it is doubtless a serious obstacle in efforts to cure the sick animals.

Among cattle, the terrible cattle tick has kept cattle raising out of whole states in the South and has led to the yearly quarantine against Texas fever, which is a disease produced entirely by germs carried to the cattle in the bite of the ticks. The Bureau of Animal Industry has been making war on this tick for a great many years and hopes ultimately to rid the Southern States of this deadly pest. In this case, as in others, the real salvation is found in the eradication of the insects.

The physicians have found that the germs of the yellow fever are carried by a certain mosquito, and that extermination is the only way of preventing the disease. So the breeding places of the mosquito are covered with kerosene and the wet places are drained to remove the last refuge of the death-dealing insects.

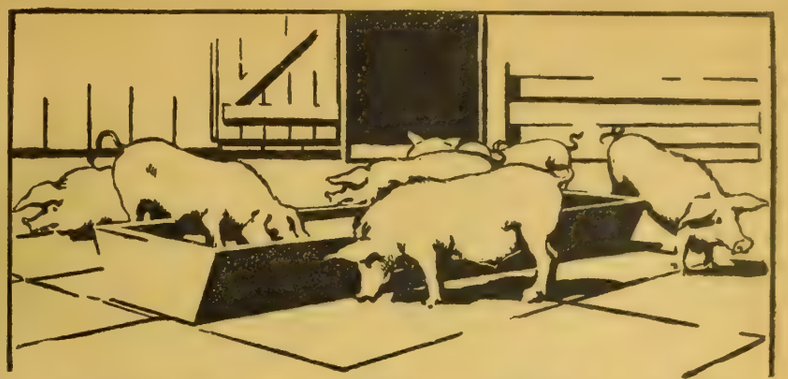
Everywhere the problem is, in principle, the same. The insects must be obliterated, and this can generally be brought about by the application of energetic measures. Sloth is the greatest ally of such pests.

More Phosphate Lands.

According to the United States Geological Survey, during the month of January, 1912, 214,749 acres of land in the state of Idaho believed to be underlain by phosphate rock were withdrawn on recommendation of the United States Geological Survey. This makes a total outstanding withdrawal in Idaho of 1,167,137 acres of phosphate land. In Wyoming 1,266,668 acres are now withdrawn as phosphate land, in Utah 107,745 acres, in Montana 33,950 acres, and in Florida 35,640 acres, a total of 2,617,140 acres. Partial detailed surveys of these areas made by survey geologists show a very large quantity of this important fertilizer, the value ranging up into the billions of dollars. The Director of the Survey, in his latest annual report, calls attention to the need of the enactment of a law that will permit development of this resource, which is coming more and more into use as an agricultural soil stimulant. The United States is believed to have the greatest phosphate deposits in the world.

A Milk-can Factory.

The Le Sieur Vacuum Milk Can Manufacturing Company has purchased a tract north of East St. Louis and will erect a large factory in the spring. Temporary arrangements will be made to manufacture the cans. St. V. Le Sieur, President, went to Chicago recently for this purpose.



ATLAS PORTLAND CEMENT

"THE STANDARD BY WHICH ALL OTHER MAKES ARE MEASURED"

You're wrong—one Portland Cement is not as good as another. If this were true why is the Government using ATLAS brand exclusively in building the Panama Canal? Or why was ATLAS brand selected for the great Mississippi dam now being constructed at Keokuk, Iowa?

All brands were tested, and ATLAS had the desired quality—a quality as necessary to the success of your concrete work around the farm as to the success of these great engineering enterprises.

When you buy Portland Cement, insist on ATLAS. This trademark, on every bag or barrel, is your guide in getting the best.

"Concrete Construction About the Home and on the Farm" A free book for the farmer

is a mine of practical information. It is not a catalog. It is a text-book. Send for the book today. It is free.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT COMPANY, DEPT. 165, 30 BROAD ST., NEW YORK

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

Please mention National Farmer and Stock Grower.

The can is the invention of Le Sieur, and is made on the same principle as the thermos bottle. The company claims it will keep milk at the same temperature for twenty-four hours, enabling country dairymen to furnish milk to the cities even in the hot summer months without it being soured by heat. Theodore Soellinger, an East St. Louis City Councilman, is Vice-President of the company; and C. A. Summers, also a Councilman, Secretary and Treasurer.

Genuine greatness is marked by simplicity, unostentatiousness, self-forgetfulness, a hearty interest in others, a feeling of brotherhood with the human family."—Channing.

California cauliflowers are selling in St. Louis, wholesale, at $2.25 to $2.75 per crate.

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have a world-wide reputation for high quality and our prices have made them famous.

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experience selling to the consumer means success. We ship for examination, guaranteeing safe delivery, satisfaction and to save you money. Catalog shows all styles of pleasure vehicles and harness, pony vehicles and harness, spring wagons, delivery wagons and harness.

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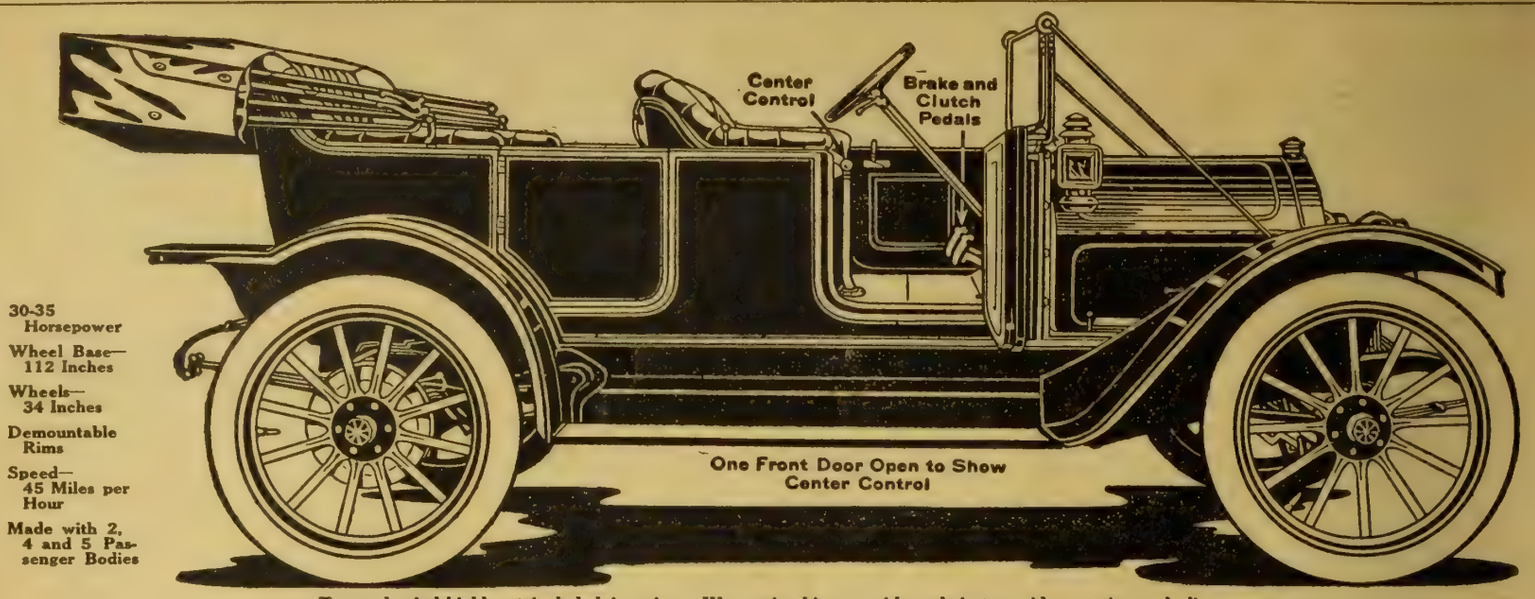

30-35 Horsepower
Wheel Base—112 Inches
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Demountable Rims
Speed—45 Miles per Hour
Made with 2, 4 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip-cover, windshield, gas tank and speedometer—all for $100 extra. Self-starter, if wanted, $20.00 extra.

Reo the Fifth—$1,055

The Car That Marks My Limit

By R. E. Olds, Designer

I have no quarrel with men who ask more for their cars—none with men who ask less. I have only to say that, after 25 years—after creating 24 models and building tens of thousands of cars—*here's the best I know.* I call it My Farewell Car.

I don't wish to surround this new car of mine with any intangible glamour.

Glamour is always expensive.

I am simply a shop man, engineer and designer. In my earliest memories I was puttering around my father's engine works.

On leaving school I began engine building. And the Olds Gas Engines—famous half the world over—gained their place by actual merit.

For 25 years I have built automobiles. I began with single-cylinder, six-horse-power machines. And I've run the whole gamut to six-cylinder sixties.

Tens of thousands of men, in those 25 years, have used cars of my designing. Just because they relied on me, year after year, to build the best of the current cars.

I recite this to show that I am essentially practical. I shall never attempt to create any illusions. So what I say here about Reo the Fifth will be simple, plain, every-day fact.

No Sensations

Reo the Fifth is no great innovation. The time has gone by for that

Thousands of good men, for two decades, have worked at perfecting cars. Together they have brought the modern automobile pretty close to perfection.

I believe that this new car embodies the best that all these men have accomplished. I searched the whole world for ideas for it.

It represents, in addition, the best I have learned through 25 years of continuous striving. So it comes, I believe, pretty close to finality.

The worth of a car, in these days, depends on no exclusive devices. It depends on facilities, on experience, on honesty of purpose, on the genius for taking pains.

Here I offer you all those—each in the extreme. And no motor car maker, whatever his price, knows how to offer more.

The Lessons Taught by Tests

My chief advantage lies here:

I was among the first to start learning the needs of automobiles. And I learned faster than others, because I had more cars out.

Experience is our greatest teacher. The inexperienced designer, however well-meaning, is bound to make countless mistakes. One learns only through errors the need for infinite pains.

One cannot anticipate every possible weakness. He must watch how cars, under some conditions, fall down. Then make the fault forever impossible.

In this way we learn to multiply margins of safety. We learn the need for exactness, for careful inspection, for laboratory tests. What once seemed sufficient becomes recklessness later.

Thus I have been learning for 25 years, through the myriads of cars I have built. And the flawless construction of this Reo the Fifth is due to that boundless experience.

Common Weaknesses

I might mention a thousand points which have thus been perfected, but I'll deal with the leading essentials.

The main source of weakness in motor cars is steel. It is due to ignorance, to carelessness or skimping.

By countless tests I have learned the best alloy for each purpose. And, to be sure that I get it, I analyze each lot of steel.

For the axles and drive shaft I use Nickel Steel. I use Vanadium Steel for connections.

For the gears I use the most perfect alloy ever worked out for this purpose.

To test these gears, which others test with a hammer, I have built a crushing machine of 50 tons' capacity. There I submit the gears to a crushing test, to measure exactly what each gear will stand.

The Nickel Steel axles are much larger than necessary. Every year I have built them stronger. Now my margin of safety in this vital part is considered extreme by most makers.

For the bearings on axles and on the transmission I use Timken Roller and Hyatt High Duty. Lesser bearings have led to trouble.

I have found that magnetos differ immensely. So I devised a test where, for ten hours a day, the magneto must act under tremendous compression. I have found only two makes which stand it.

Half the troubles with cars are due to a carburetor incapable of dealing with low-grade gasoline. So I adapted a carburetor to the commonest grades. And I doubly heat it—with hot air and hot water—to facilitate evaporation.

I add about one-fifth to the power of my engine by putting intake valves on top.

The long-stroke motor, the cylinders in pairs, the dust-proof transmission, the system of oiling, all simply accord with the best modern practice.

I carry inspection to the farthest extremes. Every part is inspected—every vital part tested. That is essential. Without it, flaws will creep in which only use can discover.

Good Measure

Another thing I have learned is that buyers enjoy good measure.

My wheel base is long, my wheels extra large, my tonneau is roomy. The car is over-tired. The springs are much stronger than necessary.

The design of the car, as each can see for himself, has the last touch of up-to-dateness.

The upholstering is deep, the filling is hair, the covering is genuine leather. I avoid all the petty economies.

The body finish consists of 17 coats. The lamps are enameled, as per the latest vogue. Even the engine is nickel trimmed.

The most perfect car will fail to satisfy buyers unless its appearance is perfect.

Exclusive Features

In addition to all this, Reo the Fifth has two or three features found in no other car.

One is the center cane-handle control. See the picture. All the gear shifting is done by moving this handle not more than three inches. It moves in four directions—for low speed, intermediate, high speed and reverse.

Another unique feature is the absence of brake levers. Both of the brakes operate by foot pedals. One of the pedals operates the clutch and the service brake as well.

So the front of the car is clear. The driver dismounts on either side as easily as you dismount from the tonneau.

This arrangement permits of the left side drive. The driver sits, as he should sit, close to the cars which he passes. He sits where he can look back in making a turn. He is on the up side of the road. This has only been possible heretofore in electrics.

These are features to which other cars must come. But you find them today only in Reo the Fifth.

Price—the Only Sensation

The only sensation in this Reo the Fifth is the price at which we shall sell it.

All the rest results from an earnest desire, in this my final achievement, to give the best that a car can give.

If I have done that—and I believe that I have—the price of $1,055 is both unique and sensational.

Most other features are found in some other cars. But no price like this—nor any price near it—can be found elsewhere in any car of this class.

Now I wish to explain the reason.

Paring Down Cost

For the past several years, my chief effort has been to cut down the cost of my cars.

I have felt that my place in the future depended as much on paring of cost as on skill in designing.

I have been helped in this by an enormous demand for my cars. Our multiplied output has cut overhead cost.

I have also been helped by the good-will these cars created. Each has helped to sell others. So selling cost is a fraction of what it was.

I have helped myself by inventing special machinery. The parts are now made by automatic machines, invented and built in our shops. Labor cost, on some parts, has been divided by fifty. And we get the utter exactness which hand work never gave.

Fixed Month by Month

We now make in this whole shop only one style of chassis. That saves in itself nearly $200 per car.

We have standardized the car, so that changes aren't necessary. Our tools and machinery last until we wear them out.

The whole car is now built in this one model factory, so we pay no profits to parts makers.

This year, in addition, we have cut a big slice from our profits. This new car, we figure, will more than double our output. And our profit hereafter will be a trifle per car.

Price Not Fixed

We have also adopted a changeable price. The price of today is based on today's price for materials—the lowest they have been in years. But our contracts with dealers provide for instant advance.

The price of $1,055 is the minimum. It can certainly never go lower. But, if cost advances, the price must be advanced. Price cannot be fixed for six months in advance without leaving big margin, and we haven't done that.

This initial price is the minimum. It is the lowest price, in my estimation, which an equal car ever will cost. But that is today's price only. I very much doubt if Reo the Fifth can long be sold that low.

My Supreme Effort

A hundred makers will argue that their higher-priced cars offer more than does Reo the Fifth.

I don't wish to dispute them. Judge that for yourself. It isn't hard to make actual comparisons.

Whatever the verdict, I can only say that this car marks my limit. I would not know where to add a single iota if paid a doubled price.

Better materials I know are impossible. Better workmanship is out of the question. Better features and devices, if they exist, are still unknown to me.

More power is possible, but not economical. More size, room and weight can be had, of course, if one thinks them worth the price. But more of care or skill or quality is totally out of the question.

This Farewell Car is my finest creation. If others do better, they are better men than I.

Ask for Catalog

This car with roadster body sells for $1,000. With close-coupled body or touring car body the price now is $1,055. Our catalog shows the various body designs.

It also gives complete specifications. It enables comparisons, part by part, with any other car.

The book is ready for mailing. Ask for it now, as this car at least is worth investigation. When we send the book we'll tell you where to see the car. Address

R. M. Owen & Co. General Sales Agents for **Reo Motor Car Co., Lansing, Mich.**

Canadian Factory, St. Catharines, Ontario

HURRY UP! To Be Most SUCCESSFUL

Send name on postal for offer of our new Poultry Lessons **free** *to every new customer.* Get Gilcrest's big book FREE and also his facts about his SUCCESSFUL Poultry Lessons given to buyers of

Successful INCUBATORS BROODERS $6.75 and up

Start right for biggest profits. Write to **Des Moines Incubator Co.,** 161 Second St., Des Moines, Ia.

SHOEMAKER'S BOOK on POULTRY

and Almanac for 1912 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. **Only 15c.** C. C. SHOEMAKER, Box 945, Freeport, Ill.

POULTRY PROFITS

—How to make them is told in our *big, free* "Poultry Growers' Guide for 1912." Eight illustrated chapters giving *latest* facts and advice on poultry raising. Describes and pictures **Cyphers Incubators and Brooders** also fully *explains* Cyphers Company Service which *insures success* of our customers. Write for *free* book today.

Cyphers Incubator Co. Dept. 56 Buffalo, N. Y.

HENS LAY AND PAY BY THE PHILO SYSTEM

FREE Booklet by E. W. Philo, entitled "A Little Poultry and a Living." Or New 96-page book, "Making Poultry Pay," 10c. Both books and the new enlarged edition of the Philo System text-book, $1.00, or all three books with our monthly magazine, Poultry Review, one year, $1.50.

E. R. PHILO, 13 North Ave., Elmira, N. Y.

Your Name Will Get $2 Eggs

For 50 Cents Per Sitting

The White and Brown Leghorns are the greatest layers in the World. I keep 2000 of the celebrated Chamberlain laying strains on my Experimental Farms, and to increase the sale of my Perfect Chick Feed, I will send to any one who will send me their name so I can send them my Perfect Chick Feed Catalogue, 2 sittings of Single Comb Brown or White Leghorn Eggs for $1 for the 2 sittings. Not less than 2 sittings sold. White or Barred Plymouth Rock or Rhode Island Reds or Silver or White Wyandotte or Rose Comb Brown Leghorn or Single Comb Black Minorcas or W. Orpington Eggs, $2 per sitting. Leghorn eggs, 13 to a sitting; other varieties, 15 to a sitting. Leghorn eggs, $6 per 100; all other varieties $10 per 100. Large White Pekin Duck Eggs $2 for 10 Eggs. This is a rare chance to get a start of extra fine stock. Send Post Office order on St. Louis and have your orders booked early. Write for our prices on Old Trusty and Buckeye Incubators. Freight paid.

W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*) KIRKWOOD, St. Louis County, MO.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Hatching Out Chicks by Wholesale.

The Hastings Hatchery at Muskogee, Oklahoma, is fixed up to hatch out 30,000 chicks at one time. The intention is to hatch eggs for farmers and ship back the day-old chicks, the hatching to cost one cent an egg.

Mr. Milo Hastings, formerly an investigator of the United States Department of Agriculture, is at the head of the enterprise.

The principle of the hatchery, as stated, is the use of a fan to drive the heat and gas burners down and through the eggs, instead of allowing it to rise to the higher elevations, as hot air will always do if left to itself. The fan principle enables the placing of the eggs in the hatchery twenty layers deep, instead of one or two, as in the small incubators. Therefore, one man can attend to the hatching of the entire contents of the hatchery, as thermostats and other scientific attachments positively control the heat in the incubator to 100½ degrees, which is the exact heat for hatching eggs. In case a stronger or lesser flow of gas in the heater is required, the thermostat controls it automatically.

Mr. Hastings built his hatchery in Muskogee because it is the one state where the great grain and chicken belt crosses a field of natural gas; that is, the logical point for the development of a great chicken industry.

Visitors are welcome at the hatchery, which is about the size of a large room. They can even enter and watch the chicks hatch from the eggs, because double and insulated walls and doors insure perfect protection from cold and draughts.

New Way to Fill Turkeys.

The New York Produce Review and American Creamery says: "Jacob Ginsberger, a butcher of 1594 Third avenue, New York City, was sentenced to three months in the penitentiary for inserting one to two pounds of lead in each of his Thanksgiving turkeys. Ginsberger's customers complained to the Bureau of Weights and Measures and Inspector Albert Lutz bought a turkey and with a small axe cut it open before the butcher, exposing a two-pound sinker. Investigation showed that nearly every turkey in the place was freighted.

The city of Cleveland, Ohio, has decided to go into the poultry business and 2,000 chickens will be purchased and a poultry plant established at the state farm at Warrensville with a view of at least raising enough poultry and eggs for the city institutions. At 30 cents per dozen the city now spends $72 a day for eggs. And when all salaries and expenses are paid very likely the eggs will cost the city of Cleveland a dollar a dozen.

Live Poultry Quotations.

Live poultry quotations on the St. Louis market towards the end of February (quote by the pound): Turkeys — Choice large dressing stock, 16c.; small and culls, 10 to 11c. Chickens — Springs, average run, at 13c.; springs, stags, 8c.; springs, broilers, 18c.; fowls, 11½c.; cocks, 7c.; capons, eight pounds and over, 17c.; do. six and seven pounds, 16c.; slips, 12c. Ducks, 14c. Geese, 8c. Guineas, young, per dozen, $4; old, per dozen, $2.

Blood Will Tell.

Charlie, aged eight, brought home a slinking yellow pup, bow-legged, drooping-tailed and shamefaced. He cared for it tenderly, fixed a dry goods box in the back yard for a kennel, and on every possible occasion exhibited the animal proudly. His sister, Ella, aged eighteen, asked [illegible] ctiously:

"Where did you get that dog?"

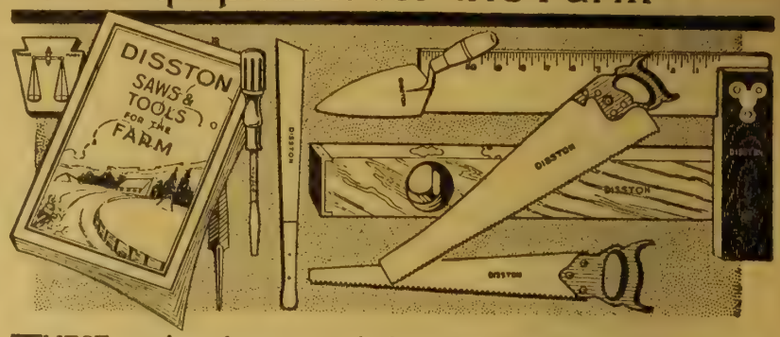
"I bought him from a man for 25 [illegible] with the pride of ownership.

"Ugh! The idea of paying 25 [illegible] that horrible beast!"

Charlie's eyes flashed indignantly. "He's not horrid. That shows how much you girl knows. The man told me he's a full-blooded cur."

[illegible] of Kansas had 3,000,157 [illegible] when the census was taken, and [illegible] increased now to 2,808,000 head.

This Free Book is the last word on Tool Equipment for the Farm



THESE are days of progress on the farm. The old rusty saw, hammer and hatchet days are long past. Is your tool house equipped right up to date as it should be? Before you decide "it's good enough," write for this free elaborate book on

DISSTON

SAWS TOOLS FILES

Especially Adapted to Farm Requirements.

You can do more for the welfare of your property at less expense by having the right tools and enough of them than you can by any other investment.

This book will give you many suggestions for adding tools that will save you money and even make you money.

It's worth getting for its information on the care of saws and tools alone.

Write for it today and study out how you can bring your tool equipment up to 100% efficiency. Any dealer can supply the Disston tools you need. Any dealer knows the unequalled quality of Disston Saws, Tools and Files.

But first write for this free book—the most practical tool book ever published for the farm.

HENRY DISSTON & SONS, Inc., Keystone Saw, Tool, Steel and File Works, **Box 1537-M,** Philadelphia, Pa.

[Please mention National Farmer and Stock Grower.]

HENS MUST LAY

WHEN FED *GUARANTEED*

PRATTS POULTRY REGULATOR

YOU Can't Go Wrong In Ordering a World's Championship Belle City Incubator and Brooder

Right From This Advertisement On 1, 2 or 3 Month's Home Test

MAYBE you want to get your machine quick—maybe you want to be ready for early hatches. If you do, you take no risk whatever over any risk you take when ordering from anywhere else. In ordering direct from this advertisement, you save time and trouble **and I guarantee everything to be satisfactory.**

Here is my proposition—for only **$7.55** I will ship to you, all freight prepaid East of the Rockies, my 140-Egg Double World's Championship Belle City Incubator—the machine that has won the World's Championship in over five thousand hatches. Read description—

My **140-Egg Belle City World's Championship Incubator** has simple, perfect self-regulator correct hot water heating system, copper tank, and boiler, safety lamp, double walls and double door, with dead air space all over, with roomy nursery and strong egg tray. Of course the thermometer is right; I use the "Tycos." I also supply egg-tester, burner, funnel, everything you need including valuable instruction book on operation, hatching and care of chicks.

The **Belle City Brooder** is as perfect as the Incubator—140-chick size—and my price is **$4.85.**

It's double-walled, hot water, top-heated, metal safty lamp and burner, wire runway yard with platform. Absolutely the most perfect chick raiser made today.

Combination Offer, Only $11.50 = Freight Prepaid East of Rockies

Ordered together, my **140-Egg Belle City Incubator** and **140-Chick Brooder,** will cost you only **$11.50** all freight prepaid East of the Rockies. This saves you 90c which will furnish all the oil you will need for this season hatches. I guarantee to ship orders received from this advertisement on the same day received either from my warehouse nearest you or Racine. This insures quick action—insures your getting started early.

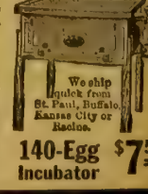
Remember I guarantee to refund your money if you are not satisfied with your home test.

Read the letter below from the Commercial and Savings Bank of Racine as to your protection. Why not order now or let me send my portfolio, **"Hatching Facts"**—the most unique piece of poultry literature published—different from all the rest better than the best. This Portfolio sent with each machine ordered, or I will mail it to you **Free** for your name and address, on a postal card.

140-Chick Brooder **$4.85**

JIM ROHAN, President
BELLE CITY INCUBATOR CO.
Box 74, Racine, Wisconsin

"To Whom It May Concern:
Jim Rohan, President of the Belle City Incubator Company, is one of our depositors—perfectly reliable in every way and people are perfectly safe in ordering his incubators and brooders from his advertisements, sending money in advance, as we have known him for years and know he will fulfill all agreements.
(Signed) C. R. CARPENTER, Cashier."



140-Egg Incubator **$7.55**

Please mention National Farmer and Stock Grower.

$15.95 AND UPWARD

AMERICAN SEPARATOR

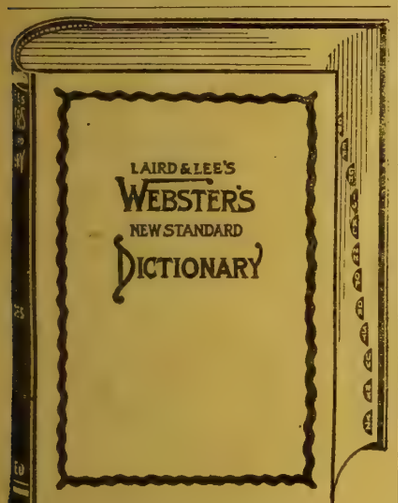
SENT ON TRIAL, FULLY GUARANTEED. A new, well made, easy running separator for $15.95. Skims hot or cold milk; heavy or light cream. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Whether dairy is large or small, obtain our handsome free catalog. Address,

AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N. Y.

Please mention Nat. Farmer and Stock Grower.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, special thumb index. Special edition for office and general use on



farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Co-operative Creamery Routes.

In the New York Produce Review and American Creamery Mr. M. Sorenson, Creamery Manager of Minnesota, said:

"In the majority of our creameries the milk and cream are brought to the creameries by individual patrons and co-operative routes. I think the co-operative routes are preferable to almost anything or any system in use. For one thing, each and every patron gets a chance to get acquainted with the creamery management and feels as one of us. His interest is turned towards the creamery and he will have more confidence in the affairs conducted there. What I mean by co-operative routes is this: A number of farmers join together and exchange hauling their milk or cream to a creamery, taking their respective turns. We have found that we get the highest grade of cream this way also, besides it economizes along the lines of cutting down hauling expenses. Where a farmer milks about four cows it would almost be out of the way to ask him to come to town with his cream two to four times per week, whereas if he goes with a route he can come once every other week if the route is large enough."

Small Farms in Great Britain.

According to the investigations of United States Consul General John L. Griffiths of London, there is a decided increase in the number of small rural holdings, it being stated that at the close of 1911 there were 292,500 such holdings in England and Wales, as against 288,000 in 1910, and that in the last three years there has been a gain in number of 5,312, or nearly two per cent.

The economy of water transportation is shown by the Tariff Board investigations. It costs less per pound to transport wool from Australia to Boston than it does from the Rocky Mountain ranch shipping points to Boston. It was also shown by the investigators that it costs 31 cents per pound more on an average to produce one pound of scoured wool in the United States than in Australia, the greatest competitor of our country.

Parcels Post in South Africa.

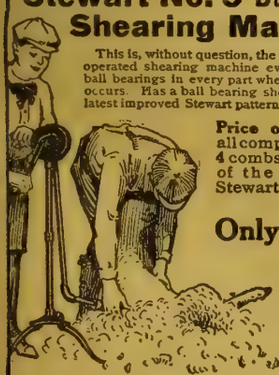
The United States Consul at Johannesburg, South Africa, reports the rates of the parcels post in that country, saying that a parcel up to 11 pounds in weight will be carried to any part of the Union for 24 cents. The scale of postage is as follows: Up to 1¼ pounds, 6 cents; over 1¼ pounds and not more than 3 pounds, 12 cents; up to 6 pounds, 16 cents; up to 9 pounds, 20 cents; up to 11 pounds, 24 cents.

In a hatching contest Geo. W. Black, an Indiana poultry raiser, succeeded in raising two one hundred per cent. hatches. The contest was instituted by Successful Farming.

Get More Wool
Get Longer Wool
Get More Money

for your wool by shearing with a Stewart machine because such wool has a longer fibre. Wool buyers pay more for long staple—and you get the longest by shearing with a

Stewart No. 9 Ball Bearing Shearing Machine



This is, without question, the most perfect hand operated shearing machine ever devised. Has ball bearings in every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern.

Price of machine, all complete, including 4 combs and 4 cutters of the celebrated Stewart quality is

Only $11.50

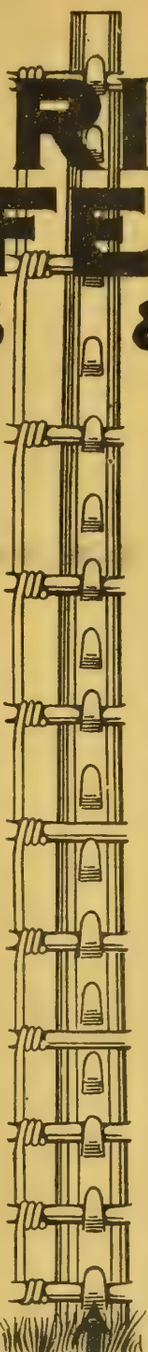
Get one from your dealer, or send $2.00 and we will ship C. O. D for balance. Money and transportation charges back if not pleased.

Chicago Flexible Shaft Company
182 Ontario St., Chicago, Ill.

Write for big new catalogue showing the most complete and modern line of Horse Clipping and Sheep Shearing Machines on earth.

AMERICAN FENCE

ORIGINAL & GENUINE STEEL POSTS & GATES



THE pasture is the mother of the farm. The permanent pasture should be divided into fields by the use of woven wire fences.

Fields should be of such size that each one will be pastured off in from 8 to 10 days. The number of fields will depend on the growth of the grass. By dividing the pasture the grass is evenly cleaned up and an intense use is made of the whole pasture. To save time the pasture should be provided with gates, handy, easy to open and not too small. Pasture is the mother of the farm, and live stock must have freedom.

American Fence is made of large, stiff wires, galvanized heavily, having the American hinged joint (patented), a fabric most flexible and wear-resisting. A square mesh fence of weight, strength and durability—three great needs in farm fences.

We appeal to the scales as the judge between American and other fences. Its decision shows weight of metal; and as fence is sold by the rod, the buyer gets more for his money.

Dealers in Every Place

where farm supplies are sold. Shipped to them direct from mills in carload lots, thus saving freight charges and enabling dealers to sell at lowest prices, giving buyer the benefit.

F. Baackes, Vice Pres. & Gen. Sales Agt., AMERICAN STEEL & WIRE COMPANY, Chicago, 72 W. Adams St.; New York, 30 Church St.; Denver; U. S. Steel Products Co., San Francisco, Los Angeles, Portland, Seattle.

American Steel Fence Post Cheaper than Wood and More Durable. Get Catalog.

Send for copy of "American Fence News," also book "How to Make the Farm Pay," profusely illustrated, devoted to the interests of farmers and showing how fence may be employed to enhance the earning power of a farm. Furnished free on application.

Please mention National Farmer and Stock Grower.

3 MINUTES SHARPENS DULL AX

"It took just 3 minutes to put a very dull ax in perfect shape," writes J. A. Sudan, Newark, Del.—Another letter says: "My ten year old boy ground several chilled plowshares—he sharpens all the tools on the place," writes J. O. Smith, Woodville, Ky.

Over one-half million farmers know this to be true and sharpen their sickles, discs and all farm tools with the

Luther Farm Tool Grinder

It is a wonderful tool grinder—the only all steel frame grinder made—has shaft drive like an automobile—enclosed bearings—gravity lubrication. Has 30 different attachments for doing all kinds of difficult tool sharpening, also rip saw, jig saw, drill, milk tester attachment, lathe, forge, etc.

Fast Sharpening Wheels Save Time. Luther Tool Grinders have Dimo-Grit sharpening wheels. 25 times faster than the grindstone—10 times more efficient than emery. Will not draw temper.

FREE TRIAL ON YOUR FARM

Send for special offer which permits you to use this outfit on your farm 30 days free without advance payment; also 40 page book which tells everything and hundreds of letters from satisfied users.

LUTHER GRINDER MFG. CO., 357 K Stroh Bldg., Milwaukee, Wis.

Please mention National Farmer and Stock Grower.

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.

KIRBY STOCK FARM, Marmaduke, Ark.

BLUE RIBBON HERD of POLAND-CHINAS.

Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description. E. B. Thompson Barred Plymouth Rocks; eggs, $3.00 per 15.

JOHN McLAUGHLIN,
R. F. D. No. 1, Marmaduke, Ark.

CARPENTER'S POLAND-CHINAS.

Thirty fine Fall Pigs sired by three of the greatest Boars in the Southwest from the best Sows money could buy. I have Sows in my herd from the following noted breeders, champions and grand champions: Frank D. Winn, Sheehy Bros., J. E. Mehairy, F. H. Stanberry & Sons, J. P. Vissering, S. F. Burks and I. C. Liggitt. These Sows have cost me from $75 to $165 each. I also have just added to my herd a $500 Boar, the greatest I ever saw. Must have room for spring farrow and these Pigs go at $15 to $20. Write for catalogue if interested and please mention this paper.

WILDER CARPENTER'S GRAND VIEW BREEDING FARM, Marmaduke, Ark.

DUROC-JERSEYS Thrifty Fall Pigs at very reasonable prices.

S. O. ALBIN, Siloam Springs, Ark.

TRUMANS' PIONEER STUD FARM,

America's Largest and Oldest.

Importers of

SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for Catalogue.

Address.

J. G. TRUMAN, Manager, Bushnell, Ill.

DUROC-JERSEY HOGS.

One Yearling Boar by W. R.'s Chief and out of a Liberty Chief dam. One Spring Boar by B. & C.'s Col., II., and out of a Crimson Wonder, III., dam. Fall Pigs of either sex; best of breeding.

H. H. HOFMANN, Route 1, Belleville, Ill.

WHEN PLANKING DOWN HARD CASH

for Big-type Prolific Pork Machines, any age or sex, YOU WIN if the last word is from

J. P. VISSERING, - Box 1, - Alton, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

"THE PINES" HERD OF HOLSTEINS.

Breeder and shipper of high-grade HOLSTEIN CALVES. Prices reasonable.

J. W. FARRELL, Prop., R. F. D. 3, Elgin, Ill.

Tamworths The hog that puts vigor, proficacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free.

W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.

ROSE COMB BROWN LEGHORNS

and R. C. R. I. Reds, score birds, $2.00 to $5.00 each, according to score; unscored birds, $1.00 each. Eggs from either variety. High-scoring birds, $3.00 for 15 eggs. **Poland-China Pigs.** Orders booked at $15.00 each at weaning time. Write for further particulars,

D. F. BEAUCHAMP, Meredosia, Ill.

PURE-BRED REGISTERED ANGORA GOATS

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guranteed.

R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed, early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

SCOTCH COLLIES FOR SALE.

Choice Scotch Collies, all ages. A No. 1 Stud Dogs. Guard and companion for the little boy or girl. Very handsome, pedigreed and all right. **R. FLEMING, Cuba, Kas.**

JACKS AND SADDLE STALLIONS.

100 Registered Kentucky Mammoth Jacks and Saddle Stallions. A big lot of Jennets, Saddle Mares and Geldings. A few good Walking Horses, Pacing and Trotting Stallions; also Big, Black Pigs, Tamworth and Hampshire Swine. Cook pays the freight on Jacks.

J. F. COOK & CO., Box No. 436 B, Lexington, Ky.

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43 Varieties Poultry, Pigeons, Ducks, Geese, Turkeys, Guineas, Inbubators, Dogs. Catalogue 3 cents. **MISSOURI SQUAB CO., St. Louis.**

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55 BREEDS Pure-bred **Chickens, Ducks, Geese, Turkeys, also Incubators, Supplies and Collie Dogs.** Send 4c for large Poultry book, Incubator Catalog and Price list. H. A. HINIKER, Box 74, Mankato, Minn.

ENNIS FARM—GOLDEN SUNSET POULTRY.

Buff Orpingtons, Rhode Island Reds, White Leghorns, Bourbon Red Turkeys, Buff and Indian Runner Ducks. Free mating list. Also Ennis Farm Quarterly Bulletin, listing for sale Jersey Cows, Heifers and Bulls, and Big-boned Spotted Poland-China Hogs. **ALBERT S. ENNIS, 712-21 Central National Bank Bldg., St. Louis, Mo.**

LARGE YORKSHIRE SWINE.

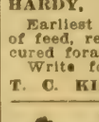
THE BREAKFAST-BACON HOG.

Also produces finest quality of sweet, tender, juicy, fresh pork. Pure-bred.

HARDY, VIGOROUS, PROLIFIC, KIND.

Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

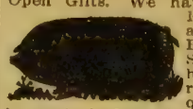
T. C. KIMBER, P. O., Pilot Knob, Mo.



Free Poster Poultry Calendar for 1912 for 2c. postage. Illustrates leading varieties. Pure-bred Chickens, Turkeys and Geese. Quote low prices on stock and eggs. **THE L. H. MUELLER POULTRY FARM, Wellsville, Mo.**

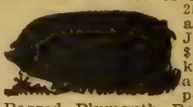
POLAND-CHINAS FOR SALE.

Fifty head of extra-fine Brood Sows and Gilts bred for early litters; also some fine Open Gilts. We have a lot of nice Fall Pigs of both sexes; also a few extra good young Boars that will make Show Hogs. If you want hogs that are bred right, with size and quality, write us. We have stock for sale at all times and guarantee satisfaction. An extra-fine coming three-year-old Percheron Stallion for sale.



SHEEHY BROS., R. F. D. 1, HUME, MO.

POLAND-CHINAS AND BARRED PLYMOUTH ROCKS of leading strains. 200 to 250-pound Service Boars at $20; also Bred Gilts, July Boars and Gilts, $17; Fall Pigs, $14, known for large litters and size with quality; pedigree with each. Barred Plymouth Rock, Thompson Ringlet and Latham's Eggs at $1 for $15; $3 for 50; $5 for 100; $19 for 400. Satisfied customers in thirty-six states.



A. F. SIEFKER, Defiance, Mo.

MISSOURI HERD OF TAMWORTH SWINE. Summer, Fall and Winter Pigs; Sows bred; Boars ready for use, all from large, massive parent. They are priced right. Write your wants to **W. J. WHITE, R. F. D. 1, Butler, Mo.**

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

CLOVERDALE FARM—Breeders of Jacks and Percheron Horses.

Twenty Registered Kentucky Mammoth Jacks, three to four-year-olds, fifteen Yearlings and Colts subject to registry. Some nice Percheron Stallions and Mares. Write for circular of the Cloverdale Jacks, Percherons, Tamworth Hogs and Rhode Island Red Chickens. We pay express on all Jacks shipped West.

H. T. BROWN & CO., Lexington, Ky.

BLOODED STOCK NOTES.

The Twenty-seventh Annual Meeting of the Dutch Belted Cattle Association of America will be held at the Hotel Imperial, Broadway and Thirty-second street, New York City, May 9, 1912, at 12 o'clock noon. At this meeting officers will be elected to succeed President, H. W. Lance; Vice-President, Wendel Andreas; Executive Committee, D. Lewis Downs, Mrs. Norvilla Dunham, Northrup Fowler, S. S. Rasey, F. E. Stevens; also the Secretary and Treasurer, G. G. Gibbs. Representatives of the Press and non-member breeders receiving this notice are invited to be present as guests of the association. The call is signed by G. G. Gibbs, Secretary, Marksboro, N. J.

A total of eighty-one head of pure-bred Shorthorn cattle were sold at Toronto, Canada, at public auction, in February, for an average of $244.50 per head. The sixty females averaged $265, including one at $1,300 and one at $1,535. The bull average for twenty-one head was $162, the best price being $450 for a 1911 calf.

The Cloverdale Farm of Lexington, Ky., has thirty-five Kentucky mammoth jacks, all registered or subject to registry. Among the jacks are five by the great Dr. McChord, 1,766; two by Greatland, 1,470; three by King Giant, 683; two by Clark, 1,891; four by Paymaster, 819. Two of the greatest jacks in their barns are Nathan, 3,138, and Gen. Boyle, 3,662, brother to the great Ben Franklin, who was one of the greatest show jacks ever raised in Kentucky. You should write H. T. Brown & Co. for their circular, or visit the Cloverdale Farm at Lexington, Kentucky.

Mr. J. H. Truman, in England, has purchased from the noted Sandringham Stud owned by His Majesty, King George, the celebrated Shire stallion, Golden Rock, II., and at the urgent request of a number of the leading breeders in the Whittlesea District, he will retain the horse there for their use and at the end of the season will be shipped to Bushnell for exhibition at the leading State Fairs. He is described as a horse of extreme size, standing on the best of feet and joints, 13½ inches of bone below the knee of the very finest quality; beautiful silky hair; oblique shoulders; strong back and loin with deep, well-sprung rib and extreme width; weighing in his three-year-old form a little over an English ton. At Trumans' Pioneer Stud Farm Bushnell, Ill., they can show right now 110 imported Shire, Percheron, Belgian and Hackney horses, and the 1912 catalogue can be had by writing for it.

Mr. J. Q Murphy, proprietor of the Meramec Dairy at Kirkwood, Mo., who has a fine herd of pure-bred Holstein cattle, has also two elegant young bulls of his own breeding for sale. His original stock came from Mr. Moore, of Cameron, breeder of Shadybrook Gerben, the World's Fair Demonstration Cow. Anyone who may wish to buy a bull to head a Holstein herd will find it worh while to write to Mr. Murphy.

Mr. J. P. White, of Butler, Mo., who is advertising Tamworth pigs of all ages, is located in Bates county, south of Kansas City, on the Missouri Pacific Railroad, with express facilities in any and all directions.

The Cook Farms at Lexington, Ky., sold recently six registered Kentucky mammoth jacks to Senor Joaquin C. Ballina, of the City of Mexico. Senor Ballina owns a ranch near there and the jacks are for his own use. They also sold to Cuban parties he saddle mare Daisy Rex, 5,763, a Shetland pony stallion and six pure-bred Berkshire hogs which were shown at the Havana Fair in February. Messrs. J. F. Cook & Co. do a large export business.

AFTER READING THIS LOOK AROUND THE BARN AND STABLES.

As this is the time of year, a few suggestions may interest our subscribers.

We wish first to sound a warning against the buying of so-called cheap tools. They are invariably cheap—in quality—and prove expensive in the end. Let quality guide your every purchase.

Tool buying should no longer be a hit-or-miss proposition with any farmer from a standpoint of quality, for the Simmons Hardware Co., Inc., of St. Louis and New York—a firm of sterling integrity and over forty-five years' reputation—stands ready to back up its goods with a positive guarantee as to quality of material and workmanship.

To help the farmer distinguish its line of tools readily the Simmons people have branded them with the famous Keen Kutter trademark, and the farmer who asks his dealer for all his tools under that name—and sees by the trademark that he gets them—needn't bother his head about quality. It's there all right.

Take Keen Kuttter Manure Forks, for instance, as you will probably need one just at this season. The tines are particularly strong, yet have great elasticity. The handles are straight-grained, denoting great strength. Next time you are in town just call in at your dealers and handle one of these Manure Forks—you can almost feel how easy it would be to pitch manure with them.

Among other seasonable suggestions could be mentioned Keen Kutter Garden Rakes, Hoes, Spades, etc., but whatever your needs may be in the tool line, buy by the Simmons trademark. Write to Simmons Hardware Co., St. Louis, Mo., for Booklet No. 1331 and study it.

O. L. CHASE, THE PAINT MAN.

On page 28 will be found an advertisement of O. L. Chase, the Paint Man. He has been in business at St. Louis and has established a new standard of paint worth. He sells a made-to-order paint, a fresh paint, with its life intact, instead of the old-style stale paint. Over 50,000 customers now testify to the durability of O. L. Chase Paint and the reliability of O. L. Chase. Address him Dept. 16, St. Louis, Mo., or Dept. 16, Chicago, Ill.

Why Rent a Farm

and be compelled to pay to your landlord most of your hard-earned profits? Own your own farm. Secure a Free Homestead in Manitoba, Saskatchewan or Alberta, or purchase land in one of these districts and bank a profit from $10.00 to $12.00 an acre every year.

Land purchased three years ago at $10.00 an acre has recently changed hands at $25.00 an acre. The crops grown on these lands warrant the advance. You can

Become Rich

by cattle raising, dairying, mixed farming and grain growing in the Provinces of Manitoba, Saskatchewan and Alberta in Western Canada.

Free homestead and pre-emption areas, as well as land held by railway and land companies, will provide homes for millions.

Adaptable soil, healthful climate, splendid schools and churches and good railways.

For settlers' rates, descriptive literature "Last Best West," how to reach the country and other particulars, write to Sup't of Immigration, Ottawa, Canada, or to the Canadian Gov't Agent.

Canadian Government Agent,
125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
112 Merchants Loan & Trust Bldg., Chicago, Ill.

Go South Sir!

Farm Land $10 an acre up can be purchased in the Southeast along the Southern Railway, Mobile & Ohio R.R. Ga. So. & Fla. Ry. supporting good churches, schools, stores and improved highways.

LIVE STOCK, POULTRY AND DAIRYING business pays big, and is conducted at smaller cost than in other sections of the country. Luxuriant pasturage and green fields the whole year 'round make this possible.

ALFALFA GROWS abundantly in nearly all parts of the Southeast. Many acres produce 4 to 6 tons, selling locally from $14 per ton up.

APPLES, FRUIT, TRUCK AND COTTON are other big paying crops. Apple orchards net $100 to $500 an acre, and truck gardening $200 up.

CLIMATE UNSURPASSED—Every day in the year one can work in his fields. These long seasons allow raising two and three crops from the same soil each year.

Subscription to "Southern Field" and booklets on States of Va., N. & S. Car., Ga., Fla., Ala., Miss., Tenn. and Ky. sent FREE.

and Grow Rich

M. V. RICHARDS, L. and I. Agent, Southern Railway, Room 71, Washington, D.C.

FARM AND RANCH LANDS.

ARKANSAS.—Lands on the Cotton Belt Route in Arkansas are offered for sale at remarkably low prices. All farmers and "intend-to-be farmers" should post themselves. Write for free books showing the best locations. Address, **E. W. LaBeaume**, G. P. & T. A., 1419 Pierce Bldg., St. Louis, Mo.

CANADIAN HOMES.—Canadian lands can be had very cheap on the Canadian Pacific Railway in Alberta, Manitoba and Saskatchewan. Turn to page 29 and read the advertisement; then send in the coupon. It will get a line of reliable information.

FLORIDA SUBURBAN HOMES.
One of the most choice tracts of land in Florida sold direct to you by the owner. GEORGIAN HEIGHTS, FLORIDA, is not the ordinary kind of land. It is better and more conveniently situated. Only fourteen miles west of Jacksonville. The Florida Railway runs through the center of GEORGIAN HEIGHTS. Two other railroads, good, hard-surface wagon roads and automobile highway all run into Jacksonville, which is the largest and best city in Florida. All these conveniences, the high elevation of the land, good soil, together with the mild Florida cimate all the year round, make GEORGIAN HEIGHTS one of the most desirable locations in the state. I will give you a valuable town lot free with each five-acre tract purchased. Price for tract, $300.00. Easy terms by the owner, **J. T. George**, Wainwright Bldg., St. Louis, Mo.

ILLINOIS.—Splendid farm property in Madison county, Ill., a short ride from St. Louis; 100 acres fine land; cannot be excelled. Two miles from station on Big Four Route; four-room house, summer kitchen; 1,200 fruit trees just in bearing. Rare opportunity to buy excellent farm property. Price reasonable. For further particulars address **Illinois Farmer,** care National Farmer and Stock Grower, 3550 Vista Ave., St. Louis, Mo.

MISSOURI.—For Sale: Dairy in Missouri. Income, $5,000 per year. All wholesale. Great opportunity for increase. Address, **"X,"** care National Farmer and Stock Grower, 3550 Vista Ave., St. Louis, Mo.

TEXAS.—Farms For Rent in Northern Texas. $1.00 per acre. **W. H. Bush,** 217 West Monroe street, Chicago, Ill.

To Buy, Sell or Exchange Property, address **Northwestern Business Agency, Minneapolis, Minn.**

FARMS WANTED. We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property **FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

TEXAS.—Many of the very best farms and farm lands are to be found on the line of the Cotton Belt Route in the state of Texas. A reference to that country will be found on page 2 of this paper. Send in your name and receive free books concerning the rich land bargains to be had on this line. Address, **E. W. LaBeaume,** 1419 Piecre Bldg., St. Louis, Mo.

The Wheat Market Situation.

A speculator in grain was quoted to have said a few days ago that pretty soon flour (meaning patents) would sell for ten dollars a barrel. If so, flour will have to advance immensely, because patent flour is selling as we write, on February 29th, at $4.75 a barrel, containing 196 pounds. We have No. 2 wheat selling at one and seven-tenths cents a pound, and the best flour selling at two and four-tenths cents a pound, and the extra fancy flour, such as bakers use, is selling at $3.60 per barrel, or one and eight-tenths cents a pound. There appears to be no high cost of bread, although it is practically a dollar market for wheat when it arrives on the wheat market. Wheat could advance another 20 cents a bushel without being higher than it ought to be every day in the year.

On February 29th, on the St. St. Louis market, No. 2 wheat was quoted at $1.02 to $1.02¾ a bushel, the highest closing price of any month in over a year.

Last September 30th, the Chicago trading in wheat closed at 94¾ cents; the December option was closed out at 93 cents; and on February 29th the May quotation for 1912 was $1.02⅛.

"To be or not to be, that is the question." March is the month in which the grain broker wakes up. On March 8th, Uncle Jim Wilson, Secretary of Agriculture, issues his report of grain in farmers' hands, etc., practically a show-down of supplies here, there and everywhere. Let no one suppose that the Board of Trade is leaving Uncle Jim the sole privilege of knowing what there is in sight. They also do some investigating, and his statements, figures and conclusions are taken for what they are worth and no more. Uncle Jim Wilson issued a "bull" report once and thought it was a "bear" report; the judgment of the market was a surprise to the Secretary, but the market judgment is something that is backed by dollars and cents every day and hour, and "money talks."

The speculative trade is now (February 29th) looking for May wheat to be closed out at $1.02⅛ a bushel, that being the last blackboard record of a sale. That figure cannot be disturbed until trading begins again, but before the end of March it may change materially. We would not be surprised to see the market develop strength, and it would if business conditions were to improve. The supply of wheat is moderate.

The July option was quoted (February 29th) at 96⅞ cents, and it is influenced by the crop of 1912, and that as we write is an unknown quantity.

An I H C Manure Spreader Will Save Your Farm

THE whole future of American farming depends upon the farmers' attitude toward fertilizing. Already Middle Western farm lands are issuing a warning to their owners by producing smaller and smaller average crops. If the warning is not heeded, and fertility immediately restored to them, the lands of the West will soon be in the same list as some of those of the East—worn-out farms.

Immediate action is imperative. If your farm has not yet shown signs of reduced production you are fortunate; you can save it without a long, tedious system of upbuilding. Whether your farm is "as good as new" or not, your duty to the soil and to your children—the farmers who will follow you is: Practice rotation of crops, begin using an I H C Manure Spreader and spread enough fresh manure each year to replace the plant food drawn from the soil by the previous crop.

I H C Manure Spreaders

Kemp 20th Century, Corn King, Cloverleaf

are best for the work because they get 100 per cent efficiency out of the manure. When spread by an I H C Spreader, one ton of manure will produce more and better results than two tons spread by hand.

I H C Spreaders are constructed to completely pulverize manure and to spread it in an even coat, light or heavy as may be needed, over all the soil, at the same time requiring the least effort on the part of driver and horses. They are simple but effective, strong, but not too heavy; and exceedingly durable.

The beater gears are held by a single casting which keeps them in line under every strain. The beater teeth are long, strong and chisel pointed. They pulverize the manure and do it thoroughly. The beater is long enough to prevent winding. The teeth do not rim the bars. These are only a few of the mechanical advantages of I H C Spreaders; every one a reason why you should buy.

The I H C local dealer will show you the I H C Spreader and help you select the machine best adapted to your needs. Made in many styles and sizes. Get catalogues from the local dealer, or, write

INTERNATIONAL HARVESTER COMPANY OF AMERICA
CHICAGO (Incorporated) U S A

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U. S. A.

The Two Concrete Books.

We sell a cement book that is well worth buying, as will be seen on page 22; but there is another book which is on the same subject, and it is sent absolutely free. It is entitled "Concrete Construction About the Home and on the Farm." It is not a catalogue; it is an illustrated, instructive book whereby you first learn to do little things with concrete and then greater and still greater as you get better posted. Write to Atlas Portland Cement Co., Dept. 165, 30 Broad street, New York, and ask for the free Cement Book. You will get it and you will find it very satisfactory.

1912 Pratt-Forty

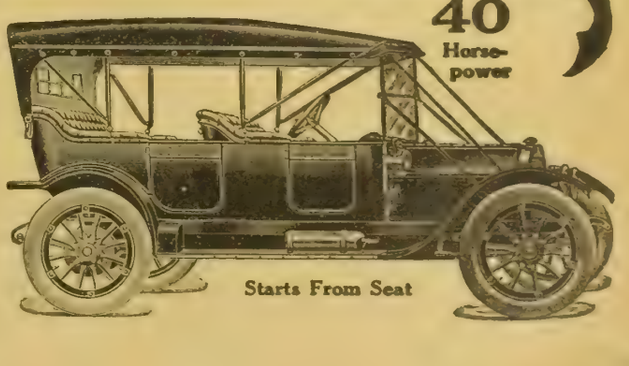
Fourth Successful Year

Backed by 39 Years' Manufacturing Experience

Guaranteed for one year. Self-Starter, 120-inch Wheel Base, Unit Power Plant, Three-point Suspension, Bosch Magneto, Demountable Rims, 36 x 4 inch Tires, Inside Control Levers, Electric Side and Tail Lamps. List price Model "H," $2,000, fully equipped, Mohair Top, Windshield, Speedometer, Prest-o-lite Tank, etc.

There are many localities where we have no agent, and if you will write us, we will send you our catalog and interesting proposition on a car for your own use. We also make a full line of carriages and harness.

ELKHART CARRIAGE & HARNESS MFG. CO.
Elkhart, Indiana



Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Boundless Possibilities of the Southeast.

Now that lands have advanced in the Western and Northern States to their present high values, the Southeast, with its millions of low-priced acres, is just beginning to receive the attention it deserves.

Modern agricultural methods are working wonders in the Southeastern States and accomplishing the following wonderful results: Two and three crops from the same land in a season; four to six crops of alfalfa, with a ton to the cutting; raising beef and pork at three to four cents a pound; clearing from $100 to $500 an acre on apples; producing 60 to 100 bushels of corn per acre, then sowing wheat on the same land, harvesting 20 to 25 bushels per acre the next spring; clearing $200 to $400 an acre on truck crops—accomplishing all of these marvelous records on land that can now be purchased for $10 an acre and up.

$3.50 Recipe Free For Weak Kidneys.

Relieves Urinary and Kidney Troubles, Backache, Straining, Swelling, Etc.

Stops Pain in the Bladder, Kidneys and Back.

Wouldn't it be nice within a week or so to begin to say goodbye forever to the scalding, dribbling, straining, or too frequent passage of urine; the forehead and the back-of-the-head aches; the stitches and pains in the back; the growing muscle weakness; spots before the eyes; yellow skin; sluggish bowels; swollen eyelids or ankles; leg cramps; unnatural short breath; sleeplessness and the despondency?

I have a recipe for these troubles that you can depend on, and if you want to make a quick recovery, you ought to write and get a copy of it. Many a doctor would charge you $3 to put up a prescription, but I am glad to send it to you entirely free. Just drop me a line like this: Dr. W. J. Thompson, K-1174 Luck Building, Detroit, Mich., and I will send it in a plain wrapper. As you will see when you get it, this recipe contains only pure vegetable remedies, but it has great healing and pain-conquering power.

It will quickly show its power once you use it, so I think you had better see what it is without delay. I will send you a copy free; you can use it and cure yourself at home.

To those especially interested in knowing more of the Southeastern United States, its fine climatic conditions, mild winters and enjoyable summers, we would suggest they write to Mr. M. V. Richards, Land and Industrial Agent, Southern Railway, Room 71, Washington, D. C., mentioning this paper and asking for a free subscription to the "Southern Field," a very interesting publication issued bi-monthly, covering all the agricultural, mineral and geographical conditions of this interesting part of our country south of the Ohio and east of the Mississippi rivers.

Undeniable Hatching acts.

Jim Rohan, of Racine, Wisconsin, who makes the Belle City Complete Hatching Outfit of both incubator and brooder at a combination price of $11.50, gives one, two or three-months' home test and prepays the freight east of the Rocky Mountains. His 1912 big portfolio folder giving valuable "hatching facts" will be sent free to any reader who writes Jim a postal. Belle City Incubators cost $7.55 and Brooders $4.85, so in the combination price, besides saving 90 cents, you get all freight prepaid, too. The Belle City is 140-egg capacity and has won in several championship hatching contests.

Mrs. M. J. Clifton, of Oklahoma, won first prize in the 1910 Successful Farming Contest, hatching 140 chicks from 140 eggs.

Mrs. Laura J. Clark, of Illinois, was prize winner in the Missouri Valley Farmer and Nebraska Farm Journal Great Contests, 2,000 hatches for 1911. Her winning hatch was 140 chicks from 140 eggs.

Mrs. F. H. Osman, of Ohio, won the solid silver, gold-lined cup offered in contest by the maker of "Tycos" Thermometers.

The proof of these facts and full details, prices, descriptions, etc., about Belle City machines, illustrated in colors, is all in "Hatching Facts," sent free if you write Jim Rohan, Box 74, Racine, Wisconsin.

Swine-raising Statistics.

The United States Department of Agriculture estimates that we have now 65,410,000 hogs on farms in the United States, against 58,185,676 enumerated a year and a half ago, when the census was taken. There is a gain in every district, the largest being 3,138,491 in Minnesota, Iowa, Missouri, Nebraska, Kansas and North and South Dakota. The next largest is 1,281,449, in Kentucky, Tennessee, Alabama, Mississippi Louisiana, Texas, Oklahoma and Arkansas.

The next largest increase is 1,220,941 hogs in Ohio, Indiana, Illinois, Michigan and Wisconsin.

Iowa shows a notable increase of over two million hogs, and Nebraska gains nearly a million.

The states showing over two millions of hogs are Iowa, 9,689,000; Missouri, 4,491,000; Nebraska, 4,267,000; Illinois, 4,640,000; Indiana, 4,031,000; Ohio, 3,578,000; Kansas, 2,808,000; Texas, 2,544,000; Georgia, 2,098,0000; Wisconsin, 2,051,000.

The states with a million hogs or more are Pennsylvania, 1,141,000; North Carolina, 1,405,000; Michigan, 1,382,000; Minnesota, 1,702,000; South Dakota, 1,104,000; Kentucky, 1,724,000; Tennessee, 1,574,000; Alabama, 1,533,000; Mississippi, 1,577,000; Louisiana, 1,642,000; Oklahoma, 1,410,000; and Arkansas, 1,738,000.

The Improvement of Timothy.

Dr. H. J. Webber, Professor of Plant Breeding in the New York State College of Agriculture, in his address on the "improvement of the hay crop," before a general audience in attendance at Farmers' Week, gave the results of important investigations in the breeding of timothy.

In 1910, seventeen new varieties gave an average yield per acre of 7,451 pounds, and seven check plats planted with good, ordinary timothy in the same year and under the same conditions gave an average yield of 6,600 pounds per acre. The seventeen new varieties thus gave an average increase per acre of 851 pounds.

Ordinary timothy usually begins to deteriorate very soon after planting and meadows run out, so that fields are rarely kept in timothy more than two or three years. The new sorts, on the other hand, have been selected for their great vigor, rust resistance and length of life. They would, therefore, be expected to improve for several years rather than run out. This factor is shown in the second-year crop. In the season of 1911 the seventeen new varieties gave an average yield of 7,153 pounds per acre, while the seven check plats only gave an average yield of 4,091 pounds per acre. The average increased yield of the seventeen new sorts in 1911 was thus 3,062 pounds per acre, being an increased yield of over one and one-half tons per acre. Four of the highest yielding sorts in 1911 gave the astonishing increased yield of over two tons per acre, or practically double the average yield of the check plats of ordinary timothy. The best of these new varieties is being propagated as rapidly as possible to obtain seed for distribution to farmers of the state. A bulletin describing these experiments is now in press and may be obtained by writing to the Director of the New York College of Agriculture, Ithaca, New York.

Don't forget the Rose Premiums.

How to Get All the Pork Profits—Merry War Powdered Lye Makes Fat, Healthy Hogs

E. Myers, President, E. Myers Lye Company

I have spent more than 20 years making all manner of tests, and I know what I am talking about when I claim that *Merry War Powdered Lye* is the most wonderful hog remedy, worm exterminator, conditioner and fattener the world has ever known. And my claim is amply backed up by the experience of thousands of hog raisers everywhere, who have fed *Merry War Powdered Lye* with remarkable results.

Don't wait till your hogs are sick—"an ounce of prevention you know—keep them well, hungry and on their feet all the time, feeding *Merry War Powdered Lye* with their daily rations. Then you'll be able to finish off pork in the shortest possible time and at least expense, making every day's rations put weight on the porkers—then all the pork profits that should be yours—*will* be yours—and *Merry War Powdered Lye* alone will give them to you—and I can prove it.

I am constantly receiving enthusiastic letters of praise from thousands of hog raisers who are getting their full share of pork profits with *Merry War Powdered Lye*. Many of these letters are published in my *free* literature—read them—then there will be no excuse for you if *you* do not get *all* the pork profits coming to you, because you, too, can buy *Merry War Powdered Lye* at the nearest dealers.

Read These Convincing Letters From Hog Raisers:

A. W. Davis, Hamlin, Ia., writes: "Merry War Powdered Lye is the stuff to cure cough and thumps and put hogs in a thrifty condition, and I will never be without it while I raise hogs."

B. S. Row, Gracemont, Okla., writes: "I have fed Merry War Powdered Lye to my hogs and have had good results. It is a sure worm killer."

Elvis Potter, Junction, Ill., writes: "Have been using a great deal of Merry War Powdered Lye. Find it the best medicine for hogs I have ever used."

Adam Schultz, McLouth, Kans., writes: "I consider Merry War Powdered Lye the best hog remedy I have ever used, and the cheapest. It has made a marked improvement in my herd."

Follow These Directions

Follow these directions carefully: Mix one tablespoonful *Merry War Powdered Lye* with slop for 10 hogs, or a half can with barrel of swill. Stir well and feed *every day*, night and morning. If your hogs are on a dry feed ration, mix a half can *Merry War Powdered Lye* to each barrel drinking water.

Feed Merry War Powdered Lye Every Day

—and begin today—for the sooner you begin, the sooner I will be able to prove to your complete satisfaction that *Merry War Powdered Lye* makes good my every claim—and 10c will make the test.

Important Warning—Heed It!

Some commercial lye makers are trying to persuade dealers and hog raisers that any lye will do what *Merry War* will for hogs—but it will not, it can't—because no other lye maker knows the secret process that makes *Merry War Powderea Lye* safe to use in hog feed—they don't know the combination in *Merry War Powdered Lye* that produces fat, healthy hogs.

Merry War Powdered Lye is the only *Lye* absolutely safe to feed to hogs—and hog raisers who make the mistake of thinking that any lye will do the work which is claimed for *Merry War Powdered Lye*—fail to obtain results—pay the penalty in hog profits.

Kettle Powdered Lye For Soap Making

If you want the best lye, exclusively for soap-making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—but DON'T feed it to your hogs. FEED ONLY MERRY WAR POWDERED LYE TO YOUR HOGS.

At All Leading Dealers

Merry War Powdered Lye comes in 10c cans; full cases of 4 dozen cans for $4.80—at grocers, druggists, and feed dealers. Don't allow yourself to be talked into a substitute for *Merry War Powdered Lye*—because there are no substitutes.

If your dealer can't supply you, write us, stating his name—we will see that you are supplied and will also send you, free, a valuable booklet on "How To Get the Biggest Profits From Hog Raising."

E. MYERS LYE COMPANY, Dept. 22 St. Louis, Mo.

Which Kind Do You Want?

$30 SAVED ON THIS STYLISH BUGGY!

An actual example of how you can save ⅓ to ½ on the price of any kind of vehicle or harness by sending today for this big Murray 1912 Catalog. Don't *think* of buying until you have seen it! Contains 251 illustrations with full descriptions of 138 up-to-date vehicles and 74 harness sets. Biggest selection in the country! Write for it *today*. **$30 saved!**

Write for this book today

Every vehicle sold direct from factory at wholesale price—with 30 days' road trial—2 years' guarantee—and safe delivery assured.

For 28 years Murray vehicles and harness have set the standard for all others. If you want highest quality at rock-bottom prices. Get this big *free* catalog. Write *now*.

The Wilber H. Murray Mfg. Co.

717 Fifth Avenue, Cincinnati, Ohio

One can start farming here on less capital—

than anywhere," says Mr. H. V. Tull, who went to Jonesboro, Ark., from Naperville, Ill. "We paid only $25 per acre for this land and we get fine crops of corn, cotton, clover, etc. We have good roads, rural free delivery, telephones, schools, etc., *all we had in Illinois.*"

J. H. Cash went to Camden, Ark., with $140. He paid $100 on his farm, bought a second hand-wagon for $10 and a pair of cheap mules. In three years he paid all his debts and bought 80 acres *more.* All along the

Cotton Belt Route in Arkansas and Texas

you will find scores of men who started with practically nothing and are now well fixed. Six years ago, C. S. Martin landed in Mt. Vernon, Tex., with $8.50. He now has a splendid 200 acre farm and is one of the best fixed men in the county. It is *easy* to get ahead fast where fertile land is *so cheap,* and your own living costs *so little.*

There are many sections in Arkansas and Texas that are *just suited* for your line of farming—where you can buy *many* acres with the price of every *one* you now own—get the benefit of the *big* boost in land values sure to come—live in a mild climate where you can do money making work *every* month—without sacrificing *anything* in living conditions that you now have. Telephones, good schools, rural delivery, modern towns, close markets—you'll find them all through Arkansas and East Texas.

On the 1st and 3rd Tuesday of each month there are very low round trip excursions to Arkansas and East Texas via Cotton Belt Route, allowing 25 days for trip and *free stop overs.* Plan to go on the *next* one.

Get our new free books

—written by a practical farm man, who went from county to county and talked with the farmers themselves and got pictures of their places. 115 pictures and 100 pages of plain farm facts, describing every kind of farm opportunity Southwest. Nothing will convince you like these statements from your own people. Write today.

E. W. LaBEAUME,
General Passenger Agent
1419 Pierce Bldg., St. Louis

COTTON BELT ROUTE

Those Men With Guns.

First Rabbit—"I never saw so many men with guns. I wonder what they are up to?"

Second Rabbit—"I think they are trying to make game of us."—Philadelphia Record.

SEED CORN FOR 1912.

Very Poor Germination Average Throughout the Corn Belt.

An almost unprecedented wave of alarm concerning the condition of seed corn is at present sweeping the corn belt. In most localities the late fall rains caused the corn to be of late maturity, and, in a great number of instances, to be injured by excess of moisture. On account of this condition, the rush of fall work kept many farmers from field gathering seed corn, and, consequently, seed corn was not selected until husking time, and far too often not even then.

In order to determine the actual condition of the seed corn, and thereby advise the many inquirers, the Missouri Experiment Station had collected in three different sections of the state—Central, Southwestern and Northern—representative samples of corn. These samples were collected from corn which the owners said would be used for seed in the spring. In some cases the corn was field gathered, others selected at the time of husking, some taken from the crib, and in extreme cases taken from corn still in shocks in the field.

These samples of corn were brought to the Experiment Station and germinated with the following results:

	Per Cent. Germination.
Field gathered seed, carefully stored	96.00
Seed selected at gathering	89.10
Seed selected from crib	83.30
Seed selected from shock	53.70

The above table may be somewhat misleading, inasmuch as the average for the field gathered seed corn, which was carefully stored, represents but two germinations, while that for seed selected at gathering represents a considerably larger number, as does that selected from the crib. In some cases the crib selected corn ran as low as 15 to 20 per cent., while in others, where the cribs had been well protected and where the corn was well matured when harvested, the germination was much higher.

These figures show clearly that unless due precaution is taken, much poor seed corn will be planted this spring. As it is possible for one man to test enough corn to plant twenty-five acres in one day's actual time, it can easily be seen that such work would be highly profitable during the bad days of February and March. The value of such work becomes at once apparent when we realize that an increase of 5 to 10 per cent. is frequently secured in the yield.

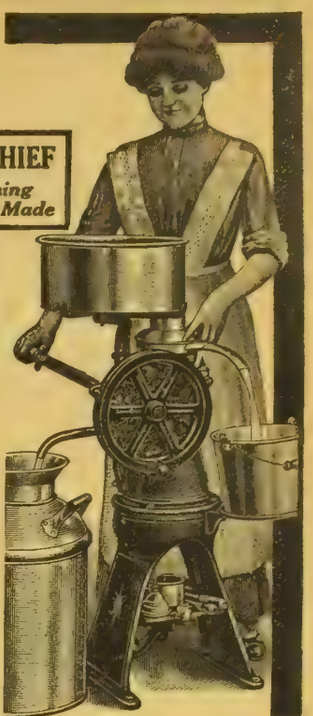
The testing of each ear that will be used for seed is not such a difficult task, and may be accomplished much more easily than might be imagined. This is done by securing a box about thirty inches square and three or four inches deep, filling the box full of sand. Then drive nails or tacks 2½ inches apart all the way around the edges of the box and over these nails stretch a string back and forth so as to mark the box off in 2½-inch squares. The squares are then numbered on the edge of the box.

The ears of corn to be tested are then laid on the floor, if no rack is available, numbered, and ten kernels removed from the various parts of the ear. These are placed in the sand point downward so as to be about one-half inch below the surface. A very good method of numbering the ears is to pin bits of paper to the butts of the ears. This can be done very easily with ordinary pins. The kernels from ear No. 1 are now put in square No. 1; ear No. 2 in square No. 2, etc. The box of sand containing the corn is then thoroughly saturated with water at about blood heat, covered with old sacks or carpet and placed near the stove or open fire, where it is moistened down daily so as to hasten germination. The temperature should be kept at between 75 and 90 degrees, if possible.

This method will in five or six days enable one to detect the poor ears by their failure to germinate, and they can be discarded, leaving only the good ones for seed. In case your seed seems too poor and you cannot get field selected seed near home, write to the Agricultural Experiment Station at Columbia for the list of reliable seed corn breeders of the various varieties.—J. C. Hackleman, College of Agriculture, Columbia, Mo.

$27.65

THE ECONOMY CHIEF
The Closest Skimming Cream Separator Ever Made



Actually Buys the Highest Grade, Closest Skimming Cream Separator

Ever Manufactured

Think of it! Only $27.65, full and complete purchase price for the big Economy Chief Cream Separator, absolutely proven by expert tests and thousands of testimonials to be the closest skimming and most durable cream separator ever put on the market. This is our wonderful brand new 1912 model, equipped with our marvelous patented purifying and aerating bowl and the celebrated double opposed disc system. A regular $70.00 big business cream separator for only $27.65, and with a capacity of 300 pounds per hour, and absolutely guaranteed for twenty years.

You Buy Direct From the Factory

That's the secret of our amazingly low prices. You simply pay one small profit—the actual factory profit. No big agent's commissions for you to pay; no extra dealers' profits; no so called factory distributers' profits. You pay only the rock bottom factory price. We actually save you from $40.00 to $50.00 on any capacity machine you want. For instance, a 400 pounds per hour capacity separator for only $34.90; a 600 pounds per hour capacity machine for only $42.35. We fill your order direct from the largest and most completely equipped cream separator factory in the world.

You Can Buy on Sixty Days' Trial

We will positively ship you THE ECONOMY CHIEF CREAM SEPARATOR on SIXTY DAYS' TRIAL. We want you to give this separator sixty days' good hard test on your farm before you decide to keep it. Compare it with any and all of the overpriced machines you can find around. Try it on warm milk, cold milk, new, mixed or old milk; it makes no difference. Then, after two whole months' trial, if you are not ABSOLUTELY CONVINCED that THE ECONOMY CHIEF is the greatest cream separator you ever saw at any price, simply return it to us and it won't cost you a penny. We will even pay the freight charges both ways.

Old Separators Taken in Exchange

If you have an old cream separator of any make that is out of repair, hard to run or will not run at all, we will take it off your hands as part payment for a brand new 1912 model Economy Chief. Furthermore, we will make you a good liberal and fair proposition.

Send Today for Book No. 69N73 and Full Particulars of This Wonderful Bargain Offer.

Simply send your name and address today, at once, postal will do, and we will promptly send you the Economy Chief Book No. 69N73 free and postpaid, explaining our great bargain offer in detail.

SEARS, ROEBUCK AND CO., CHICAGO, ILL.

Best Watch in the World.

One hundred and eighty of the leading railroads have adopted the Howard Watch as the standard of excellence. It is because the Howard Watch has no actual competitor. There is an interesting story about this watch which our patrons will take pleasure in reading. Just write a postal card to Dept. 122, Howard Watch Works, Boston, Mass., and ask for the story of The First American Watch. See page 7 and read about the best watch in the world.

Oklahoma has decreased in hogs from 1,899,000 a year and a half ago to 1,410,000 on the first of January, 1912.

"He is happiest, be he king or peasant, who finds peace in his own home."—Goethe.

$29.50 Buys This Elegant Top Buggy.

WARRANTED FOR Five Years.

Retail Price $60.00. Buggies, Surreys, Spring Wagons, Farm Wagons. We have cut out our Jobbers, our Wholesalers and our Retailers and offer YOU their profit. Write today for our

Free Catalog and Delivered Prices.

Mutual Carriage & Harness Mfg. Co.
Station 47 H, East St. Louis, Ill.

Give Your Horses a Hair Cut

before you put them at the spring work. Take off the winter coat that holds the wet sweat and dirt. Clipped horses look better, get more good from their feed, rest better, feel better and do better work.

Clip with this

STEWART BALL BEARING MACHINE

It turns easy, clips fast and stays sharp. Gears are all file hard and cut from the solid steel bar. They are enclosed, protected and run in oil; little friction, little wear. Has 6 feet of new style easy running flexible shaft and the celebrated Stewart single tension clipping head, highest grade. Price $7.50

Get one from your dealer or send $2 and we will ship C.O.D. for balance.

CHICAGO FLEXIBLE SHAFT CO.
182 Ontario Street, Chicago

Write for complete new catalog showing world's largest and most modern line of horse clipping and sheep shearing machines.

KEEP THEM WORKING

Kendall's Spavin Cure is the old reliable, *Safe* remedy for all cases of spavin, splint, curb, ringbone, bony growth and lameness from other causes. It keeps the horses working—not loafing. What it has done for others it will do for you. Keep a bottle of

Kendall's Spavin Cure

handy so you can use it quickly when the need arises. A one dollar bottle may save a horse for you. It's worth while to be ready. Ask your druggist the next time you are in town. Tear this advertisement out to remind you. Sold by druggists everywhere, $1.00 a bottle; 6 for $5.00. Keep it in the house for family use, as well as in the stable. Get a copy of "A Treatise on the Horse" at your druggists or write to

DR. B. J. KENDALL COMPANY,
Enosburg Falls, Vt. 14

Save Money—By Saving The Horse

Humane Horse Collar

Cures Galls—Prevents Sores—work the horse every day with the Whipple Humane Horse Collar. Fits the horse's shoulder perfectly at all times. Adjustable—one collar does for all horses or mules taking from 15 to 25 inch size. Does away with hames and sweat pads. Saves time. Lightens draft. Endorsed by Humane Societies, Veterinarians, Agricultural Colleges. Write for Free Horse Collar Book giving prices and testimonials from users. Address

Over 100,000 now in use

HUMANE HORSE COLLAR CO.,
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ABSORBINE

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Cures Spavin Lameness, Allays Pain. Does not Blister, remove the hair or lay up the horse. $2.00 a bottle, delivered. Book 1 E free. ABSORBINE, JR., liniment for mankind. For Sprowitis, Strains, Gouty or Rheumatic Deposits, Swollen, Painful Varicose Veins. Allays Pain. Will tell you more if you write. $1 and $2 per bottle at dealers or delivered. Manufactured only by W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Stover HIGH GRADE *Gasoline Engines*

From 1 to 60 h. p. Circulars & prices on application. Wagner Imp. & Auto Co., 1000 Locust st., St. Louis.

The Corn Market Situation.

On February 29th, 1912, the corn market was 20 cents a bushel higher than it was the year before. At St. Louis, cash corn sold at 64 to 65½ cents a bushel, against 44 cents a bushel a year ago.

The speculative corn market has little in view to disturb it for the next five months. The May option was quoted on January 30th at 67⅞ cents, and by February 29th, at the close, it had advanced to 69⅜ cents a bushel, and the July option was quoted at 69½ cents.

Whenever the politicians start ranting about the farmer they generally wind up the oration by saying the farmer is the only man who does not know in advance what he is going to get for his crop, whereas in truth the farmer can say that he is very well informed. The largest number of the most important dealers in grain are of the opinion that we are pretty close to seventy-cent corn in market, at least until July 1st, 1912. Next month will develop quotations that will show the estimated value of the new corn crop.

Jokes on Banking.

"There seems to be quite a draft in here," said the paying teller, as the man who had drawn twenty thousand dollars went out.

"Yes; I must do something to check it," answered the cashier.

"I'll make a note of it," murmured the bookkeeper, and a thirty-day loan drew 10 per cent. interest.

Another Pioneer Gone.

James Metcalf, formerly a live stock commission man at the St. Louis National Stock Yards, died at Mexico, Mo., on February 27th, in his 79th year. He and A. C. Cassidy and E. B. Overstreet, both recently deceased, were three of the pioneers of the St. Louis market, a trio of great and noble business men, who fought the early battles to make St. Louis the strong competitive market that it now is. As the Daily Live Stock Reporter truly states, Mr. Metcalf was known for his strict attention to business and was considered by all who had the pleasure of knowing him as a man in every sense of the word, and many words of praise were heard around the yards when the sad news was being circulated. He was a firm believer in the Golden Rule and practiced it both in business and social life.

Active Horse Market.

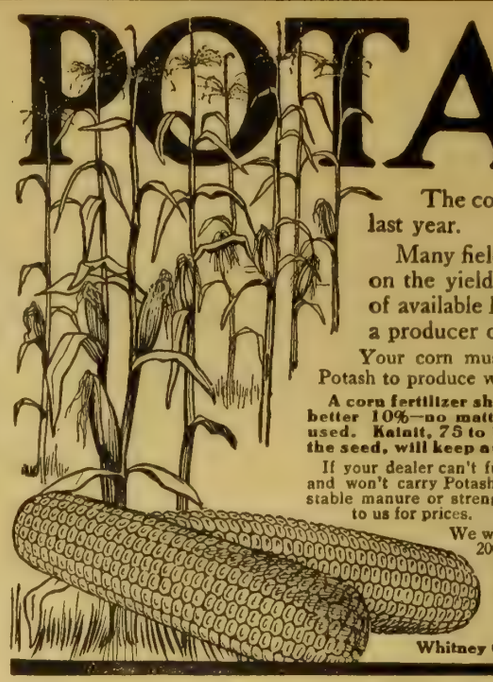
Holland, Nugent & Maxwell Bros., horse commission salesmen at the National Stock Yards, closed up the month of February with the best market thus far this season. We quote from their circular:

"Big draft horses are showing some improvement in price. Good chunks are selling fully as strong as they have any time this season. There was some demand for hearse teams and good, useful driving teams that would weigh 1,100 to 1,200 pounds that are broke. Southern horses are selling about steady. The Southern dealers will not pay the prices that they did in September and October."

Grand Cattle Feeding Example.

Brundage & Cleveland, a popular shipping and successful feeding firm of Ogle county, Illinois, had fifty spayed yearling Hereford heifers on the Chicago market which averaged 1,084 pounds and sold at $6.90 per 100 pounds. They were bought as feeders at Kansas City, October 31st, at $4.90, averaging 803 pounds. Fed around 100 days, they showed an average gain of a little over two and one-half pounds a day. Their ration was seventy scoop shovelfuls of shelled corn and five bales of alfalfa hay once a day, with one pound of cotton-seed meal per head per day the first thirty days and after that two pounds per day.

POTASH



The corn crop fooled lots of farmers last year.

Many fields looked good but fell down on the yield. This was owing to a lack of available Potash, for Potash is primarily a producer of grain.

Your corn must have enough quickly available Potash to produce well-filled ears as well as stalks.

A corn fertilizer should contain at least 8% Potash—better 10%—no matter in what form the fertilizer is used. Kainit, 75 to 100 lbs. per acre, drilled in with the seed, will keep away cutworms and root lice.

If your dealer can't furnish brands rich enough in Potash and won't carry Potash Salts so you can supplement your stable manure or strengthen the brands he does carry, write to us for prices.

We will sell direct in any amount from a 200-lb. bag up. Write for free book of fertilizer formulas and directions.

GERMAN KALI WORKS, Inc.
Continental Bldg., Baltimore
Monadnock Block, Chicago
Whitney Central Bank Building, New Orleans

The Increase in Hog Receipts.

A large increase in the number of hogs marketed so far this year is accounted for in Chicago by high-priced corn, bad weather, fewer cattle on feed, and the fear that packers are able to depress the market. The fact of the matter is that there are more hogs in the country than there were three years ago by seven million head. See page 22.

Colorado Lambs at St. Louis.

On February 29th, at the St. Louis National Stock Yards, Gates & Spencer, well-known sheepmen of the San Luis Valley, Colo., had in a consignment of their lambs. The string consisted of 803 head that weighed 75 pounds and sold at $6.70 per 100 pounds.

S-M-A-S-H—
Go Roofing Prices!!

Never before have you been able to participate in a Roofing sale such as this. This opportunity came about in an unusual manner. It is out of the ordinary channels of manufacturing and selling possibilities. We only have a limited quantity at this slaughter price, and subject to prior sale or reservation.

Corrugated Steel Roofing 1¼ Cents Per Square Foot

Now every one knows, who knows anything about Roofing, ceiling and siding that there is nothing in all the world that can come anywhere near comparing with the wonderful qualities of steel for a covering. It many times outlasts prepared roofing, shingles or slate. It is fire-proof, snow-proof—considerably warmer in Winter and cooler in Summer. It is in every manner superior to any other roofing.

Prepared roofing cannot be leak-proof. It cannot last. It peels, cracks, warps and the elements get to it sooner or later. Slate chips, cracks and is far too expensive in transit. Shingles blow off, warp and leak and the up-keep is entirely too expensive. There are no draw-backs to Steel Roofing. It lasts year in and year out with only ordinary care. You are absolutely safe and secure from the elements. It is insurance proof, and is the only real safe and sure roofing to use.

By one of those unusual occurrences, one in a lifetime we came into possession of this lot of Roofing, comprising all the weights and sizes, corrugated and crimped, which places us in a position to very materially undersell anything that we or anyone else has heretofore been in a position to offer. This is your opportunity to get your supply at a price that will net you a tremendous saving. But you must put in your reservation at once if you wish to participate. No need, however, to buy now. Simply write us for samples, then state about when you will want your supply and we will hold it for you without any deposit of any sort, or shipment will be made immediately.

But by no means overlook this opportunity. Get our samples at once and our complete prices. They will startle you. You will be surprised at what a trifling cost you can now throw away your troublesome shingles, slate and prepared roofing, and have for all time, complete shelter that will cause you no further trouble—will last a lifetime.

SPECIAL SALE We want it distinctly understood that this is a special sale and a special lot of Roofing, Siding and Ceiling guaranteed brand new, never been used, first class, "A" number one, as good as can be had anywhere on earth. We bought it at an unheard-of sacrifice price, add our small profit and let it go at an unheard-of price. Do not hesitate to thoroughly familiarize yourself with what this offer really means to you. Simply write for samples without any obligation whatever on your part to purchase. We will then protect you should you afterwards decide that you want a supply. But by all means write today, and remember that we stand back of every last bit of this Roofing to the fullest extent, guaranteeing it in every respect. We want to make it clear to you that never before have we or anyone else been placed in a position to offer such superior Steel Roofing at anywhere near this special price. No need writing a letter, simply use Special Roofing Sale Coupon by writing your name and address in same—we will understand that you simply want full information, samples, prices and specifications, which will be sent you at once, prepaid.

Special Steel Roofing Sale Coupon

Chicago House Wrecking Co.,
35th and Iron Sts., Dept. B319, Chicago.

Gentlemen:

Without any promise to purchase, please send me prices, samples and full particulars of your special lot of Steel Roofing.

Name.....

Address.....R. F. D.....

County.....State.....

CHICAGO HOUSE WRECKING COMPANY
35th and Iron Streets Dept. B 319, Chicago

HORSE AND MULE SALESMEN.

HOLLAND, NUGENT & MAXWELL BROTHERS.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

HORSE AUCTIONS EVERY MONDAY AND TUESDAY.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard

Write for market information.
Address,

HOLLAND, NUGENT & MAXWELL BROTHERS,
P. O., National Stock Yards, Ill.

Don't Have a Blind One

"VISIO"

An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis

Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Steel Horse Collars Are Humane

No hames to buy or bother with; adjustable in size; wear forever. Endorsed by Veterinaries. Over 30,000 in use. Cheapest and best. Ask your dealer and take no other. Write for our Free Catalog. Salesmen wanted; exclusive territory.

Johnston-Slocum Co., 848 State St., Caro, Mich.

Fistula and Poll Evil

Fully ten thousand horses are cured every year with

Fleming's Fistula and Poll Evil Cure

and many of them are bad old cases that skilled doctors have abandoned. Easy and simple; no experience needed; no cutting to be done; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. Valuable information and full particulars given in

Fleming's Vest-Pocket Veterinary Adviser

Best veterinary book for farmers: 192 pages, 69 illustrations. Copy mailed free.

FLEMING BROS., Chemists, 218 Union Stock Yards, Chicago, Ill.

Hog Book Free.

Valuable hog book, great assistance to any one interested in hogs. On the care and management of hogs. It tells how to cure sick hogs, prevent disease and clear hogs of worms. It tells how to manage young pigs. It tells how to make hog raising and feeding a pleasure, and certain success. It tells how to make the hog business pay big. This book is mailed free to all who write Dr. D. C. Snoddy Co., of Nashville, Tenn. Dept. H.

Missouri Stock of Mules.

When the census was taken April 15, 1910, there were 112,285 farms reporting mules in the state of Missouri, and the total was 342,700 mules, against 283,519 mules reported when the census was taken ten years ago. The 342,700 mules on hand in 1910 consisted of 265,601 mature mules, 57,750 yearling colts and 19,349 spring colts; but the census was taken in April, and probably 50,000 more colts were following their mothers before July, 1910. According to the count as it was taken there was an average of 2,980 mules to each of the counties of Missouri. In Saline county there were 8,012 mules; in Calloway, 7,461 mules; in Johnson, 6,506 mules; in Boone, 6,772 mules; in Audrain, 6,389 mules; in Carroll, 5,365 mules; in Cooper, 5,671 mules; in Lafayette, 5,950 mules; in Monroe, 5,927 mules; in New Madrid, 5,063 mules; and in Pettis, 5,537 mules. Very few counties had less than 1,000 mules, these being Carter, 579; Schuyler, 987; and Iron, 826. Most of the prominent mule raisers of counties are very much together in the middle of the state; but there is an important mule-raising settlement in the southeast section, with New Madrid as the principal county.

HORSE AND MULE NOTES.

Men who are raising scrub horses and using grade sires of any breed are very foolish. Plug horses and those which fit nowhere may sell low in the future, but horses that have a trade will sell high. Any sound saddle horse, or any light harness horse, or big draft horse, or coach horse, any good chunk, any stylish Southern horse, any express horse, and we might say any cavalry horse, will sell well, while the unclassified horse will grade at the tail end and sell for the plug that he is.

It is now reported that the National Horse Show for 1912 and 1913 will be held at Madison Square Garden, New York City, as usual. By the way, it is a great place for Western exhibitors to get some easy money and ribbons. Usually half the classes are not filled because the management goes to sleep when the time comes for soliciting entries.

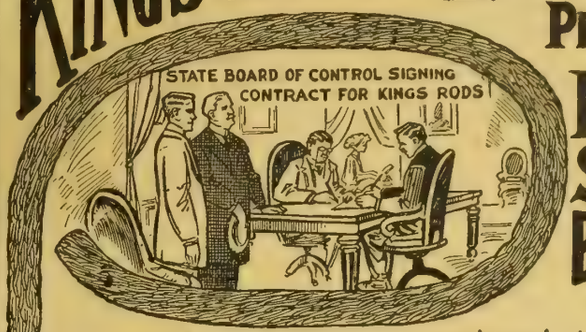
New York state is getting excited over the horse question. There were 590,000 horses on farms in that state in 1910, which is a loss of 38,000 head in ten years. The trouble with horse raising is that the colt does not reach maturity in less than five years; but a beef steer matures in two years, and a dairy cow will be giving milk and raising a calf in three years. A horse raised on high-priced land ought to be worth $500 at maturity.

Messrs. Holland, Nugent & Maxwell Bros., horse commission salesmen at the St. Louis National Stock Yards, sold 1,600 horses during the last week in February and cleaned them all up in good shape.

Grain Club Poster.

Being alarmed about the seed-corn situation, fearing that most of the seed will not germinate, and wishing to get a normal crop next year and an increase, if possible, the St. Louis Grain Club, composed of members of the Merchants' Exchange, has issued a poster, showing the method of testing all seed corn in a very simple and effective manner. We advise our readers to write to the St. Louis Grain Club, care of Merchants' Exchange, St. Louis, Mo., and ask for a copy. It is too large for us to publish, and it is well worth having as a free gift on any farm.

KING'S COPPER LIGHTNING RODS PREFERRED for IOWA STATE BUILDINGS



I ask you to take a good look at the two pictures in this space. They tell you something that you ought to know if you are thinking of protecting yourself and your property from destruction by lightning.

The upper picture shows *The State Board of Control of Iowa signing the contract for the King rods, after a thorough investigation of the different systems of Lightning Protection. This board chose the KING System over all others,* to be put up on a number of Iowa state buildings. A photographic reproduction of one of them is given below.

A hundred thousand or more men and women in all parts of the country have chosen the **KING** system and **every one will tell you it is a sure protection.**

I have the endorsement of *Thomas A. Edison,* the world's greatest electrician, for my rods; I have the endorsement of the Insurance Companies which make a **liberal reduction in rates on buildings protected by my Pure Copper Cable Lightning Arrester.** I have the endorsement of U. S. Government experts for my system, and give a **legally binding guarantee** that lightning cannot damage your house if you have placed it under my system of protection. I can give you the written testimony of hundreds. **20,000 buildings have been protected by the KING SYSTEM** in the last three years and not one dollar has been lost by lightning in the whole list.

And yet **the danger** from lightning, especially in rural districts is great. Government reports show that over 6000 buildings were destroyed, over 4000 head of stock and 563 people were killed by lightning in one year. Forty-three insurance companies of Iowa report that the losses in that state by lightning in 1910, on buildings not protected by **King's System,** was $35,077.89. *Can you afford to take the risk.*

KING'S COPPER CABLE LIGHTNING RODS are absolutely reliable. They are made and put up according to the best known principles of lightning control. They are composed of pure, soft copper wires wound into one continuous cable, which gives the very highest electric-conducting capacity. They are put up by my experts according to the Line System which is approved by experts of the U. S. Government. **You get what you pay for** when you buy a KING ROD—**Sure Protection. Get my prices. They will save you money.**

GEO. M. KING, PRESIDENT.

GEO. M. KING MFG. CO. 710 E. Walnut St. DES MOINES, IOWA.

I have some valuable information on lightning and its control, which I will send you for the asking—FREE. WRITE ME TODAY

LIVE AGENTS WANTED

I want a good man in every neighborhood to sell my rods. Will supply him with what is necessary and will make it interesting for him financially. Address me personally.

GEO. M. KING.

St. Louis Cash Grain, Feb. 29, 1912.

Quote: No. 2 red wheat, $1.02 to $1.02¾; No. 3 red, 99 cents; No. 4 red, 95 to 98 cents, nominal; No. 2 hard, $1.02½ to $1.11½, nominal; No. 3 hard, $1.00 to $1.09, nominal; No. 4 hard, 95 to 98 cents, nominal.

Quote: No. 3 corn, 64 to 65½ cents; No. 4 corn, 62½ to 63 cents; no grade, 57½ to 59 cents; No. 3 yellow, 64½ to 65½ cents; No. 4 yellow, 63 to 63½ cents; No. 3 white, 65 to 66 cents; No. 4 white, 62 cents.

Quote: No. 2 oats, 53 cents, nominal; No. 3 oats, 52 cents, nominal; No. 4 oats, 51 cents, nominal; No. 2 white, 54 cents; standard, 53½ cents; No. 3 white, 53 to 53¼ cents; No. 4 white, 52 to 52½ cents, nominal; No. 2 rye, 93 cents, nominal.

Mule Quotations at St. Louis.

The following quotations in a general way represent average quotations on the St. Louis market during the early days of March, 1912. We quote: 14 hands, $75 to $135; 14½ hands, $85 to $150; 15 hands, $120 to $180; 15½ hands, $140 to 225; 16 hands, $150 to $270; 16½ hands, $200 to $300.

Ham, a town in Texas, wants to change its name.

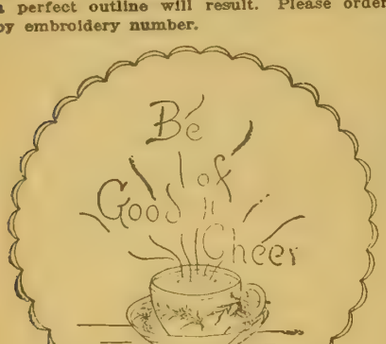
Bickmore's Gall Cure

The old-time remedy for keeping horses in condition. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, Grease Heel. Sold by dealers, money back if it fails. Gray horse trade mark on every box. Sample and valuable 84-page horse book sent on receipt of a stamp for postage.

BICKMORE GALL CURE CO., Box 4820, Old Town, Maine.

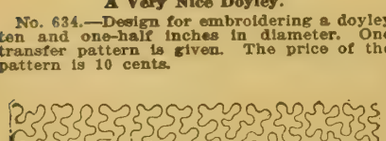
MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, press the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.



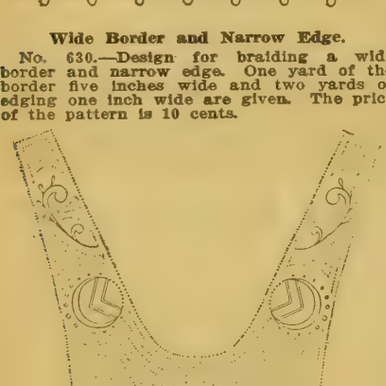
A Very Nice Doyley.

No. 634.—Design for embroidering a doyley ten and one-half inches in diameter. One transfer pattern is given. The price of the pattern is 10 cents.



Wide Border and Narrow Edge.

No. 630.—Design for braiding a wide border and narrow edge. One yard of the border five inches wide and two yards of edging one inch wide are given. The price of the pattern is 10 cents.



Collar in French Knots.

No. 633.—Design for square collar to be worked in French knots and satin stitch or with satin stitch and narrow braid. The price of the pattern is 10 cents.

Another Doyley Design.

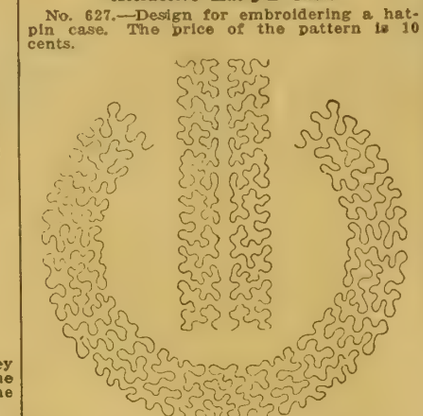
No. 632.—Design for embroidering a doyley ten and one-half inches in diameter. One transfer is given. The price of the pattern is 10 cents.

Embroidered Insertion.

No. 628.—Design for embroidering insertion two and one-half inches wide. Two and one-half yards are given. The price of the pattern is 10 cents.

Attractive Hat-pin Case.

No. 627.—Design for embroidering a hat-pin case. The price of the pattern is 10 cents.



Braiding For a Round Bertha.

No. 629.—Design for braiding a round Bertha and sleeves for a girl's dress. Especially adapted to May Manton's Pattern No. 7279. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Money-making For Women.

The woman of to-day wants to earn her own pin-money. Fifty years years ago it was different, not that our grandmothers were less ambitious. By no means. They accomplished many tasks which the mere contemplation of would appall us. But their limitations were so much more that there was really very little which a woman could do to earn money and still have a part in the home making.

Yet still there is the feeling of unrest upon the farm; the belief that the woman who lives in the big city can so much more easily help herself to the luxuries. There are so few openings in the rural districts, so many in the modern sky scrapers. Then the wages are larger in the latter.

But there are many fallacies in these arguments, sound as some of them seem to be. First, the woman who cares to maintain her personal as well as financial independence may find a more promising outlook about the country home. Supposing that she has not the facilities for making money from butter, "schmierkaes" and cream; does not care to specialize along the lines of poultry, gardening, fruit raising or bee keeping; her case is still by no means hopeless.

She should look about her and strive to find something which the community needs. The necessaries of life are much more dependable sources for a living than the luxuries. And having found one such, she should try to furnish it to the best of her ability, on terms which she would herself consider fair were she to be the consumer instead of the producer. She may know how to make excellent cakes, and may happen to be in a community where there are those who will gladly buy them regularly in preference to making them. But she will be much surer of finding purchasers for home-made bread, if it is furnished of good quality. There are many who would gladly buy this necessary product, thus enabling them to dispense with hiring a girl possibly, were it not for the fact that baker's bread is not liked by the family or is found to lack the substance of the home product. Plain cookies may be often arranged for in the same way.

In many communities there is a dearth of dressmakers, and with lack of time or skill the housewife would gladly pay fair wages to the woman who is neat with her plain sewing. This could be done in her own home and at times which suit her own convenience, and yet in the end earn a neat little sum.

Automobile parties might be reckoned upon along certain roads as patrons of the cold lemonade during the summer months. As the trade grew, other light refreshments could be added, and that there was a rest place ahead in isolated neighborhoods would soon be published among local tourists. A bouquet of sweet peas or of flowers from the field might likewise find sale among the city visitors.

Every locality has its own possibilities, and it is for the enterprising woman to study her own surroundings and plan accordingly. The returns may be small at first, but if along wholesome lines they will grow. And though the city sister gathers in a larger income, before you waste time envying her consider her necessities and her real luxuries.

She may be required to spend many hours a day regularly, while if you want a day off you simply plan so that you can take it. Her work may be in the close office; yours can be under the blue sky. She may be in a sweat shop on a mere pittance, her board the cheapest fare, her home a small, illy-ventilated room. Look over the want columns of a city daily and note the large proportion of places which you could not or would not fill, and then be content with the best that your own community offers, feeling that your own home, your independence, your healthful surroundings are better than a little more spending money with many more places in which it is needed.—Bessie L. Putnam.

SisterWoman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send you, your daughter, your sister, your mother, or any ailing friend, a full 50-cent box of Balm of Figs Compound absolutely free. It is a remedy for the treatment of woman's ailments, and I want to tell you all about it—just how to use it yourself—right at home without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—let me prove it to you, and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so quickly and surely cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with any form of female weakness or diseases so common to women.

This 50c box of Balm of Figs Compound will not cost you one cent

I will send it to you absolutely free, to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to prove my faith by sending out these 50-cent boxes free. So, dear reader, irrespective of your past experience, write to me at once — today — and I will send you the treatment entirely free by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the very best test of anything is a personal trial of it, and I know a 50-cent box of Balm of Figs Comcound will convince you of its merits. Nothing is so convincing as the actual test of the article itself. Will you give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a 50-cent box of this remedy absolutely free. Address,

MRS. HARRIET M. RICHARDS, Box E 18, JOLIET, ILLINOIS

ASTHMA CURED TO STAY CURED

No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease. **FREE TEST TREATMENT** including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.** Dept. N, American Express Building, Chicago.

Elegant Thin Model 20 YEAR Watch $3.75

Hunting case beautifully engraved, gold finished throughout, stem wind and stem set, fitted with 7 jeweled American lever movement, guaranteed 20 years, with long gold finished chain for Ladies, vest chain or fob for Gents.

$3.75 Double Case

Guaranteed 20 Years

IF YOU SEE IT YOU WILL BUY IT. Let us send it C.O.D. for examination at your nearest express office, and if you think it a bargain and equal in appearance to any $15.00 gold finished watch pay the express agent our special sales price $3.75. Mention if you want Ladies', Men's or Boys' size.

Diamond Jewelry Co., A 32, 2198 Dearborn St., Chicago, Ill.

Rider Agents Wanted

in each town to ride and exhibit sample 1912 bicycle. *Write for special offer.*

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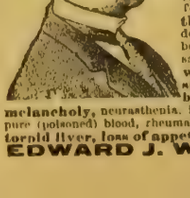

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Aunt Harriet is a wholesome, sensible, sympathetic woman. She has never read "Three Weeks" and she doesn't know the first thing about Bridge. But she does know a whole lot about running a home successfully, raising children creditably and living with a husband happily.

Aunt Harriet writes to three or four million readers every month through FARM JOURNAL—gives them good advice and helps to solve their problems and smooth their troubles.

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FARM JOURNAL
257 N. Clifton St., Philadelphia

Aim For Variety.

There is a tendency on the farm, especially at this season of the year, to fall into a rut in cooking. The old way of meat and potatoes for dinner and potatoes and meat for supper, and the leavings warmed up for breakfast is as easy a path to tread for the cook as it is tiresome for those who eat. The tendency should be to use as much as possible the home products, and hence the rural resident is more apt to be a victim than those who depend upon the markets to give a renewed supply every week.

Yet those who have been forced to buy all that goes upon the table sometimes long for the crumbs from the old country table, well knowing that with their ways of making things go a long way they could convert the substance of the plain old dinner into a most enjoyable one.

The old-fashioned "boiled dish" may be too much of a greasy mixture to suit the modern taste, yet there are portions of it which deserve being perpetuated. There are several possibilities in the cheap soup bone. One woman of a large family finds it a pleasing variation when such a piece has boiled slowly for several hours to parboil enough pared potatoes for the meal. When just commencing to soften she removes them to the roaster or spider, in the center of which she places a part of the meat. One side is packed with stuffing, the remnants of a loaf of stale bread, flavored with just a suggestion of parsley or onions. On the other she places her potatoes and dips several spoonfuls of the rich soup over the whole, baking until the potatoes are done. If the material for stuffing is not available, she sometimes adds half of a cabbage or a few turnips, also parboiled, or onions. In these days of high-priced butter the rich soup baked into the potatoes is a kink as economical as it is pleasing for a change.

Some good housekeepers prefer never to put any herbs into their sausage, for the reason they can thus have a variety. One day a bit of sage goes in when cooking. Another, summer savory is added, and so there is no danger of getting tired of the flavoring. When you have only one kind of meat, perhaps only side pork, there is still more need of variation in cooking, though do not vary to the point of not thoroughly cooking it. Rolled in flour before frying, served with eggs fried in the gravy with it, baked with beans, or roasted and eaten with apple sauce, are but a few of the changes which are permissible.

At this season eggs are most plentiful. They are also a food which is most nourishing and wholesome. Yet some will tell you that they tire of eggs. Have you ever thought how many ways you know to prepare them nicely and yet how few you use? The plain boiled egg becomes new if it is boiled hard, the yolk removed and mixed with a teaspoonful of vinegar, pepper and salt to taste, with a dash of mustard if liked. Baked, scrambled, made into sandwiches — when the idea of change is once entered into each new variation will suggest others.

Take our most common fruit, the apple. How many ways do you know to make use of it? Sliced and fried is a very good and yet not common form. A teacupful of stewed apples stirred into any common cake in which soda and cream of tartar or baking powder are used is the basis of a delicious pudding to be eaten with whipped cream or hard sauce. If the recipe calls for baking powder, omit this entirely and add one-third as much of soda to insure lightness and counteract the acid of the apples. If soda and cream tartar, simply omit the latter. —Bessie L. Putnam.

Winning a Daughter's Confidence.

A mother writes that she has read so much about the need of having the confidence of her daughter, just entering womanhood. But, try as she will, she finds it impossible to gain this confidence. Upon questioning the girl, she is met with an offended silence or some retort, such as: "Now, mother, do you think I a two-year-old? You treat me like one." Then the mother confesses the whole secret of Margaret's attitude as she writes: Margaret has always had her own way about most things. When she was little I never had time to bother about her small affairs, and she grew out of the way of coming to me with them; but now I have more time, and besides I realize that Margaret is at an age where she is more in need of advice than a few years ago. Half of the time I do not know what she is about, and I have read of other girls who seemed good going wrong. Now, what shall I do about it?"

Poor mother! She made her mistake years ago when she was too busy to pay attention to her wee girl's affairs. There was a time years ago when Margaret eagerly sought some one one to whom she could tell her little secrets. And the one who should have been the recipient of them had no time. A child learns quickly, and, very naturally, that little girl soon tired of being told to hush up or to run away. Gradually she grew out of the habit of turning to her mother for sympathy until at the present she even resents any questioning on the part of her worried mother.

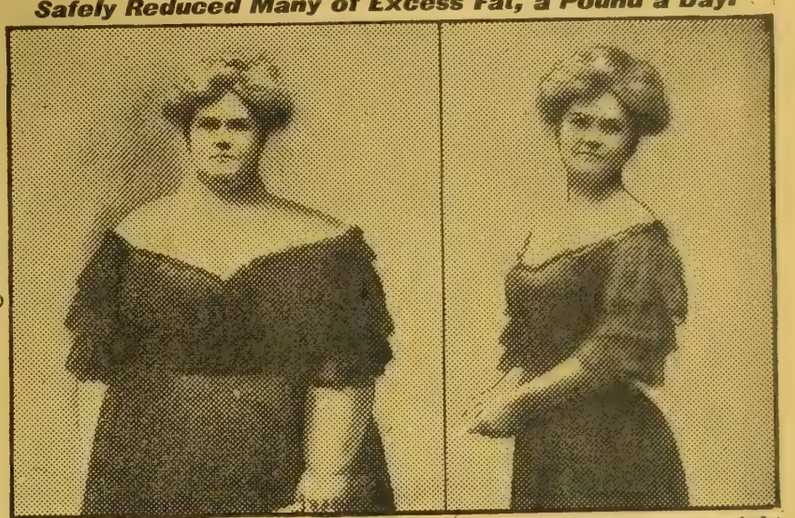
Now suppose the woman had always made time to take an interest in her child's affairs. Suppose they had in babyhood and early school days shared delightful secrets and planned happy little surprises, would the time ever have come when the daughter had any interest which she did not long to share with her mother? In all probability not.

Many a young girl who departs from the paths of virtue would be kept in the right way if she had a mother who lovingly expected and won her confidence—a mother who makes it plain that the young man whose thoughts run chiefly along the line of kissing and hugging and sitting in a room with lowered lights, is not a desirable companion for her girl; a mother who wishes her girl to have good times, assuredly, but not at the cost of her purity; a mother who abets her daughter in enjoying the good things of life, but teaches her that always when mingling with the opposite sex there must be no undue familiarity. "Hands off!" is a good slogan for the young girl to remember to carry with her in these relations.—Janet Thomas Van Osdel.

FAT is Dangerous

It is Unsightly, Uncomfortable, Spoils the Figure, Causing Wrinkles, Flabbiness and Loss of Vigor.

Let me send you my Proof Treatment absolutely Free; I Have Safely Reduced Many of Excess Fat, a Pound a Day.



Note what my treatment has done for others; let me reduce your weight.

Lost 51 Pounds. Mrs W. D. Smith, Box 34, Abbott, Me., writes: **"I have lost 51 pounds** by your treatment. I used to have heart trouble and shortness of breath; now I am well and can walk and work with ease."

Permanent. M. E. King, 5634 Spaulding Ave., Chicago, writes: "By the Dr. Bradford Method **I reduced 35 lbs.** eight years ago; haven't gained an ounce since. Rheumatism also cured."

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Many other testimonials from well known persons will be mailed with **FREE PROOF TREATMENT.**

I could fill every page of this journal with testimonials from grateful patients.

It is dangerous, unsightly, uncomfortable, and embarassing to be too fat. Excess fat weakens the heart. The liver, lungs, stomach and kidneys become diseased, the breathing becomes difficult and the end may come in **HEART FAILURE** and sudden death. You may save yourself from these **DANGERS.**

I want to prove to you that my treatment has positively reduced legions of persons to normal, no matter where the excess fat was located, stomach, bust, hips, cheeks, neck. Weight is quickly and safely reduced without tedious exercise or starving. Eat what you like. **Your figure will be beautified; wrinkles disappear.** Rheumatism, asthma, shortness of breath, kidney and heart troubles usually leave as the fat goes away. I will send you without a cent of charge to you my PROOF TREATMENT FREE.

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Don't miss this offer. My PROOF TREATMENT is FREE. It should make you feel better at once. I will also send you **Free** my **new book of advice,** together with testimonials from many well known people. **Write to-day. DR. H. C. BRADFORD, 287-F Bradford Building, 20 East 22d St., New York**

NOTE.—Dr. Bradford is a diplomated, practising physician, licensed and registered by the State of New York; famous many years as a specialist in reducing fat and improving health by scientific, gentle, home treatment.

In Japan, the largest fruit-growing interest is in oranges, then persimmons, peaches, pears, plums, apples and grapes, in the order named.

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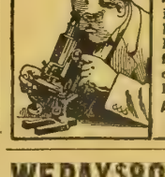

FAULTY METABOLISM AS A COMMON CAUSE OF DISEASE, is the subject discussed in Bulletin No. 1 of the Shafer Pathological Laboratory. The Bulletin is sent free on request and will prove interesting to everyone in Pain and Poor Health.
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Agricultural Literature Free.

The Agricultural Department of the Rock Island Lines has issued a number of bulletins giving money-making information on many special lines of farming. These are meaty business write-ups, each one designed to help the farmer to immediately increase his profits. The titles are as follows:

How to Double the Yield of Corn.
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Money Making in Dairying.
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How to Raise Large Crops of Corn.
How to Grow Rice.
How to Grow Cotton.
Making Money in Poultry Raising.
The City Man on the Farm.
Farm Management.
The Spanish Peanut as Feed.

Any or all of these will be sent free upon request. Write to-day to L. M. Allen, Passenger Traffic Manager Rock Island Lines, 411 LaSalle Street Station, Chicago, Ill.

Caring For Boys' Clothes.

It is a good plan to keep a good cleaning fluid on hand for removing spots from boys' clothes, and there is none better for removing spots and for cleaning the garment all over, if it is not soiled enough to be washed. Take five quarts of soft water and into this put three ounces of castile soap shaved fine, four ounces ammonia, one ounce of ether and one ounce of spirits of wine. Put the ingredients in a bottle and shake well, and use one teaspoonful to a pint of warm water. Clean with a stiff brush, then rinse with clean water, and when dry rub well with a cloth before pressing.

Most boys are sensitive about patches, and an easy way to mend pants at the knees when they wear through is to cut out the ragged thin part and seam in a new piece above and below the knee, letting the sides come into the side seams, and it is wise to make the seat double, so that when they begin to wear through they are easily mended.

A fad to be commended is the wearing by both boys and girls of the little blue denim overalls, as they not only save washing, but allow freedom of movement.

If a coat or pair of pants is much soiled, it is easier to wash the garment than to try to remove the spots from the fabric, and there is nothing better for cleaning the soiled garment than warm suds to which a small cup of gasoline has been added.

If the boys have outgrown their blouse waists, they may be let down at the bottom two or three inches, and the bagging will conceal the piecing, and it is a good plan to use studs instead of buttons up the front of the blouse, as buttons are always tearing out.

One economical mother fashioned a stylish suit for her boy from a faded blue cloth suit of her own; but the pieces were first washed clean and then colored a rich dark blue with Diamond dye for wool, and it looked like new goods after a careful pressing.

The best parts of a rusty black cloth suit of the father's was recolored a jet black with black dye for wool and made into a serviceable suit for every-day wear, and in this way her boy was furnished with two nice suits with a very small outlay of money, and they were as nice and stylish as the high-priced ready-made garments. Good patterns can be bought for a trifle, and the made-over garments only need neat finishing and careful pressing to make them as nice as new, and they look much nicer than the cheap ready-made articles.—Martha.

Needle Notes.

Still the kimono and peasant waist lead the styles. And what a boon to the home seamstess who hates putting in sleeves!

The still popular combination of two different materials in a gown offers a good field for those who wish to remodel old gowns or have enough left over from some other gown to go a long way toward a new dress.

One-piece tub dresses are to be more popular (if possible) than ever the coming season. So the woman who finds it convenient to do her spring and summer sewing in the late winter months can safely proceed along that line.

In doing the summer sewing, make a couple of slips, that is, petticoat and corset cover combined, to wear under thin gowns. They vastly improve the appearance of the thin gown and are more comfortable than the separate garments.

The "shirt" for women is holding its own. This is a sensible blouse made after the lines of a man's shirt and similarly tailored. It has a soft French collar. Three yards of thirty-six-inch material are needed. The woman who adds a couple of these to her wardrobe will appreciate them.

The latest patterns give skirts neither too narrow nor too wide—just a good, sensible width for neat appearance and comfort.

The "bell" sleeve, in a very modest form, is seen in some of the spring coats, and occasionally in a blouse.

The most attractive models of gowns seen in the advance styles for the coming season are those devoid of frills and fussiness. A good opportunity for the home sewer to have plain, attractive clothes, elegant in their simplicity, and saving time, not only in the first making, but in laundering all through the summer.—Janet Thomas Van Osdel.

A Missouri Agricultural College Cow.

Carlotta Pontiac, a seven-year-old Holstein cow owned by the Missouri College of Agriculture, has beaten the record of Missouri Chief Josephine in butter production. She produced during the month of January 2,146 pounds of milk which tested 3.57 per cent. This makes the butter-fat yield for the month 76.6 pounds, or about one-tenth of a pound more than was produced by Josephine for her best month's fat production.

Carlotta Pontiac does not give the quantity of milk produced by Josephine, but her fat record is very much higher. She has been milking for 140 days and in this period of time has produced 9,268.6 pounds of milk, containing 305.1 pounds of butter-fat. This is equivalent to 381 pounds of butter. Her average daily milk yield is 66⅔ pounds. Her daily yield of butter-fat is 2 1-5 pounds.

How to Reduce Cotton Acreage.

Farmers are finding out that they can go too far with one crop, and they are finding also that to reduce one crop does not necessarily mean to reduce the cultivated acreage. Mr. O. F. Dornblaser, National Committeeman of the Farmers' Union, is quoted as saying: "We are getting splendid results all over the cotton belt, and the farmer is beginning to understand that it is not a matter of less cotton, but an increase in acreage of all crops, other than cotton."

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions**, backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

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Root Quotations at St. Louis.

Late in the month of February the following prices were being paid for the country consignments of roots (quote by the pound): Golden Seal, $4.10; Lady Slipper, 15c.; Seneca, 34c.; Pink, 18c.; Black, 9c.; May Apple, 4c.; Snake, 25c.; Kansas Black Snake (Echinacea), 13c.; do. Oklahoma, 8c.; Missouri nominal; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 4c.; Blood, 5c.; Blueflag, 5c.; Sassafras—Bark of root, 5c.; Wild Ginger, 8½c.; Spikenard, 3c.; Scullcap, 8c.; Ginseng, $4.50 to $5.00 for wild and $4.00 to $4.50 for cultivated.

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You can get O. L. Chase Made-To-Order Paint either direct from me or through a responsible accredited dealer in your town.
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After reading my book you can depend on your own best ideas—you can buy paint that will give you eye pleasure,—and will last longer than the ordinary paint—which will serve the real purpose of paint, namely: For **Protection, Appearance and Cleanliness.**

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The U. S. Department of Agriculture, in Bulletin No. 474, issued Nov. 29, 1911, says, in part:

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"Most people know little about Paint. Too many of them . . . . either go to a store and lay down their money for 'any old kind' of *stale*—ready-mixed Paint the dealer may have on hand or try to mix some themselves. . . . . Any good painter—and they all are with us—we'll tell you that O. L. Chase *Made-to-Order Paint* gives you longer life and is the only kind of paint to use—Any good painter knows. . . . . Just a little practical knowledge will enable YOU to avoid all that—and practical paint knowledge is what I am giving in this book. I know paint from the standpoint of the painter—I know paint from the standpoint of the manufacturing chemist—I know paint from the standpoint of the manufacturer—and ALL my knowledge is YOURS FREE."

Study what the Government Says—Study What O. L. Chase Says. Isn't My Made-To-Order Paint the Right Paint?

Over fifty thousand users all over the country have enthusiastically decided it is.

When you receive your Made-to-Order paint, if it's six gallons or more, use two gallons. Then if you're not satisfied, return the balance to me. The 2 gallons you use won't cost you a penny.

You can't know paint till you have read "My Fresh Paint Book." It's the only book that tells of the new standard of Paint Worth, O. L. Chase Made-to-Order Paint. It's free. Write to nearest address.

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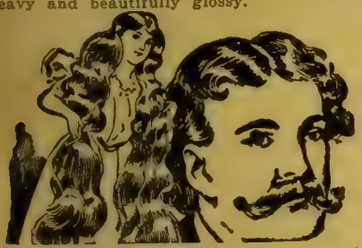
Quickly restores gray or faded hair to natural color, removes dandruff, stops falling hair and itching scalp. Grows new hair and makes the hair of man, woman or child heavy and beautifully glossy.



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Unto her rosy arms we fly,
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She leads us to the morning mile
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A butterfly of dew and dream,
From flower to flower she soars;
A light heart o'er the burning gleam
Where labor's mill wheel roars;
The verges of the battle lure
Her footsteps, and she stands
By her dear sister grief to hold
The lost sword in her hands.

Across the hills in morning light,
Through many a teeming street,
Her heart so curious, eyes so bright,
She toils on tireless feet.
Upon ships of joy and gloom
O'er oceans wide she sails;
And still along her path of bloom
The human army trails.

Even in our weariness of all,
At end of all we lie,
Stretching our shadows on the wall
To see her form go by.
Through the delirium of that sleep,
Ere worms destroy our clay,
We clasp the shadow we would keep,
We plead with her to stay.
—Baltimore Sun.

EVERYBODY MILKS IN IOWA.

Everybody milks in Iowa,
We all like the cow,
Pinning our faith to bossy
Has made our neighbors bow.
Everybody milks in Iowa,
Even Sister Rae;
Everybody does the milking
In I O A.

Everybody miks in Iowa,
Summer and winter time,
Makes no difference to Iowa,
They milk, rain or shine.
Soil is growing richer,
Debts are cleared away,
Just because they're milking
In I O A.

Everybody milks in Iowa,
Let me tell you that,
Buying auto-mobiles
With the butter-fat;
If the grain crops fail them,
They don't move away,
Just keep right on milking
In I O A.

Everybody miks in Iowa,
Hear me what I say,
Live on milk and honey
While the cows eat hay.
Mother's quit her washing,
So has Sister Ann,
Everybody's gone to milking,
Even my old man.
—E. T. Sadler, in Hoard's Dairyman.

THE AMIABLE MAN.

I've never found that speech profane has won a friend for me.
I've never found it paid me much to cuss.
And while I know a lot of words of sheer profanity,
I've never found they've helped me in a muss.
And so it is no mortal lives who's ever heard me swear,
Not even such a little word as "My!"
When things go wrong and seem to be completely past repair
I simply bang my foeman on the eye.

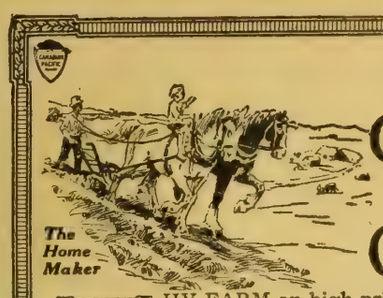
I've never found it paid to meet my trouble with a frown—
It doesn't pay to corrugate one's face.
Frowns only serve to drag a fellow's troubled spirit down,
And fill his mind with notions mean and base,
And hence it is my pallid brow of wrinkles all is free,
Nor gives an outward sign of inward cares.
When some one comes along by day or night to pester me
I simply smile and kick him down the stairs.

I don't believe it ever pays to lose one's temper o'er
The little slings and arrows of this life.
I don't believe an angry shout or loud and blatant roar
Will ever ease a fellow of his strife.
It's better far to go your way with fresh and happy mien,
As though you dwelled beneath a flag of truce.
And when the hosts of Trouble shall appear upon the scene,
Take off your coat and thrash 'em like the deuce.
—Lippincott's.

FAREWELL! IF EVER FONDEST PRAYER.

Farewell! if ever fondest prayer
For other's weal availed on high,
Mine will not all be lost in air,
But waft thy name beyond the sky.
'Twere vain to speak, to weep, to sigh;
Oh, more than tears of blood can tell,
When wrung from guilt's expiring eye,
Are in that word—Farewell! Farewell!

These lips are mute, these eyes are dry;
But in my breast and in my brain
Awake the pangs that pass not by,
The thought that ne'er shall sleep again.
My soul nor deigns nor dares complain,
Though grief and passion there rebel;
I only know we loved in vain—
I only feel—Farewell! Farewell!
—Lord Byron.



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THE COWGIRL.

When Mary drives the cattle home
She don't walk down the lane,
The way the farm girls do down East—
For walkin' is in vain
When one is livin' in a land
That 's level as your hand,
And when the fences of all sorts
Are scarce to beat the band.

When Mary drives the cattle home
She saddles up and hikes
For fifty miles, or mebbe more,
Before a trail she strikes;
It ain't no lazy farm-girl's job—
It's rough work, at the best,
When Mary drives the cattle home
Across the boundless West.

When Mary drives the cattle home,
She calls, clear up the road;
She never yet got losted,
And she never yet got throwed;
And she makes a purty picture
In the sunshine or the rain,
When Mary drives the cattle home,
Acrost the Western plain.
—Arthur Chapman, in Denver Republican.

THE RICH MAN.

Look at de rich man—
Money's hard to beat—
Plenty on de table,
But he can't afford ter eat!
He worry an' he worry,
De worldy way along.
You seldom hear him whistle,
An' he never raise a song!

An' w'en dey gits him yander
In de region of de sky,
Dey puts him thoo sich questions
Dat he mos' too weak ter fly!
—F. L. Stanton.

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Dr. J. E. Cannaday, 684 Park Square, Sedalia, Mo.

References: Third National Bank, Sedalia, Mo.

Could you do a better act than to send this notice to some poor sufferer of Eczema?

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I do not offer you makeshifts such as artificial ear drums or other apparatus; **I do not approve** of saturating your system with habit-forming drugs. I am not content to merely give you a brief period of relief from deafness but my aim is

TO CURE YOU PERMANENTLY

I am a practising physician of 32 years' active, extensive, experience. I know the only satisfactory method of conquering deafness and head noises is in getting at the seat of the trouble and curing it.

I have published a book; it is written in easy, plain language and is **illustrated.** It tells you facts you probably never imagined and you may see just why you probably never succeeded in getting a real, lasting cure before. It is the one treatise you have been seeking and it tells all about **the one Method** you should adopt and which is comparatively inexpensive.

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There always was some danger in being deaf but with the invention of rapid speeding automobiles, no deaf or partly deaf person can feel safe. Accidents to those who could not hear well, are being recorded by thousands. **Moreover, deafness**

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Prevents You from Enjoying Theatres, Concerts, etc.
Makes You Feel a Bore When in Company
Hinders Your Success in Business or Socially
Stops You from Hearing Sweet Sounds of Nature
Is usually Allied with Nervousness and Despondency

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Growing Wild Flowers.

Some morning you will rejoice to find the sun shining and the birds singing, and I will almost fancy that you can detect the faint odor of the early wild flowers. And then a cold spell comes which stops the swelling of the buds and sends your hopes zeroward. It is easy, though, to take advantage of those first genial days and thus have a bit of spring within doors when there is none without.

Procure a box of suitable size for the window, and on the first really warm day fill it with soil from the woods, covering with moss if you prefer. Also visit the sunny bank where you always find the earliest flowers, and if the ground is sufficiently thawed, a nice collection of roots of the various native plants are yours for the digging. Some of them may not have even sprouted. But take courage in the thought of how rapidly they grow when the warm rains and sunshine come. There will be some bulbs with which you are familiar, others you cannot name. But gather all that come your way, and thus have a miscellaneous collection just such as nature prepares.

Water thoroughly with tepid water, and the brief snatches of sunshine upon the glass will soon call forth buds and blossoms. One of the chief joys of spring is in noting just how fast the green leaves can grow. And here you have the pleasure of seeing every change. In the woodlands you have looked mainly for the flowers, but here you become familiar with every step leading to them.

Later, when the flowers have burst forth in their home places, you will have become so much pleased with this intimate way of knowing them as to want a wild garden, where you can have them every year. The notion that they are hard to grow is entirely wrong. The main thing is to give them as nearly as possible the soil and surroundings which they get in their natural home.

What shall you plant? That depends largely upon your location, for the plants which grow in your own locality will most surely thrive. But if there is a species which you know to be difficult to transplant, or which is almost on the verge of extermination, protect it in its native wilds instead of striving to remove it.

Violets may usually be depended upon to grow and thrive, and there are numerous species occupying a wild range of country. The common, blue, stemless ones which spring up in the pastures everywhere are easily transplanted when in full bloom and continue to flower for weeks as though nothing had happened. In fact, if you do not keep one eye open they are apt to crowd out the more delicate species.

It is remarkable how well plants transplanted when in full bloom endure the change. In the case of bulbous ones this is almost the only way one can secure them unless their exact location is previously known, for the period of growth above ground is brief, and only those who best know their habits would be likely to catch or notice them save when at their greatest glory. But they never mind it, adapting themselves easily to the new home and ready to surprise you another year with their beautiful blossoms.

Aquilegias are most easily grown and increase rapidly from seedlings as well as roots. The native varieties are many of them more graceful in outline than the exotics. Many of the lily family do even better than in their native haunts. A few of the orchids thrive for a year or two, but the majority are shy of being disturbed. Ditto as to the heath family. The trailing arbutus and mountain laurel seldom live in the hands of the novice. Study your own flora and note which members increase rapidly by seed or root, and then select in accordance with this, bearing in mind that the spring flowering bulbs, like the crocus and tulip, may usually be depended upon.—Bessie L. Putnam.

Who Deserved the Laugh?

One beautiful day, a few weeks ago, State street, Chicago, was crowded with shoppers and sightseers, when a diversion was caused by the appearance of a full-blooded Indian in his costume of the plains. For the moment all eyes turned from the attractive displays in the shop windows to view the Indian in his gay blankets, his bright head ornamentation of feathers, his brilliantly-painted cheeks and his strings of many-colored beads. There was a smile on the faces of most of the onlookers and a laugh came from the lips of many. In fact, that Indian passing through the down-town streets of the city caused a great deal of merriment and wonder. Of course, it was a cosmopolitan crowd, but at least seventy-five present of the women who came under my observation just then had their faces made up with powder and rouge; were wearing plumes or quills on their hats; had gay ornaments of all sorts about their necks and on their persons, and a few had on skirts too tight for comfort and scandalous as to looks, while some wore shoes so tight and so high of heel that they could not walk but rather minced along. Now, which was the more barbarian—the Indian in his paint and feathers and ornaments, or the women in their paint and feathers and divers ornaments and extreme clothing? Perhaps there was a smile on the Indian's stolid face beneath the paint, as he swung along the street, making full use of the feet nature had given him. And why not? Had he not as good a right to laugh at the painted, ornamented females mincing along beside him as they to laugh at him? Really, there are far more ridiculous things among us than that Indian from the plains.—Janet Thomas Van Osdel.

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PRETTY MODELS.

No. 7311.—Fancy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required one yard of material 36 inches wide for blouse, one yard 36 inches wide for overwaist, ⅝ yard of all-over lace 18 inches wide, 2 yards lace for frill.

No. 7287.—Fancy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 2 yards of material 36 inches wide, with one yard 18 inches wide for yoke and undersleeves, ¾ yard of lace for sleeve frill, and ⅜ yard of silk for piping.

No. 7308.—Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 3¾ yards of material 36 inches wide, with 1¼ yards 44 inches wide for frills, and 5½ yards of rosebud banding, ⅞ yard 18 inches wide for yoke and undersleeves.

No. 7304.—Two-piece Skirt. 22 to 32 waist. For the medium size will be required 3¾ yards of material 27 inches wide.

No. 7297.—Four-gored Skirt, With High or Natural Waist Line. 22 to 32 waist. For the medium size will be required 3¾ yards of material 27 inches wide.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

FASHIONABLE MODELS.

No. 7303.—Square-yoke Blouse. 34 to 42 bust. For the medium size will be required one yard of material 36 inches wide, with 3 yards of banding and 1¼ yards 18 inches wide for yoke and sleeves.

No. 7290.—Blouse With Front Closing. 34 to 42 bust. For the medium size will be required 1⅞ yards of material 36 inches wide, with ⅞ yard of lace for frill, ¾ yard 21 inches wide for bands, and ⅞ yard 18 inches wide for collar and undersleeves.

No. 7294.—Tunic With Surplice Overwaist. 34 to 42 bust. For the medium size will be

required 3 yards of material 36 inches wide, with 8½ yards of narrow banding, 1⅛ yards of wide banding and 1⅛ yards of fringe to make as illustrated.

No. 7312.—Seven-gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 4 yards of material 36 inches wide when material has figure or nap; 2¾ yards 36 inches wide when material has neither figure nor nap.

No. 7317.—Two-piece Skirt. 22 to 32 waist, with high or natural waist line. For the medium size will be required 3¼ yards of material 36 inches wide.

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FASHIONABLE AND DAINTY UNDERWEAR.

No. 6935.—Chemise That is Made in Three Pieces. The seam at the back means shapeliness; at the front the neck edge is drawn up by means of ribbon threaded through slits worked for the purpose. The Pattern No. 6935 is cut in three sizes: 32 or 34; 36 or 38; 40 or 42 bust.

No. 6873.—Combination Corset Cover and Closed Drawers that can be made with or without the trimming of lace insertion, that is arranged to give a bow-knot effect. The closing is made at the back.

No. 7064.—Semi-Princess Slip, Combining Corset Cover and Five-gored Petticoat. Both lingerie materials and silk are appropriate.

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No. 6980.—Shapely Seven-gored Petticoat With Habit Back. It can be made with or without the circular flounce and is closed at the left of the front.

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GOOD MODELS FOR MEN AND BOYS.

No. 5916.—Plain Outing Shirt, Both a Smart and Comfortable One. The Pattern No. 5916 is cut in sizes from 34 to 44 breast. For the medium size will be required 4½ yards of material 27 inches wide.

No. 6918.—Russian Blouse, Exceedingly Becoming to the School Boys. The Pattern No. 6918 is cut in sizes for boys from six to twelve years of age For the ten-year size will be required 3 yards of material 27 inches wide.

No 7102.—Blouse Suit, a Favorite For Boys' Wear. The Pattern No. 7102 is cut in sizes for boys from eight to twelve years of age. For the ten-year size will be needed 4 yards of material 27 inches wide.

No. 6808.—Boy's Suit That Consists of Blouse and Trousers. The Pattern No. 6808 is cut in sizes for boys of six, eight and ten years of age. For the eight-year size will be needed 5¼ yards of material 27 inches wide.

No. 7112.—Russian Blouse Suit, Always Pretty For the Younger Boys. The Pattern 7112 is cut in sizes for boys of two, four and six years of age. For the four-year size will be needed 4¼ yards of material 27 inches wide, with 10 yards of braid.

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Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Homely Hints.

Sometimes the paper on the bottom of a cake is difficult to remove, but if the cake is warmed slightly it will peel off without trouble.

In polishing copper, sprinkle a little powdered borax on the cloth. It works like magic.

When you have dried currants to clean, pick out all the little stones and stems, fill a flour sifter half full of fruit, and set in a basin of water. Turn the handle as if sifting flour, and change the water often till it remains clear. Drain in the sifter. Then spread the fruit on a towel to dry.

It is said that if one-fourth of a teaspoon of ground ginger be added to each batch of doughnuts, the spice will never be detected and the doughnuts will not soak fat.

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Dr. F. W. Jiroch, of Chicago, who is regarded by many as perhaps the best specialist of modern times in his chosen field, makes you this liberal offer.

If You Are Sick Let Me Help You

Just mark with a cross X in the coupon below any of the different symptoms you have and send it to me, and I will send you the **Treatment Free** so you may make a personal test of just what my special medicine will do.

This Treatment Will Be Delivered By MAIL, POSTAGE PAID, Right to Your Own Door Without One Cent of Expense to You

This offer is made to any person who sincerely wants to be cured of Kidney and Bladder Ailments, Rheumatism, Stomach, Liver and Bowel Disorders, Heart Trouble, Nervous Weakness, Catarrh and all other diseases arising from impure blood, Uric Acid conditions, Etc.

SEND NO MONEY Simply put a cross X mark before the symptoms that you have, cut out the coupon, sign your name in full and complete address, and I will do the rest.

The Object of This Advertisement

is to reach the sick, weak and suffering; those who have failed with other treatments, those who have given up in despair, those in remote places who are not supplied with modern, up-to-date and successful methods of curing diseases.

I Want to Prove to Those People at My Own Expense That I Have the Real Remedies

I have perhaps the most successful method yet devised for the permanent cure of diseases of which I have made a specialty. I do not ask you to accept my word for this. I am a Specialist and I do not have one remedy that cures everything; no patent medicines; no "dope." My special treatments are made up of my own private prescriptions perfected after years of successful practice. My great success is due to knowing what remedies cure and treating my patients honestly. I count my cures by the hundred where a doctor in ordinary practice counts but one.

To Prove My Claims I'll Send a Treatment Free to Test

I want you to try at my expense, not yours. All I want to know is what you want to be cured of. I have made it convenient for you to tell me this by simply putting a cross X mark before the symptoms you have on the attached coupon or write me a letter in your own words about anything of a private nature (man or woman) that you want me to know. I realize that I must help you and get your good will if I expect you to recommend me to others. And you must believe that my remedies are genuine, and that I do cure, otherwise I could not afford this expense of advertising.

The Vast Majority of Patients I Treat Are Those who Have Failed With Other Treatments

You may feel discouraged on account of past failures; patent medicines may have proven worthless; your home doctor may have exhausted himself—even pronounced your case incurable—but this does not prove that I cannot help you and that I may cure you. The worst cases come to me. My treatment may be a surprise to you. Set aside your doubts; try once more. Try at my expense. You have nothing to lose.

Accept My Liberal Offer!

It Places You Under No Obligation Whatever To Me

I repeat—you are under no obligation to accept this free offer. No contracts; no express charges. I will pay the postage myself and deliver the treatment right to your own door without one cent of expense to you. Do not delay; do not argue. Just say to yourself "If Dr. Jiroch has so much confidence in his ability and his treatment to go to all this expense I am going to let him try." Put a cross X mark before the symptoms you have; sign your name and address to the attached coupon, cut it out and mail it to me to-day. It will obligate you to nothing. Just let me try to help you. Address,

Dr. F. W. Jiroch, Dept. 1225, 533-535 So. Wabash Ave., **Chicago, Ill.**

INDICATE YOUR SYMPTOMS HERE for FREE DIAGNOSIS

Cut Out and Mail This Coupon Today

I wish to avail myself of your offer to get a proof treatment free so I can test it in my own case, I have placed a cross X mark before the ailments for which I desire treatment and XX before my worst troubles.

Name .....

State plainly Mr., Mrs. or Miss.

Town .....

State .....

Street or R. F. D. or Box .....

Did you ever write me? .....

What is your age? .....

What is your disease? .....

.....

.....

- ___ If you are losing flesh.
- ___ If you take cold easily.
- ___ If your appetite is poor.
- ___ If you have rheumatism.
- ___ If you have sick headache.
- ___ If you have a pain in the back.
- ___ If you are subject to malaria.
- ___ If you spit up mucus or slime.
- ___ If you are subject to biliousness.
- ___ If you are troubled with catarrh.
- ___ If your sleep does not refresh you.
- ___ If you feel weak and all run down.
- ___ If you have palpitation of the heart.
- ___ If you have heartburn and indigestion.
- ___ If you have weak lungs or cough much.
- ___ If you have any rectal trouble or piles.
- ___ If you belch up wind from the stomach.
- ___ If your hands and feet get cold easily.
- ___ If you spit up sour or undigested food.
- ___ If you have foul breath and coated tongue.
- ___ If your bowels are irregular or constipated.
- ___ If you have specks floating before the eyes.
- ___ If you have dizziness or swimming of the head.
- ___ If you have itching or burning of the skin.
- ___ If you have hot and cold flashes over the body.
- ___ If you have boils & pimples on the face & on neck.
- ___ If you feel bloated, distressed or sleepy after eating.
- ___ If you are depressed in spirits & easily discouraged.
- ___ If you have pains in back, through loins, hips & joints.
- ___ If you get weak, nervous & trembling after slight exertion
- ___ If you have twitching of muscles, limbs, face & eyelids.
- ___ If you have too frequent desire to pass water, or if there is dribbling or painful urination.

It is distinctly understood that I will never ask you to pay for the proof treatment letter of advice, diagnosis, or for answering your special questions. I will also send you my Medical Book containing valuable suggestions, simple home rules, etc. all free—Absolutely Free—Write at once. Address Dr. F. W. Jiroch Dept. 1225 533-535 So. Wabash Ave., Chicago Ill.

FILL OUT this Application and Send it TO-DAY

National FARMER

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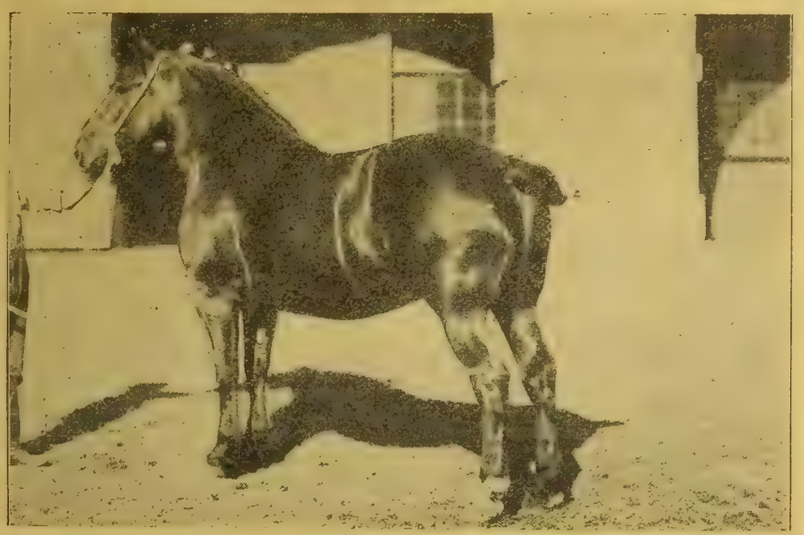
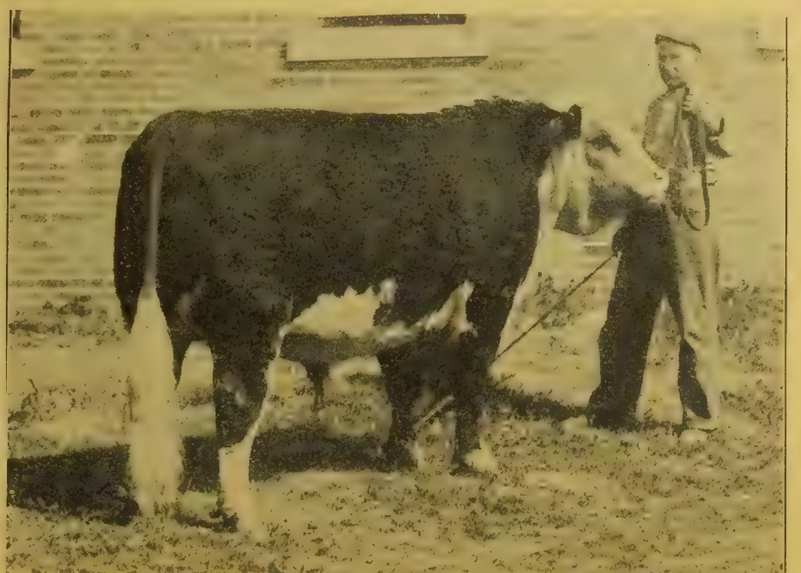


IOLANTHE, 40,925—PERCHERON MARE. Shown in exhibition thirty-eight times and thirty-six times first or champion, including championship mare two different years at the Chicago International Live Stock Exposition. Owned by Gregory Farm, W. S. Corsa, Proprietor, Whitehall, Ill. This is a sample of the half-page pictures appearing in The Book of Live Stock Champions advertised on page 23.



GAY LAD, 6th—HAS NEVER KNOWN DEFEAT IN THE SHOW RING. Has always won first in class, and as a yearling won three championships out of eight shows. In 1911, as a two-year-old, he won championships at State Fairs, American Royal and Chicago International Live Stock Exposition. This great Hereford bull was exhibited by Overton Harris, the Model Farm, Harris, Mo. This is a sample of 720 pictures which appear in The Book of Live Stock Champions advertised on page 23.

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5 Cents a Copy. Published Monthly by The Hale Publishing Co. 50 Cents a Year.

and Stock GROWER

My Ideal of a Car

By R. E. Olds, Designer

Reo the Fifth—My Farewell Car—in every detail marks the best I know. And I've built cars for 25 years. If any man can build a car better he's a better man than I.

To the Men Who Have Faith in Me

Automobile makers say it is simply impossible to give the best in a car for $1,055.

I agree with them.

This price, I believe, can not be continued. Our contracts with dealers provide for advance.

But I promise you this:

Reo the Fifth, while I direct the making, will embody the best of which I am capable, regardless of price or profit.

Men Look to Me

Tens of thousands of men, in the past quarter century, have used cars of my designing.

They have come to have faith in me. They believe that I know.

Reo the Fifth is my finest car, the cap-sheaf of my career. And myriads of men will remember me by it, whatever new cars the Reo plant may bring out.

You who look to me can rest assured that this car marks my limit.

The Final Touch

I have spent 18 months in designing this Farewell Car.

I searched the whole motor car world for ideas for it. In it I embodied the best I had learned from the 23 models which I built before it.

I never before gave such care to a car. Nor has any other man, I think.

Never have I stood for such big margins of safety—never insisted on such careful inspection.

Never before have I gone so far to get the final touch.

Look for Yourself

The lines of the car show its up-to-dateness.

The body is finished with 17 coats. The lamps are enameled. Even under the hood you'll find the engine nickel trimmed.

Note the deep upholstering, made of genuine leather, filled with genuine hair.

Note the car's roominess. Note the big wheels. The car is over-tired.

Note the absence of petty economies.

The Parts Which Tell

But the parts which tell in the long run are the hidden parts of a car. Men's final judgment will depend on them.

I use Nickel Steel in the axles and driving shaft, and I make them much larger than necessary. I use Vanadium steel for connections.

Each lot of steel, to make sure of it, is analyzed before I use it.

The gears are tested in a crushing machine of 50 tons' capacity.

The magneto is tested under conditions which very few can stand.

The carburetor is doubly heated, to avoid the troubles due to low-grade gasoline.

Roller bearings are used—Timken and Hyatt—where ball bearings once sufficed. There are only three ball bearings in this whole car, and two are in the fan.

So in every part. All the precautions taught me by experience are employed in this Reo the Fifth.

New Center Control No Side Levers

Then here, for the first time, is a cane-handle control. All the gear shifting is done by slightly moving this lever in each of four directions.

Both brakes are operated by foot pedals, and one pedal also operates the clutch.

So there are no side levers—there is nothing in the way of the front doors.

This arrangement permits the left side drive, heretofore possible in electric cars only. The driver sits as he should sit, close to the cars he passes and on the up side of the road.

These are conveniences fouhd today in Reo the Fifth alone.

Ask for the Book

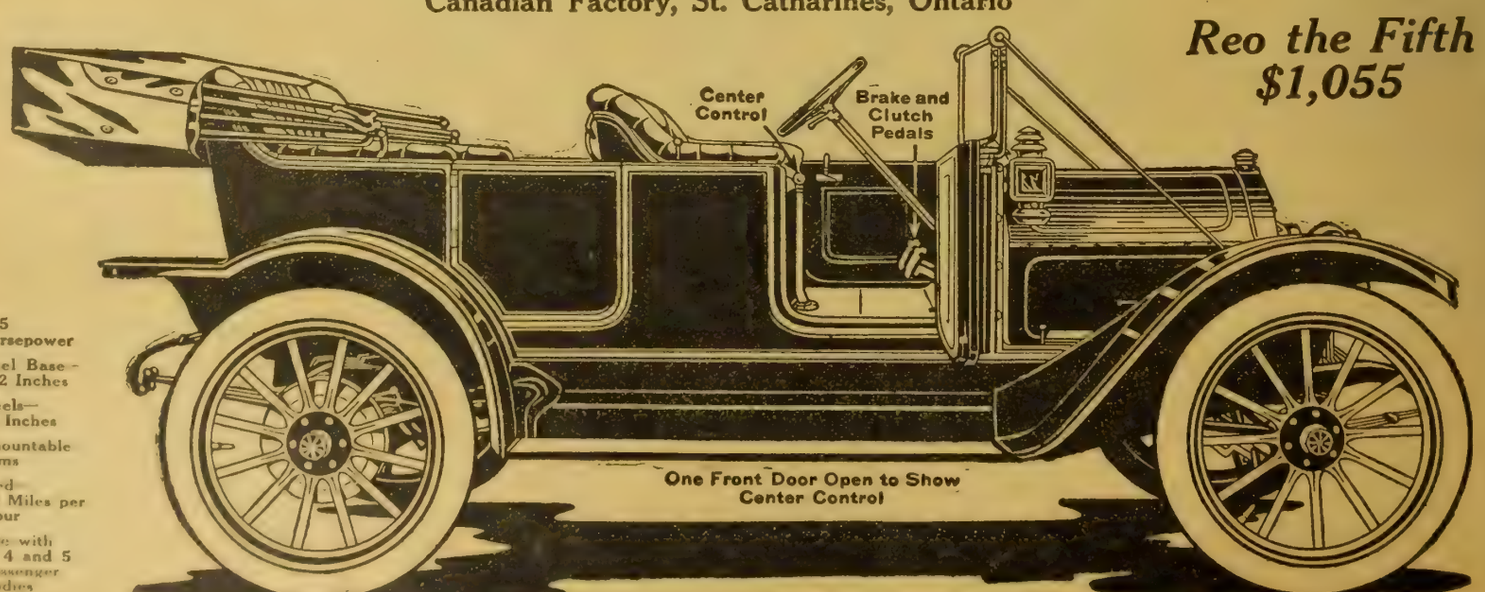
Our Book points out all the perfections, and pictures the various bodies. Every motor car lover should have it, for this is one of the interesting cars.

Write us to mail it—write us now—and we will also tell you where the car can be seen. Address

R. M. Owen & Co. General Sales Agents for Reo Motor Car Co., Lansing, Mich.

Canadian Factory, St. Catharines, Ontario

Reo the Fifth $1,055



30-35 Horsepower
Wheel Base—112 Inches
Wheels—34 Inches
Demountable Rims
Speed—45 Miles per Hour
Made with 2, 4 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank and speedometer—all for $100 extra. Self-starter, if wanted, $20 extra.

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government. Import duties on various products as now collected amount to over three hundred millions of dollars a year, and if not collected that way would have to be collected by direct taxes upon our own productions.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal service the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth or other unavoidable influences the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

National Corn Exposition Prizes.

The Fifth National Corn Exposition will be held in Columbia, S. C., January 27th to February 8th, 1913. The National Farmer and Stock Grower will pay a special prize of ten dollars in cash to any and to all of our subscribers in any state who may win a first or second prize at the National Corn Exposition at Columbia, S. C. This applies to paid-in-advance subscribers of record August 1, 1912.

We will pay the prizes as they are won to boys or girls, men or women, if they exhibit a single ear or ten ears in any corn class and win a first or second prize. If they win a first or second prize at the National Corn Exposition, all that is necessary to do in order to receive one of our special ten-dollar cash prizes is to claim it by sending to us the certificate of the Secretary of the National Corn Show and reminding us of the subscription payment and we will look it up, and, if found to be correct, will remit the money promptly.

This offer applies equally well to first and second prizes won for exhibits of wheat, oats or barley for which the National Corn Show has classes. Heretofore in offering prizes we have required that the seed corn or oats or other grain from which the exhibit is grown be furnished by us. This time no such qualification is necessary. We place no limit upon the number of prizes. We will pay one hundred or one thousand of them. Our purpose is to encourage farmers, farmers' sons, farmers' daughters and farmers' wives to produce crops good enough for selections to be made to exhibit and good enough to win prizes at the National Corn Show.

This prize offer is made to advertise The National Farmer and Stock Grower, to get us more subscribers than we would otherwise obtain, to advertise the National Corn Exposition and to encourage improvement in growing corn, wheat, oats and barley. Our subscribers are all eligible, providing their subscriptions are paid up from August 1, 1912, to February 8, 1913. It applies to all who have already paid their subscriptions covering these dates and to all who pay their subscriptions before August 1, 1912.

The National Farmer and Stock Grower was the first paper in the United States to offer cash prizes for grain exhibits, and we find that the more prizes we pay the more we prosper. The National Corn Exposition is a great, beneficial enterprise, wisely conducted, and we intend to do our part in our own way to help it along and to help ourselves and our subscribers at the same time. Any subscriber who sends in a subscription before August 1, 1912, no matter what premium he may receive as a subscriber, will be eligible to receive a special prize in addition to the prize he may win at the National Corn Show. Look up our subscription premium offers. There are several advertised in the paper.

Garden Notes.

Are you planning for some new things in the garden, or is it to be repeated in the same old way, regardless of the fact that new varieties and methods are continually making your possibilities greater? "Novelties" we always shun. If they are really worth cultivating they will be down in price within two or three years to living figures. Meantime the moderate purse had best leave them with the experimenter and you may be sure that he will finally decide a large per cent. of them not worth perpetuating.

How about the bed of herbs? It is these which give the distinctive flavor to the soup, the roast or the sausage. A small patch of summer savory or sweet basil will be a help in many ways in giving the change so grateful to the average family. Sage is an agreeable flavoring to many, while its medicinal uses should render it worthy of a place. The old-fashioned lavender is still a most useful preventive against moths. If the seed is started in pots it will be found more easily started than when sown in the garden bed. It is very slow in germinating.

Spinach is a plant too little known. Said a well-educated woman: The puzzle to me is why more people do not cultivate spinach. It is so wholesome, so easily grown and so appetizing that every family should have it in abundance. We buy it on the market as soon as it appears, plant a large part of our little garden plot to it and then buy again after our own supply is exhausted." Anyone fond of "greens" will certainly find in this plant a continuous source of supply during the growing season. It is much more economical to grow it than to spend time ransacking the fields for dandelions or other substitutes, and it is more quickly made ready for the table. Sown in spring, it is soon ready for the table, though for the earliest use some prefer autumn sowing.

Salsify is another greatly-neglected plant, and it is strange how many people passionately fond of oysters are ignorant of the merits of this cheap vegetable substitute. True, not all recognize it as in any way like the favorite mussel, though others who never eat the latter find in the well-grown vegetable a source of real pleasure. Choose the larger varieties. Mammoth Sandwich Island is the best, as the roots incline to branch unless grown in light, rich soil; the varieties of smaller size are a plague to the housewife, requiring much time and patience in the cleaning. They may be left in the ground over winter, as freezing does not injure them, and the fresh roots, edible from late summer until they commence to grow again in spring, are a great help in furnishing variety for the table.

Cress is an agreeable relish, and if one has a spring near, it will practically grow itself if given a chance. The fresh leaves are a very pleasiag addition to the popular sandwich or salad, and the plant is an appetizer not to be ignored.

Horseradish may not be wanted in the garden, a low, wet piece of ground being usually chosen for it. Yet it is important enough to deserve some spot of perpetuation. The leaves are often of use in the sick room, and as a cover for the pickle crock they are unsurpassed, while pieces of root give an agreeable flavor to pickles of all kinds and aid in their preservation. But the grated root served with vinegar is the most pleasing form of the plant. This was the beginning of the great factories of Heinz, the man of the "Fifty-seven Varieties," and the man who made the nucleus of a fortune is now proud to show in his great group of buildings at Pittsburg the small dwelling house in which the industry was born. It is easy to have a supply of this relish by planting a few roots, as they increase rapidly. Grind in a small food chopper if you would save labor in its preparation. Put up in cider vinegar it will give an agreeable touch to the meats or sandwich.—Bessie L. Putnam.

Not Always Real Wisdom.

"Old people should never parade their superior wisdom, because it may not be so illuminating as they imagine."—Exchange.

Every Woman Should Get This If She Cares to Save Money

NEW YORK STYLE BOOK FREE

It's absolutely FREE to you right now—the beautiful, interesting, complete "NATIONAL" Style Book for this season—containing 200 pages of the very newest, advanced New York and Paris fashions—the latest advice from the real style centers—with many, many beautiful illustrations of the most up-to-date apparel.

It shows countless bargains—helps you to be one of the very best dressed women—at a *saving*, too. This handsome book is *free* to you for the asking. Send today.

Waists, 98 cents to $6.98
Skirts, $1.49 to $9.98
Lingerie Dresses, $2.98 to $15.98
Silk Dresses, $7.98 to $17.98
Ready-Made Suits, $10.98 to $17.98
Hats, $1.98 to $9.98
Misses' Dresses and Suits, $2.98 to $15.98

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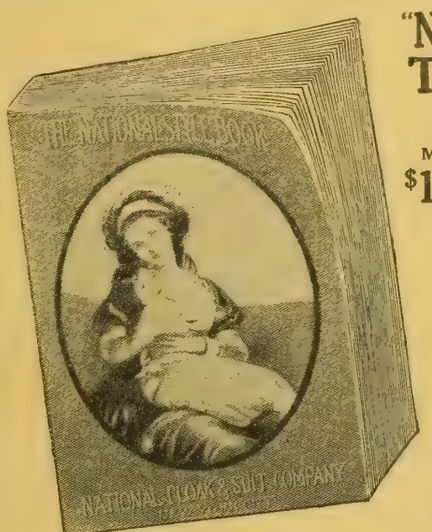

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Made to Measure

$12.50 to $30

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Each Made-to-Measure Suit is actually cut and made to order. We guarantee each suit to fit perfectly and to be satisfactory in every way, or we will cheerfully refund your money.

The "NATIONAL" Policy

We prepay postage and express charges on all our goods to any part of the world. You may return any "NATIONAL" garment not satisfactory to you and we will refund your money and pay express charges both ways.

In writing for your Style Book, be sure to state whether you desire samples of materials used for "NATIONAL" Made-to-Measure Tailored Suits. Samples are sent gladly, but only when asked for—and they are well worth asking for.

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Wheat Breeding Results.

The Nebraska Experiment Station has just issued Bulletin No. 125, on "Wheat Breeding Experiments." A brief historical sketch of wheat culture is given, together with charts showing the principal wheat-growing areas. The total yield for the last deacade was twice that of the preceding, and about four times that of the decade 1870-1880. The increase is largely due to increase in culture of Turkey Red wheat, which first came into the state about 1890. The improvement of Turkey Red wheat was taken up by the Nebraska Experiment Station in 1902, and has been continued since.

Single heads and plants were selected from large fields, and the product of each head increased until sufficient had been secured to plant test plats in the fields. Field tests with each strain were conducted for four years to determine the best. Quite marked variations were found in the different pure strains of wheat, both in yield of grain and in quality as well. Also, marked differences in lodging and winter killing were noted. The yield of twenty-six pure strains varied from 28.8 bushels to 40.7 bushels, as a four-year average, while the original Turkey Red wheat averaged 35.1 bushels under the same conditions.

Twenty-one farmers also grew eight-acre fields of the best selected strains in comparison with ordinary Turkey Red winter wheat and secured an average of 25.8 bushels, as compared with 21.9 bushels for their own wheat, or a gain of four bushels per acre.

This bulletin may be had free of cost by residents of Nebraska upon application to Prof. E. A. Burnett, Director Agricultural Experiment Station, Lincoln, Neb. Anyone interested in the subject of wheat improvement can safely make application for a copy.

The Corn Market Situation.

At St. Louis, on March 30th, No. 2 corn was quoted nominal, but No. 3 was sold at 74 to 74½ cents. The previous closing price in February wash 64 to 65½ cents. It will be seen from this that corn entering consumption advanced 10 cents a bushel in thirty days. It was a pretty strong market for corn.

The speculative trade, which is based on future deliveries and represents the world market, did not advance so much, but it surely reached equally high figures. We left the May option at 69⅜ cents a bushel on February 29th, and we find it closing at 74⅞ cents on March 30th. We left the July option at 69½ cents on February 29th, and we leave it again at 74¾ cents on March 30th. The corn market September option was quoted at 73⅞ cents on March 30th, indicating that traders do not expect much of a decline on account of the coming new crop.

The May option at 74⅞ cents, which is practically seventy-five-cent corn, was considered as partially due to strong bull influences rather than to absolute necessities of the market operators. The sixty days before the closing of the May option is ample time for all kinds of trading, that may show some fluctuation.

GOOD BOOKS AND PAPERS.

THE NAYLOR MANUFACTURING CO. has issued a catalogue setting forth the tools they manufacture, ranging from the light draft harrow, the single-row pulverator, to the Naylor Giant Pulverator, built for work behind a tractor. The guiding principle is to obtain the most perfect work without unnecessary draft. For catalogue and circulars address Naylor Mfg. Co., Box 43, Plano, Ill.

THE HORSE; HIS BREEDING, CARE AND USE, by David Buffum, is issued by the Outing Publishing Co., 315 Fifth avenue, New York City. It is one of the handy books published by the company issuing the Outing Magazine. Chapters are devoted to thirteen different subjects and all interesting to horsemen.

BLOODED STOCK NOTES.

At Kansas City, March 5th and 6th, a breeders' sale of Hereford cattle was held, resulting in an average of $100.55 for forty-six females and $180.70 for fifty-seven bulls. Mr. R. T. Thornton was manager of the sale. The highest-price female sold for $180, and the best price for a bull was $820, paid by E. E. & M. T. Young, of Lexington, Neb., for Tempter, 3d, a junior yearling.

Thomas Stanton and C. A. Steward sold pure-bred Berkshires at auction on March 6th, and fifty bred sows and gilts sold for $3,845, an average of $77 per head. The top price of the sale was $250, paid by Howard Willetts, of Great Barrington, Mass.

At a sale of Hereford cattle by Jones Bros. at Council Grove, Kas., held March 8th and 9th, 136 females averaged $121.60, twenty-two bulls averaged $172.50, and the total of 158 head averaged $128.70. The top-priced male was Simpson, an aged bull, sold for $600 to R. A. Morley, Olivet, Kas. The yearling heifer Sally topped the females at $320, paid by Glen Woods, of Kansas City.

At Sioux City, Iowa, H. G. McMillan & Sons and White & Smith sold at auction forty head of Shorthorn cattle for an average of $168.15. Nine bulls averaged $178, and thirty-one females sold at $165.20. The high price for a bull was $600, paid for Bandmaster, a calf of June, 1911. The top for females was $330 for the heifer Victoria, 12th.

Mr. E. L. John, breeder of pure-bred English Berkshire swine, is again offering some fine pigs for sale. He is at Broadway, Maries county, Mo., and his express office is at St. James, Mo., on the 'Frisco Route. His pigs are fully up to the standard.

Mr. D. F. Beauchamp, breeder of pure-bred Poland-Chinas, ran out of salable stock last fall, but he has some fine pigs of his own raising for sale now. His home is at Meredosia, Morgan county, Ill., and ships by the Pacific Express. He has good stock that gives satisfaction and the prices are moderate.

General Jose Miquel Gomez, President of the Republic of Cuba, has just bought the three-year-old stallion, Alican, 4,286, from the Cook Farms at Lexington, Ky., and six walk-trot mares. The Cuban Commission bought a number of jacks, stallions and Jersey cattle from the Cook Farms last September, and were so impressed with this great young stallion that negotiations were at once taken up between the President and the Cook Farms, and the deal was closed for the sale.

Volume 59 of the American Poland-China Record gives some idea of that great, popular American breed of hogs. The boars recorded in the volume are numbered from 169,131 to 174,949, and the females are numbered from 407,102 to 418,202. Thus we have a record total of 593,151 pure-bred Poland-Chinas of known breeding. The records show date of farrow, sire and dam, number of pigs raised in the litter, name of breeder and owner, also breeding of sire and dam. The office of the American Poland-China Record Association is at the Union Stock Yards, Chicago, Ill. Mr. J. M. Stewart, of Ainsworth, Iowa, is President, and Mr. W. M. McFadden, Secretary.

On March 14th, Trumans' Pioneer Stud Farm, Bushnell, Ill., reported as follows: "We have sold to Messrs. George M. McCray and D. M. Fowler, of Fithian, Ill., our noted International, Illinois and Iowa grand champion Shire stallion, Royal Grey, at one of the longest prices ever paid for a draft horse on this side. This horse will be remembered as the horse that caused such a sensation at the 1910 International as a two-year-old, being reserve champion to our $10,000 Dan Patch. He had the distinction of winning first and reserve champion at the different State Fairs that year, and last year, as a three-year-old, was champion at the Illinois and Iowa State Fairs and also at the International, and was pronounced by the leading judges of this country as being the greatest draft horse they had seen in the country."

The Holstein-Friesian Association of America has issued a list of prizes to be competed for at the Fairs of 1912, including $750 apportioned to the National Dairy Show. It is a very liberal list, and all competitors are invited to send for a copy to F. L. Houghton, Chairman of Committee, Brattleboro, Vermont.

At Jackson, Miss., March 4th, W. J. Davis & Co. sold at auction twelve pure-bred Hereford bulls at an average of $215.00 per head, and thirty females at $142.83 per head. The best price for a bull was $396.00, paid for Oracle, calved August, 1909, sold to K. H. Knox, Baton Rouge, La. T. L. Shepard, Vineyard, Ark., paid $380.00 for Helen's Ike, a long yearling. The best price for a female was $200.00, paid by W. J. Robinson of Gloster, Miss., for the cow Lizzie, and by H. A. Batterman, of Jackson, Miss., for Alma's Beauty, calved June, 1910.

Fence users will be pleased with Kitselman Brothers' prices—11½ cents a rod up. See their ad. in this issue and write them for free catalogue.

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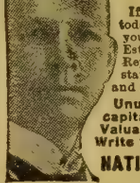
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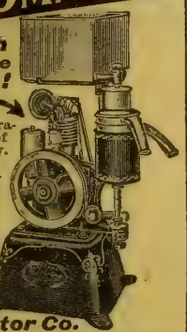

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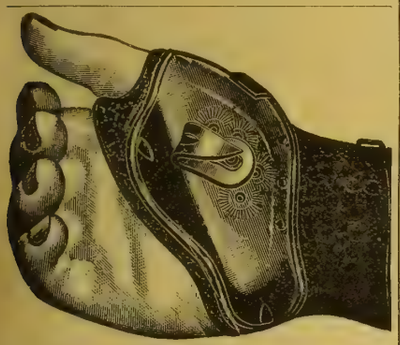

strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Wheat Market Situation.

In the grain trade there was considerable activity during the month of March, 1912, but it was not in the wheat pit. The statistical position indicated a strong market, but when asked: "What is the matter?" a trader said: "Statistics alone do not make a market." Orders from Great Britain were retarded by the strike of coal miners. Considerable strike troubles were in prospect in this country and the market did well to hold up to former quotations and advance a fraction, which is far better than going backward. The Chicago May wheat option, which closed February 29th at $1.02⅛ per bushel, closed at $1.02 on March 30th. The July option, quoted at 96⅞ cents, February 29th, advanced to 97⅝ cents by March 30th. Another option has entered the trading field, which is September, quoted at 95⅞ cents on March 30th. There is the future wheat situation, Chicago basis, in a nutshell—the May option at $1.02½, and some excitement possible before May 31st arrives. July at 97⅝ cents and September at 95⅞ cents indicate that traders expect the coming wheat crop to be ample for all purposes. On March 30th, cash wheat at St. Louis, No. 2 red, sold at $1.03½ to $1.04½, against $1.02 to $1.02¾ on February 29th.

The Oats Market Situation.

The oats market situation has one spot on it indicating that a good crop would quickly reduce prices. The September trading of 1911 at Chicago was closed out at 45¾ cents, and on March 30th, 1912, this same September option for 1912 was quoted at 43⅜ cents. Let no one suppose that the market will be without changes from now on; indeed, there will be many changes, but the fact will always remain that on March 30th, 1912, oats were sold for delivery on September 30th, 1912, nearly two cents lower than the September option closed out last year. This reduction is brought about by the expectation that the crop of 1912 will be larger than the crop of 1911.

And yet oats as now bought and sold are higher than they were last September. Take cash oats, for instance: On September 30th, 1911, at St. Louis, the standard oats actually sold and delivered on that day brought 46½ cents a bushel, and on March 30th, 1912, also at St. Louis, the oats actually sold and delivered brought 55½ to 56 cents a bushel. There is a cash market for you with the goods sold by sample and delivered by car-load on track the same day.

But the great trading is now done upon the May delivery, Chicago basis, which has to be settled for on May 31st. All other options and all other dates stand aside to let May get into the spotlight. May is the last word on the old crop. May is the "clear up" of the speculative market, and on March 30th the May option of 1912 was quoted at 54⅞ cents, actually 24½ cents higher than on the same day last year for the May quotation. Until the May option is closed out by final deliveries on May 31st, there will be a strain upon every one holding oats unless they have a place for delivery by actual sale.

The July option, influenced by the possibilities of the new crop, closed on March 30th at 50¾ cents, which is 4⅛ cents lower than the May option was quoted. One year ago, from March 31st, oats were being sold at 30 and 31 cents a bushel.

St. Louis Native Cattle.

The following were St. Louis native beef cattle quotations on April 1st: Choice to prime steers, $8.00 to $8.50; good to choice steers, $7.25 to $8.00; medium to good steers, $5.25 to $6.00; choice to prime yearlings, $7.50 to $8.00; good to choice yearlings, $6.75 to $7.75; fair to good yearlings, $5.50 to $6.65; common steers, 850 to 1,000 pounds, $4.75 to $5.50—all quotations at the price stated per 100 pounds.

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The Annual Grain Report.

Every year, on March 8th, the Crop Reporting Board of the United States Department of Agriculture issues a report, which is dated March 1st, and is a compilation from the reports of correspondents and agents and the quantity of grain unsold on farms in the country is estimated therefrom. The officials of the Department of Agriculture have experience in this class of work, and the reports are accepted as being reasonably reliable by the people who are engaged in the grain business.

The Wheat Estimate.

It is estimated that the amount of wheat on farms, March 1st, 1912, was about 122,025,000 bushels, or 19.6 per cent. of the 1911 crop, against 162,705,000 bushels, or 25.6 per cent. of the 1910 crop on farms March 1st, 1911, and 160,214,000 bushels, or 23.4 per cent. of the 1909 crop on farms March 1st, 1910. About 56.1 per cent. of the crop will be shipped out of the counties where grown, against 55.6 per cent. of the 1910 crop and 61.1 per cent. of the 1909 crop so shipped. Standing alone, it is a bull report, but short supplies have no effect when the principal foreign buyer has half the industries tied up with a strike of miners and another one in prospect in this country.

The Department of Agriculture endeavors to send out a memorandum of stocks of wheat in interior mills and elevators. This also is based on March 1st, and, standing alone, would be classed as a bull report. On March 1st there were 95,710,000 bushels of wheat on hand, against 98,597,000 bushels a year ago.

The Corn Estimate.

The quantity of corn on farms, March 1st, 1912, was about 884,069,000 bushels, or 34.9 per cent. of the 1911 crop, against 1,165,378,000 bushels, or 40.4 per cent. of the 1910 crop on farms March 1st, 1911, and 977,561,000 bushels, or 38.3 per cent. of the 1909 crop on farms March 1st, 1910. About 20.5 per cent. of the crop will be shipped out of the counties where grown, against 22.9 per cent. of the 1910 crop and 24.9 per cent. of the 1909 crop so shipped. The proportion of the total 1911 crop which is merchantable is about 80.1 per cent., against 86.4 per cent. of the 1908 crop. The corn estimate is also a bull report, but corn conditions have been no secret, and business influences are not good.

The Oats Estimate.

The quantity of oats on farms, March 1st, 1912, was about 289,988,000 bushels, or 31.4 per cent. of the 1911 crop, against 442,665,000 bushels, or 37.3 per cent. of the 1910 crop on farms March 1st, 1911, and 365,432,000 bushels, or 36.3 per cent. of the 1909 crop on farms March 1st, 1910. About 28.8 per cent. of the crop will be shipped out of the counties where grown, against 30.6 per cent. of the 1910 crop and 32.7 per cent. of the 1909 crop so shipped.

Estimating the Barley.

The quantity of barley on farms, March 1st, 1912, was about 24,760,000 bushels, or 15.5 per cent. of the 1911 crop, against 33,498,000 bushels, or 19.3 per cent. of the 1910 crop on farms March 1st, 1911, and 42,602,000 bushels, or 24.6 per cent. of the 1909 crop on farms March 1st, 1910. About 57.2 per cent. will be shipped out of the counties where grown, against 50 per cent. of the 1910 crop and 52.5 per cent. of the 1909 crop so shipped. Barley is a brewers' crop, and they claim that the crop could be doubled without hurting their fingers. The figures here given, emanating from the Department of Agriculture, will have an influence on all grain trading until the new crops come in.

Home-made Gas-Light From Crushed Stone

TWENTY years ago the oil lamp had already been driven out of the city into the country home, where gas could not follow—so we thought.

In those days we would have laughed at the idea of a country home lighted with gaslight.

But like the telephone and free mail delivery gaslight has finally left the city to become a common rural convenience.

In the year 1911, the up-to-date villager or farmer not only lives in a gas-lighted house, same as his city cousin, but when he drives home on a cold, wet night he actually lights up his barn, his barnyard or porches on his house with this gas-light by simply turning an "ignition" button on a post or wall.

CRUSHED STONE

* * *

And this change seems quite like magic when you consider that this rural gas-light is home-made— made by the family itself right on the premises.

Take fifteen minutes once a month to make all that can be used in a large house.

The magic is all in the curious manufactured stone known commercially as "Union Carbide."

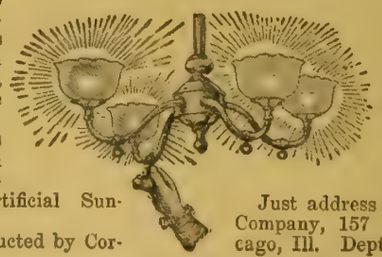
This wonderful gas-producing substance, "Union Carbide," looks and feels just like crushed granite. For country home use it is packed and shipped from warehouses located all over the United States in sheet steel cans containing 100 pounds.

Union Carbide won't burn, can't explode, and will keep in the original package for years in any climate. For this reason it is safer to handle and store about the premises than coal.

* * *

All that is necessary to make "Union Carbide" give up its gas is to mix it with plain water—the gas, which is then instantly generated is genuine Acetylene.

When piped to handsome brass chandeliers and fixtures Acetylene burns with an intensely brilliant, stiff flame, that the wind can't affect.



This flame makes light so white in color that it is commonly called "Artificial Sunlight."

Experiments conducted by Cornell University have proven that it will grow plants the same as sunlight itself.

Physicians recommend Acetylene as a germicide and a remedy for eyestrain, and it is used as an illuminant in fifty-four hospitals in New York City alone.

Then, too, Acetylene is so pure that you might blow out the light and sleep all night in a room with the burner open without any injurious effects whatever.

On account of its being burned in permanent brass fixtures attached to walls and ceilings, Acetylene is much safer than smoky, smelly oil lamps, which can easily be tipped over.

For this reason the Engineers of the National Board of Insurance Underwriters called Acetylene safer than any illuminant it commonly displaces.

In addition to all these advantages, Acetylene light is inexpensive.

An Acetylene light of 24 candlepower costs only about 4 cents for ten hours' lighting, while for the same number of hours regular oil lamps of equal volume cost about 6 cents in kerosene, chimneys and wicks on the average.

* * *

Consider this carefully and you will hardly wonder at the fact that there are today no less than 185,000 town and country homes lighted with home-made Acetylene, made from "Union Carbide."

Once a month some member of the family must dump a few pounds of "Union Carbide" in a small tank-like machine which usually sets in one corner of the basement.

This little tank-like machine is automatic—it does all the work—it makes no gas until the burners are lighted and stops making gas when the burners are shut off.

The lights located in every room in your house, on your porches, in your horse and cow barns, or barnyards and chicken yards if you like, will all be ready to turn on with a twist of the wrist or a touch of the button at any time of the day or night.

No city home can be as brilliantly or as beautifully illuminated as any one of these 185,000 homes now using Acetylene.

* * *

If you want to be up-to-date, enjoy modern conveniences, and keep the young folks at home, write us how many rooms and buildings you have. We will send you free an intensely interesting lot of facts, figures and booklets.

Just address Union Carbide Sales Company, 157 Michigan Ave., Chicago, Ill. Dept. A.—56.

The British Board of Agriculture, it is stated, is about to establish a national testing station, where all British-raised cattle will be examined before they are exported. The value of the live cattle exported from the United Kingdom in 1910 was $134,792, and in 1911, $160,582.

"Improvement in the quality of seed is the least expensive method of increasing the yield per acre."—From Seed Corn, by C. P. Hartley.

Be sure to read about the new edition of The Book of Live Stock Champions advertised on page 23.

Keeping the flap closed by a rubber cord, a Washington inventor claims to have devised a coin purse that is safer than the usual forms.

There's a 10 year Guarantee in every roll of

CONGO ROOFING

And the guarantee is in the form of an Insurance Policy issued by the National Surety Company.

This policy insures your Congo 2 and 3-ply Roofing for ten years at the manufacturers' expense. You simply fill in the blanks telling the date you lay the roof and the buildings you put it on.

If Congo should fail to last ten years, you get a new roof.

It is simply a device of the manufacturers to break through all the unfounded claims that are made for other roofings, with something specific and definite. It makes the buyer absolutely certain of what he is getting. Surely nothing could be fairer.

For a copy of this Policy and a sample of Congo, address

UNITED ROOFING & MFG. CO.

Philadelphia Chicago Kansas City San Francisco

Please mention Nat. Farmer and Stock Grower.

Some Data For Oat Growers.

An oats bulletin recently issued by the Iowa Agricultural Experiment Station does not approve the practice of using imported oat seed, even though it is expensive and has large yielding records elsewhere. L. C. Burnett, author of the bulletin, bases his statement upon experiments with imported oat seed, covering three to five years and including seventy-seven different samples. One of the best samples of oats ever seen at the Iowa Station, and from the sack of oats that won the championship at the Portland Exposition, yielded only 18.7 bushels per acre, weighing 17½ pounds per bushel, as against a yield of 28 bushels per acre, weighing 19 pounds, from a similar stock that has been grown at the Station farm for some years. In later years this championship oats did better. All imported oats in the test improved in yield after acclimation.

Mr. Burrett, the experimentist, also found that the fanning of oats may be overdone. He tested fanning methods for a long succession of years, and planted the seed and watched the yields and other conditions, with the result that oats fanned two times does better than oats fanned either one time or three times.

The seven-years' experimentation showed that as a rule farmers do not sow enough oats per acre. The Station has secured better results with a rate of from three to four and one-half bushels per acre than with only two to two and one-half bushels per acre, which is about the average rate for Iowa farmers. The average yield for four years from a two-bushel rate for Kherson oats was 49.4 bushels per acre; the average yield for the same time for a three-bushel rate was 53.7 bushels. In all the tests at the Station farm, the Kherson and Silver Mine varieties of oats gave the best yields, covering a period of seven years.

The bulletin is the most valuable publication on oat growing ever put out by the Iowa Station, both from the standpoint of the information it contains and the extensive work on which this information is based. It is timely, because there is no crop that is generally more satisfactory than the oat crop. At the present Short Course of the college it was the unanimous testimony of the hundreds of farmers in the agronomy classes that oats do not pay well, yet every farmer grows them because they fit into a rotation and they are valuable for a nurse crop. The bulletin points out some ways of making the crop profitable as well as useful. It will be sent to any address on request.

City and Country Population.

According to the census of 1910, the rural population is 49,348,883, and the town population is 42,623,383. The rural population feeds itself and the city population also. According to the census, 46.3 per cent. of the people live in towns and 53.7 per cent. live in the country.

In the New England division the average of town people is 93.3 per cent. of the total; in the Middle Atlantic States, such as New York, New Jersey and Pennsylvania, the town population is 71 per cent. In the states of Ohio, Indiana, Illinois, Michigan and Wisconsin the town people are 33.3 per cent. of the total. The town people in the Southern States are not over 23 per cent. of the total. In the mountain division or range town people are 36 per cent. of the total; and on the Pacific coast the proportion of town people is 56.8 per cent.

In the year 1890 the town population was 36.1 per cent.; in 1900 the percentage of people in towns increased to 40.5, and ten years later, in 1910, the town people are 46.3 per cent. of the total.

Home Vegetable Garden.

How to conduct a small vegetable garden in a city lot, a larger, 30x60-foot suburban garden, or a 90x200-foot vegetable garden on a farm, is fully and clearly set forth in Circular No. 154 issued by the Agricultural Experiment Station at Urbana, Ill.

The circular is by Prof. John W. Loyd, who lays out the gardens, gives quantity of seed to buy, the tools to work with, preparations for planting, how to do things without hurting your back, etc. He classes vegetables in five divisions: Those of easy culture; those requiring transplanting; those requiring special handling; those subject to insect attacks; and those requiring rich soil and much tillage. Then he has cool-season crops and warm-season crops. The circular offers a complete line of instruction. Write for the bulletin and you will not repent sending for it. The Director of the Agricultural Experiment Station at Urbana, Ill., will send a copy if you write for Circular No. 154.

Would You Save Your Thresh Bill?
Then Hire a Red River Special

IT'S up to you to say what thresher will thresh your grain this season. It's your grain. You worked hard to grow and harvest it. You pay your thresh bill. You cannot afford to hire an outfit that will waste your grain. You have worked hard for a profit and you should have it. You cannot afford to divide it with the straw pile. Your good business judgment tells you so. Every bushel that goes into your straw pile is money right out of your pocket.

You can save the amount of your thresh bill by hiring a *Red River Special* to do your threshing. It will save more grain for you. It will waste less of your time. It will do your job quicker. It will clean your grain better. It will pay you.

It is the only thresher made which uses the only true and sure method of separation. It *beats the grain out of the straw* just like you would do with a pitchfork.

The Big Cylinder, the "Man Behind the Gun" and the shakers which toss the straw up and *beat it* like you do with a pitchfork save all the grain for you whether it be wheat, oats, rye, barley, peas, rice, alfalfa timothy or any other grass seed.

You have seen many green straw stacks. They are positive proof of indifferent threshing—sometimes it is the result of careless handling but too often it is the result of work done by an incompetent, out-of-date machine, a machine which hurries the straw to the stack and does not *beat the grain out* of it.

The *Red River Special beats it all out.*

Have your threshing done this year by a RED RIVER SPECIAL. It will Save Your Thresh Bill, Write us for the proof.

NICHOLS & SHEPARD CO. Battle Creek, Mich.

Sole Builders of THE RED RIVER SPECIAL LINE—The Red River Special Thresher, N. & S. Traction Steam Engine, Oil-Gas Tractor, Wind Stackers, Self Feeders, Weighers, etc.

Advantages of Machine Shearing.

The Agricultural and Stock Department of Tasmania says: "This is the age of progression; the blade sheep shearers are giving place to machine shearers, as in turn the sickle passed away to be superseded by the reaper and binder. Machine shearing shortens the wool harvest, particularly when weather variations are in some seasons a delay and annoyance. There is no gainsaying the great advantage of machine over blade shearing; it is quicker, and in the case of wet seasons will enable the owner to have his wool in readiness to take advantage of the first favorable market, which on some occasions might make a great financial difference."

Decided to Stay Home.

"I thought you were going to take a holiday?"

"I had intended to."

"Wouldn't your employer let you go?"

"That's what's the matter. He was so enthusiastic about it that I grew a little suspicious."

King's Copper Lightning Rods
Endorsed by Insurance Companies

Let me ask you, Mr. Farmer: why do you pay $5 a bushel for your fine seed corn and a fancy price for your pedigreed stock, and then leave your harvested crop and your high-priced stock—*your home and your family*—at the mercy of lightning? You cannot say there is no danger.

A TERRIBLE RECORD OF DESTRUCTION is presented in Government reports, admittedly incomplete, showing that 6,256 buildings were destroyed and 563 people and 4,250 head of stock were killed by lightning in a single year.

You may have been fortunate enough to have not met with a part of this loss, but that is no assurance that you may not meet with a great loss during the next thunder storm. You cannot always hope to escape.

Consider the risk of loss you are taking as compared with the small cost of protection with KING RODS. The loss of a set of harness will cover the cost of scientifically protecting your buildings with KING RODS, which will last a lifetime. 60,000 buildings now have this protection—why not yours?

King Lightning Rods are scientifically constructed of thirty-two strands of pure, soft copper wires, woven into a continuous cable of the highest conductivity known to science; our points are all that high-grade material and first-class workmanship can produce; sold under a legal guarantee. That is why they are used on state buildings and the best farm buildings throughout the country. *Write us for further information.*

ONE-THOUSAND AGENTS WANTED to represent me in every community. You can earn from $3,000.00 to $5,000.00 during the season selling KING RODS. FREE booklet and catalog on request.

GEO. M. KING, President,
GEO. M. KING MFG. CO.
710 E. Walnut St. Des Moines, Iowa.

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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Acquittal of the Packers.

For nine years the legal officers of the United States government have been engaged in trying to prove that the packers, meaning Armour, Swift, Morris and the National Packing Company, were engaged in an unlawful and criminal conspiracy in restraint of trade.

Ten men, heads and managers of the different packing companies, were arraigned before the bar of justice with the prospect that if found guilty they would be sent to jail as common felons. The case made by the prosecution seems to have been satisfactory to those who presented it; the judge's charge to the jury was generally considered a just presentation of the legal situation, and the jury, after hearing the testimony for three months, the legal arguments, the judge's charge, after ample time for consultation and deliberation, unanimously returned a clean-cut verdict of acquittal. The prosecution did not attempt to prove any combination on the part of the packers in buying cattle and failed to prove any combination to divide profits or any of the main points which are generally understood as necessary to unlawful combinations. The prosecution did prove that the packers were associated for the purpose of avoiding glutted markets. If Boston was glutted all the packers knew it; the same of New York. The packers bought their cattle independently, shipped the meat to market independently and sold the meat independently. They wished to save themselves from shipping perishable goods where sacrifices would have to be made, the same as do the fruit shippers' associations, and that was the main case against them. We know that the Colorado melon growers have their "Rocky Fords" handled with due care so as not to place too many at the wrong time in one town, and action similar to that is all that was proven in this case. Packers were acting only within their rights as good business men; at least that is the view the jury took of it.

After the trial was over the leading attorney for the packers said: "There could be no other verdict. There was no illegal combination. The government's own case showed that. There is no law to-day and there never will be a law to punish anything these men have done. They used only legitimate business methods. Any other verdict than that returned would have meant a terrible blow to business — legitimate business in this country. It would have meant that business cannot grow; that it cannot expand. It would have meant that business would have to be so circumscribed that every citizen of the United States, even in the remotest parts, would suffer."

Another attorney for the packers said: "The verdict was a simple doing of justice to men who have been bitterly and unjustly assailed, and for whom justice has long been delayed. These men have been persecuted through years and years of attack upon themselves and their business."

We mention what these attorneys said because they placed in words our view of the case. When refrigerated beef was a new institution, all engaged in the sale of it were persecuted before it was used in handling a fraction of the business. To-day not a single wholesale butcher does business without it. From the very first the packing trade has had to contend with the half discoveries of the daily press, that, as a rule, never did get onto the facts. The reporters could not discover more than four great beef houses which they imagined controlled the trade and were awfully indignant when twelve companies, of which eight were not small, were consolidated under one name. The National Packing Company even then did not include the Cudahys or Schwarzschild & Sulsberger. The daily press did do the great packers considerable service by scaring away anyone who could be scared, who contemplated engaging in the meat-packing business.

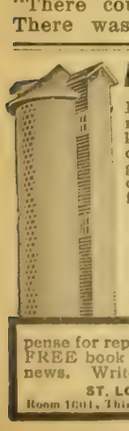
The packers are but human; they are not angels; they buy as cheap as they can; they sell as dear as they can; they get all they can out of the by-products; they do not control the entire trade. The officials of the four companies who were tried and acquitted are not by any means the whole meat trade, and, in fact, there are more live stock markets in operation now than there were actual buyers on slaughter account thirty years ago. There may be a time when a few great packers will control the meat trade, but that time has not yet arrived. In the meantime the business atmosphere is clearer for the verdict.

Advertising the Reo Motor Cars.

Farmers and stockmen who wish to understand something concerning motor cars will find it to their advantage to read the advertisement on page 2 with the utmost care. The statements are written in the clearest of language and by an expert who has created more cars than any other designer in the business. When a man has led the procession of automobile designers for twenty-five years and has finally reached the car that satisfies him, then the buyer can safely study that car and the price tag upon it. Farmers are not slow in appreciating clean-cut statements with good reasons to support them, therefore we commend this advertising to their notice.

Hay Sales, April 1st, at St. Louis.

The St. Louis market had fifty-two car-loads on sale Monday, April 1st, which sold as follows: On St. Louis Side: Two cars light clover-mixed at $25 per ton; one car mixed afalfa and timothy at $23.50; one car part clover at $23 and part timothy at $27. Timothy—Three cars No. 2 at $24; four cars scant No. 1 at $25; four No. 1 at $25.50; five do. at $26; five do. at $26.50; five do. at $27, two delivered; one choice at $27.50. Clover—One car No. 2 at $18.50. Prairie — One car Arkansas at $17.50; one car No. 3 Northern at $18; one car Northern and one common Western at $20; one No. 2 Western at $23.50; one No. 1 do. at $24; one do. at $24.50. Alfalfa —One car hot at $21; part car at $22.50; three cars No. 2 at $23.50; one No. 1 at $24.50; three do. at $25; one high No. 1 at $25.50; three choice at $26. On East Side: Timothy—One car scant No. 1 at $25, delivered to St. Louis; two No. 1 at $26, one do.; one choice at $27.75, delivered. Prairie — One car at $23.50. Last sale of wheat straw at $8.00 per ton.



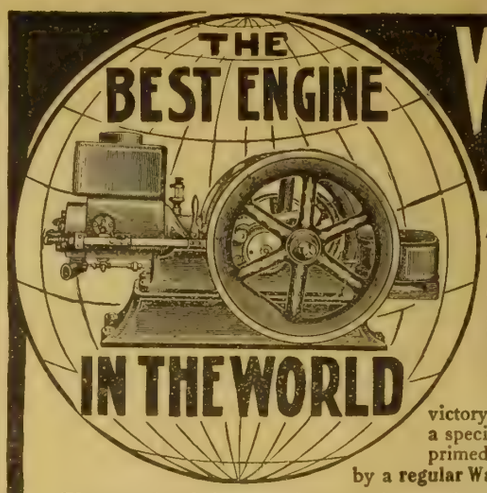
No More Wood SILOS

Not for the man who knows he can now get vitrified tile, filled with concrete and otherwise reinforced. Learn about the

A. P. GROUT Vitrified Tile Silos

Fire, wind, weather, rat-proof. Can't warp or collapse. Insures better silage. No expense for repairs. Guaranteed for 25 years. FREE book "Silo Facts" tells all the good news. Write for it today. Agents wanted.

ST. LOUIS CLAY PRODUCTS CO.
Room 1601, Third Nat'l Bank Bldg., St. Louis, Mo.



THE BEST ENGINE IN THE WORLD

WATERLOO BOY

Two gold medals, at two International Expositions, in open competition with the leading manufacturers, not only of this country, but of every nation of the globe. THAT is real **proof** that the **Waterloo Boy Gasoline Engine** is the best engine built today. And the real importance of this great double victory is the fact that it was won, not by a specially designed engine prepared and primed particularly for the contest, but by a **regular Waterloo Boy TAKEN FROM STOCK.**

Thousands of these engines are in regular daily use on farms all over the world, and **you** can buy an exact duplicate of this medal winner for your own work. This supreme make-good quality of the

WATERLOO BOY GASOLINE ENGINE

is built into it—it is best from foundry to testing room. **Best** and **simplest** in **material, in workmanship and in many important features of design which are found on no other engine in the world.**

The speed lever which works like the throttle of a locomotive and regulates the speed while the engine is running, is an **exclusive Waterloo feature,** and it alone adds $20.00 to the value of your engine. Many other features are just as important—our patented mixer which does away with the expense and bother of a pump; new type igniter that never misses a spark; automatic fuel regulation making it the cheapest to run; frost proof construction.

Burns either Kerosene or Gasoline= starts easy in the coldest weather. All parts are interchangeable and it is so simple that a child can run it.

The Waterloo Boy is no experiment—it is the oldest successful farm engine on the market and has made good for nearly 100,000 farmers for over 19 years—**some of your neighbors among them.** Built in one of the biggest engine factories in the world, with a capacity of 130 complete engines per day, nearly 40,000 per year.

Let the other fellow experiment—you use his experience and buy a **Waterloo Boy** in the first place. **Get the certainty of absolute satisfaction** at the *lowest price ever made on a reliable engine.*

5-Year Guarantee. Catalog and full details FREE. Write today.

WATERLOO GASOLINE ENGINE CO.,
228 W. 3rd St., WATERLOO, IOWA.

AWARDED GOLD MEDAL at INTERNATIONAL Gasoline and Oil ENGINE SHOW BUDAPEST, HUNGARY. JULY, 1911

AWARDED GOLD MEDAL at INTERNATIONAL EXPOSITION, Turin, Italy. September, 1911

[Please mention National Farmer and Stock Grower.]

Arkansas Cattle at St. Louis.

Recent sales of steers from Arkansas sold on the St. Louis market included fourteen head, 926 pounds, at $5.80; twenty-four head, 760 pounds, at $5.30; thirty-five head, 779 pounds, at $5.30; twenty-three head, 923 pounds, at $5.75; forty-four head, 823-pound steers at $5.30; and forty-nine head, 613-pound steers at $4.50 per 100 pounds.

Fertilizer agents are wanted in all territory in which Darling & Co. are not represented. A book, entitled "The Soil Builders," is well worth sending for. See page 15.

Big Stumps Pulled Quick and Easy

No Stump can Resist the Hercules

Pulls an acre a day. It doubles land values. Enables you to grow crops instead of paying taxes on land that yields nothing.

HERCULES

More power than a tractor. 50 per cent lighter, 400 per cent stronger than cast iron puller. 30 days' free trial. 3-year guarantee to replace, free, all castings that break from **any cause whatever.** Double safety ratchets insure safety to men and team. Accurate turning means light draft. Mail postal for free book showing photos and letters from owners. Tells how to turn stump land into big money. Special introductory price proposition will interest you. Write **now.**

HERCULES MFG. CO., 140—17th St. Centerville, Iowa

All Steel Triple Power

[Please mention National Farmer and Stock Grower.]

Discing Land For Corn.

Comparatively few men realize the value of discing land before breaking, especially before breaking for corn. If corn is to follow corn, this practice is especially valuable, as the harrow works both as a stalk cutter and as a soil pulverizer.

The saving of the corn stalks, as compared with burning, is of much benefit for the amount of humus added and also for the increase in the water-holding capacity of the soil. By the use of the harrow the stalks can be chopped up and when turned under they will so thoroughly mix with the surface soil that they will rot quicker and will also be out of the way of the cultivators in cultivating the corn crop.

Still another benefit of no little importance is the pulverization of the surface soil which allows of more water being absorbed and also forms a mulch for holding moisture, which would otherwise be lost. This mulch formed on the surface tends to keep the soil much more mellow and consquently the breaking will be found to be much easier on disced than on crusted land. This mellow pulverized surface layer formed by the disc is also of considerable importance in establishing the connection between the surface soil and the subsoil after plowing, so that water may be drawn up from below.

Considering, then, three points in favor of the discing, there is no question of its value in preparation for a corn crop, and the many excellent reports from farmers in various places surely speak well for the practice. The Experiment Station strongly recommends the use of a properly-weighted disc harrow for stalk land before breaking. This is really best done in the fall or early winter, when the season will allow of it, but the advantages of discing in the spring are sufficiently important to permit of its being almost universally recommended.—H. C. Hackleman, College of Agriculture, Columbia, Mo.

Concerning Seed Potatoes.

Although home-grown seed potatoes are selling at high prices, foreign-grown potatoes should not be substituted for them. The following statement on the danger to the American potato crop from the use of imported seed potatoes is issued by the Secretary of Agriculture:

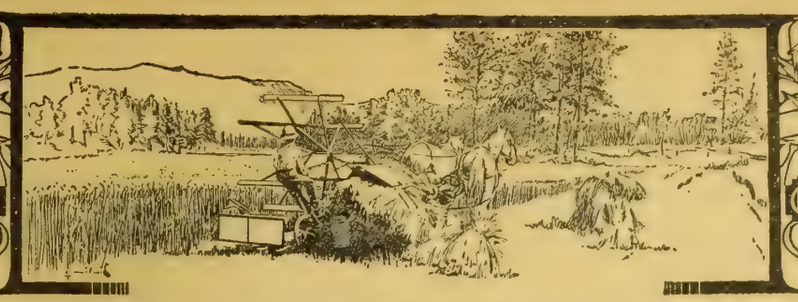
"Europe has several potato diseases not now known to exist in this country, which, if introduced, might be the means of greatly reducing our annual yield of potatoes. Should these diseases become prevalent throughout the United States, the cost of producing future crops might be greatly increased.

"Do not, therefore, under any circumstances, use foreign-grown potatoes for seed, either at the North or at the South. The sorts which are coming to this country at the present time are late sorts and are not adapted to planting in the South, where early potatoes are the main crop, neither are they adapted to planting at the North, for they will not produce a satisfactory yield.

"They are not adapted to our soils or to our climate, and will not yield profitable crops; but the danger of introducing diseases not now present is sufficient reason for refusing to plant them."

Again the Acetylene Light.

This light is made from crushed stone mixed with plain water. The stone looks like crushed stone and is called Union Carbide. The apparatus is simple and is easily understood. It produces a white light, steady and reliable. There are 185,000 homes now using acetylene and each one is an advertisement for the light. See page 6 and read about the acetylene light.



OUR EXPERIENCE IS YOUR SAFEGUARD

I H C Harvesting and haying machines and tools, as sold today, are the result of over fifty years of careful work by trained experts. Through every harvest season these men have followed our machines in the field in every grain-growing country, correcting all difficulties as they appeared or developed.

The binders which are the result of such thorough work are now offered to you with the fullest assurance that when you use these machines your harvesting will be well done. Whatever the conditions under which your crop must be harvested, whether the grain be short or tall, standing, down or tangled, there is an I H C machine which will reap and bind it all; easily, surely, and with no annoying and expensive delays.

I H C harvesting machines as sold today, are a finished product as much as any machine can ever be finished. All the difficulties that have developed up to date are overcome. Our experience is your safeguard. You have no experiments to make. You take no risk when you buy a machine bearing one of these famous names:

Champion
Deering
McCormick
Milwaukee
Osborne
Plano

Take plenty of time to consider, compare all the points of all the machines you know of, before you buy a binder. If you do this thoroughly, you will become convinced that an I H C binder will do the best work for you, be the most dependable, efficient, and durable of all the machines you investigate.

There is quality in the material and construction of I H C harvesting machines that only a half century of experience can assure. There is a simplicity in the design which makes the working of the machines easy to understand and makes it safe to trust them in the hands of unskilled help. Last, and most important, I H C binders are backed by an organization that insures your getting interchangeable repair parts—parts that fit where they belong—quickly in time of emergency. I H C harvesting machine owners know that if by accident any part of their machine should happen to break, an exact duplicate of that very part can be obtained quickly from the I H C local dealer. This point is of the utmost importance when the grain is ripening or the harvest begun. It does away with all delays, all risks, all possibility of losing part of the harvest profit.

Their many years of constant improvement place I H C harvesting machines in a class by themselves. Whether you choose a Champion, McCormick, Osborne, Milwaukee, Deering, or Plano binder, you are assured of getting a machine built right and tested under every condition that you will ever have to meet at harvest time.

The I H C local dealer handling these machines is the man for you to see. From him you can get information that will help you to make up your mind as to which binder will best insure the full profit of your season's work. Decide only after the most careful consideration and you will surely buy an I H C machine.

When you have decided upon your binder, you will need a supply of binder twine. To get through the season with the least waste and trouble, buy one of the seven perfectly dependable brands of twine—Champion, McCormick, Osborne, Deering, Milwaukee, Plano, or International—in Sisal, Standard, Manila, and Pure Manila grades.

Your most important work now is the selection of machines for this season's harvest. See the I H C local dealer handling these machines. He can help you decide. If it is not convenient for you to see him now, sit down and write for catalogues. A post card will bring you full information.

International Harvester Company of America
(Incorporated)
Chicago **U S A**

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U. S. A.

The Paint Instruction Book.

The Sherwin-Williams Company, of Cleveland, Ohio, will send an instruction book for painters that is very valuable. To paint the barn, the house, the fence, the vehicles and the implements does not require much skill, but you need practical guidance, showing paints, oils, dryers, varnishes for each particular class of work. Messrs. Sherwin-Williams will surprise you with the amount of assistance they can render if you will write for their free paint book and address the post card or letter to Sherwin-Williams, 689 Canal Road, N. W., Cleveland, Ohio.

Moderate Price of Flour.

Flour quotations at St. Louis, April 1st, 1912, show that the people of the United States ought to be getting cheap bread. Quote: Soft winter—Patents at $4.00 to $5.00 in wood; straights at $3.90 to $4.00 in jute; extra fancy (bakers' goods) at $3.70 to $3.80 in jute; fancy at $3.25 to $3.40 in jute; low grades at $3.00 to $3.15 in jute. Hard winter (in jute)—Patents at $4.60 to $4.85; straights at $4.40 to $4.50; first clears at $3.50 to $3.75; second clears at $3.15 to $3.40; low grades at $2.85 to $3.05; spring patents at $4.90 to $5.10 in jute. Foregoing prices are for car lots from first hands, on track or at depot.

Good eggs, 50 cents a dozen; duck eggs, 25 cents; hens' eggs, 19 cents for the best. Receipts, 3,531 cases. These were the St. Louis egg statistics, April 1st.

How to Keep the Milk Clean.

One of the most difficult truths to impress upon many keepers of cows is the great necessity for keeping the milk clean. Every milk producer has a standard of his own as to what constitutes clean milk, but many of these standards would be regarded as impossible if submitted to any expert in the production of sanitary milk.

The invisible germs of the mold family are about the cow stable by millions and pour into the milk in an invisible stream, under conditions existing in most stables. We do not see the millions of things floating about us in the air, except when a ray of sunlight penetrates a dark room. Even then we do not see the smallest of the floating things. Many of these floating particles bear germs attached to them, which are thus conveyed hither and thither with every changing current of air.

If there are thousands of floating particles in a common room, how many more are there in a cow stable, where there are numerous things that produce dust? The manure dries on the sides of the cow and the dry particles are rattled off into the milk pail; the bedding under the cow dries and sends up other myriads of particles; cows are fed hay while being milked, and this act sends other multitudes of particles floating in the air.

Milk can be kept much cleaner than it generally is by observing some of the simplest rules of dust prevention. One of these is to see that the milking pail is scalded out before being used for milking purposes. Ordinarily, a pail gathers a great deal of invisible dust during the twelve hours when it is not being used. This is especially true in the summer time, when the ground outside is not covered with a blanket of snow, but when dust is being created by wind and sun from almost every object.

Every effort should be made to avoid the stirring up of dust in the stable at milking time. No hay should be fed before milking, but this should take place after the milking has been completed.

The sides of the cows should always be washed before milking, whether the cows seem to be dirty or not, and this washing should include the udder. The writer followed this practice for many years and reached a state of mind where he did not feel like touching the teats of a cow unless they had been recently washed. This is a good habit to form. The shaking of the udder in the act of milking is always shaking down dust particles unless they have been moistened by the wash water.

The cleanliness of the milk will be increased if a closed pail is used, or one that is mostly covered over the top. If four-fifths of the top is covered it will mean the keeping out of four-fifths of the dust that would otherwise get in.

Milk produced thus carefully will keep many hours longer than milk produced without such care.

Improvement in Cotton Ginning.

From Little Rock, Ark., on March 20th, it was reported that John A. Fordyce, of that city, son of Col. S. W. Fordyce, obtained a patent from the United States on a cotton gin which he invented. It is claimed to be the first successful departure from the gin invented by Eli Whitney in 1793.

This new gin pulls the fiber from the seed in such a manner that the natural length and strength of each fiber is preserved. This gives it a length of one-sixteenth to one-eighth of an inch over the old way. The speed of ginning exceeds the speed of the saw gin from 20 to 50 per cent., while the power required is less. It strips the fiber from the seed in a more thorough manner and increases the amount of lint obtained from the seed by about 4 per cent. of the saw gin.

At the cotton mill the cotton from the new gin has 18 per cent. less waste and the spinning value is so much increased and the yarn made from it is 5 per cent. stronger than cotton from the old style of gin.

Tests made by the Department of Agriculture at Washington support these claims.

SPOTSWOOD DAISY PEARL.

The New Premier Cow of the Guernsey Breed.

As a four-year-old dairy cow Spotswood Daisy Pearl was fifth in a list of 130 Advanced Register Guernsey cows, and as an aged cow she heads the list for a year's production of butter-fat, and is only second to Dolly Dimple in the matter of milk production.

The remarkable record of this wonderful cow is 18,602.80 pounds of milk in one year; butter-fat content, 5.15 per cent.; butter-fat production, 957.38 pounds. This record was made as a seven-year-old cow. From her four-year-old test to the seven-year-old test she gained in milk production from 11,750.71 pounds to 18,602.80 pounds. In butter-fat production she advanced from 572.67 pounds as a four-year-old to 957.38 pounds as a seven-year-old. Spotswood Daisy Pearl was bred by Edward F. Price, of Broad Axe, Pa., and is now owned by O. C. Barber, of Anna Dean Farms, Barberton, Ohio.

This cow averaged, with salt added, about three pounds of extra commercial butter a day, which, at 40 cents a pound, amounts to about $1.20 per day for the entire year. The ration fed, including an average of 16 pounds grain with 30 pounds ensilage and 10 to 20 pounds of hay, does not represent a cost at all alarming commensurate with the cash returns for the product. These champion cows are fed carefully all they can digest, and the victory in the end is largely due to the liberality of the ration.

Intensive Cultivation of Alfalfa.

Farmers who have irrigated lands can obtain some alfalfa data from an intensive cultivation basis by writing Prof. R. H. Forbes, Arizona Agricultural Experiment Station, Yuma, Arizona, for the little pamphlet entitled "Timely Hints For Farmers, No. 93." It is only eight pages, and small pages at that, but to the alfalfa grower by irrigation it is a little gold mine. There were 7⅓ acres, irrigated by water pumped by the United States Reclamation Service from the Colorado river. It was for several reasons a difficult place to handle, but in three years he managed to harvest from 6 to 9⅓ tons of alfalfa per acre, giving dates of seven cuttings. The cost of everything is stated carefully, number of irrigations, cost of water per acre, amount of water per ton of hay, etc. The battle with alkali spots, Bermuda grass, with such pests as gophers and the alfalfa butterfly, are all carefully considered in the result.

The pamphlet sets forth every possible detail that we recommend any and all of our readers to write for it if it interests them. Professer Forbes is inclined to believe that the largest returns per acre can be obtained from small tracts under the thorough care of the individual owner rather than by wholesale operations on the large tracts of the syndicates.

YOUR CROPS

can get more nitrogen out of one single sack of

Nitrate of Soda

than out of a two-horse wagon load of manure. The Nitrogen in Chilean Nitrate of Soda is 100% available and is *immediately* so the day you apply it! It produces

More powerful growth and healthier, bigger plants. Easy to handle, clean, cheap, odorless, free from fillers.

Write to us for valuable free literature on the crops that mean a living to you. A post card will bring it to you.

Dr. William S. Myers Director of Chilean Propaganda **17 Madison Ave., New York**

NO BRANCH OFFICES

Please mention National Farmer and Stock Grower.

A New Gatekeeper.

Charles M. Cross, of Indianapolis, thinks variety adds spice to life, so he went to a spiritualistic service.

It was a lively affair with sepulchral voices sounding through trumpets, tambourines playing mysteriously in midair, and cold, clammy hands of partially materialized men and women making free in the dusky room with those who were in the flesh. In the midst of it something dealt Mr. Cross a vicious whack on the nose and he called for lights in a tone not to be disobeyed. With the light the circle he disclosed was all natural and human again. The most human member of it was Mr. Cross, with a bloody nose, spoiling for a fight and all the "madder" because he did not know whom to fight.

"Who did that?" he demanded of the medium.

The medium said the gay spirit was that of St. Peter.

But even this explanation did not satisfy Mr. Cross.

"Well, all I ask of St. Peter," he said, "is to materialize for just one minute, and if I don't make a vacancy for a new gatekeeper I won't ask to get in."—Indianapolis News.

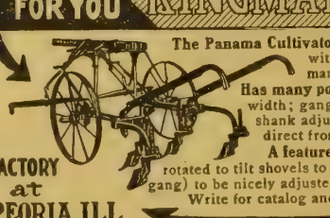
DISTEMPER IN HORSES.

Distemper, or strangles, is a disease principally affecting young horses. It is due to a germ belonging to the streptococcic group. The disease is accompanied by high fever, catarrhal inflammation of the mucus membranes, especially of the nasal passages, and as a result of this condition a discharge from the nose. There is a swelling of the lymph glands under the jaw, which later results in abscess formation. A horse with distemper can communicate it to a healthy one. The disease is more common in the spring months on account of the chill received as a result of the sudden changes at this season of the year. To avoid these and other contagious diseases, all horse-owners should have a supply of Frazier's Distemper Cure, which is a preventive as well as a positive cure. $1.00 bottle holds three 50-cent bottles. Send for free horse book. Sold by all druggists and harness dealers, or prepaid from Binkley Medical Company, Dept. H, Nappanee, Ind.

Hint For Mechanics.

If two nuts are run on a bolt so that the square sides face each other they will serve as a wrench in an emergency.

EASY FOR YOU — KINGMAN CULTIVATORS — EASY FOR YOUR HORSE



The Panama Cultivator is a machine of varied utility in the field, built with the same scrupulous care as to material and workmanship that characterizes all KINGMAN MACHINES.

Has many points of superiority over others. Frame adjustable in width; gangs adjustable to pull either to or away from the row; shovel shank adjustable in or out and inside ones up or down:—light draft direct from points of gang; dust proof hubs.

A feature of particular advantage to cotton growers is that gangs may be rotated to tilt shovels to fit the row, allowing cotton scrapers (when these are fitted to the gang) to be nicely adjusted to the ridges. All machines shipped as nearly set up as possible

FACTORY at PEORIA, ILL.

Write for catalog and full information. Kingman Plow Co. Dept. 101 St. Louis, Mo.

Please mention National Farmer and Stock Grower.

Corn Harvest is Easy

with the Johnston Corn Binder. The old, wasteful, drudging way is gone. In its place is the economical, easy, quick, modern method—the Johnston way. Johnston Farm Machines have represented implement quality for 60 years, do still and always will.

THE JOHNSTON CORN BINDER handles "down" corn, tall corn, short corn—all kinds of corn in all kinds of places. The big drive wheel; balance and distribution of weight; dust proof roller and brass-bush bearings; natural inclined elevation; automatic gates; perfect bundle tier; steel bundle carrier; special chain adjustment; right hand levers; strong, compact steel construction; light, straight draft; and perfect operation are a few of its winning points.

Johnston Harvester Co., Box 117-H, Batavia, N.Y.

NOT IN THE TRUST

Write today for 1912 Catalog—Free. Full of information for farmers. Tells of Johnston quality machinery.

Down - and off!

TOWER'S FISH BRAND REFLEX SLICKER

THAT'S WHERE ALL THE WATER GOES

Even the front of this slicker is WATERPROOF; our Reflex edges (Pat'd) guide every drop to the bottom. Made for good hard service yet looks like an ordinary overcoat.

YOU CAN'T GET WET

TOWER'S FISH BRAND SATISFACTION GUARANTEED

A. J. TOWER CO. BOSTON

TOWER CANADIAN LTD TORONTO

$3.00

EVERYWHERE

212

TRADE MARK

Ventiplex PADS

The Collar Pad without a fault

because it is made right.

This is the pad which is made of ventilated fabric that keeps a constant circulation of fresh air under the collar and prevents sore shoulders, galls and sore necks.

Your horses are always ready and willing to work when they have Ventiplex Pads in their collars.

If you have a horse with a sore neck, buy one of these pads and see how quickly it heals.

Your dealer should have them, but if not, send us his name and we will ship a sample promptly.

Better than other kinds, but cost no more

Patented Sept. 20, 1910

Write for our interesting folder. We also make the famous "Stay-on" Blanket.

Burlington Blanket Co., Dept. 46 Burlington, Wis.

Handling Farm Butter.

At a meeting of car-load shippers of country products, held recently, one of the members reminded the convention that process butter-makers do not renovate butter, as is popularly supposed. They extract the butter oil from packing stock, and with this oil as a basis make new butter. Therefore, the quantity of oil as well as the quality is an important factor in determining the real value of the original packing stock.

The packing stock referred to is farm-made butter; the butter that sells at home for 16 cents a pound when good creamery butter is selling for 30 cents a pound. Packing stock is farm-made butter that, being sold at the country store, is dumped into a barrel with other butter that is worse and is really bought as oil and not as butter. All this packing-stock butter ought to be cut out from farming operations. The cream should be separated from the milk and shipped to the nearest creamery, and at the creamery where the cream is sold there the farmer should buy his butter.

Let no one suppose from this that good butter cannot be made on the farm; the fact is that a first-class dairy-farm butter often excels the best creamery butter, but 85 per cent. of the best dairy farmers have abandoned making butter simply because it is more profitable to deal with the creamery, which is the best-making selling agency for butter-fat. If it pays the better class of farmers to sell their cream rather than make butter, it certainly will pay the farmer to sell cream who has no better outlet than the packing-stock barrel at the country store. Many a farmer thinks he is selling butter who is only selling oil, and, if sold as butter-fat, it would realize twice as much money.

Difference in Butter Quality.

A buttermaker at a creamery, not being satisfied with his average quality and the usual price of his whole product in market, determined upon instituting a test inside of his own output. He selected the cream from some of his best shippers, made the butter and sent it forward in the usual way, and he also sent the remainder of his output that represented the butter made from the cream that he had not selected. There were seven tubs of butter from the selected cream and twenty-one tubs of the butter made from the cream from the balance of the patrons. The creamery buttermaker called upon his salesman in market to obtain expert report as to the quality of the different lots.

The report of the expert was as follows: "There were in this shipment seven tubs marked with X on cover. This butter showed up very well made. It was clean in flavor but showed a feedy flavor. Have scored it 37—25—15—10—5 equal 92 points. I examined some of the balance of the shipment, and it showed up with quite pronounced unclean, stale cream flavor, scoring 86 to 87 points. The marked difference in quality is a very good demonstration of what I think you could do in the way of improvement in the quality of your butter if you could get all your patrons to bring their cream in as good condition as the cream out of which the seven tubs were made. I hope you will make use of this by bringing it before your patrons in the proper way so that you may be able to secure their co-operation for improvement in the cream received, so that the quality of your butter may be improved."

It appears that in selling the butter the actual difference in result was only 1½ cents a pound, or say $19 on the twenty-one tubs. The butter was sold on a thirty-cent market. Had the butter been sold on a higher market, the "spread" being wider, the difference would probably have amounted to 2½ to 3 cents a pound, or $1.50 to $1.80 per tub.

The report of this circumstance, constituting a first-class educational item, was found in the New York Produce Review and American Creamery, the best paper in the butter and cheese trade.

New York Supplies of Milk.

Two hundred and ninety-five thousand cans of plain milk delivered in ten-gallon cans in one week looks like a big supply even for New York City. When last heard from, March 16th, the shippers in the 26-cent freight zone were being paid 3¾ cents net per quart, which makes the cost $1.81 per 40-quart can delivered in New York City to the distributing company.

DAIRY AND CREAMERY.

The best way to put a losing dairy on a profitable basis is to test the cows and turn out those that are unable to pay their way.

From Oconomowoc, Wis., on March 22d, it was reported that twelve hundred dollars was paid by Charles D. Ettinger, of Tinley Park, Ill., to H. H. Tichener, for Thelma Glenwood, a National Dairy Show champion, at the second sale of the West Moreland Guernsey farm, which was attended by 150 buyers from the North Central States. Thelma Glenwood has a record of 750 pounds of butter for one year.

Any farmer who fails to realize on his butter-fat is standing in the way of his own interest; butter-fat is the highest-priced product on the farm.

Highest-priced Cattle Feeders.

At Chicago, on Monday, March 18th, an Illinois cattle feeder took out 128 head of 1,040-pound feeding steers at a cost of $6.60 per 100 pounds, said to be the highest-priced feeding cattle ever bought there on the open market. Many other high-class feeders sold on the same day at $6.00 to $6.35 and some 1,055-pound at $6.50 per 100 pounds.

"Probably the poorest economy in the world is to buy things you don't want in order to make acquaintances you don't need."—Galveston News.

DE LAVAL CREAM SEPARATORS

No Excuse for any Cow Owner Being Without One

There is no reason why any cow owner who sells cream or makes butter should be without a cream separator and there is no excuse why he should not have the best separator.

Any creameryman or experienced dairyman will tell you that a good cream separator will give you a great deal more and a great deal better butter than you can make with any gravity setting system, and equally, of course, more and better cream, if you are selling cream.

The DE LAVAL is acknowledged by creamerymen and the best posted dairymen the world over to be the **"World's Standard"** and the one and only separator that always accomplishes the best results possible and always gives satisfaction.

You cannot make the excuse that you can't afford to buy a De Laval, because it will not only save its cost over any gravity setting in six months and any other separator in a year but is sold either for cash or on such liberal terms that it will actually pay for itself.

A little investigation will prove to you that the truth of the matter is that you really can't afford to make cream or butter **without** the use of a DE LAVAL cream separator.

The nearest De Laval local agent will be glad to demonstrate this to your own satisfaction, or you may write to us direct.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

[Please mention National Farmer and Stock Grower.]

Rubber Roofing

Warranted For Twenty-Five Years.

FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept 333, East St. Louis, Ills.

COW PEAS,

NEW, SOUND STOCK,
WHIPPOORWILLS, BLACK and CLAYS } $2.50 per Bushel.
BLUE NEW ERAS.....$2.00 per Bushel.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.
TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, SEED CORN.
USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.
TURNIP and SPINACH, VEGETABLE and FLOWER SEEDS.
EVERYTHING FOR THE GARDEN.

Golden Arrow SEED CORN

Butted and Tipped, per Bushel, $2.50.

Send For GOLDEN ARROW Seed Catalogue.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

BROWN FENCE
FREE SAMPLE — WE PAY THE FREIGHT
STOUT STRONG — DURABLE CHEAP
BROWN FENCES will outlast any other because of heavier wires and thicker galvanizing. 160 styles for all purposes. Also Lawn Fences and Gates.
Bargain Prices, 13c Per Rod Up delivered at your railway station. Send today for catalog and free sample for test.
The Brown Fence & Wire Company
Dept. 15 Cleveland, Ohio

STRONGEST FENCE MADE
FROM FACTORY DIRECT TO FARM

26-inch Hog Fence,.....15c.
47-inch Farm Fence,....23½c.
60-inch Poultry Fence....30c.
80-rod spool Barb Wire, $1.40
Many styles and heights. Our large Free Catalog contains fence information you should have.
COILED SPRING FENCE CO. Box 256 Winchester, Ind.

KITSELMAN FENCE

Sold direct to you at factory prices on **30 days trial.** Save the dealers profit. Farm, Hog and Poultry Fence at from
11½ CENTS A ROD UP.
All wires are heavily galvanized 80 rod spool of Ideal galvanized **Barbed Wire $1.65.** Write today for large free Catalogue showing 75 different styles and heights of fencing.
Box 261 KITSELMAN BROS. MUNCIE, IND.

PEERLESS

SELF RAISING GATE
The gate with a "lift"—helps to lighten the daily load. It lifts itself, swings over all obstructions—no digging away snow or ice. Extra heavy frames of high carbon steel tubing, nearly two inches in diameter; all No 9 wire filling of Peerless Fencing—close spacing between line wires and crossbars. Double latch and a barb wire top. Every part
HEAVILY GALVANIZED
A rust-proof coat. Looks better than paint and lasts ten times as long.
Send for folder; we'll tell you where you can get Peerless Gates.
Peerless Wire Fence Co., 242 Mich. St. ADRIAN, MICH.

CIVIL SERVICE
We will send any American, over 18 years of age, who can read and write, *The Civil Service Book*, telling how to qualify at home to pass any Civil service examination.
During the past year over 700 of our students have secured desirable Government positions. Write at once.
International Correspondence Schools, Box 1155 Scranton, Pa.

Raw Rock Phosphate.

If raw rock phosphate, ground or unground, was an available fertilizer or could be relied upon to become so changed when mixed with the soil as to become available as plant food in the second year or so, the works constructed for the purpose of rendering rock phosphate available as plant food by acid treatment would be abandoned and the complete commercial fertilizer would consist of usual sources and proportions of nitrogen, potash and of raw rock phosphate, instead of, as now, nitrogen, potash and acid-treated phosphate.

Since first raising the question as to the availability of raw rock phosphate as a fertilizer we have come to the conclusion that to buy it is to buy a "gold brick" that is not gold.

All who are students and experts in chemistry in soils, who very properly wish to find conditions under which raw rock can be converted into fertilizer by other than acid treatment, first fortify themselves by saying that raw rock phosphate is not soluble; that it is not available; that it is not a fertilizer; in other words, that it is absolutely no good for immediate results.

Then it is put up by the manufacturer to the farmer to buy this rock and turn his land into a fertilizer factory to treat the rock to bring the value up to the cost. To buy this rock and distribute it over ordinary soils appears to be worse than buying rich earth at so much a pound. There are rich alluvial soils that could be bought by the ton as a fertilizer and produce immediate growing results better than raw rock phosphate.

The fact of the matter is that raw rock phosphate is not sold upon its merits; the farmer is invited to buy it on a basis of what it contains, but he is not told that the contents are in the safe, and they do not deliver the key of the safe when they deliver the ground rock.

We believe what Professor Thorne, of Ohio, in a bulletin under his name, as late as December, 1911, said: "But the nitrogen of the Ohio peat beds and the phosphorus of the Tennessee rocks are locked up in insoluble combinations from which they must be set free by chemical treatment before they can be utilized by growing crops."

Foreign Crop Information.

A cablegram, dated March 23d, 1912, from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, giving the following information: "The area of winter wheat harvested in British India is 29,444,000 acres; in countries having 40 per cent. (94,000,000 acres) of the total winter wheat area last year, the area this year is 102.2 per cent. of last year. Winter cereal crops are in good condition. In British India a preliminary statement of the production of rice is 521,992,000 hundred-weight (58,463,104,000 pounds); and of cleaned cotton, 11,196,000 hundredweight (1,253,952,000 pounds)."

St. Louis Market For Cheese.

At St. Louis, April 1st, for cheese the demand was greater than the supply. On orders, per pound: Northern—Twins, 20c.; Singles, 20¼c.; Long Horns, 21c.; Daisies, 21c.; Young Americas, 21c.; Limburger, 18c. Swiss—No. 1, 23 to 24c.; No. 2, 20c.; broken, inferior or cracked, 6 to 7c.; brick, 21 to 22c.

A Convertible Wagon Box.

The Melrose Convertible Wagon Box furnishes a decided advance in facilities of farm work. The wagon —the ordinary wagon—is used more often than any other farm appliance, and it needed the Melrose Convertible Box to make it satisfactory for every use. On page 21 is the proposition as made by the American Wagon Company, Department 79, 112 West Adams street, Chicago, Ill. It is well worth considering from the clear-cut, honorable manner in which it is put up to the farmer.

A live man in your neighborhood can create a good business for himself by selling our fertilizers. They are rightly balanced and blended to improve both crops and soils.

They are adapted to all crops and soils; they are "making good," hence are well-known and popular, and sell readily to progressive farmers.

We have the largest and best equipped Fertilizer Factory in the State of Illinois.

Send for free Booklet and ask for Agency today; address

EMPIRE CARBON WORKS,
421 LOCUST ST., ST. LOUIS, MO.

Write to Nearest Manufacturer.

The letters in answer to the advertisement of the American Ingot Iron Corrugated Culverts should be sent to the nearest manufacturer, as shown by the advertisement on page 13. This is very important advertising and it gives the buyer the opportunity to save considerably in freight bills and in time, besides insuring that they are the true American Ingot Iron Culverts.

Sent On Trial.

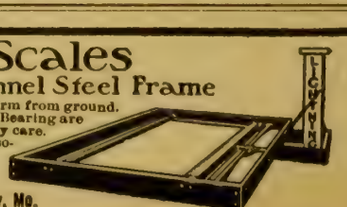
If you are sick you can get a full-size one dollar box of Bodi-Tone on twenty-five days' trial. If it benefits you, you pay $1.00 for same. If it does not help, pay nothing for it. This is the way Bodi-Tone is being offered to the sick in the large announcement on the last page of this paper and the way thousands have already been cured by it.

Butter Prices at St. Louis.

On April 1st, at St. Louis, the butter quotations were as follows: Creamery—Extra, 31½c.; firsts, 29c.; seconds, 27c.; ladle-packed, 25c.; country make, roll and packed quotable at 31c.—inferior or poor lots less. The Elgin quotation on the same day was 30c. a pound.

NEW WHEELS For Your Old Wagon
"ELECTRIC" STEELS to fit any wagon—old or new. Make a new wagon of your old gear at small cost. We guarantee fit. Give a low lift—you get more work done in less time, with less labor. Cost less than wood wheels and last longer. Do not rut fields and meadows. Investigate "Electric" Steel Wheels.
ELECTRIC HANDY WAGON—made of Oak, Hickory and Steel. Just what you want for all kinds of knock-about work. Will last a lifetime. Has unbreakable steel wheels. Easy draft. Let us show you how to save yourself and your team. Write us today for free book. Address
ELECTRIC WHEEL CO., Box 40, Quincy, Illinois.

Lightning Pitless Scales
New Pattern. Solid Channel Steel Frame
Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

Grafting Old Fruit Trees.

In practically every section of the country too many varieties of all kinds of fruit are grown, and the problem that confronts us is how to grow only those that are profitable. This may be done either by cutting out the less desirable or grafting them with those varieties that are in demand. With very large, old trees having but a few long, bare main branches the expense would be too great and very little good fruit would be produced if grafted, and the sooner they are taken out and cut into firewood the better. Those with a good supply of branches near the ground can be successfully grafted and in a few years produce good crops of the most profitable varieties. While grafting old trees is work that anyone with ordinary skill in the use of tools can accomplish, it requires good judgment to do the work so as to obtain the best results. In grafting old trees it should be the aim to produce as far as possible a full low head. This cannot in all cases be done in one year, therefore such branches as are in the right position and of the proper size are grafted the first year and perhaps some very large branches removed to force growth into smaller ones so that they may be grafted a year or more later.

The tools required for grafting are a saw with fine teeth for cutting off the stocks, a large sharp knife for paring the top smooth, a thin-bladed sharp knife for cutting the scion, a grafting chisel with which to split the stock and hold open the cleft for the insertion of the scion, and grafting wax for covering to keep out air and water from all cuts made. The time when grafts are more certain to grow is in the spring. About April 15th is a good time for cherries and plums, and about May 1st for apples and pears. Small branches from one to two inches in diameter are best for cleft grafting. These are cut off at an equal distance from the center of the tree at right angles to the axis of each branch. The end of the cut is then pared with the large knife and split with the grafting chisel, selecting a place where the wood will split straight. The chisel is then knocked out and the wedge driven in to hold open the cleft while the scion is being inserted. The scion, a shoot of one-year's growth taken from the outside of the tree, is cut wedge-shaped in two ways and is inserted into the cleft so that the inner bark of both stock and scion shall come in close contact. Two scions are used in each cleft to insure success. When the scions are in place the wedge is knocked out and the two are pressed closely together. Should the stock be small, growth will be more certain if it is tied together firmly with raffia or other soft strong string. All cut surfaces, the end of the stock, the split and the ends of each scion should be covered carefully with grafting wax to exclude air and moisture. Grafting wax may be purchased of dealers in horticultural supplies, or it may be made by melting five parts of rosin, two parts beeswax and one part of tallow or linseed oil, by weight. When thoroughly melted together, the mixture is poured into a pail of cold water and then drawn into sticks. Or it may be allowed to get nearly cold and then be cut out in cakes and pulled. It will be most convenient for use if made into sticks of about two ounces each and then carried to the orchard in water. In applying, a little soap or beef or mutton tallow will keep it from sticking to the hands.

The grafts should be examined several times during the first summer, and if the wax is running or curling it must be pressed back into place. All sprouts starting from the stock near the scions should be rubbed off unless the graft has failed, when they should be allowed to grow until the stock can be regrafted or the sprouts budded. Before growth begins the following spring such stocks as were not successfully grafted and others large enough should be grafted again, and any shoots budded the previous August should be cut back to within about one-half of an inch of the bud. When both grafts have grown, one is cut off, so that the wound will heal over and make a sound branch, which it would not do if both were allowed to grow. In young orchards, as soon as one finds that he has undesirable varieties, he should graft them and not lose valuable time.—William Hardy, Tunnel Hill, Johnson county, Illinois.

Taxpayers Save Money
Tonight's the Night to Write
Taxpayers, county officials, road builders, etc., can save money, time and labor by using American Ingot Iron Corrugated Culverts. They outlast all other metal culverts. First cost low—maintenance nothing. Spring freshets won't wash out, crack or break them, like bridges and other culverts.
Frost or Rust Won't Harm This Culvert
Concrete, stone, tile or brick culverts are smashed by Jack Frost. American Ingot Iron Culverts are unharmed. These culverts are not made of steel but American Ingot Iron—guaranteed 99.84% pure. Steel, on account of its impurities, rusts and corrodes quickly. American Ingot Iron, due to its purity, resists rust for many years. This is why American Ingot Iron Culverts outlast steel culverts many times over. Easy to install—never out of order.
AMERICAN INGOT IRON
Guaranteed CULVERTS 99.84% Pure Iron
Leading railroads of America are displacing concrete, stone, tile and brick culverts with this wonderful metal corrugated culvert. And this after they have tried all other makes. They know that American Ingot Iron Corrugated Culverts never buckle under heavy loads, or corrode, crack or rust. Look for the triangle trademark on every piece—it insures you getting the genuine American Ingot Iron. Only the manufacturers named below make American Ingot Iron Culverts. There's a lifetime's service in every section. Put the proof up to them. After the chores are done tonight—drop a line to the nearest manufacturer. He'll send you lots of money-saving culvert pointers.
Write to Nearest Manufacturer
Dixie Culvert & Metal Co., Little Rock, Ark.; Atlanta, Ga. California Corrugated Culvert Co., Los Angeles, Cal.; West Berkeley, Cal.; Reno, Nev. Colorado Ingot Iron Pipe & Flume Co., Colorado Springs, Colo. Delaware Metal Culvert Co., Clayton, Del. Illinois Corrugated Metal Co., Bloomington, Ill. W. Q. O'Neall Company, Crawfordsville, Ind. Princeton Sheet Metal Company Princeton, Ind. Fort Dodge Culvert Company, Fort Dodge, Iowa. Independence Corrugated Culvert Co., Independence, Iowa. The Road Supply & Metal Co., Topeka, Kan. Kentucky Culvert Company, Buechel, Ky. New England Metal Culvert Co., Palmer, Mass. J. N. Spencer, Havre de Grace, Md. Michigan Bridge & Pipe Company, Lansing, Mich. Bark River Bridge & Culvert Co., Bark River, Mich.; Eau Claire, Wis. Lyle Corrugated Culvert Company, Lyle, Minn.; Minneapolis, Minn. Corrugated Culvert Company, Moberly, Mo. Montana Culvert Company, Missoula, Mont. North Carolina Metal Culvert Co., Greensboro, N. C. Northwestern Sheet & Iron Works, Wahpeton, N. D. North-East Metal Culvert Co., Nashua, N. H. Pennsylvania Metal Culvert Co., Flemington, N. J.; Warren, Pa. Economy Culvert Company, Auburn, N. Y.; Nebraska Culvert & Mfg. Co., Lincoln, Neb.; Wahoo, Neb. Ohio Corrugated Culvert Co., Middletown, Ohio. Oklahoma Corrugated Culvert Co., Shawnee, Okla. Security Vault & Metal Works, Portland, Ore. Sioux Falls Metal Culvert Co., Sioux Falls, S. Dak. Atlas Metal Works, Dallas, Texas. Lone Star Culvert Company, Houston, Texas. Western Metal Mfg. Co., El Paso, Texas. Tennessee Metal Culvert Company, Nashville, Tenn. Utah Culvert Company, Woods Cross, Utah. Virginia Metal Culvert Company, Roanoke, Va. Spokane Corrugated Culvert & Tank Company, Spokane, Wash. Wisconsin Culvert Company, Madison, Wis.
Tell us your road troubles and plans—we will send you expert advice.
AMERICAN ARMCO INGOT IRON
Start Your Letter Off Tonight!
American Ingot Iron May Be Had in Sheets, Plates, Roofing and Fence Wire

[Please mention National Farmer and Stock Grower.]

Tested the Fertilizer.

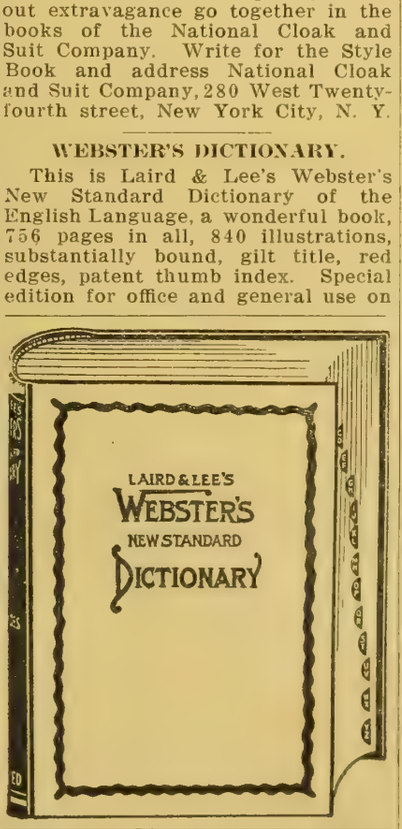
"I purchased of Culberhouse & Salmons one-half ton Empire Cotton Grower. I put as near as I could 200 pounds to the acre. For a test I left four rows without any fertilizer. When it was picked, two rows with the fertilizer made as much as the four rows without. So it is an easy matter to figure out the good the fertilizer will do."—J. D. Faulkner, Jonesboro, Ark. See advertisement of Empire Carbon Works on page 12.

The New York Style Book.

The greatest and best ladies' outfitters are the National Cloak and Suit Company, of New York City. They offer to send the New York Style Book free. There are 200 pages in the style book and it is full of the best patterns and up-to-date costumes. Style and quality without extravagance go together in the books of the National Cloak and Suit Company. Write for the Style Book and address National Cloak and Suit Company, 280 West Twenty-fourth street, New York City, N. Y.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on



farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

How About Your Straw Pile?

The threshing of small grain is a process which is very important to the farmer and the thresherman. The question "Is there grain in your straw pile?" is a very pertinent one asked by the Nichols & Shepard Co., of Battle Creek, Mich. They are builders of threshing machinery and have a card addressed to you on page 7 of this paper.

Vitrified Tile Silos.

The advertisement on page 8 of the Vitrified Tile Silo ought to be interesting to all farmers and especially to dairymen. It is claimed to be the only perfect material by men who have made a study of the subject. We commend it to our readers.

At St. Louis, April 1st, prime beeswax was selling at 29½ cents a pound.

"It takes twice as long to figure out to avoid doing a thing as it does to do it."—Exchange.

Edwards Roof Puts Cash in Your Pockets!

Edwards "REO" Steel Shingles "TIGHTCOTE" Galvanized

Will make money for you if you are the first man in your community to answer this proposition. You don't promise to do any selling work. Your neighbors see your Edwards Steel Roof and like it—and their orders **count for you.**

Edwards "REO" Steel Shingles Last Five Times as Long as Wood

and last three times as long as any other steel shingles because Edwards "Reo" Steel Shingles are "TIGHTCOTE" Galvanized.

Each and every Edwards shingle is dipped in molten zinc after the shingle is made. Each edge is galvanized as heavily as sides. **Rain-Proof, Rust-Proof, Rot-Proof, Acid-Proof. Last Longer Than the Building.** Any man who can drive nails can put them on.

$10,000 Ironclad Bond Lightning Insurance

We agree to refund the amount paid in every case where a roof covered with Edwards Interlocking "Reo" Steel Shingles is destroyed by lightning. This guaranty is backed by our $10,000 Ironclad Bond and stands forever. Ask for Big Free Roofing Catalog No. 457, with special low prices. Remember the special money-making proposition puts you under no obligation to us. Send dimensions of your buildings and we will quote you cost. Freight prepaid. Write today. (72)

THE EDWARDS MFG. CO.

407-457 Lock Street CINCINNATI, OHIO

Largest Mfrs. of Steel Roofing Material in the World

Waste vs. Conservation.

The tillers of the soil in lowest Egypt, supplied as they are with the natural inundations of the Nile Valley, leaving a mud and manure rich in plant food every year, are the only farmers who can continually take away without returning to the soil something in the shape of plant food. Egypt's natural irrigation by overflow supplies manure and fertilizer along with and in addition to the moisture, and the husbandman is left nothing to do but plant his seed and reap the harvest. Conservation of soil resources in Egypt would scarcely interest the most astute politician.

The farmers of the United States, not having a perpetual supply of plant food, have not yet learned that it is cheaper to pay rent than it is to move, and yet they are face to face with the fact that new places are very few and moving costs money.

Acting under the advice of Horace Greely (peace to his ashes), they have very largely exhausted the plant food of the farm lands in the Eastern States and then rushed into the newer and richer fields of the Mississippi Valley to repeat the operation, and will soon be like Caesar—weeping because there are no longer new and fertile lands for them to despoil.

If this seems like a scathing arraignment of present methods of farming, well and good, for it is high time that we awake to the needs of our soil if we are to continue to hold supremacy as an agricultural nation and feed the 100,000,000 mouths of our own country and export a heavy surplus to foreign consumers. To exhaust the mineral elements of the fertile farms by continuous cropping means poverty, not wealth. Within fifty miles of Louisville, Kentucky, or Chicago, Illinois, you can find farm lands that are splendid examples of how **not** to do it; farms so poor in plant food that without commercial fertilizer you can't raise a disturbance, unless it be over a line fence.

Continually removing one or two of the basic elements of the soil has driven the farmer into newer countries, where he hopes to repeat his wasteful method, leaving his children and his children's children with nothing but acres of land, not soil suitable for growing crops, to return a profit on the seed and labor involved in the farm operations.

From New England, New York state and older sections of the East and South, farmers are coming into newer and therefore more fertile fields of the Central West, and once they have exhausted the nitrogen phosphate or potash here, where else is there a place for them to continue mining instead of farming? Subtraction is the second lesson taught in the country school mathematics to demonstrate that by continually taking away only a small number from a larger one the latter is finally exhausted unless something is added to it occasionally.

But nature is generous; she had a bountiful supply of plant food in the soil originally, and if it is added to occasionally and properly taken care of by crop rotation and careful cultivation our farms will grow richer instead of poorer.

By chemical analysis we determine that in a wheat crop of thirty bushels to an acre and a ton of straw we take out thirty-five pounds of nitrogen, twenty pounds of phosphoric acid and thirty-five pounds of potash. We must return these elements to the soil or they will ultimately become exhausted.

Clover adds nitrogen to the soil, but it takes out 46 per cent. phosphoric acid and 88 per cent. more potash than wheat, so the mineral elements are not conserved by growing this leguminous crop. Barnyard manure, green manure and phosphorus and potassium of commerce must be added sooner or later or the list of abandoned farms will grow apace. It is more economical to begin early to supply commercial fertilizers and keep the crops at maximum than to exhaust the soil by overcropping and then commence the slow process of rebuilding.

In the use of the term commercial fertilizer no thought is had of the many brands of the mixed articles which are to be found everywhere. They have served a very useful purpose and many of them are scientifically proportioned for the crops to which they are applied, but the acid phosphate (acidulated phosphate rock) and the potash and the blood and bone or nitrates can be had and blended at home in the exact proportion the crop demands. An average crop of wheat, as shown, takes out of the soil twenty-five pounds of nitrogen, twenty pounds of phosphoric acid and thirty-five pounds of potash, worth $8.35, while corn (sixty-five bushels and 3,000 pounds stalk) removes seventy-five pounds, twenty pounds and sixty pounds, respectively, valued at $22.75. Potatoes (150 bushels) remove forty pounds, twenty pounds and seventy-five pounds each; while a cabbage crop of thirty tons to the acre removes from the soil 200 pounds nitrogen, seventy pounds phosphoric acid and 270 pounds potash. It naturally follows that a mixture good for wheat would not be the proper mixture for any of the other crops. Each must have different treatment. Clover requires entirely different fertilizing; although it adds nitrogen to the soil it is a gross feeder on phosphoric acid and potash, a two-ton crop removing twenty-eight pounds of the former and sixty-six pounds of potash.

A bulletin issued by the Maryland Station says the best fertilizer for wheat at that station is 2 per cent nitrogen, 9 per cent. phosphoric acid and 7½ per cent. potash. If, however, previous crops have drawn heavily on the potash, like cabbage or potatoes, then the potash content of the fertilizer should be increased for present crops.

To get a large flow of milk you must feed the cow; to get the largest crop you must use in the soil a properly-balanced plant-food ration.—W. T. Davis.

GRASS HOOK No. K Price $0.50
Balance
in farming tools, means that they work *with* their user—that they work *easily* and smoothly. It means that the blades and the handles are just right in adjustment. They make the long workday easier, save strength and save effort. Keen Kutter farming tools mean balance and correct hang. They are really worth owning because they *stand up* under the everyday strain.
SCYTHE SNATH No. KK50 Price $0.85
KEEN KUTTER
Farming Tools
are made upon honor, from the best materials, by skilled workmen, trained by years of service. Buy Keen Kutter Farming Tools and you can't *help* buying right. The world-famous Keen Kutter money-back guarantee protects you and makes you sure that your "buy" *is* right.
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"The Recollection of Quality Remains Long After the Price is Forgotten."
Trade Mark Registered —E. C. SIMMONS
If not at your dealer's, write us.
Send for Simmons' Cream Separator Booklet No. 1331
SIMMONS HARDWARE CO., Inc.
St. Louis and New York, U. S. A.
LAWN EDGER No. KL. Price $ 3.00
LAWN SCYTHE No. KGD Price $1.25

[Please mention National Farmer and Stock Grower.]

GOOD WIRE FENCING.

There are three things to keep in mind when selecting a good wire fence: The quality of the steel, the size of the wires and the grade as well as the thickness of the galvanizing.

If farmers would look into these very important features when buying their material, less complaint would be heard about rusty, no-account fences.

No doubt there are just as good wire fences made to-day as ever before; in fact, better; but care should be exercised in buying, and farmers should study the merits of all fences before placing their order.

One of our oldest advertisers, the Brown Fence and Wire Company, Cleveland, Ohio, Dept. 45, now issue a complete catalogue bearing upon this subject. We believe they make a very satisfactory and durable fence, otherwise we would have heard from some of our subscribers if their fence was faulty in any way. This catalogue is full of valuable fence information, and those interested would do well to send for it, which is free upon request.

Makes Forgery Impossible.

The forgery of all Bank of England notes is quickly detected, because of secret marks which are constantly being changed. They are visible only under the microscope.

Fertilizers That Pay

You Progressive farmers want to increase your profits. You know that good fertilizers insure increased profits, so its only a question of where to get good fertilizers.

You can easily prove to yourself what fertilizers are best by referring to the Indiana State Bulletin, No. 151, Vol. 15. Turn to page 72, which shows a comparative table covering nine years. You will find Darling's Fertilizers lead among the larger manufacturers who have had enough samples analyzed to give a fair comparison.

Let us send you our book "THE SOIL BUILDERS"

which tells all about Fertilizers and results obtained, also photos. It is free. Drop us a postal today.

We want good agents in territory where we are not represented.

Darling & Co., Dept. F, Union Stock Yards, Chicago

Please mention National Farmer and Stock Grower.

Where Many of the Well Dressed Women Come From

In almost every community in the United States, in almost every country on the globe, there are well dressed women who buy their clothes from Montgomery Ward & Co. They buy through our Women's Fashion Book, an authority for the latest, the best creations for women's wear. The fit, the fabric, the style, the wearing qualities of their clothes are of the same high grade that is found in the clothing of the most fashionably dressed women of the big cities. And yet, these Montgomery Ward & Co. customers are paying only two-thirds, and often only one-half of what other women who buy from retail stores are paying.

And, madam, you, too, can have the best quality of clothing that money and brains can manufacture if you will buy them through the pages of our WOMEN'S SPRING AND SUMMER FASHION BOOK. You need only put your name and address on the coupon below and the number 30, which is the number of this book, and it will be sent to you at once, free of charge. **Remember that we guarantee the fit, style, fabric, workmanship—everything—about each single garment, to please you perfectly.** If for any reason you are not entirely pleased, you may return your purchase at once and we will refund your money and any transportation charges you have paid.

Put the numbers of the other books you want on the coupon also.

2. Pianos.	24. Underwear Samples.
3. Organs.	27. Baby's Dress and Toilet.
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Put the numbers of the books you need on this coupon, and your name and adress, and send it to us immediately.

Montgomery Ward & Co.
Chicago Avenue Bridge, CHICAGO — 19th and Campbell Sts. KANSAS CITY

Please send me the following books free of charge:

Book Numbers 30. .....

Name .....

P. O. .....

State 162

Send coupon to the nearer address

Farm Information Bulletins.

Vital agricultural bulletins and circulars have just been issued by the Iowa Agricultural Experiment Station for general distribution. One on "Planning and Adorning the Farmstead," No. 126, by Prof. A. T. Erwin, gives some twenty pages of practical information on the arrangement of farm buildings, the planting and care of trees and shrubs, and the care of lawns and the building of walks and drives. Another, No. 127, "Spraying Practice For Orchard and Garden," is a complete compendium on that subject, written by Prof. S. A. Beach, Head of the Horticultural and Forestry Section of the Experiment Station. The bulletin describes all orchard diseases common to the Mississippi Valley and tells how to fight them as well as the various pests that cut down orchard yields. Circular No. 1 tells how to make home-made corn testers and is based on complete investigations and experiments by Prof. H. D. Hughes. Any one or all of the bulletins may be had by writing and asking for them. Write to the Director Iowa Agricultural Experiment Station, Ames, Iowa.

Prices Received For Apple Crop.

The State Board of Horticulture is now in possession of sufficient data to warrant the publication of a statement regarding the prices received for the past season's apple crop. The figures following are based upon reports received from several hundred correspondents who are fruit growers, each of whom reported for his own orchard. In order to maintain uniform conditions, the cost of package when furnished by the grower has been deducted.

Average price per bushel on trees, 42.5c.; average price per bushel delivered, 57.2c.; average price per bushel from storage (cost of storage included), 98.3c.

Average price per bushel by the bushel, 67c.; average price per bushel by the barrel, 58.5c.; average price per bushel by the cwt., 38.7c.

Sprayed, average price per bushel, 61.7c.; unsprayed, average price per bushel, 49.3c.

Graded, average price per bushel, 62.7c.; orchard run, average price per bushel, 43.4c.

Orchards reported sprayed, 37 per cent.; orchards reporting fruit unfit for market, due to disease and insects, 2.5 per cent.; orchards reporting no crop (no cause given), 12 per cent.; orchards reporting no sale, due to lack of buyers, 1 per cent.

Of the growers reporting as having sprayed, 50 per cent. sprayed twice, 25 per cent. sprayed three times; and of the others, some sprayed once, others three and four times, and one eight times.

Perhaps the two most important facts contained in the above figures are: First—The increase of 12.4c. per bushel received for sprayed over unsprayed fruit; and, second, the failure of 2.5 per cent. of the orchards to produce salable fruit due to ravages of disease and insects.

Now if to the above we add the fact, proven by experiment, that spraying increases the yield of merchantable fruit an average of two to three bushels per tree in orchards ten to twenty years old, also the extra cost of picking and sorting where the per cent. of good fruit runs low, it becomes apparent that spraying as an orchard practice is very profitable, indeed. — W. W. Chenoweth, Secretary.

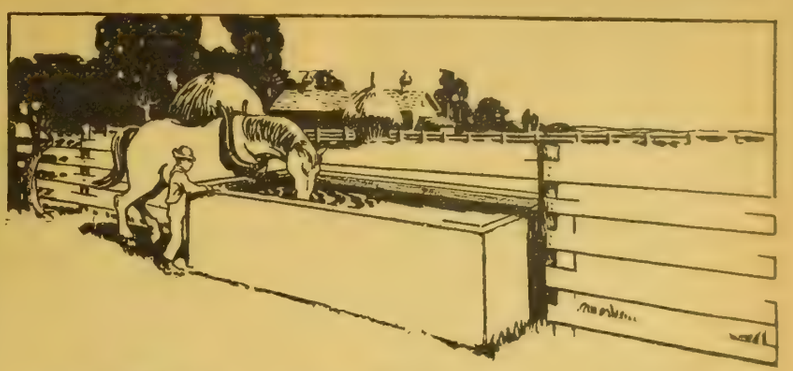
The Strawberry Culturist.

This is a handy little jewel of a book. It is by Andrew S. Fuller, one of the greatest horticulturists. It contains all the necessary information to enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book contains that which a beginner should have to start on and an expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The National Farmer and Stock Grower for one year for Sixty Cents. This is a splendid opportunity to get a good book for the cost of postage. An average crop of strawberries is 1,701 quarts to the acre. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

No Increase in Stock Cattle Rates.

On Monday, March 25th, the Interstate Commerce Commission rendered a decision that the proposed increase of 33⅓ per cent. in the transportation rate on "stock and feeder" cattle and sheep made by all of the Western railroads was not justified. The Commission expects all of the carriers to cancel the proposed advances by April 1st. If they should fail to cancel them voluntarily, the Commission will issue a peremptory order.

"Existing rates on feeder cattle" are approximately 75 per cent. of the rates on fat cattle. The railroads contended this low rate was a "gratuity" which they could withdraw at will.



ATLAS PORTLAND CEMENT

"THE STANDARD BY WHICH ALL OTHER MAKES ARE MEASURED"

There are many brands of Portland Cement. There is one that is always pure, always uniform, that can be had in all localities, always in the same grade, and that cement is Atlas.

"Atlas" means the best grade always, for the large user or the small user—for you who may want but one sack or one barrel, or for the Government which has purchased 4,500,000 barrels for the Panama Canal. Atlas is the standard by which all other makes are measured. Here is the trade-mark. To be sure of success in your concrete work about the farm, see that this mark appears upon the barrel or sack that you buy. Send for

"Concrete Construction About the Home and on the Farm"
A Free Book for the Farmer

It is complete, non-technical and well illustrated. It tells you everything you need to know, and particularly why Atlas should be the cement you use. Send for it.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT COMPANY, DEPT. 165, 30 BROAD ST., NEW YORK

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

Please mention National Farmer and Stock Grower.

A Rising Star.

"I hear your son is making money out of his voice at the opera. Where did he learn singing?"

"Oh, he don't sing; he calls the carriages."

Elkhart Vehicles and Harness

have a world-wide reputation for high quality and our prices have made them famous.

THIRTY-NINE YEARS'

experience selling to the consumer means success.

We ship for examination, **guaranteeing** safe delivery, satisfaction and to save you money.

Catalog shows all styles of pleasure vehicles and harness, pony vehicles and harness, spring wagons, delivery wagons and harness.

May we send you large catalog?

We also make the "Pratt-Forty" Automobile.

Elkhart Carriage & Harness Mfg. Company
Elkhart, Indiana

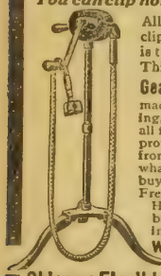
Save $25

[Please mention National Farmer and Stock Grower.]

You Can Buy the BEST HORSE CLIPPING MACHINE

That was ever made for only **$7.50** AT YOUR DEALER'S

You can clip horses, cows and mules with it



All progressive owners of horses now clip them in the early spring, and this is the machine bought everywhere. This **Stewart Ball Bearing Enclosed Gear Machine** has all other clipping machines skinned a mile for easy turning, fast clipping and durability. Has all file hard, cut steel gears, enclosed, protected and running in oil. Get one from your dealer, where you can see what splendid value it is before you buy. Send a postal to us for valuable Free Treatise on the Clipping of Horses, written by sixteen leading veterinaries. **Write TODAY**

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Ask for our Catalogue showing the world's largest line of horse clipping and sheep shearing machines.

CURE THAT SPAVIN

—or that Curb, Splint, Ringbone or other blemish with Kendall's Spavin Cure. Mr. Martens of Shawano, Wis., writes this about

Kendall's Spavin Cure

"I have been using your Spavin Cure for years for spavin and Ringbone, and would not be without it, because it never failed." Let us send you other letters. Get a bottle of Kendall's at once. You may need it any day. At your druggist 81 a bottle. 6 for $5. Ask for "Treatise on the Horse"—Free, or write to

Dr. B. J. Kendall Co.,
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Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind, or Choke-down, can be removed with

ABSORBINE

or any Bunch or Swelling. **No blister, no hair gone,** and horse kept at work. $2.00 per bottle, delivered. Book 3 D free.

ABSORBINE, JR., for mankind, $1.00, delivered. Reduces Goitre, Tumors, Wens, Varicose Veins, Ulcers, Hydrocele, Varicocele. Book free. Made only by

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Canvas Covers For All Purposes

Give size needed & weight of canvas, for close prices

WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

The Bloomington Horse Sale.

Our readers will remember the great horse sale by the Breeders' Sale Company at Bloomington, Ill., late in January. The total number of horses sold was 426, and the money realized $122,822.00. Sixteen Percheron mares sold at $590 to $720; Belgian mares sold at $500 to $550; Shire stallions sold at $575 to $820; a French draft stallion sold for $700. The Percheron stallions, fifteen head, sold from $505 to $1,575. The following were sold for $1,000 or better:

Rowe's Pride, 61,795, three years, to J. I. Moffatt, Paw Paw, Ill., for $1,530.

Rowe's Black Bird, 56,656, three years, to C. G. Summers, Snowville, Va., for $1,030.

Imp. Joyeux, 78,582, two years, to J. H. Brenning, Easton, Ill., for $1,575.

Imp. Juif, 78,581, two years, to Lawrence P. Funk, Bloomington, Ill., for $1,200.

The Monsees Sale of Jacks and Jennets, Held in March.

At Smithton, Mo., as advertised, on March 5th L. M. Monsees & Sons sold forty-four jacks for an average of $703.50 per head; twenty-six jennets for an average of $215.00, the total of seventy head averaging $522.10, and the total of the sale was $36,545.00. The top price was $2,500 paid for Barytone Mammoth, 2,466, black, foaled September 8, 1906, to J. T. Ernest, Fort Gibson, Okla. Other jacks bringing a thousand dollars or better included Col. Harger, 3,711, black, foaled September 30th, 1909, to H. Kohl, Vandalia, Mo., for $1,100; Baxter, 3,587, foaled June 7th, 1909, to F. A. Bowers, Watertown, Minn., at $1,075; Crown Prince, 2d, 3,740, black, foaled October 9th, 1906, to W. P. Hopper, Quinton, Okla.; Missouri King, 3,726, black, foaled 1906, to D. J. Hutchins, Sterling, Kas.; De Wolf Hopper, 3,720, black, yearling, foaled May, 1910, to W. F. Schade, Jackson, Mo., for $1,300, a record price for yearlings; Big Dan, black, foaled June 19th, 1908, to John Martin, Clinton, Mo., for $1,160; Gold Digger R., black, foaled June 5th, 1909, to S. C. Van Meter, Elkhart, Ill., for $1,000. A jack colt yearling sold for $800 to D. J. Hutchins. The highest-price jennet was $520, paid by T. E. Collins for Spot, a foal of 1906. The matured jacks averaged $805.50 and fifteen yearlings and weanlings averaged $452.65.

The Hambletonian Family.

"How completely the Hambletonian family of trotters now overshadows all others is strikingly illustrated by the statistics of harness racing for 1911. Of the 1,938 horses that entered the 2:30 list last year 1,712, or 88 per cent., are descendants of Hambletonian in the direct male line, while practically every performer carries the blood of the first great trotting sire on one side or the other. Of the 226 trotters and pacers that do not trace to Hambletonian in the direct male line 97, or about 5 per cent., so trace to Mambrino Chief; 63 to Gibson's Tom Hal, and 11 each to Justin Morgan, Pilot, Jr., and Tom Rolfe."—New York Herald.

Sale of Percherons in Kansas.

At a sale of Percheron horses held at Beloit, Kas., by Ralph G. McKinnie and G. H. McMilian & Sons, twenty-four mares sold for an average of $399.70, and seven stallions averaged $637.85. A yearling filly sired by Carnot sold to J. E. Squire, Scottsville, Kas., for $635, and Hardi, an imported stallion, sold to B. H. Bunny, of Bassano, Canada, for $1,595. A pair of mares weighing 4,200 pounds sold to C. J. Johnson, Solomon Rapids, Kas., for $1,620.

The Stock Farm, published at Lexington, Ky., is authority for the statement that the four greatest living trotting sires are Bingen, Peter the Great, Axworthy and Moko, all now quartered in Fayette county, Kentucky.

AMERICAN FENCE

ORIGINAL & GENUINE **STEEL POSTS & GATES**

American Steel Fence Post Cheaper than Wood and More Durable. Get Catalog.

THE Fence adds value to the farm. Keep fences in order and the house painted. It indicates prosperity. Here's an instance: Not long ago a little farm with shabby buildings and fences rotted down, sold for a song. The new owner had the right idea. Buildings were painted. Wire fences were erected to divide the farm into small fields in order to change pastures and rotate crops systematically. Then circumstances compelled him to sell out. The cost of painting and fencing was less than $200.00. The farm sold for four times its purchase price. Appearances *do* count.

AMERICAN FENCE is made of large, stiff wires, galvanized heavily, having the American hinged joint (patented), a fabric most flexible and wear-resisting. A square mesh fence of weight, strength and durability—three great needs in farm fences.

Dealers in Every Place

where farm supplies are sold. Shipped to them direct from mills in carload lots, thus saving freight charges and enabling dealers to sell at lowest prices, giving buyer the benefit.

Send for copy of "American Fence News," also book "How to Make the Farm Pay," profusely illustrated, devoted to the interests of farmers and showing how fence may be employed to enhance the earning power of a farm. Furnished free upon application

F. Baackes, Vice Pres. & Gen. Sales Agt., AMERICAN STEEL & WIRE COMPANY, Chicago, 72 W. Adams St.; New York, 30 Church St.; Denver; U. S. Steel Products Co., San Francisco, Los Angeles, Portland, Seattle.

Miller Brothers will ship a large consignment of polo ponies and saddle horses from their 101 Ranch, at Bliss, Okla., to Fiss, Doerr & Carroll, of New York City, for a special sale on April 24th. This is one of the annual sales of ponies from the Miller Ranch.

Mr. David M. Look, owner of Castleton Estate, near Lexington, Ky., has purchased of Mr. Wm. Bradley, of Ardmaer Farm, near Castleton, N. J., the famous trotting sire Bingen, 2:06¼, sire of Uhlan, 1:58¾, with a number of mares and colts, including Sweet Marie, 2:02; Consuelo S., 2:07¾; Blonde, the dam of Uhlan. Bingen is now nineteen years old and is returning to his native state.

At the St. Louis National Stock Yards, during the first three months of 1912, the receipts were 173,872 cattle, 782,035 hogs, 228,081 sheep, 59,790 horses and mules. The increase over the previous year thus far amounts to 56,343 hogs and 42,611 sheep, and the decrease consists of 8,018 cattle and 7,182 horses.

Bickmore's Gall Cure

The old-time remedy for keeping horses in condition. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, Grease Heel. Sold by dealers, money back if it fails. Gray horse trade mark on every box. Sample and valuable 84-page horse book sent on receipt of a stamp for postage.

BICKMORE GALL CURE CO., Box 4820, Old Town, Maine.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

Use KEROSENE Engine Free!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.

Gasoline Going Up!

Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

Amazing "DETROIT"

—only engine running on coal oil successfully; uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory Price. Write! (1:8)

Cylinders can not carbonize

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with full information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Contains 192 pages and 69 illustrations. Write us for a free copy.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

Hog Book Free.

Valuable hog book, great assistance to any one interested in hogs. On the care and management of hogs. It tells how to cure sick hogs, prevent disease and clear hogs of worms. It tells how to manage young pigs. It tells how to make hog raising and feeding a pleasure, and certain success. It tells how to make the hog business pay big. This book is mailed free to all who write Dr. D. C. Snoddy Co., of Nashville, Tenn. Dept. H.

Percherons in South Dakota.

At Wessington Springs, South Dakota, Mr. L. E. Ausman sold four Percheron stallions at $1,193.75 per head, and twenty-three mares at an average of $533.90. The top for grown mares was $725, paid twice by D. M. Brenneman, of Wessington Springs. E. E. Nesmith, also of South Dakota, paid $2,500 for a gray stallion, Raymond, weighing 2,220 pounds, and J. Christensen, of Platte, S. D., paid $1,020 for Leon, a black stallion foaled in July, 1909. W. S. Corsa, of Whitehall, Ill., bought a good, gray, seven-year-old, Lucille, at $710. It was a pretty good sale in a country where thirty years ago a dozen farmers had to club together to buy a farm wagon.

HORSEMAN'S ANNUAL.

The New Edition or 1912—Just Off the Press.

Pocket Size, Carry It With You—A Great Little Book—Published by Magnus Flaws & Co.—Bound in Leatherette—Printed in 290 Pages, Size 4x6 — Contains Everything Relating to Trotters and Pacers.

Amateur Records; American Trotting Rules; Brood Mare Sires of 1911; Champion Amateur Records; Champion Brood Mares; Champion Records; Champion Sires, 1885-1911; Conformation of the Champions; Death List of 1911; Fastest Miles, by Quarters; Fastest Records of 1911; Futurity Winners; Gestation Table; Half-mile Trotting Records.

Horse Books; Horse Papers; How to Lay Out a Track; Leading Brood Mare Sires; Leading Brood Mare Sires of 1911; Leading Events of 1911, Arranged Chronologically; Leading Extreme Speed Sires; Leading Grandsires, Etc.; Leading Progenitors of Speed; Leading Sires of 1911; Leading Sires; Leading Sires of Dams of Extreme Speed; Pool Selling Law; Racing Rules.

Ready Reference Table; Registers and Associations; Registration Rules; Stake Winners; Time by Eighths, 2:00 to 3:00; To Tell the Age of a Horse; Trotting Champions From 1806; Trotting Rules; 2:30 Performers — 1911 — Under Sires; 2:30 Performers — 1911 — Under Sires of Dams; 2:10 Performers of 1911; Winners of Stakes; World's Records; Yearlings With 2:30 Records, Etc. Every horseman, novice or expert ought to have it.

GREAT PREMIUM OFFER.

We have made arrangements to use the **Horseman's Annual** as a subscription premium. Send us one dollar ($1.00) and we will send this paper, The National Farmer and Stock Grower, and we will send you the **Horseman's Annual,** postpaid, safe delivery in good order guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Very Successful Prescription.

The combination of remedies used in the manufacture of Bodi-Tone is proving a wonderfully successful prescription for old, chronic ailments. The makers of Bodi-Tone publish this prescription broadcast, so all may read and judge it for themselves. Bodi-Tone contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Read the trial offer on the last page. No one need pay a penny for Bodi-Tone until they have tried it.

General Beef Steer Market.

Even if the packers did not go to jail, they are not stealing many cattle. At Chicago, Monday, April 1st, the highest price for a load, nineteen head, 1,621 pounds, averaged at $8.70; twenty loads, 1,280 to 1,620 pounds, sold at $8.00 to $8.65 per 100 pounds; steer cattle at $7.00 to $7.95 averaged 1,000 to 1,400 pounds and represented the bulk of steer sales. A lot of little steers, 800 to 1,100 pounds, sold at $5.50 to $6.90. The high price for light cattle was $7.30 per 100 pounds for twenty steers averaging 950 pounds. The March average price for native steers was $7.20 per 100 pounds; fat cows and heifers averaged $5.00; canners and cutters, $3.00 per 100 pounds.

Western Range Horses.

We are again authorized to announce that Campbell & Reid and Western Sale Stables Company will hold their sales of Western range horses and mules as usual during the season of 1912. The first sale will be held in the middle of June, as usual. Ranchmen who will have stock for sale will find it to their advantage to consign to these sales, because they are the best conducted of all the sales of Western range horses. Eleven of these sales of Western range horses were conducted in the year 1911 by Messrs. Campbell & Reid and Western Sale Stables Company at the St. Louis National Stock Yards. The offerings ranged from 800 head to 2,500 head at each sale. These horses came in fresh from the ranges and were the best to be had. There were sold at auction singly, in pairs, in bunches, or in car-loads, and even larger lots, according to the sellers' judgment. The averages at sales ranged from $48.67 to $94.00 per head, and the grand average looked like about $70.00. That was for the mature horses. The loads of colts and yearlings ranged from $15.00 to $50.00. It is difficult to select bunches of representative sales by age, condition and quality from the list of 25,000 horses, mares, colts and yearlings without using a page to list them, because there was so great a variety. For instance: Twenty-three extra heavy mares and twelve colts averaged $160.00 per head for the lot; next there were twenty-three mares and colts, 900 pounds, averaging $58.00; seventy-eight broke horses at one sale averaged $94.13, with a top price of $185.00; again, 105 unbroke mares, weighing 1,100 to 1,300 pounds, sold at an average of $111.71. A good many range mules were sold at all prices, up to $165.00. One thing can be said about these sales, and that is, that there are neither delays nor disappointments; the horses are always there for buyers to see, and the buyers are there who are active bidders for horses. The horses come directly from the ranges where they are raised and are sold with the least possible expense to come out of the price of the horse. All sales are conducted on Thursdays two weeks apart. For full particulars concerning the sales address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Great Sale of Horses.

During the last week in March, Messrs. Holland, Nugent & Maxwell Bros. sold 1,380 horses at auction at the St. Louis National Stock Yards, for their customers, besides a number of car-loads of mules. All sold promptly at satisfactory prices.

Messrs. Holland, Nugent & Maxwell Bros. keep a red-hot auction going all the time. To horsemen who would like to experience strong competition and quick action on their car-loads, a trial of Monday or Tuesday at the St. Louis market may treat them to a new experience.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country will be conducted by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.,
As usual, during the season of 1912. The First Sale will probably be held

THURSDAY, JUNE 13,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

FARM AND RANCH LANDS.

ARKANSAS FARMS,—Nice level land. Fertile soil. Choice locations. $8 to $15 an acre. Write for Homeseekers' Guide and Large List of Bargains. **L. E. Moore,** Searcy, Arkansas.

CANADIAN HOMES. — Canadian lands can be had very cheap on the Canadian Pacific Railway in Alberta, Manitoba and Saskatchewan. Turn to page 31 and read the advertisement, then send in the coupon. It will get a line of reliable information.

FLORIDA SUBURBAN HOMES.
One of the most choice tracts of land in Florida sold direct to you by the owner. GEORGIAN HEIGHTS, FLORIDA, is not the ordinary kind of land. It is better and more conveniently situated. Only fourteen miles west of Jacksonville. The Florida Railway runs through the center of GEORGIAN HEIGHTS. Two other railroads, good, hard-surface wagon roads and automobile highway all run into Jacksonville, which is the largest and best city in Florida. All these conveniences, the high elevation of the land, good soil, together with the mild Florida climate all the year round, make GEORGIAN HEIGHTS one of the most desirable locations in the state. I will give you a valuable town lot free with each five-acre tract purchased. Price for tract, $300.00. Easy terms by the owner, **J. T. George,** Wainwright Bldg., St. Louis, Mo.

ILLINOIS.—Splendid farm property in Madison county, Ill., a short ride from St. Louis; 100 acres fine land; cannot be excelled. Two miles from station on Big Four Route; four-room house, summer kitchen; 1,200 fruit trees just in bearing. Rare opportunity to buy excellent farm property. Price reasonable. For further particulars address **Illinois Farmer,** care National Farmer and Stock Grower, 3550 Vista Ave., St. Louis, Mo.

MINNESOTA.—Farms for sale. Send for my list of CHOICE FARMS for sale, the best in the United States, considering location, terms, etc. Ask for my FREE BOOKLET, telling about the country, crops, markets, etc. **Geo. W. Elder,** McGinn Block, Thief River Falls, Minnesota.

TEXAS.—Farms For Rent in Northern Texas, $1.00 per acre. **W. H. Bush,** 217 West Monroe street, Chicago, Ill.

To Buy, Sell or Exchange Property, address Northwestern Business Agency, Minneapolis, Minn.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND,** 7910 Adams Express Building, Chicago, Ill.

A PRACTICAL FARMER desires employment on farm for the next year. Good reference furnished. Address, **W. F. S.,** care National Farmer and Stock Grower, 3550 Vista Ave., St. Louis, Mo.

Your Name Will Get $2 Eggs

For 50 Cents Per Sitting

The White and Brown Leghorns are the greatest layers in the World. I keep 2000 of the celebrated Chamberlain laying strains on my Experimental Farms, and to increase the sale of my Perfect Chick Feed, I will send to any one who will send me their name so I can send them my Perfect Chick Feed Catalogue, 2 sittings of Single Comb Brown or White Leghorn Eggs for $1 for the 2 sittings. Not less than 2 sittings sold. White or Barred Plymouth Rock or Rhode Island Reds or Silver or White Wyandotte or Rose Comb Brown Leghorn or Single Comb Black Minorca or W. Orpington Eggs, $2 per sitting. Leghorn eggs, 13 to a sitting; other varieties, 15 to a sitting. Leghorn eggs, $6 per 100; all other varieties $10 per 100. Large White Pekin Duck Eggs $2 for 10 Eggs. This is a rare chance to get a start of extra fine stock. Send Post Office order on St. Louis and have your orders booked early. Write for our prices on Old Trusty and Buckeye Incubators. Freight paid.

W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*)
KIRKWOOD, St. Louis County, MO.

Grades and Quality in Poultry.

Many people who are in the poultry business in a small way imagine that in the city market a turkey is a turkey and chickens are only sold in three classes, viz.: Fowls (hens), roosters and spring chickens. In New York, however, where business is business and they receive poultry that is put up properly, there are grades by weight, as will be seen by reference to the following quotations that were wired from New York City on March 23d, 1912. The quotations are for dressed poultry:

Frozen turkeys — Young Toms, Western fancy, per pound, 22c.; young hens, Western fancy, 22c.; old hens, Western, 21c.; old Toms, Western, 19 to 20c.; mixed hens and Toms, 18 to 20c. Tennessee and other fine Southern, 20 to 22c.

Frozen chickens—Broilers, milk-fed, fancy, 18 to 24 pounds to dozen, per pound, 28 to 29c.; do., 25 to 30 pounds to dozen, 24 to 25c.; medium chickens, 3 to 3½ pounds to pair, milk-fed, fancy, per pound, 19 to 20c.; do., average, 17 to 18c.; corn-fed, fancy, 17c.; do., average, 15 to 16c.

Roasting chickens, dry-picked, twelve birds to box—Milk-fed, fancy, 55 to 60 pounds to dozen, per pound, 21 to 22c.; do., 48 to 54 pounds to dozen, 20c.; do., second-grade, 17 to 18c.; corn-fed, fancy, 55 to 60 pounds to dozen, 19c.; do., fancy, 48 to 50 pounds to dozen, 18c.; do:, prime, 36 to 42 pounds to dozen, 16 to 17c.; do., second-grade, 15 to 16c.

Fowls, dry-picked, twelve birds to box—Dry-picked, fancy, 55 to 60 pounds to dozen, per pound, 17c.; do., 45 to 54 pounds to dozen, 16½c.; do., 39 to 44 pounds to dozen, 15 to 15½c.; do., 32 to 36 pounds to dozen, 14c.

Ducks—Fancy, 4 pounds up, 22c.; second grade, 16 to 18c. Geese—Western fancy, per pound, 16 to 17c.; do., second grade, 13 to 14c.

Scalded fowls—Fancy heavy, 45 to 60 pounds to dozen, per pound, 16½c.; do., heavy, 39 to 44 pounds to dozen, 15 to 15½c.; do., small, 32 to 36 pounds to dozen, 13½ to 14c. Roasters—Scalded, corn-fed, fancy, 5 pounds and over, 19c.; do., fancy, 4 pounds and over, 18c.; friers, 3 to 3½ pounds, 16 to 16½c.; do., broilers, 2 pounds and under, 22 to 24c.; do., broilers, 2 pounds and over, 20 to 22c. Barrel-packed selling 1c. to 2c. lower, as to quality, than box-packed poultry.

Growing Importance of Poultry Instruction.

The fact that the University of Illinois is to have a fine poultry plant is but one more index of the steady advance of the science of poultry raising. Hitherto the university has devoted itself to the larger items of agricultural production, but, like all the other great agricultural institutions in the country, has been looking forward to the time when poultry instruction could be included in its line of work.

A dozen of our big state colleges are now giving strong courses in poultry raising with important results. A better understanding of the industry is being disseminated among the people. More analysis is being put into practice and better methods are being secured.

Poultry raising has appealed to the universities as a small thing, because it is divided into such small parts. In the aggregate it is an enormous business, engaging the attention of the people in every zone where white men dwell.

The fresh egg is almost a circulating medium at any time of year anywhere. Poultry meat is a universal favorite with meat eaters, and it is a kind of meat that is as much desired for invalids as are medicines. The hotel and restaurant find it one of the staple things they must provide. The fresh egg has always been at a high price in winter, and up to this time the American market has never been able to sell fresh eggs at a low price in the winter months. The fresh egg during six months in the year can be changed into gold coin on sight, with a premium in favor of the egg. The demand is increasing with the increase of population. The market being assured, the problem remaining is one of production and of handling commercially. This the stations are attempting to do experimentally.

One reason why the poultry business is of immense importance to the farmer is, that it is a business that is seldom done on borrowed capital. It can be so easily undertaken that it can be begun with a few dollars. Moreover, it is a business that begins to pay a profit within a year from the time it is begun, and the capital invested in poultry for flock building is generally all paid back within twelve months.

Every little farm in the country is a place on which poultry can be raised to advantage. The big farms will not generally pay much attention to this branch of agriculture, leaving it to the men on the smaller farms. The fruit raiser is finding it more and more an ally, and the orchardist finds that he can with advantage use his orchard for a poultry yard.

Under these conditions of life it is not surprising that poultry instruction is more and more demanded of our educational institutions. It is one of the things that the school teacher finds it easiest to teach when he begins to introduce agricultural instruction into his school. One of the biggest High Schools in Chicago is giving instruction in poultry culture, and on certain days one may see quite an exhibit of poultry in certain of the class rooms. It is a branch of agricultural instruction that more and more appeals to the people not living on farms as well as those living on farms.

A Self-raising Gate.

Those fellows who live in a snow country and have to dig a ton or two of snow and ice away from their gates after every storm will be in a position to appreciate the utility of a new gate which is being sold by the Peerless Wire Fence Company, Adrian, Mich.

This gate is so constructed that it raises up and swings over snowbanks or anything else that it is necessary to get it over, and, best of all, it doesn't have to be lifted over; it springs up of its own accord the moment it is unlatched. It lifts itself, and, not having to be lugged around, it should be a boon to the women folks and the youngsters.

The Book That Met a Quick Universal Demand
That the highest grade saw and tool equipment is considered one of the live factors in modern farm efficiency is proven by the flood of requests for this book, "Disston Saws and Tools for the Farm," which has already necessitated a second large edition.
This free book tells about the great variety of
DISSTON
SAWS TOOLS FILES
They possess a world-wide reputation for efficiency and dependability and have a guarantee behind them of 72 years' standing.
These tools are made in the largest works of their kind in the world. This book offers many important suggestions on farm economies and improvements through efficient saw and tool equipment, and the keeping of same in proper working order.
Send for the "DISSTON FARM TOOL BOOK" today—a postal will bring it.
Sold by all Progressive Hardware Dealers
DISSTON SAWS TOOLS FARM
Henry Disston & Sons Incorporated
Keystone Saw, Tool Steel & File Works
P. O. Box 1537 M
Philadelphia, Pa.

[Please mention National Farmer and Stock Grower.]

HENS MUST LAY
WHEN FED GUARANTEED
PRATTS POULTRY REGULATOR

The self-raising feature makes it handy in many ways, as it can be latched in the raised position to allow small stock to pass under, while still turning larger animals.

Another feature that should commend it to careful buying farmers is its galvanized finish. Every part, frame, filling, hinges and latch, is galvanized, making it rust-proof. Write them for their free catalogue. Address, The Peerless Wire Fence Company, 242 Michigan street, Adrian, Mich.

She Told the Congregation.

If brevity is the soul of wit, one of the wittiest specimens on record was made by a woman. Mrs. Briggs lived in the northern part of Indiana, a long distance from any village. Hearing that the Rev. Mr. Goodwin was to preach in a township some twenty miles distant, she resolved to be present, and, as no other way was afforded, she walked the twenty miles.

The pastor heard of this and was so pleased at the appreciation which it showed that at the close of the sermon he mentioned the fact to the congregation and called upon Mrs. Briggs to tell them how she came.

Rising slowly, she looked over the audience with great solemnity and said:

"I hoofed it."

Then she sat down again.—Indianapolis News.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal**. We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal**, both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Father Fixed It.

Her Father—"My boy, I like you and I want you to marry my girl. But have you spoken to her mother about it?"

Suitor—"No, sir."

Her Father—"Then to make it a sure thing for you, I'll oppose the match."—Boston Transcript.

Indiscriminate Charity Wrong.

"One of the greatest injuries you can do an able-bodied idle man is to feed him twice without payment."—John Howland.

The Egg-laying Contest.

The National Egg-laying Contest conducted by the State Poultry Experiment Station is becoming interesting. Five months of the contest have expired, and only complete records for four months were made up before this paper was printed.

A Missouri pen of five hens leads 131 pens from twenty-five states and three pens from Canada. These five Missouri hens laid 110 eggs in January and 107 in February, and won the silver cup offered for each of these two months. It was a pen of Buff Orpingtons from Springfield, Missouri.

A S. C. Rhode Island Red from Marshfield, Mo., laid more eggs than any other hen among the 655 in the competition. This hen laid 96 eggs in November, December, January and February. A Silver Wyandotte hen from Kirkwood, Mo., has made the second best record with 89 eggs for these months. Considering the severe winter which they passed through, this is a good record. There are seventy-three pens entered from twenty-four other states and from Canada. Male birds are being used in all of these pens and eggs are being hatched from the highest producers.

POULTRY NOTES.

At the meeting of car-load shippers considerable was said in favor of the keeping qualities of infertile eggs. Infertile eggs are greatly superior and eliminate waste from decay.

At the Paris, France, Poultry Show of 1912 the largest representation of the French breeds was the Bresse, a breed that never stood in front before. A majority of them are black, an elegant form, fine bone, single comb with slate-colored legs. A good layer of white eggs and a bad sitter.

At the great Boston Poultry Show held recently there were 5,645 exhibits, consisting of 3,658 chickens, 1,825 pigeons and 162 of pet stock. This surpassed all former records.

The American Poultry Journal says: "Twenty pullets half fed will not pay as much as ten that are well fed."

At Paris, France, the most distinguished foreign chicken exhibit was of English Orpingtons, black, buffs and white. There were also two blue Orpingtons, the first ever shown in France.

Dr. P. T. Woods, in the American Poultry Journal, says: "Day-old chicks from any reliable incubator operator within two to three-days' express of your plant are usually a good, safe purchase. Of day-old White Rock chicks bought last spring we raised about 95 per cent. and had only a small percentage that failed to make good growth. Had 100 pullets out of 200 day-old chicks and not a really poor pullet in the lot."

The Morristown Produce and Ice Company of Tennessee has shown what a small station can do when surrounded by a splendid poultry-raising community. That company sold in one transaction 100,000 pounds of milk-fed broilers for $30,000. These broilers will be used to feed the passengers on the steamship lines crossing the Atlantic Ocean.

Why Horses Should Be Clipped.

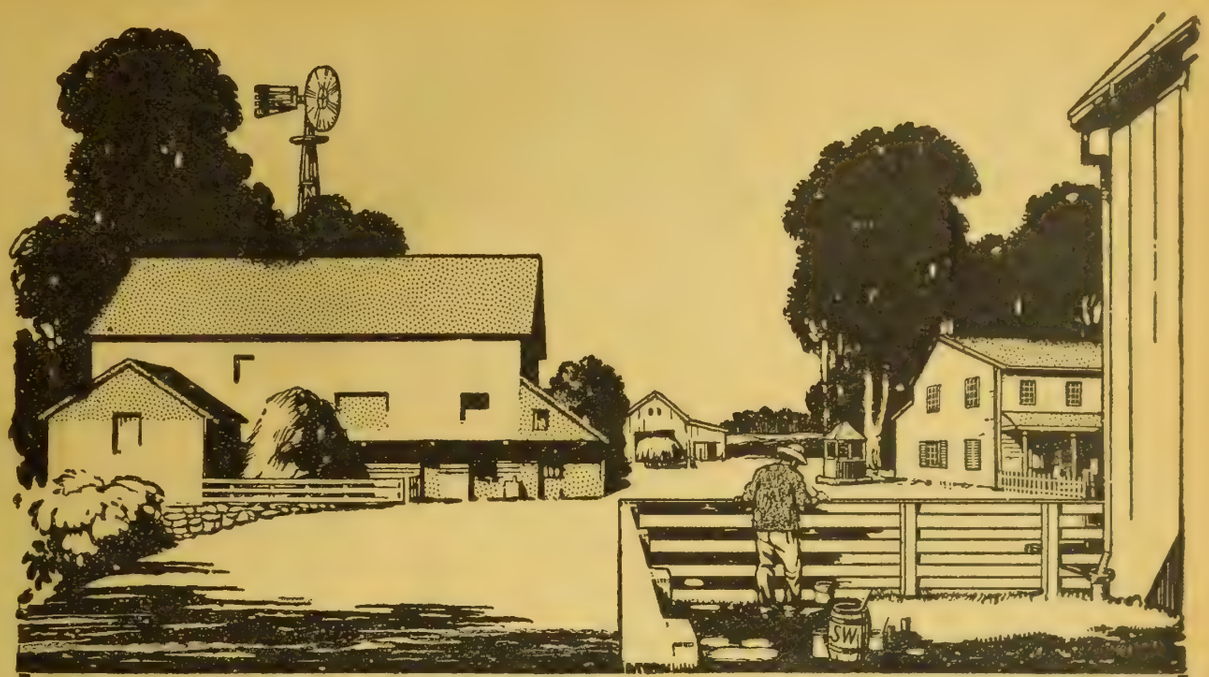
Horses represent a substantial investment and deserve good care. How to properly care for work horses is much better understood now than ever before, and those who have studied the horse most carefully and tried different remedies are agreed that a good clipping is very beneficial to work animals. The skin is a most important organ for the elimination of waste and it cannot properly perform its functions if it is not kept in a healthy condition with pores open, etc.

Animals performing work with a long coat suffer an unnecessary drain on the system. The sweat of the horse is not a simple mixture of water and salts, but of water, proteid and salts, and the observed loss of flesh which follows horses being worked unclipped, as was the practice a generation ago, is thus readily explained. The cost of a clipping machine is very small.

Unless the circumstances are exceptional, all horses should be clipped, and it will be found as a result that they feed, thrive and work better and are less subject to colds and coughs.

Many farmers claim, and we know they do so correctly, that it ensures a freedom from coughs and colds that they did not enjoy before its practice was commenced on their teams.

There is a book on horse clipping issued by the Chicago Flexible Shaft Company, 182 Ontario street, Chicago, Ill. Send for it.



There isn't any doubt about the quality of the paint you have bought AFTER you have bought it and used it

Then if you have gone wrong in your selection, it is too late; the mischief is done.

While there is a wide difference in paint—in its covering, its protecting and its enduring qualities, still there is no gamble in buying paint.

A little investigation will teach you that among paint manufacturers there is one that stands out as the pioneer in this country—one that has been making paints and varnishes of the highest quality for forty years, and has grown to be the largest paint and varnish concern in the world.

That concern is The Sherwin-Williams Co.—a name to remember when buying paint for every farm need. For whether you buy S W P for your house, Commonwealth Barn Red for your outbuildings, S-W Wagon and Implement Paint for your machinery and wagons, or S-W Brighten-Up Finishes for floors, woodwork and furniture, you get what the greatest paint organization in the world is willing to stake its reputation on as being the best.

Our Free Book tells just what paint to buy

for every surface on the farm and just how to apply it. This book is free. It should be in the hands of every farmer. Send for it today.

SHERWIN-WILLIAMS PAINTS & VARNISHES

Sold by dealers everywhere. Ask for color cards. Address all inquiries to
The Sherwin-Williams Co., 689 Canal Road, N. W., Cleveland, O. In Canada, to 639 Centre Street, Montreal

The Elimination and Waste.

At a meeting of car-lot poultry shippers, held recently at Kansas City, one of the speakers, Mr. H. J. Keith, of Boston, spoke of the relation of the bulk egg industry to the whole. "We would all vote," said he, "for an increased product. We want an ample supply of eggs the year round. We can't get it unless the industry is profitable to the producer, and this necessitates the elimination of waste. We must maintain a large consumption, and to do this must have a large supply of satisfactory quality and at moderate prices."

Mr. Keith was talking about the industry in general and more particularly of the branch of it which did not pay high prices for eggs. Bulk eggs go to the bakers and not to the dining table, but he hit the mark when he said a large supply was dependent upon the elimination of waste. Mr. Keith also included in his address a reference to the immense number of people (immigrants he referred to) who are all workers and have to be fed on moderate-priced foods. It would not be beneficial to deprive them of the cheaper forms of food and compel them to buy the more costly qualities, but we should help those who are striving to make a living and to progress toward better conditions by the most economical living; hence the further necessity for the elimination of the waste of time in collecting, in assembling, in concentrating, in transporting and disposing of the egg product and more particularly the eggs from a distance, which generally take anything but the top place in the market.

Mr. Keith gave us a new expression that could make a good resolution for the American people, and it is the "elimination of waste."

Art and Science.

"What a beautiful picture of an angel," said the lady who was visiting the art gallery.

"Yes," replied the aviation enthusiast, "but between you and me, those wings aren't practical."—Washington Star.

Wait a Long Time.

"Look here, how long am I going to have to wait for that half portion of duck I ordered?" asked the guest.

Waiter—"Till somebody orders the other half. We can't go out and kill half a duck."

"Many a boasted family tree is merely underbrush."—Exchange.

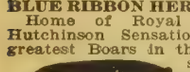
LIVE STOCK BREEDEDS' CARDS.

POLAND-CHINA HEADQUARTERS.

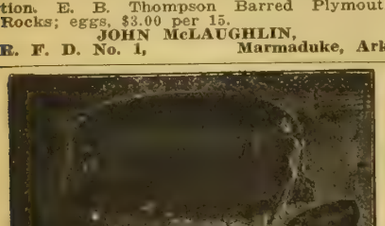
We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.

KIRBY STOCK FARM, Marmaduke, Ark.

BLUE RIBBON HERD of POLAND-CHINAS. Home of Royal Meddler, 50,111, and Hutchinson Sensation, 53,000, two of the greatest Boars in the Southwest. Hutchinson Sensation was grand champion at Missouri State Fair, 1909. Weighs 750 pounds at eighteen months old. I have a fine lot of Pigs sired by these grand Boars that can not be beat for size and quality. These Pigs are out of Perfection Sows and the breeding is of the best. Write me for catalogue and description. E. B. Thompson Barred Plymouth Rocks; eggs, $3.00 per 15.



JOHN McLAUGHLIN,
R. F. D. No. 1, Marmaduke, Ark.



CARPENTER'S POLAND-CHINAS.

Thirty fine Fall Pigs sired by three of the greatest Boars in the Southwest from the best Sows money could buy. I have Sows in my herd from the following noted breeders, champions and grand champions: Frank D. Winn, Sheehy Bros., J. E. Mehairy, F. H. Stanberry & Sons, J. P. Vissering, S. Y. Burks and I. C. Liggitt. These Sows have cost me from $75 to $165 each. I have also just added to my herd a $500 Boar, the greatest I ever saw. Must have room for spring farrow and these Pigs go at $15 to $20. Write for catalogue if interested and please mention this paper.

WILDER CARPENTER'S GRAND VIEW BREEDING FARM, Marmaduke, Ark.

DUROC-JERSEY HOGS.

One Yearling Boar by W. R.'s Chief and out of a Liberty Chief dam. One Spring Boar by B. & C.'s Col., IL., and out of a Crimson Wonder, III., dam. Fall Pigs of either sex; best of breeding.

H. H. HOFMANN, Route 1, Belleville, Ill.

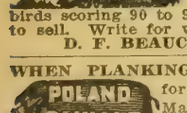
TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,
J.G.TRUMAN, Manager, Bushnell, Ill.

POLAND-CHINA PIGS, BIG BONE, GOOD BREEDING PIGS, $12. Extra Good Pigs, $15. Fancy Show Pigs, $25. Rose Comb Brown Leghorns and R. I. Reds. Eggs, $3.00 for 15 from birds scoring 90 to 92½ points. A few birds to sell. Write for what you want.



D. F. BEAUCHAMP, Meredosia, Ill.

WHEN PLANKING DOWN HARD CASH for Big-type Prolific Pork Machines, any age or sex, **YOU WIN** if the last word is from

POLAND CHINAS

J. P. VISSERING, - Box 1, - Alton, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

"THE PINES" HERD OF HOLSTEINS.

Breeder and shipper of high-grade HOLSTEIN CALVES. Prices reasonable.

J. W. FARRELL, Prop., R.F.D. 3, Elgin, Ill.

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

TAMWORTHS The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free. **W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.**

SCOTCH COLLIES FOR SALE.

Choice Scoth Collies, all ages. A No. 1 Stud Dogs. Guard and companion for the little boy or girl. Very handsome, pedigreed and all right. **R. FLEMING, Cuba, Kas.**

JACKS AND SADDLE STALLIONS.

100 Registered Kentucky Mammoth Jacks and Saddle Stallions. A big lot of Jennets, Saddle Mares and Geldings. A few good Walking Horses, Pacing and Trotting Stallions; also Big, Black Pigs, Tamworth and Hampshire Swine. Cook pays the freight on Jacks.

J. F. COOK & CO., Box No. 436 B, Lexington, Ky.

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43 Varieties Poultry, Pigeons, Ducks, Geese, Turkeys, Guineas, Inbubators, Dogs. Catalogue 3 cents. **MISSOURI SQUAB CO., St. Louis.**

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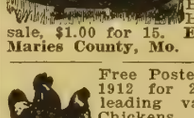
55 BREEDS Pure-bred **Chickens, Ducks, Geese, Turkeys,** also **Incubators, Supplies and Collie Dogs.** Send 4c for large Poultry book, Incubator Catalog and Price list. H. H. HINIKER, Box 74, Mankato, Minn.

BROADWAY STOCK FARM.



Large English Berkshires of the most popular breeding. Spring Pigs and serviceable Boars for sale; also B. P. Rock Eggs for sale, $1.00 for 15. **E. L. JOHN, Broadway, Maries County, Mo.**

Free Poster Poultry Calendar for 1912 for 2c. postage. Illustrates leading varieties. Pure-bred Chickens, Turkeys and Geese. Quote low prices on stock and eggs. **THE L. H. MUELLER POULTRY FARM, Wellsville, Mo.**

ENNIS FARM--GOLDEN SUNSET POULTRY

Buff Orpingtons, Rhode Island Reds, White Leghorns, Bourbon Red Turkeys, Buff and Indian Runner Ducks. Free mating list. Also Ennis Farm Quarterly Bulletin, listing for sale Jersey Cows, Heifers and Bulls and Big-boned Spotted Poland-China Hogs. **ALBERT S. ENNIS, 712-21 Central National Bank Bldg., St. Louis, Mo.**

LARGE YORKSHIRE SWINE.

THE BREAKFAST BACON HOG.

Also produce finest quality of sweet, tender, juicy, fresh pork. Pure-bred.

HARDY, VIGOROUS, PROLIFIC, KIND. Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

T. C. KIMBER, P. O., Pilot Knob, Mo.

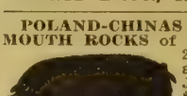
MISSOURI HERD OF TAMWORTH SWINE. Summer, Fall and Winter Pigs; Sows bred; Boars ready for use; all from large, massive parents. They are priced right. Write your wants to **W. J. WHITE, R. F. D. 1, Butler, Mo.**

POLAND-CHINAS FOR SALE.

Fifty head of extra-fine Brood Sows and Gilts bred for early litters; also some fine Open Gilts. We have a lot of nice Fall Pigs of both sexes; also a few extra good young Boars that will make Show Hogs. If you want hogs that are bred right, with size and quality, write us. We have stock for sale at all times and guarantee satisfaction. An extra-fine coming three-year-old Percheron Stallion for sale.

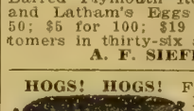
SHEEHY BROS., R. F. D. 1, HUME, MO.

POLAND-CHINAS AND BARRED PLYMOUTH ROCKS of leading strains. 200 to 250-pound Service Boars at $20; also Bred Gilts, July Boars and Gilts, $17; Fall Pigs, $14, known for large litters and size with quality; pedigree with each. Barred Plymouth Rock, Thompson Ringlet and Latham's Eggs at $1 for 15; $3 for 50; $5 for 100; $19 for 400. Satisfied customers in thirty-six states.



A. F. SIEFKER, Defiance, Mo.

HOGS! HOGS! For Sale: REGISTERED Poland-China and English Berkshires. The best of breeding. For prices see and write



S. Y. BURKS, Bolivar, Mo.

MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

CLOVERDALE FARM—Breeders of Jacks and Percheron Horses.

Twenty Registered Kentucky Mammoth Jacks, three to four-year-olds, fifteen Yearlings and Colts subject to registry. Some nice Percheron Stallions and Mares. Write for circular of the Cloverdale Jacks, Percherons, Tamworth Hogs and Rhode Island Red Chickens. We pay express on all Jacks shipped West.

H. T. BROWN & CO., Lexington, Ky.

International Triumph For An American Product.

At the International Gasoline and Oil Engine Exposition held at Budapest, Austro-Hungary, last July, and again at the International Exposition at Turin, Italy, in September, the first prizes, highest awards for the best gasoline engine, were captured by an American-built machine, the Waterloo Boy, manufactured by the Waterloo Gasoline Engine Company, Waterloo, Iowa.

These sweeping victories were won by two regular four horse-power engines, taken from stock, in competition with the leading makes of all the countries of the globe.

These contests are of especial interest to all of us because they impress two exceedingly interesting and important facts: First, that America is rapidly forging to the front as a manufacturing country; and, second, that American farmers have the best agricultural implements in the world, and that the whole world's best farming machinery is now American-made.

The engine which scored this big triumph is not new to our readers, having been on the market for over twenty years and being one of the leading engines of the country for farm use. It is manufactured in one of the biggest factories of the kind in the world, with a capacity of nearly 40,000 complete engines per year—over 130 per day—and the manufacturers enjoy a wide reputation among farmers for reliability and fairness.

The Waterloo Boy is known everywhere as a low-priced engine of unusual high quality and the manufacturers claim that it has a number of distinctive features that make it superior to any other, regardless of price.

However that may be, an engine that can take two gold medals in succession in open competition with the world's leading makes must be a good one, and it will pay our readers to investigate it. Catalogues and full information will be sent on request by the manufacturers, the Waterloo Gasoline Engine Company, 228 West Third street, Waterloo, Iowa.

Competition in Harvesters.

The International Harvester Company agent has an abundance of competition for the buyer of harvesting machinery. There is the choice that every man has for his favorite machinery, be it Champion, Deering, McCormick, Milwaukee, Osborne or Plano. Each of the works are striving to turn out the best machine and each has a showing to make; a fierce but friendly rivalry of factory results against other factory results. Our patrons are reminded that the largest binder twine output is made by the I. H. C. Co.; made by free American citizens, and not defective twine by incompetent prison labor. Read the card on Page 9. There is much good in it.

SPLENDID CROPS
in Saskatchewan (Western Canada)

800 Bushels From 20 Acres

of wheat was the thresher's return from a Lloydminster farm in the season of 1910. Many fields in that as well as other districts yielded from 25 to 35 bushels of wheat to the acre. Other grains in proportion.

Large Profits

are thus derived from the **FREE HOMESTEAD LANDS** of Western Canada.

This excellent showing causes prices to advance. Land values should double in two years' time.

Grain growing, mixed farming, cattle raising and dairying are all profitable. Free Homesteads of 160 acres are to be had in the very best districts; 160-acre pre-emptions at $3.00 per acre within certain areas. Schools and churches in every settlement, climate unexcelled, soil the richest; wood, water and building material plentiful.

For low settlers' railway rates and illustrated pamphlet, "Last Best West," and other information, write to Sup't of immig., Ottawa, Can., or Can. Gov't Agt. (52)

Canadian Government Agent, 125 West 9th St., Kansas City, Mo.
C. J. Broughton, 412 Merchants Loan & Trust Bldg., Chicago, Ill.

GO SOUTH SIR! **AND GROW RICH**

Buy Farm Land at $10 an acre up adjacent to the Southern Railway and watch it quickly double in value. Plenty of rain—no drouths—no blizzards. **Rapidly growing cities demand more farm produce** Beef, pork, poultry, sheep and dairying pay handsomely. Big profit in truck, alfalfa, corn, cotton, nuts and apples. Great **industrial openings** in all parts of the South Subscription to "Southern Field" and state booklets, **Free**

M. V. RICHARDS, L. & I. Agt., So. Ry., Room 71 Wash., D. C.

For Used Automobiles GO TO
WEBER IMPLEMENT AND AUTO CO.,
1900 Locust Street, St. Louis, Mo. 2 Phones.

Paint Sample Book Free

If you intend to paint anything this season, whether your house, barn, fence or out buildings, or if you need paint for your floor, or for the finer wood work of your home, or if you need paint or varnish for any purpose whatever, before you buy, write us and say "*Send me your special paint color sample book,*" and by return mail we will send you our great paint book which contains over one hundred sample colors of paints and varnishes for every purpose. It shows over sixty color samples of our famous high-grade ready mixed

House Paint at 83c a Gal.

over seventy color samples of our very high-grade fence, roof and

Barn Paint at 43c a Gal.

shingle stain at 45c a gallon, varnish stain at $1.28 a gallon, household enamels at $1.45 a gallon, wagon and implement paint at $1.30 a gallon, carriage paint at $1.63 a gallon, floor paint at 99c a gallon, calcimine at 4 1-2c a pound, and paints and varnishes for all kinds of work at very low prices.

Guaranteed 5 Years

We guarantee our mixed paints not to crack or peel during 5 years of service. (If it should we will furnish new paint free) and a gallon will positively cover at least 250 square feet of surface with two coats. Don't delay, but sit down right now and write for our great paint book, and see the beautiful colors and marvelously low prices, and read our wonderfully liberal 5 year guarantee which protects you absolutely.

Write for Sample Book

JOHN M. SMYTH MDSE CO. 150-194 W. Madison St. Chicago

Actual Cash Grain Sales.

At St. Louis, on March 30th, the following sales were made by sample for immediate delivery:

Wheat.—No. 2 red sold at $1.05½ to $1.04½; No. 3 red sold at $1.02 to $1.02½; No. 4 red sold at 98c. to $1.00, nominal; No. 2 hard sold at $1.03 to $1.04 (dark worth more); Turkey sold at $1.12½; No. 3 hard sold at $1.01 to $1.02, nominal; Turkey sold at $1.10 to $1.11½, nominal; No. 4 hard sold at 96 to 99c., nominal.

Corn.—No. 2 corn nominal; No. 3 corn, 74 to 74½c.; No. 4 corn, 72½c.; No. 2 yellow, 77½c.; No. 3 yellow, 74 to 74½c.; car 75c.; No. 4 yellow, 73c.; car 73½c.; No. 2 white, 76½c.; No. 3 white, 74 to 75c., mainly 74½c.; No. 4 white, 73 to 73½c.; cob corn, mixed, 73c.; destination; white, 74c., nominal.

Sample oats on track.—No. 2 white, 55¾ to 56¼c.; standard, 55½ to 56c.; No. 3 white, 55 to 55¼c.; No. 4 white, 54¼ to 55c.; No. 2 oats, 55c., nominal; No. 3 oats, 54c., nominal; No. 4 oats, 53c., nominal.

Rye.—No. 2, 95c., nominal.

Caught the Corn Thieves.

From Warrensburg, Mo., on March 29th, it was reported that Charles Goodnight, a farmer living north of Knobnoster, had devised a way of catching thieves who had been robbing his corn crib. After the crib had been visited several times he purchased several packages of dyes and boiled about a bushel of ears in the dye and distributed them over the crib. The next morning the colored corn was gone and Goodnight called the constable and searched the crib of a neighbor, where he found his colored corn. The thieves were taken before Justice Metts, of Knobnoster, where they pleaded guilty and were fined $30 each and ordered to pay Goodnight $30 for the stolen corn.

St. Louis Apple Market.

Basis of sales March 30th, 1912: Ben Davis at from $3.00 for fair to $3.50 and $3.65 for fancy cold storage; Gano at $3.25 to $3.75; Willowtwig and Roman Beauty at $3.00 to $4.25; Winesap at $3.50 to $5.50; Greenings at $3.50 to $3.75 for fancy—scalded at $2.25 to $3.25; Baldwins at $3.00 for No.2 to $4.00 for No. 1 and $4.25 to $4.35 for extra fancy; damaged, specked, slack-packed, etc., nominal. Sales: Twenty-five barrels Gano and fifty Ben Davis at $3.25, delivered; one car extra fancy Ben Davis (on shipping order, f. o. b.) at $3.80; eighty barrels Baldwin at $4.25, delivered; sixty barrels do. at $4.25 to $4.25 per barrel, delivered to buyer.

Roots For Sale.

The following were the wholesale root quotations at St. Louis, April 1st (quote by the pound): Golden Seal, $4.10; Lady Slipper, 15c.; Seneca, 34c.; Pink, 18c.; Black, 9c.; May Apple, 4c.; Snake, 25c.; Kansas Black Snake (Echinacea), 13c.; do. Oklahoma, 8c.; Missouri nominal; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 4c.; Blood, 5c.; Blueflag, 5c.; Sassafras—Bark of root, 5c.; Wild Ginger, 8½c.; Spikenard, 3c.; Skullcap, 8c.; Ginseng, $4.50 to $5.00 for wild and $4.00 to $4.50 for cultivated.

Baby Beef at St. Louis.

On April 1st, at the St. Louis National Stock Yards, C. H. Harrison, of Moniteau county, Missouri, marketed a drove of mixed steers and heifers that were of his own feeding. They averaged 724 pounds and were good enough to sell at $7.00 per 100 pounds. These heifers were fed on corn and clover hay for a period of five months, and were fed from the time they were calves; in fact, they were no more than calves in age when sold.

30 Days Free Trial

Not One Penny Down — *No Contract* — **Freight Prepaid**

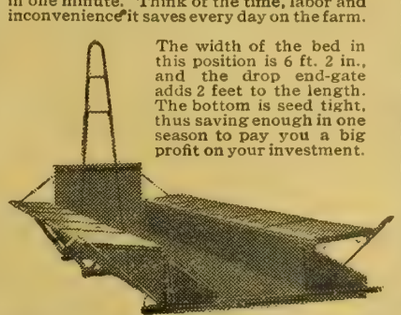
This illustration shows the ***Melrose*** as a grain tight box bed. The depth is 29 inches; width either 38 or 42 inches, outside measurements; length, 9½, 12, 14 or 16 ft., as you may prefer.

Instead of using extra sideboards as you do with an ordinary box, use the ***Melrose*** in this position. It will haul 65 bushels of ear corn; 115 bushels of shelled corn.

Not a nail in it. Bolts are used instead. All metal is cold rolled steel—the strongest metal known. Absolutely unbreakable. Not one ounce of cast iron used. Braces on sides and ends full galvanized to prevent rusting.

There are no ratchets, springs, cogs or complications of any kind or character. You need no wrench, key or tools—only your hands. It is simplicity itself, and can be operated by anyone, anywhere, any time.

For truck farming, fruit hauling—all purposes—the ***Melrose*** is indispensable. You can make the changes anywhere, any time, in one minute. Think of the time, labor and inconvenience it saves every day on the farm.



The width of the bed in this position is 6 ft. 2 in., and the drop end-gate adds 2 feet to the length. The bottom is seed tight, thus saving enough in one season to pay you a big profit on your investment.

No conditions, no agreement, no catch, no bait, no strings, no deposit, no concealment, no risk, no expense, no joker, no red tape, no obligations—nothing left out for you to find out later. You know all there is to this offer—and you know it ***NOW.*** It is a ***FREE TRIAL*** offer on our part to prove the actual value of this invention to you—***and we hereby openly take all the risk.*** We want to send this box to your farm and let it sell itself to you, which it is bound to do just as soon as you can realize and learn from actual service what a wonderful, new, practical time-saver, money-saver, labor-saver it really is.

The Melrose Convertible Box

Fifteen wagon boxes, racks and beds in one. No changing of boxes—no lifting, tugging, straining or suffering injury. In one minute the ***Melrose*** can be changed for any of a hundred different purposes required of a farm wagon—***the implement you use more than any other piece of machinery you own.*** Make it modern—and save money, time, inconvenience, labor, and your own peace of mind.

I am not asking you to take ***my*** word for it—nor the Company's word—but ***take your own word for it.*** You ought to be willing to do that. We agree to ship the box to you by ***prepaid freight,*** so you will have nothing to pay when you get it. We agree to let you use it for 30 days (one whole month) in order to give it a thorough test and trial right on the gears of your own wagon in your every day work. Then if you are not perfectly satisfied, just take the box to the station and tell the agent to ship it back to us, ***freight to be paid by our Company.***

You are not asked to pay one penny down—you are not asked to pay one penny of freight charges, or any other expense. This is an offer of a ***FREE TRIAL*** and it means just exactly what those two words say.

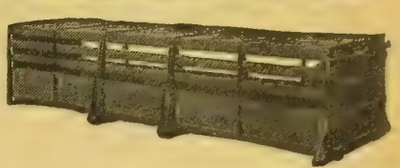
Guaranteed For Five Years

An absolute, open and above board guarantee—just the same as this Free Trial Offer. It will last three, four or five times that long—and its first cost is but very little more than the cost of a good, standard make, single purpose box, that must be lifted on or off every time you want to haul hay, or stock, or chickens, or fertilizer, etc.

Risk One Cent Send just a postal card, giving your name and address today, and receive by return mail our big book of complete information, full detail illustrations drawn from actual, daily use on farms, together with copy of iron-clad signed guarantee, and our great, fair, man-to-man ***FREE TRIAL OFFER*** that will place this modern invention on your farm for one full month's test, without paying anything down or depositing any money in the bank, or anywhere, or without signing any agreement of any kind. This is a ***FREE TEST*** offer and we take all the risk, excepting the price of the postal card you are to send before you turn this page. Send that card today. ***INVESTIGATE.*** We will give one ***Melrose*** Box a free ride on the train to your station, if you will give it a free ride around your farm and plenty of exercise for a month—***we furnish return ticket if you get tired of your visitor.*** ***Send that card today.***

Remember The ***Melrose*** costs but little more than a standard make of old-fashioned, single-purpose wagon box. It weighs less than an ordinary, cumbersome, single-purpose hay rack, regardless of the fact that it is steel bound, silled, braced and bolted throughout—absolutely indestructible. It is guaranteed—it has been tried, tested and proved. It is recommended by farmers and by the U. S. Government Agricultural Experiment Stations. Melrose Wagon beds are on exhibition at both the Chicago and Kansas City Stockyards.

PONY MELROSE
Inventor of the Melrose Convertible Wagon Box



Have one box for all purposes—not a lot of heavy, back-breaking, space-taking makeshifts that cost you more for the expense of sheltering and handling each year than their actual money value. You can prove the ***Melrose*** at our expense.

The ***Melrose*** is built of selected, long leaf, hard pine, double kiln dried. Steel sills: steel bracket and telescope braces throughout. It positively cannot bulge, warp or spring.

Built for any and every purpose on the farm. It is guaranteed for five years—a straightforward, above board, honest guarantee that means just what you want a guarantee to mean. Take it on your farm and prove it before you buy.

Two full size cows or bulls can be hauled, taking only one minute to make the change to the stock bed. A mere boy can go to town with a load of straw, cordwood or pigs, and return with screenings, fertilizer or sawdust.

Here the strength is absolutely proved—4800 pounds of baled hay. Yet with all this strength the ***Melrose*** weighs even less than an old-fashioned hayrack. The entire bed is practically indestructible and will last a lifetime.

The American Wagon Co. Dept. 79 **112 W. Adams St., Chicago, Ill.**

$15.95 AND UPWARD

AMERICAN SEPARATOR

SENT ON TRIAL, FULLY GUARANTEED. A new, well made, easy running separator for $15.95. Skims hot or cold milk; heavy or light cream. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Whether dairy is large or small, obtain our handsome free catalog. Address,

AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N. Y.

Laws to Get the Money.

About thirty-five years ago, in a growing Texas city, two cowboys were fined twenty-five dollars each and costs for a little wild riding through the town, and when they objected to the total bill as being extortionate, they were curtly informed that the ordinance under which they were tried, convicted and fined was passed for the purpose of "getting the money;" in fact, the little municipality was dependent for support upon the laws that were enacted to be broken as the best means of getting the money to pay corporation expenses, The cowboys answered good-humoredly: "These things come high, but we must have them."

However expedient it may be to pass unsatisfactory laws of that character, the want of principle connected with the transaction brings the law into contempt. There are many laws enacted which seem fair upon their face that were really passed as revenue measures in order to provide fat jobs at public expense in reward for party fidelity or infidelity; in other words, "to get the money."

If the law-making bodies were reduced by one-half their members, and the other half would be called in session after the first body had adjourned, and if the duty of the second body was to "recall" unjust, obsolete and vicious laws, there would be plenty for them to do. The cry to recall the judge who insists upon doing his duty, regardless of the popular clamor, is not by any means as reasonable as would be the agitation for a Legislature for the sole and only purpose of repealing unjust and burdensome laws, many of which, as previously stated, were passed merely to get the money either for the state or for the individual.

A Few Things About Fertilizers.

All fertilizers are profitable if intelligently used. The intelligent use of a fertilizer means applying it where it is needed and not where it is not needed, and in proper quantities. Thus, it is possible to apply such large quantities of a certain kind of fertilizer to certain plants that great growth would be made at the expense of fruit or seed production. The writer remembers one big apple tree that grew near a barnyard. It has twice the size of any other tree in the orchard, but could never be induced to bear more than a few scattering apples. It spread out like a shade tree in every direction, but produced nothing but shade, though it was, at the time the writer last saw it, at least thirty years old.

A man must study the fertilizer question to be able to use fertilizers intelligently. This is a thing that many will not do. The result is that they waste large quantities of fertilizers, and this means the loss of much money. To illustrate: A traveling salesman for the fertilizer department of a Chicago packing concern was traveling through the South, visiting the cotton growers. One man to whom he annually sold a certain brand of "complete" fertilizer was visited. The agent found that this man's land was deficient in only one element and that in buying a complete fertilizer the man was putting on certain elements that were of no value to his land. He carefully explained this to the plantation owner and advised him to buy a single fertilizer, by which means he could buy double the amount of needed fertilizer with the same money he had been in the habit of spending. But the planter declared he would stick to the old brand of a complete fertilizer. He was afraid to steer out of the beaten track. So he continued to follow a practice that meant an annual waste of hundreds of dollars.

This is similar to the waste that takes place in the buying of low-grade fertilizers when these brands of fertilizers are purchased. The low-grade fertilizers are manufactured to meet the demand for low-priced fertilizer. It is no economy, for the plant food in a ton of low-grade fertilizer costs more than in a ton of high-grade fertilizer, taking the plant food pound for pound. In a general way the highest-priced fertilizer may be said to be the cheapest. There is also a saving in the cost of transportation, as the low-grade fertilizer carries a large amount of "filler," which has no real fertilizing value, but which will often show up quite well under analysis.

There never was a time, and never will be a time, when a man without brains can advantageously buy and use fertilizers. The man who farms automatically will still continue to waste money on kinds of fertilizers he does not need. The brainy man will study both the fertilizer and the soil on which it is to be applied.

The Grain Dealer Surprised.

Farmer—Isn't No. 2 Corn worth more than 35c?
Grain Dealer—That is really the market price today, but I will make it 35½c. (Load weighs 2720 lbs.)
Farmer, opening Calculator—Amounts to $17.24; had on 48 bushels and 57 hundredths. (Page 13.)
G. D.—Well, I declare! Whose lightning Calculator is that?
F.—Why, Ropp's of course—the **New** improved edition. It comes handy indeed, couldn't get along without it.

Ropp's Commercial Calculator.

This is a standard book, and a revised, enlarged and improved edition. There are millions in use. **Ropp's Commercial Calculator** is especially valuable to farmers. By its regular use many hard problems become easy. It will prevent mistakes, relieve the mind, save labor, time and money, and do your figuring in the twinkling of an eye. As handy as a watch, always ready and reliable. Anyone who will send 50 cents for one-year's subscription to this paper, The National Farmer and Stock Grower, can select one copy of **Ropp's Commercial Calculator** as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Let Me Prove That Spraying Merry War Powdered Lye Kills Insects and Pests

E. Myers, President, E. Myers Lye Company

Most Effective Spray Mixture Known For Orchard, Garden or Poultry House — Will Not Injure Vegetation.

This claim which I make for *Merry War Powdered Lye* as a spray may be a new thought to you, but I know whereof I speak, because I speak from a lifetime of experience, making test after test.

I want to say to you Mr. Farmer, that if you want to get the most out of your orchard and garden you owe it to yourself to at once carefully investigate and prove to your own complete satisfaction that *Merry War Powdered Lye will exterminate bugs, insects, scale or pests* which take the profits from your pocket and that, unlike Paris Green and other spray mixtures, *will not sear the foliage or poison or dwarf the yield.* Moreover, the drippings act as a fertilizer, enriching the soil—increasing the yield.

You can have absolute proof of this. First, read about the experience of another in the letter printed below—then go to your local dealer and purchase a few cans of *Merry War Powdered Lye* and give it a common-sense trial. ***Accept no substitute,*** if you want results.

Read This Convincing Letter!

Vale Summit, Md.

Dear Sirs:-
I have given Merry War Powdered Lye a thorough test in removing San Jose Scale and have the most beneficial results. My orchard is now in fine, healthy condition as is my rose garden also. **James Barber.**

Follow Directions Carefully

Cut Them Out and Save For Reference

Every farmer knows that it is one constant battle to keep the pests down—and the trouble with most spray mixtures is that they cannot be used strong enough or often enough to keep down the pests without injury to the vegetation.

If you would have the largest possible yield, give as much time as possible to intelligent spraying of orchard and garden with *Merry War Powdered Lye.*

A potato patch sprayed weekly with *Merry War Powdered Lye* will yield an immense crop. Try it.

You can use *Merry War Powdered Lye* spray mixture as often as is necessary to keep the pests down without fear of injury to vegetation—in fact the more drippings of this spray mixture there are around the roots, the richer the soil, the larger the yields will be.

One can of *Merry War Powdered Lye* to 15 gallons of water makes a most effective mixture for most spraying purposes in orchard or garden.

Used frequently during the Winter and early Spring months, this solution will prevent or destroy San Jose Scale.

To exterminate Borers, make a solution of one can Merry War Powdered Lye to 10 gallons of water. Apply plentifully with a brush around the mouths of the burrows so that it will trickle down into the burrows.

Unequaled In Poultry House

The most effective wash or spray for nests, roosts and houses is made from three teaspoonsful of *Merry War Powdered Lye* to one gallon of Water—it's death to lice, mites and vermin.

You can use a solution of *one* teaspoonful of *Merry War Powdered Lye* in one gallon of water on bodies of lice infested fowls without injury to skin or plumage.

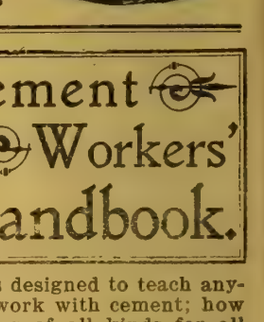
IMPORTANT WARNING If you want the very best results do not make the mistake of thinking that any ordinary commercial lye will produce the results claimed for *Merry War Powdered Lye.* Insist on your dealer supplying the genuine—and *accept no substitute.*

At All Leading Dealers *Merry War Powdered Lye* comes in 10c cans, full case of 4 dozen cans for $4.80, at Grocers, Druggists or Feed Dealers Everywhere. If yours can't supply you, write us, giving your dealers' names and we will see that you are supplied, and will also send you free, a valuable booklet *How Merry War Powdered Lye Adds To The Farmer's Profits.*

Crops Sprayed with Merry War Powdered Lye

E. Myers Lye Co.
Dept. 22
St. Louis, Mo.

Which Kind Of a Crop Do You Want?



Without

One On Bill Nye.

Whenever a member of Congress has a story to tell about that famous humorist, "Bill" Nye, he hunts up Representative Frank M. Nye, of Minnesota, his brother. Representative Gould, of Maine, cornered Nye in the lobby of the Capitol the other day and said that while most of the stories that are told could have been jokes which "Bill" Nye turned on the other fellow, yet he remembered an incident where the joke was on the humorist.

"Your brother was living in New York at the time," said Gould, "and a neighbor from Shirley, Maine, where you were born, dropped in to see him.

"'You know the old house is about all that is left of the town,' remarked the visitor.

"'Yes, I suppose that's so,' said Nye.

"'They think a great deal of you there. The old house stands on the corner and they have put a tablet in front of it.'

"'Bill' was all attention. He leaned forward and inquired:

"'What was on the tablet?'

"Eight miles to Readville,' said the visitor."—Philadelphia Record.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

In the state of Vera Cruz, Mexico, many peanuts are produced, and the average price is $1.00 per bushel.

8 Hardy Rose Plants Free.

The **Universal Magazine** is a splendid monthly publication; nice, bright, cheerful, illustrated; 32 pages, three columns to page. Devoted to stories, the homestead, good literature, poetry, patterns, embroidery, etc. We have a very liberal offer to make in connection with a subscription to the **Universal Magazine.** Anyone who will send us fifty cents to pay for two-years' subscription to the **Universal Magazine** can select as a Free Premium **Eight Hardy, Ever-blooming Roses,** one-year plants. They are splendid varieties, as follows: **Etoile de France, Yellow Kaiserin, Helen Gould, Clothilde Soupert, President Taft, White Killarney, Marigold** and **Ever-blooming Rambler.** No such collection was ever offered before as a subscription premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE GREATEST BOOK OF LIVE STOCK CHAMPIONS.

Ready For Delivery During the Month of April—The Most Valuable Book For Stockmen of Modern Times.

During the month of April the new edition of The Book of Live Stock Champions will be ready for delivery. The book will contain at least 320 pages, probably 336 pages. The size of the page is 6x9¼ inches, and the book is to be elegantly bound in silk cloth with gilt title. It will be a good, stout, handsome book, a fit ornament for any home, combining elegance with utility, and will weigh about twenty-eight ounces. It is as large as we dare make it.

This is UNCLE PIPER, subscription editor of The National Farmer and Stock Grower, rejoicing because he has once more in sight a volume of THE BOOK OF LIVE STOCK CHAMPIONS to dispose of as a subscription premium. UNCLE PIPER says THE BOOK OF LIVE STOCK CHAMPIONS is a seven-time winner.

A Five-thousand-dollar Book.

In The Book of Live Stock Champions there will be about seven hundred indexed illustrations, containing one, two or several champions to the page. A few are full pages, most of the cuts are half pages, and quite a number of the champions are taken in pairs. The book will practically contain one thousand champions in live stock. Every picture is from a half-tone engraving from photographs taken from life, and they are the very best pictures that money can buy. The book is printed on enameled paper, and the ink used in the printing cost a dollar a pound. Counting the cost of the photographs, the work of editing, the engravings, paper, ink, composition, presswork and binding, without the slighest exaggeration the first cost of the first thousand copies was not less than five thousand dollars, which is five dollars a volume and about a fair valuation of each copy of the book.

A champion in the show ring, as appearing in the book, is the winner of the highest award, especially sweepstakes, junior or senior champion, champion or grand champion, but sometimes a first prize is the highest awarded. In speed a champion is a maker of a new record; a dairy champion may make a new record as a producer of milk or butter. There are champions as sires, as matrons, champions in the markets, champions by courtesy. The book contains beef and dairy cattle; draft, trotting, pacing, coach, saddle and thoroughbred horses; mules, jacks and jennets; breeding hogs, market hogs; breeding sheep, market sheep, and Angora goats. Every animal is entitled by record to appear in the book, which contains no scrubs, either in records or appearance. Every animal has name, history, winnings and generally owner and breeder.

The Book of Live Stock Champions is not an advertising medium, neither was a charge made to anyone for publishing any of the pictures; the most that any breeder has done towards the publication was to furnish a suitable photograph, and that has been a great help. We have taken some subscriptions in advance for the book, but not many.

Our Good Intention.

The Book of Live Stock Champions is edited, published and issued as a souvenir supplementary edition of the Monthly National Farmer and Stock Grower, and, excepting some volumes that go to Agricultural Colleges, all the copies will be sold as such. Every one of our subscribers ought to have a copy, and can obtain one by sending in one dollar on subscription account. That will give them the paper for two years; the book is therefore practically a free premium.

A Personal Appeal.

The editor makes a personal appeal to each of our readers to send in one dollar on subscription account and to receive a copy of this book. Directly the books are properly bound, dried and ready for delivery every order to date will be mailed in one day. Anyone who is not perfectly and amply satisfied on receipt of the book will have the money refunded, and we will pay return postage also. To obtain one of these books upon the terms proposed is a privilege more than a purchase.

HERE IS A SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will also send me as a Souvenir Supplement, post free, one copy of **The Book of Live Stock Champions,** cloth-bound edition of 1912, immediately after publication, safe delivery in good order guaranteed.

Address. . . . . .

State. . . . . .

Dairymaid of Pinehurst.

Dairymaid of Pinehurst, a Guernsey cow, had a remarkable record as a three-year-old when in a year's test she made a record as a dairy cow that placed her at the head of the list of all dairy cows of that age. Her year's record as a three-year-old was 14,562.40 pounds of milk, containing 860.26 pounds of butter-fat. Dairymaid of Pinehurst was also winner of the Iowa State Dairy Cow Contest.

Dairymaid of Pinehurst has recently completed another remarkable record, this one as a 4½-year-old, with the following results: Year's milk, 17,285.30 pounds; average butter-fat, 5.27 per cent.; total butter-fat, 910.67 pounds.

Dairymaid of Pinehurst was bred by Mrs. E. W. Strowbridge, of Moorestown, N. J., and owned by W. W. Marsh, of Waterloo, Iowa. Her three-year record under test is worth considering as showing possibilities of the dairy cow development. First year—Milk, 7,930.50 pounds; second, 14,562.40 pounds; third, 17,285.30 pounds. Butter-fat—First year, 405.51 pounds; second, 860.26 pounds; third, 910.67 pounds. Average three years, 13,-253.73 pounds milk and 725.48 pounds butter-fat.

$27.65

THE ECONOMY CHIEF
The Closest Skimming Cream Separator Ever Made

Actually Buys the Highest Grade, Closest Skimming

Cream Separator

Ever Manufactured

Think of it! Only $27.65, full and complete purchase price for ***the big Economy Chief Cream Separator,*** absolutely proven by expert tests and thousands of testimonials to be the ***closest skimming*** and ***most durable*** cream separator ever put on the market. This is our wonderful brand new 1912 model, equipped with our marvelous patented ***purifying and aerating bowl*** and the celebrated ***double opposed disc system.*** A regular $70.00 ***big business*** cream separator for only $27.65, and with a capacity of ***300 pounds per hour,*** and ***absolutely guaranteed for twenty years.***

You Buy Direct From the Factory

That's the secret of our amazingly low prices. No big agents' commissions for you to pay; no extra dealers' profits; no so called factory distributers' profits. You pay only the ***rock bottom price.*** We actually save you from $40.00 to $50.00 on any capacity machine you want. For instance, a 400 pounds per hour capacity separator for only $34.90; a 600 pounds per hour capacity machine for only $42.35. We fill your order ***direct*** from the largest and most completely equipped cream separator factory in the world.

You Can Buy on Sixty Days' Trial

We will positively ship you THE ECONOMY CHIEF CREAM SEPARATOR on SIXTY DAYS' TRIAL. We want you to give this separator sixty days' good hard test on your farm before you decide to keep it. Compare it with any and all of the overpriced machines you can find around. Try it on warm milk, cold milk, new, mixed or old milk; it makes no difference. Then, after two whole months' trial, if you are not ABSOLUTELY CONVINCED that THE ECONOMY CHIEF is the greatest cream separator you ever saw at any price, simply return it to us and it won't cost you a penny. We will even pay the freight charges both ways.

Old Separators Taken in Exchange

If you have an old cream separator ***of any make*** that is out of repair, hard to run or will not run at all, we will take it off your hands as part payment for a brand new 1912 model Economy Chief. Furthermore, we will make you a ***good liberal*** and ***fair proposition.***

Send Today for Book No. 69N73 and Full Particulars of This Wonderful Bargain Offer.

Simply send your name and address today, **at once,** postal will do, and we will promptly send you ***the Economy Chief Book No. 69N73*** free and postpaid, explaining our great bargain offer in detail.

SEARS, ROEBUCK AND CO., CHICAGO, ILL.

$29.50 Buys This Elegant Top Buggy.

WARRANTED FOR Five Years.

Retail Price $60.00. Buggies, Surreys, Spring Wagons, Farm Wagons. We have cut out our Jobbers, our Wholesalers and our Retailers and offer YOU their profit. Write today for our

Free Catalog and Delivered Prices.

Mutual Carriage & Harness Mfg. Co.

Station 47 J, East St. Louis, Ill.

Over 2000 Railway Mail Clerks to Be Appointed Soon

Examinations Everywhere May 4th

Every second week off duty at full salary.

Rapid advancement to higher Government Positions.

No "Layoffs" because of STRIKES, FINANCIAL FLURRIES or THE WHIMS OF SOME PETTY BOSS.

THE POSITION IS YOURS FOR LIFE.

Country residents and city residents stand the same chance for immediate appointment.

Common sense education sufficient.

Political influence NOT REQUIRED.

We are Preparing Candidates Absolutely Free of Charge

Write immediately for schedule showing the places of the May 4th examinations. Don't delay. Every day you lose means the loss of just so much coaching before the rapidly approaching examinations.

FREE COACHING COUPON

FRANKLIN INSTITUTE, Dept. A 107, Rochester, N. Y.

The coupon, properly filled out, entitles the sender to free sample questions, a free copy of our valuable book, "GOVERNMENT POSITIONS AND HOW TO OBTAIN THEM," and to consideration for FREE COACHING for the Civil Service Examination here checked.

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..Postoffice Clerk.....[$600 to $1200]
..Postoffice Carrier.....[$600 to $1200]
..Rural Mail Carrier..[$500 to $900]
..Customs Positions...[$600 to $1500]
..Internal Revenue....[$700 to $1800]
..Stenographer.. .....[$800 to $1500]
..Clerk in the Departments at Washington.[$800 to $1500]

Name.....

Address.....

Use this before you lose it. Write plainly.

To Buy Groceries Right.

Our readers are well acquainted with the great merchandise firm of Montgomery Ward & Co., and will be glad to know that they have issued a new pure-food grocery catalogue. This firm is well and favorably known as a strictly reliable house, and hundreds of thousands of farmers will testify to this from having bought of them for many years. To get this catalogue, all you have to do is to write a postal card, saying: "Please send us your grocery catalogue as advertised in The National Farmer and Stock Grower." Address, Montgomery Ward & Co., Chicago Avenue Bridge, Chicago, Ill., or to Montgomery Ward & Co., Nineteenth and Campbell streets, Kansas City, Mo. The service is equally as good from either establishment.

Effect of a Good Fertilizer.

"I purchased of Culberhouse & Salmons by the solicitation of their salesman, Mr. R. R. Houston, 1½ tons of the Empire Cotton and Corn Grower Fertilizer. I left six rows through the middle of the patch unfertilized. They averaged twenty pounds to the row, while the six rows on the east and west side that were fertilized averaged sixty pounds to the row. That is what the fertilizer did for me."—W. J. Brown, Jonesboro, Ark. See advertisement of Empire Carbon Works on page 12.

Golden Arrow Seed Corn.

We commend to our readers the Golden Arrow Seed Corn sold by the A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo. This is a true bred Reid's Yellow Dent, and has been improved from original stock until it has some characteristics of its own. It is a very bright yellow corn, symmetrical, with small proportion of cob to grain, and is a large yielder. Mr. Schisler is selling it at $2.50 per bushel, and it is all butted and tipped, so that every kernel can be sown with confidence. Higher-priced seed corn can be found on the market, but none better at any price. Time is short. Send in your money for the amount of seed you need. It is a safe investment.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

A farm on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many otther things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Paper-bag Cookery.

A few years ago everyone was astonished over the claims of the fireless cooker, which in its simplest form was only a hay box. To-day cooking in paper bags is demanding the attention of the best people in culinary prominence. The system was perfected by M. Soyer, a French chef, who has been working for fifteen years to perfect it, and who now claims for it a great variety of work, though an omelet and a cup of tea are still baffling him.

A great advantage is that any ordinary stove may be used, the specially-prepared paper bags and a broiler being the only requisites. Food cooked in the bags must never be placed on a solid shelf, but upon a wire-rack shelf or broiler, to insure uniform cooking and a minimum danger of the bag's bursting during the process and scattering its contents.

Food cooked in the paper bags loses nothing of its flavor in the process, and it is also prevented from shrinking, a most important matter when the high cost of living renders the strictest economy an essential at every point. The odor of victuals does not permeate the entire house and vicinity, proclaiming with the accuracy of the most truthful gossip just what is to be served for dinner. The saving of dishwashing is material, removing not only a bit of drudgery but obviating the hard work of lifting pots and kettles, for the paper bag is used for kindling after a single service and a new one substituted. The microbe has little chance to exist here, for the bag, clean when the food is put in, is folded several times across the top and then fastened tightly with clips.

The bags are especially prepared for this purpose and come in assorted sizes. Each must be thoroughly greased inside before the food is placed in it. If a chicken or beef roast is desired, both meat and gravy are placed in the bag. If it is found later that the bag leaks you have simply to transfer the roast in the bag into a bag which is entire.

M. Soyer has a book on the subject in which he explains in detail the simplicity and advantages of the paper-bag cookery. There are some important details to be considered, notable among which is the distance the bag should be from the oven floor or solid shelf in using a gas stove. Of course this and other things must be regulated largely by the experience of each individual. The roast requires almost no watching during the process of cooking. It is evident that there are still possibilities not yet developed. The subject is interesting, and the woman who can obtain the paper bags with directions will find both pleasure and profit in making the practical test.—Bessie L. Putnam.

St. Louis Hog Market.

On Monday, April 1st, with about 10,000 hogs on sale, the top price paid was $8.15 per 100 pounds for a load weighing 241 pounds, and the bulk of the good-weight hogs sold at $7.85 to $8.00. Included in the sales were several loads, 250 to 295 pounds, at $8.07½. The top of the light hog market was $7.95 for a load weighing 196 pounds.

Our idea of a fair price for wheat is two cents a pound or $1.20 a bushel on the farm.

Campaign Offer!

The great Daily and Sunday KANSAS CITY JOURNAL

SIX MONTHS $1

This startling half-price subscription offer is made by THE JOURNAL strictly as a trial and on a cash-with-the-order basis.

This is campaign year.

Every wide-awake citizen of the Southwest wants the news and he wants it straight. THE KANSAS CITY JOURNAL long has been known for its fairness. It prints everything that happens the world over and never colors the facts to serve private ends. We say: "Here's the truth; draw your own conclusions."

In this offer we furnish seven papers a week, including the Great SUNDAY JOURNAL. Every day THE JOURNAL will give you a complete telegraphic report of the World's doings; a large volume of general news; a large volume of miscellaneous news; a splendid editorial page; short stories of the day; a splendid daily market report covering every range of the market on all kinds of produce, grain and stock. All this service

SIX MONTHS, FOR 1 DOLLAR

Clip the coupon below, attach one dollar and mail today direct to

THE KANSAS CITY JOURNAL, KANSAS CITY, MO.

No commission to news agents or postmasters.

The Kansas City Journal, Kansas City, Mo.

I enclose one dollar. Send me The Daily and Sunday Journal for six months, beginning immediately.

Name. .....

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N.F.S.

ECZEMA

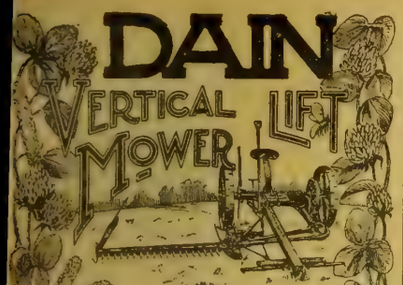
(Also called Tetter, Salt Rheum, Pruritus, Milk-Crust, Weeping Skin, Etc.)

ECZEMA CAN BE CURED TO STAY, and when I say cured, I mean just what I say—C-U-R-E-D, and not merely patched up for awhile, to return worse than before. Remember I make this broad statement after puting ten years of my time on this one disease and handling in the meantime a quarter of a million cases of this dreadful disease. Now, I do not care what all you have used, nor how many doctors have told you that you could not be cured—all I ask is just a chance to show you that I know what I am talking about. If you will write me TO-DAY, I will send you a **FREE TRIAL** of my mild, soothing, guaranteed cure that will convince you more in a day than I or anyone else could in a month's time. If you are disgusted and discouraged, I dare you to give me a chance to prove my claims. By writing me to-day you will enjoy more real comfort than you had ever thought this world holds for you. Just try it and you will see I am telling you the truth.

DR. J. E. CANNADAY, 352 Park Square, Sedalia, Mo.

References: Third National Bank, Sedalia, Mo. Could you do a better act than to send this notice to some poor sufferer of Eczema?

It is a lucky candidate who is more talked about than talking.



Is a Clean Cutter

Its compensating-gears and cutter bar realigning device are successful examples of the wonderful inventive genius of Mr. Joseph Dain. The gears are so mounted in relation to each other that perfect balance and true mesh are permanently insured and the crank shaft is relieved of all end thrust, preventing lost motion, reducing draft and multiplying cutting power. That is why the Dain Mower runs lightly and cuts where others fail.

It is the only mower you can realign, yourself, right in the field with your wrench. This practical adjustment for maintaining the cutter bar in line with the pitman, means added efficiency and years of extra service.

A Real Vertical Lift

Notice the spade handle on the lever. Easy to grasp, no twisting. One movement of one lever raises the bar, knife throws in and out of gear automatically as bar is raised and lowered. The large-coil, flexible spring floats the cutter bar, does practically all the work in lifting with the foot at corners and helps in raising the bar vertically.

Consult the nearest John Deere dealer; learn all about this greatest of all Mowers, and about the entire line of Dain Hay Tools, Loaders, Side Delivery Rakes, Stackers, Sweep Rakes, Presses; every one the best of its kind.

Dain makes the best hay tools. They have been specializing on them for over a quarter of a century.

Send for full particulars and a free copy of "Better Farm Implements and How to Use Them," the most complete and practical book ever written. Write today.
Ask for package No. R 7.

John Deere Plow Co.
Moline, Illinois

"Get Quality and Service, John Deere Dealers Are Best"

TRAVELING SALESMEN

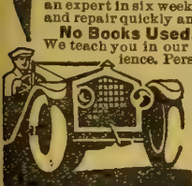
AND SALESWOMEN EARN FROM $1000 TO $5000 A YEAR AND THEIR EXPENSES. We will teach you to be an expert Salesman or Saleswoman by mail in eight weeks and our Free Employment Bureau will assist you to secure a good position where you can earn good wages while you learn Practical Salesmanship. If you want to enter the best paid, most independent profession in the world, write today for our handsome free catalog, "A Knight of the Grip," also testimonial letters from a thousand students we have recently placed in good positions; list of positions now open and full particulars of the special offer we are now making new students. Address our nearest office, Dept. 161.

NATIONAL SALESMEN'S TRAINING ASSOCIATION
CHICAGO, NEW YORK, KANSAS CITY, SEATTLE, NEW ORLEANS, TORONTO

WANTED MEN $75 to $200 a month!

GARAGE MANAGERS, DEMONSTRATORS, Automobile Salesmen, Agents, Repair Men, Chauffeurs. Demand rapidly increasing. Larger salaries. Steady, pleasant, profitable work. Prepare yourself for a responsible position and earn from $75.00 to $200.00 a month. You can become an expert in six weeks' time and be able to drive and repair quickly any make of automobile.

No Books Used. No Tools to Buy.
We teach you in our school of practical experience. Personal instruction by specialists. Low tuition, first-class board and room near school cheap. Write for our big FREE illustrated catalog.



AUTOMOBILE TRAINING SCHOOL
Largest Automobile School in the World,
1136 LOCUST STREET, KANSAS CITY, MO.

AGENTS WANTED Exclusive territory. Good chance to build up permanent business. Mail $3 $10 for 36-pound Feather Bed and receive, without cost, 6-pound pair pillows. Freight on all prepaid. New feathers. Best ticking. Satisfaction guaranteed. TURNER & CORNWELL, Feather Dealers, Dept. 58, Charlotte, N.C. Our reference: Commercial National Bank.

"Save seed only from the most profitable individuals with the same care you use in propagating your animals."—C. P. Hartley.

Children's Washable Dresses.

When making children's dresses there are many little ways in which it pays to leave a chance for enlarging, such as making the armholes large and the waist, sleeves and skirt several inches longer than necessary.

All wash goods should be shrunk in the piece before making up, and the best way to do this is to pour boiling salt water over the goods and let it stand until cold, and when cold the goods must be taken out of its salt bath and pinned on the line without wringing, and so carefully as not to wrinkle it, then it will be quite easy to press smooth. The salt is used to set the color and the hot water shrinks the goods.

Run a tuck underneath the trimming on the sleeves and in the hem of the skirt on the under side and set the skirt up on the waist, then you can easily make the dress larger when needed.

A little dress that is entirely outgrown can often be made plenty large enough, and sometimes they are prettier than when new.

A nice little white dress was ripped apart and a band of insertion set in the skirt and a yoke, belt and cuffs were made of the insertion, and the new dress did not have the appearance at all of being pieced out and made over.

If any fruit stains or any kind of stains are found upon their last year's wash dresses, soak the stained portions in coal oil, as this will nearly always remove old stains as well as fresh ones.

It is a good plan to look over their last summer dresses to see what can be done with them before buying new goods, as many of them can be made to do duty for another season. A little percale dress that was still good but faded was first pieced out to make it plenty long enough, then it was boiled in strong suds to remove the remaining colors and then colored a dark navy blue with Diamond dye for cotton, and it was as nice and serviceable as a new dress. Faded muslins can be colored pretty shades of blue or pink or any color wanted and will only need a little new trimming to make them as good and pretty as new garments, and it is well worth the trouble if one must economize closely. Every time these garments are washed, put a little dye of the same shade in the rinse water, and they will keep a good color as long as they last and always dry them in the shade with the wrong side out, as the hot sun will fade and spoil even the best colors of new fabrics. —Aline.

The Two Concrete Books.

We sell a cement book that is well worth buying, as will be seen on page 22; but there is another book which is on the same subject, and it is sent absolutely free. It is entitled "Concrete Construction About the Home and on the Farm." It is not a catalogue; it is an illustrated, instructive book whereby you first learn to do little things with concrete and then greater and still greater as you get better posted. Write to Atlas Portland Cement Co., Dept. 165, 30 Broad street, New York, and ask for the free Cement Book. You will get it and you will find it very satisfactory.

Have You a Chronic Illness?

If you have you will surely be interested in the Bodi-Tone trial offer which is printed on the last page of this paper. Bodi-Tone, which is now three years old, has made a great record in such cases. The manufacturers believe in it, for they will send you a box to try, no matter how old, hard or obstinate your case may be. If it does not help you, you need not pay for it.

Don't Pay for This Sheep Shearing Machine Until You See and Examine it

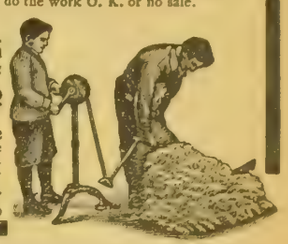
Most dealers have it. If yours hasn't, ask him to get one for you, and when it comes have it set up and try it. If you are convinced that it is what you want, buy it and try it on your sheep with the distinct understanding that it must do the work O. K. or no sale.

This STEWART BALL BEARING MACHINE No. 9
is just the easiest of all shearing machines to turn. A boy can run it all day without tiring. It is ball bearing throughout, including a ball bearing shearing head, shears quick and evenly all over. The price including four sets of knives is only **$11.50** It is really a wonderful machine and you will be agreeably surprised at the work it does.

Get your dealer to send now, or if you prefer send $2 and we will ship C. O. D. for balance and you may try the machine and if not satisfied we will refund all you paid out.

Send for copy of new 1912 catalague and Expert Instructions on shearing sheep.

CHICAGO FLEXIBLE SHAFT COMPANY
182 Ontario St., CHICAGO



Missouri Clipped Lambs.

At the St. Louis National Stock Yards, April 1st, T. L. Buford, a prominent stockman of Schuyler county, Missouri, was represented on the market with 145 head of 73-pound clipped lambs that brought $7.00 per 100 pounds. This was the first time in several months that clipped lambs reached that figure.

Colorado Sheep and Lambs.

A good number of sheep and lambs have arrived at the St. Louis market from Colorado. On April 1st the offerings embraced a nice string of 80-pound lambs that topped the market at $8.00. They were from Prowers county. Another good shipment from the same county included lambs at $7.50 to $7.75; while a San Luis Valley shipment sold at $7.65 to $7.85. Among the representative Colorado sales were sheep of rather plain quality at $5.50 and ewes at $5.00. In each case the price quoted is per 100 pounds.

Potatoes Selling High.

The opening of the April market at St. Louis found potatoes selling high. Fancy Red River Ohio seed potatoes were held at $1.65 to $1.67 per bushel; and "Dusty Rurals" sold at $1.50 per bushel. Fancy Burbanks were held at $1.55, and some fair quality sold at $1.45 per bushel.

A GARDEN OF ROSES—FINE, STURDY PLANTS.

The Most Delightful Subscription Premium Offered By Any Farm Paper.

The National Farmer and Stock Grower has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition and with each package we send complete directions for planting, care and culture.

The collection, briefly stated, is: **Etoile de France,** the acme of perfection of hardy red roses; **President Taft,** an ever-blooming pink rose of superior merit; **Yellow Kaiserin,** rich canary yellow, that will thrive under most unfavorable conditions; **White Killarney,** the wonderful new "Irish Beauty," of surpassing elegance; **Helen Gould,** vigorous, growing velvety red; **Marigold,** a most valuable variety for outdoor planting, producing deep, full, saffron-yellow flowers, which always appear charmingly fresh and sweet; **Ever-blooming Crimson Rambler** is the eighth of the collection, making a total of the grandest collection ever grown.

OUR SPECIAL OFFER.

Send us **sixty (60) cents,** by money order preferred. We will send you **The National Farmer and Stock Grower** for one year We will send you direct by mail, postpaid, the full set of **Eight Hardy, Ever-blooming Roses.** We will also send you a 16x20-inch picture entitled **"The American Beauty Rose."** The picture is most beautiful. There is a great bunch of roses resting on the white linen cloth of a table. It is glorious, magnificent. Send us **sixty (60) cents.** The paper can go to one address, the picture to another and the roses to another, or all three to one address. The roses are sent out directly it is safe to dig them in the spring.

HERE IS A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:—Gentlemen: Herewith please find sixty (60) cents. Please send me **The National Farmer and Stock Grower** for one year, the **American Beauty Rose Picture** at once, and the full set of **Eight Hardy, Ever-blooming Roses,** one-year plants, when it is safe to dig and mail them in the spring.

Name.....

Address.....

Build Up the Home School.

If there is one thing that every agricultural community needs to-day it is a good school. The farmers of each locality can better afford to help build the local school than they can afford to send their children to city schools. When they send their children away from home they do three things: Subject them to social dangers; loss from their help at home; and incur heavy expenses for board and tuition.

The farmer that has children growing up around him and who is ambitious to have his children receive a good education, should begin at once to affect the school situation in his township. It is on the basis of the township that the agitation for better schools must be carried on in rural communities. The chopping up of townships into little school districts does not make the way easy to obtain good schools. Yet in many of our states the way is open for the people to combine their districts, if they wish to do so.

The greatest obstacle in each locality is the lack of public sentiment in favor of radical changes in the school system. Approach a neighbor and broach the subject and the commonest reply will be that the district school is all right and that no new conditions are desired. So the first thing to do is to begin the agitation for better things, with the expectation that it will take a year or two to awake the people to a realization of the insufficiency of the little district school to do the work required by modern conditions of life.

The community itself must be educated in the matter of the kind of a school it should have and the kind of a school it has. This work of educating must be done by self-sacrificing people who have the good of the community at heart. In this preliminary work it would be well to hold house meetings occasionally to discuss this very subject. Happy is the locality that possesses a leader of broad views, who will energetically keep things moving in the direction of better schools.

The community must be led to see that things must be done on a bigger scale than can be done in the little country school. There must be a stronger concentration and a wider co-operation than is possible with a few score families. We must get away from the idea of doing things on a little scale and take up the problem of how to do them on a bigger scale. The inevitable answer to this problem is the school in which are concentrated the pupils of several districts, under permanent teachers, who are receiving enough salaries to make them feel that they are fixtures in the work of teaching in that particular school.

Then will dawn a new era and new community life. The centralized school will draw together the pupils of the whole township and enlarge the circle of acquaintance of all. This centralized school will become a center of social effort as well as of educational effort, as it is fast doing in the large cities.

Flat Foot.

People often complain of rheumatism of the leg or foot when there is no rheumatic trouble at all. One young lady suffered for several years with acute pains in her feet and finally went to a doctor to ask for a remedy for her rheumatism. Upon examination the physician told her that she had no rheumatism, but was suffering from flat foot. Flat foot is nothing more nor less than a broken-down arch of the foot, caused by a straining of the muscles and tendons. It is brought about by standing on the feet a great deal, much walking in ill-fitting or high-heeled shoes, which throw the foot far out of the natural position, and similar causes. Nurses, restaurant waiters, salesmen and people in other vocations which require much standing are common victims of the discomfort. Housekeepers, too, often suffer with it, but a woman who stands on her feet nearly all day expects to be tired, and if she has acute pains in her feet and lower limbs she is apt to attribute it to too much standing, overweariness or rheumatism. A housekeeper is perhaps more apt to neglect this trouble than are persons in occupations that take them out of the home.

Though flat foot is rarely cured, yet it can be so relieved as to make it much less bothersome. The best thing is first to have the foot examined by a physician to make sure that flat foot is the trouble. Daily, vigorous massage is a help. Wearing low-heeled, well-fitting shoes that allow the foot to retain its natural position go a long way toward relieving the discomfort. Surgical manufacturers make a metal arch, designed especially to restore the natural curvature to the foot, and this support, provided it fits the foot, is the greatest help in correcting the deformity. A good physician can recommend a reliable arch or a firm who will make one fitted to the foot in question.—Janet Thomas Van Osdel.

The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.

The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to food for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen dont's; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.

The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar, and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

SisterWoman!

READ MY FREE OFFER

My Mission is to make sick women well, and I want to send **you, your daughter, your sister, your mother, or any ailing friend, a full** 50-cent box of Balm of Figs Compound **absolutely free. It is a remedy for the treatment of woman's ailments, and I want to tell you all about it**—just how to use it yourself—**right at home** without any inconvenience—and the best of it is that it will not in the least interfere with your work or pleasure. Balm of Figs Compound is a remedy that has made sick women well and weak women strong, and I can prove it—**let me prove it to you,** and I will gladly do it, for I have never heard of anything that has, according to the abundance of testimonials at hand, so **quickly** and **surely** cured women's ailments. No internal dosing necessary—it is a local treatment, yet it has to its credit some of the most extraordinary cures on record. Therefore I want to place it in the hands of every woman suffering with **any form of female weakness or diseases so common to women.**

This 50c box of Balm of Figs Compound will not cost you one cent

I will send it to you **absolutely free,** to prove to you its splendid qualities, and then if you wish to continue further, it will cost you only a few cents a week. I do not believe there is another remedy equal to Balm of Figs Compound, and I am willing to **prove** my faith by sending out these **50-cent boxes** free. So, dear reader, irrespective of your past experience, write to me **at once — today** — and I will send you **the treatment entirely free** by return mail, and if you so desire, I can readily refer you to many, who can personally testify to the great and lasting cures that have resulted from the use of this remedy. But after all, the **very best test** of anything is a **personal trial** of it, and I know a 50-cent box of Balm of Figs Comcound will **convince you** of its merits. Nothing is **so convincing** as the **actual test** of the article itself. Will **you** give Balm of Figs Compound this test? Write to me today, and remember I will gladly send you a **50-cent box of this remedy absolutely free.** Address,

MRS. HARRIET M. RICHARDS, Box E 18, JOLIET, ILLINOIS

"Three-In-One" Cake.

The skillful housewife recognizes it as a part of her duty to adapt her material to her work, and the recipe which will not admit of a bit of flexibility is never a favorite with her. And with each variation comes a suggestion for another until the original may be very much changed. This is especially true in cake making, and the following will be but suggestions for other forms as economical and pleasing as the triplet suggested:

White Cake.—Two cups granulated sugar, a scant half cup of butter. Use the butter without melting, creaming it with a silver knife, and when it is worked smooth add the sugar, beating the two together with the fork. One cup sweet milk, three cups flour, three teaspoonfuls baking powder, and when all are well beaten add the whites of six eggs (five will do), beaten to a stiff froth. Bake in two layers in a moderate oven.

Frosting.—Pour a little hot water over a teacupful of granulated sugar and boil until it "hairs;" pour the boiling mixture over the white of one egg beaten stiff. Add a few drops of vanilla or other flavoring, beat thoroughly while adding the syrup and until cool enough to spread nicely upon the cake.

Raisin Cake.—When commencing to make the cake pour a little water over a cupful of seeded raisins, cut into small pieces and let them stew until soft and then dry down so that they will add no moisture to the frosting. Make the latter as above and stir in the raisins.

When eggs are scarce, make the cake in two different parts, dividing the mixture into halves. In the one use the whites of three eggs, and in the other the yolks; or use brown sugar in the dark part and flavor with chocolate and spices. Make the frosting dark with chocolate, shaving it fine and dissolving in water.—Bessie L. Putnam.

FULLY GUARANTEED FOR 10 YEARS

$99 GOOD PIANO CASH

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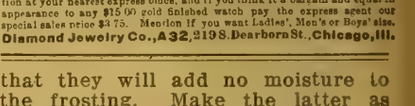
WHOLE SALE PRICES TO CASH BUYERS

BEST Piano Bargains on Earth, Koenig Piano Co. 3253 Crystal St., Chicago

Elegant Thin Model 20 YEAR Watch $3.75

Hunting case beautifully engraved, gold finished throughout, stem wind and stem set, fitted with 7 jeweled American lever movement, guaranteed 20 years, with long gold finished chain for Ladies, vest chain or fob for Gents.

$3.75 Double



Guaranteed 20 Years Case

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The Increased Cost of Living.

A good many people have written on the increased cost of living. Many of these writers have tried to find some one or two reasons for the increased cost, but have generally stopped at two or three at the most. To the writer of this article it seems that the increased cost is due to many things and not to one or two merely.

Each one of us can take his own experience for a guide, to a large extent. The increased cost is largely but not entirely a matter that we can control.

First, there are the agencies that we cannot control. One of these is the combination of manufacturers in various lines. Another is the combinations of merchants and dealers. A third agency is the tendency of local tradesmen to make high prices on some things an excuse for raising the prices on other things. These are things beyond the control of the ordinary consumer.

But there are other groups of causes wholly within the control of the people that are groaning most loudly under the increased burdens put upon them.

The people generally are paying more for the same things than they did formerly, largely because they want them in different and more expensive forms. Take the breakfast foods, for instance. We buy patented oatmeal at five cents a pound because it is put up in a handy package, and we pass by the oatmeal in bulk that sells at two cents per pound. In that case we pay a 150 per cent. premium for the luxury of having the oatmeal in the better form.

We do not buy our apples by the barrel, as of yore, but we pay 50 cents a peck for our apples, buying them in small quantities. The barrel of apples that would cost us $3.00 if bought by the barrel cost us $6.00 when bought by the peck. This is to a large extent due to the coming of the flat, which has no cellar, and also is due to the placing of furnaces in the cellars of houses. These furnaces have destroyed the value of cellars for keeping apples and other fruit and vegetables.

The increasing multitudes now buy their potatoes by the peck for the above reasons. This means a very great increase in the cost of living in the cities and villages. It does not so greatly affect the country.

The telephone is another means of increasing our living expenses, not by reason of the tolls we pay, but by reason of the ordering done over the phone. It is so easy to step to the phone and order a lot of things that are not needed and which would not be purchased if the one who orders them had to go in person for them or even write a letter.

Increasing luxury is one of the things that add to the cost of living. It is a luxury to have a furnace in the basement, but it means a 50 per cent. increase in the cost of coal for heating. By means of the furnace all the house is heated, including the basement. When stoves were in use the basement was not heated, and that amount of coal expense was saved. And some of the sleeping rooms were not heated, and that still further saved the coal bill. This applies to both cities and country.

This list can be extended indefinitely. There is no reason why we should not indulge in these luxuries if we can pay for them; but they make up part of the increased cost of living of which we complain.

Some Hints in Dress.

While the present sleeve is still in vogue, the set-in sleeve is equally popular, and it is safe to say that the simple form which has been a distinctive feature for the past year will soon be a thing of the past. But it is undeniable that while it is easily made, neat and simple, it is a pattern which cannot be remodeled easily, neither does it adapt itself to being cut out from a dress of another style.

High waist lines are seen, yet the normal line is also in evidence, and it is only reasonable to predict that this will soon be the only line recognized. None of the tailored skirts are more than two and one-half yards wide at the bottom, and two yards is a more frequent width.

Large revers are still shown on the coats, a fact which will be welcome, since these can be easily added to the old coat, and the latter thus made to look almost like new.

For service the Peter Thompson dress is a favorite with misses. In blue serge with red and white trimmings it is a substantial and dressy form which is well adapted to all ordinary occasions. If the weather is warm, the sailor collar attached to the dress is sufficient about the neck, much more comfortable than the high collar which serves to make the dress warm in winter. A good serge will stand hard usage. It is fadeless and easily kept in order. While it may cost more at first, it is really economical in the end.

You can make your own fancy buttons by getting wooden molds with a center hole through which to radiate the fancy stitches. Cover with goods of the same, and then ornament with some geometric design. These are quickly made and form a most effective and inexpensive trimming.

Some of the old fashions in dress trimming are now being used to good advantage. Among them we notice the narrow plaiting with pinked edges, each double box pleat being caught together in the middle, from both top and bottom, and a very full effect thus gained.

Some of our leading authorities make a specialty of remodeling, and the ability to do this skillfully counts now to advantage rather than being a thing of which to feel ashamed. There are dyes which render the faded garments like new. White soap or gasoline will cleanse, and with neat pressing the cloth has a new lease of life. Some old silk or ribbon may be combined with it. And in washing the silk it is wise if possible to dry it by stretching out smooth on some glazed surface, as a window pane, and allowing to dry there without ironing. The touch of the iron is usually told by the shiny surface and the impaired silken lustre. Black silk is readily cleaned by sponging with cold coffee.

Fortunate is the girl who has the milliner's touch. Hats are expensive, but a wire frame may be picked up in the ten-cent store and covered with material in the house by one handy with the needle. Braid may be bought by the yard, and there are often plumes and ribbons which will serve another season. The softer braids now have the preference, and taffeta in plain or changeable effects is another favorite covering. What is becoming to the individual must always be the prime guide in selection. Once the majority blindly followed the leader, without regard to whether a style was becoming or not; but it is no longer so, and a woman of refinement will sacrifice all else to gain something adapted to her own face and figure.

Large feet are no longer a reflection. It has been an open secret among shoemen for some time that woman's foot is growing larger, and the No. 6 shoe is now the average size. So do not sacrifice comfort if your foot is spreading. And do not be tempted to any of the freak forms which mean only discomfort. A light-colored shoe makes the foot look larger than a black one.—Bessie L. Putnam.

A Useful Publication.

The National Farmer and Stock Grower is designed to assist a farmer in the conduct of his business, to guide him in his dealings with other people, and to keep him informed of the general drift of trade in farm products. A publication that costs only fifty cents a year cannot be expected to cover the entire field of farm operations, but all who read the paper will find that it is a help to them, inasmuch as it fits in with their thoughts and requirements; in other words, it is a publication that has the faculty of touching the right spot.

Be sure to read about the new edition of The Book of Live Stock Champions advertised on page 23.

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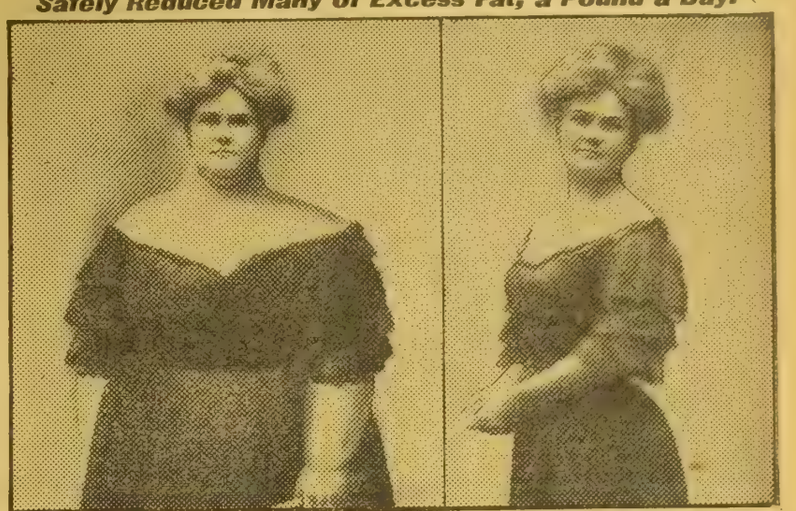
Let me send you my Proof Treatment absolutely Free; I Have Safely Reduced Many of Excess Fat, a Pound a Day.



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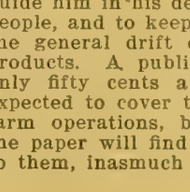

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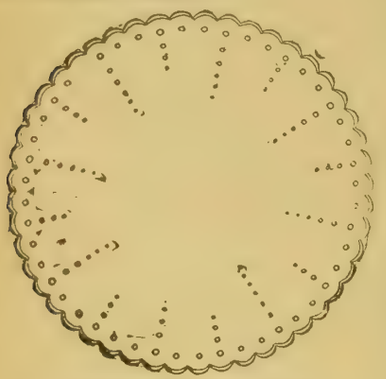
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, press the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron when a perfect outline will result. Please order by embroidery number.

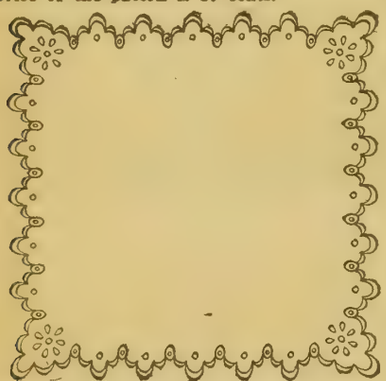


Embroidered Center Cloth.

No. 636.—This design is twenty-two inches in diameter. It makes a very presentable center cloth. The price of the pattern is 10 cents.

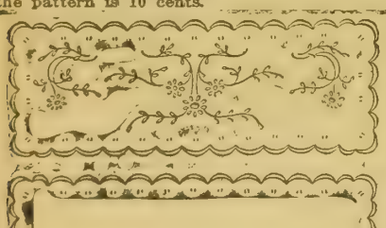
Design For a Scalloped Edge to be Bound or Embroidered.

No. 641.—The scallops are five and one-half inches wide and two and one-quarter inches deep. Three yards are given. The price of the patern is 10 cents.



Design For An Embroidered Pillow Eighteen Inches Square.

No. 638.—Two sides are given. The under side with scallops and eyelets only. The two are to be laced together. The price of the pattern is 10 cents.

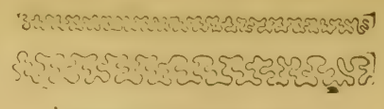


Design For Embroidering a Removable Pin Cushion Cover.

No. 643.—For cushion fifteen inches long and four and three-quarter inches wide. The price of the pattern is 10 cents.

For a Child's Bib.

No. 635.—Design for embroidering a child's bib, with scalloped edges. The price of the pattern is 10 cents.



Design For Beaded Bands.

No. 639.—Three-quarters of an inch and one and one-half inches in width. Three yards of each width are given. The price of the pattern is 10 cents.

Bulgarian Blouse and Sleeves.

No. 642.—Design for embroidering a blouse and sleeves. It is very nice and attractive. The price of the pattern is 10 cents.

For a Blouse Front.

No. 640.—Design for embroidering a blouse front, collar and cuffs. The background can be worked in Rhodus or Punch work or in French knots. The price of the pattern is 10 cents.

Design for a Scalloped Edge.

No. 637.—The scallops are one and one-quarter inches deep, three inches wide. Three yards are given. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Puzzles and Answers.

It is 439 miles from Pittsburg to New York. How many pretty girls, all in a straight line, would it take to cover that distance?

Four hundred and thirty-nine, because a miss is as good as a mile.

What does the evening wear?

The close of the day.

What is the difference between a kiss and a sewing machine?

One seems so nice and the other sews seams nice.

When is it proper to eat vinegar with a fork?

When it is a little tart.

What is the best material for an aeroplane?

Fly-paper.

How do locomotives hear?

Through their engineers.

What makes a pair of shoes?

Two shoes.

What does a stone become in the water?

Wet.

What is that which has a mouth but never speaks, and a bed but never lies in it?

A river.

Which is the longest five-lettered word in the English language?

Smile—because it extends a mile after the first letter.

Why isn't your nose twelve inches long?

Because if it was it would then be a foot.

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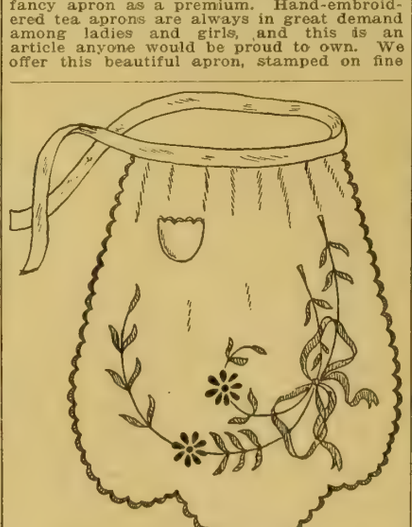

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References:—Mercantile Agencies or State Bank of Chicago

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EVERY-DAY ATTIRE.

No. 7337.—Mannish Shirt Waist For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 1¾ yards of material 36 inches wide.

No. 7314.—Cutaway Coat. 34 to 44 bust. For the medium size will be required three yards of material 36 inches wide.

No. 7309.—Girl's Dress. Ten to fourteen years. With six-gored skirt, with round or high neck, short or long sleeves. For the twelve-year size will be required 3½ yards of material 36 inches wide, with ¾ yard 27 inches wide for trimming, ⅝ yard 18 inches wide for yoke and undersleeves.

No. 7326.—Child's Dress. Four to eight years. For the six-year size will be required 2¼ yards of material 36 inches wide, one yard 27 inches wide for trimming.

No. 7321.—Two-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years, with or without pointed extensions on front portion. For the sixteen-year size will be required 2¼ yards of material 36 inches wide.

PRETTY MODELS.

No. 7335.—Overwaist or Jumper. 34 to 42 bust, with high or natural waist line, with or without peplum. For the medium size will be required 1⅞ yards of material 36 inches wide, ½ yard 27 inches wide for piping.

No. 7338.—Surplice Fichu Blouse. 34 to 40 bust. For the medium size will be required 2⅛ yards of material 27 inches wide, ¾ yard of material 21 inches wide for collar, revers and cuffs, ¾ yard for band.

No. 7340.—Semi-Princess Gown. 34 to 42 bust. For the medium size will be required 5¾ yards of material 36 inches wide, one yard 27 inches wide for trimming.

No. 7331.—Girl's Empire Coat. Eight to twelve years. For the ten-year size will be required 3½ yards of material 36 inches wide, ⅝ yard 21 inches wide for collar and cuffs.

No. 7342.—Girl's Dress. Four to eight years. With body and sleeves in one, with or without revers and cuffs. For the six-year size will be required 2¾ yards of material 36 inches wide, ¾ yard 27 inches wide for trimming.

MISCELLANEOUS MODELS.

No. 7322.—Girl's Night Gown. Six to twelve years. With high or low neck, short or long sleeves. For the ten-year size will be required three yards of material 36 inches wide, with one yard of insertion and three yards of edging.

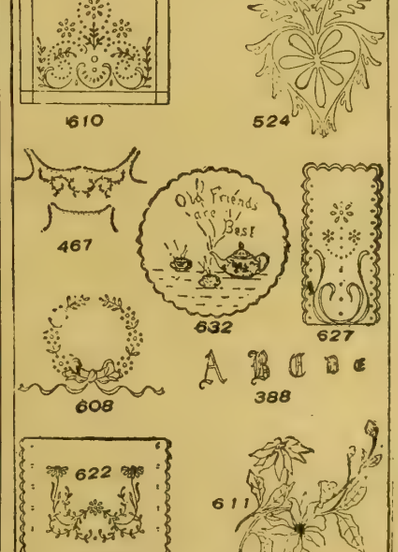
No. 7329.—Girl's One-piece Kimono. Six to twelve years. For the ten-year size will be required 3¾ yards of material 36 inches wide, with 1¼ yards of banding 27 inches wide.

No. 7310.—Gymnasium Suit For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 4¼ yards of material 36 inches wide, ⅝ yard 27 inches wide for collar, three yards of braid for collar, 2½ yards for cuffs.

No. 7325.—Five-gored Petticoat For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without yoke and circular flounce. For the sixteen-year size will be required 3½ yards of material 36 inches wide, 2¼ yards of plaiting.

No. 7318.—Princess Combination Corset Cover and Drawers. 34 to 44 bust, with round or square neck. For the medium size will be required 3¼ yards of material 36 inches wide, with 4¼ yards of embroidery five inches wide, 2⅛ yards of beading, 11 yards of insertion and 3½ yards of lace edging.

USEFUL EMBROIDERY DESIGNS.



No. 610.—A Design For an Embroidered Table or Dresser Scarf. Two ends, fourteen inches wide, are given.

No. 524.—A Design For a Braided Corner. Four corners are given. Four and one-half yards of braid will be required for each corner.

No. 467.—Design For Embroidering a Corset Cover.

No. 632.—Design For Embroidering a Doyley Ten and One-half Inches in Diameter.

627.—Design For Embroidering a Hat-pin Case.

No. 608. — Design For Embroidering Wreaths.

No. 388.—Initial Letters in Old English Style.

No. 622.—Design For Embroidering a Handkerchief Case.

No. 611.—Design For an Embroidered Pillow Top Seventeen Inches Square.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

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I know woman's sufferings.
I have found the cure.

I will mail, free of any charge, my home treatment with full instructions to any sufferer from woman's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourselves at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is safe and sure cure for Leucorrhoea or Whitish discharges, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors, or Growths; also pains in head, back and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney, and bladder troubles where caused by weaknesses peculiar to our sex.

I want to send you a complete ten day's treatment entirely free to prove to you that you can cure yourself at home, easily, quickly and surely. Remember, that, it will cost you nothing to give the treatment a complete trial; and if you wish to continue, it will cost you only about 12 cents a week or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it, and learn to think for herself. Then when the doctor says—"You must have an operation," you can decide for yourself. Thousands of women have cured themselves with my home remedy. It cures all old or young. To Mothers of Daughters, I will explain a simple home treatment which speedily and effectually cures Leucorrhoea, Green Sickness and Painful or Irregular Menstruation in young Ladies, Plumpness and health always results from its use.

Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases, and makes women well, strong, plump and robust. Just send me your address, and the free ten day's treatment is yours, also the book. Write to-day, as you may not see this offer again. Address

MRS. M. SUMMERS, Box H • • Notre Dame, Ind., U. S. A.

OVER-FATNESS KILLS

Shortens Life, Spoils Beauty, Brings Discomfort and Worry.

Usually an over-stout person dies from ten to thirty years earlier than one whose weight is retained at normal. Excessive fat cause the victim to become enfeebled and ailing and to die prematurely. The morbid fat gathers within the ribs and hardens, causing fatty degeneration of the heart—danger of sudden death after climbing stairs, shock, running for a train, etc. The double chin which people are apt to regard as merely an annoying defect in beauty, is a sign of weak throat and voice, and is frequently the forerunner of catarrh, asthma or bronchitis. A big stomach denotes gastric and intestinal troubles. Large hips indicate ailments or weakness of kidneys, liver or other vital organs.

The victim of obesity becomes a sad, ailing, weak, ill-tempered person. The safe, reliable, guaranteed home treatment of Dr. Bradford will speedily effect a cure which will last the entire lifetime, bringing added years, attractive appearance, freedom from pains and discomforts, and real contentment. You can obtain a proof treatment absolutely free by merely writing to Dr. H. C. Bradford, 287-G Bradford Bldg., New York, N. Y. With this the doctor will mail free a convincing array of testimonials and his book of advice.

It is advised that readers of The National Farmer and Stock Grower who are over-fat, or who have relatives or friends needing a reliable, perfectly safe treatment, take advantage of this unusual opportunity.

Regain Your Health.

You ought not to wait another day before trying Bodi-Tone, which many of your neighbors have used to the great and lasting improvement of their health. You ought to test it, because you can get it on trial and need not pay a penny unless it greatly benefits you. Read the liberal Bodi-Tone trial offer on the last page of this paper and send for a box.

"RANGER" BICYCLES

Have *imported roller chains, sprockets* and *pedals; New Departure Coaster-Brakes* and *Hubs; Puncture Proof Tires; highest grade equipment* and many advanced features possessed by no other wheels. *Guaranteed 5 yrs.*

FACTORY PRICES direct to you are less than others ask for cheap wheels. Other reliable models from $12 up. **A few good second-hand machines $3 to $8.**

10 DAYS' FREE TRIAL We ship on approval, *freight prepaid*, anywhere in U. S., *without a cent in advance*. DO NOT BUY a bicycle or a pair of tires from *anyone* at *any price* until you get our big new catalog and *special prices* and *a marvelous new offer*. A postal brings everything. *Write it now.*

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SOUND MEN, 20 to 40 years old, wanted at once in every state for Electric Railway Motormen and Conductors; $60 to $100 a month; no experience necessary; fine opportunity; no strike; write immediately for Application Blank. Address, **MGR, 437 Dwight Bldg., Kansas City, Mo.**

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No relapse. No return of choking spells or other asthmatic symptoms. Whetzel system of treatment approved by best U. S. medical authorities as the only system known to permanently cure the disease.

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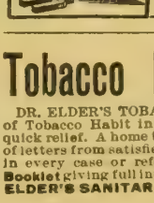
Including medicines, prepared for any one giving a full description of the case and sending names of 2 asthmatic sufferers. Address **FRANK WHETZEL, M. D.** Dept. N, American Express Building, Chicago.



FAULTY METABOLISM AS A COMMON CAUSE OF DISEASE, is the subject discussed in Bulletin No. 1 of the Shafer Pathological Laboratory. The Bulletin is sent free on request and will prove interesting to everyone in Pain and Poor Health.

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THE OHIO CARRIAGE MFG. CO.,
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Largest Factory in the World Selling Vehicles Direct

2 Years' Guarantee

Life-fitting Education.

Down on a small farm in the Ozarks there lives an intelligent couple who have a nine-year-old boy above the average in brightness. The little fellow goes to an ungraded school, and so readily does he master the subjects given to the children of his grade that he has left them far beyond. He is naturally a somewhat nervous child, so his parents have decided that he needs less indoor studying and more outdoor life. With this in view they keep him from school about one-third of the year, thus evenly dividing his time in and out of school. By this arrangement he can easily keep up with his classes, but even though he shouldn't, the parents care not a whit, for the reason that they are bringing up a child, not a machine. What one child can stand and do is no criterion of what another can do. A farmer well knows that some fields are better for one kind of growth, while other fields require something wholly different to make a good yield. Is it then unreasonable to conclude that our children are at least as different in their requirements as are these various plots of ground?

Incidentally, the child referred to "plays" with a typewriter at home. On this machine he already does fairly creditable work. He also manipulates a set of telegraphy instruments which his father, as ex-railroad man, owns. And then there is reading, real reading out of well-beloved books, with an intelligent father or mother to help him over hard places. All of this is really play to him now, but by the time he is eighteen years old he will have a practical trade at his fingers' ends, besides understanding farming, for he has regular duties about the place which he is required to perform. I cannot help but feel that the little lad will find his place in the world with less difficulty than some of his more faithful schoolmates who never miss a day's session at school.

Yet not for a moment would I decry regular attendance at school, provided it is what is best for the child and that he is developing along the lines in which he should develop. The discipline it gives children in faithfulness and punctuality alone is worth much, but it does appear that there is too much insistence placed upon every child reaching a certain standard of excellence in every study. And no two children being alike, it is quite impossible to form them according to the same mold. The teacher in an ungraded school, faithful and wise though he may be, has not the time nor the energy to study the peculiarities and the potentialities of each child under his supervision. This privilege is given to the parents, who should understand their own offspring, as no one else possibly can. It is their business to investigate why Johnny falls so much below the standard in some subjects and whether Susie's high marks mean a really intelligent grasp of what she has recited or whether she has a parrot-like habit of repeating mere words that mean nothing to her. A report card showing E or 100 for each study may not mean so much in the way of real development as some card with some P or 60 grades, provided the high marks come because the child readily memorizes a few printed words that mean little to him, while the low marks may mean that a child who learns more slowly has worked hard and conquered only a few of his problems, but there has also been a great mastery of self in the work. It is a fact that many of the boys and girls who have grown up to do things which have made the world admire and wonder were oftentimes ashamed to show their poor report cards to their parents. A little cramming system which fills a child's mind with a multitude of barren, unattached facts will profit him little in the game of life. Make him a thinker, draw him out along the lines for which he shows a peculiar aptitude and he will become really educated.—Janet Thomas Van Osdel.

AN ECONOMICAL FRUIT TREE SPRAY.

So much depends upon intelligent and systematic spraying, if the greatest possibilities of an orchard are to be realized, that orchardists are giving more and more attention to this important subject every year.

It is now claimed by many who have been conducting experiments along these lines that it is just as important to spray fruit trees occasionally throughout the fall and winter, beginning just after the fruit is picked and again after the dead leaves fall, as during the blooming and budding period.

In the opinion of many fruit growers the best and cheapest spray mixture is made by making a solution of Merry War Powdered Lye in the proportion of one can of the Lye to about fifteen gallons of water. This solution has sufficient strength to kill all pernicious insect life without the slightest injury to foliage or buds. When used during the winter months it is unusually effective in preventing and destroying San Jose Scale, which, as every fruit grower knows, occurs on any portion of a fruit tree, foming a crusty, ash-colored coating.

This Merry War Powdered Lye solution is equally as good for killing bugs and insects that infest the foliage of all plant life—shrubbery, vines, etc. It is an effective remedy, which, however, in the strength of solution here named, cannot do injury to the plant. Nearly every dealer carries Merry War Powdered Lye in stock for 10c. per can. If not, write to E. Myers Lye Company, Dept. 22, St. Louis, Mo., and ask for particulars.

Women Who Fill Attics and Closets With Old Trash.

In the April Woman's Home Companion appears the following:

"Most women dread housecleaning; and it is little wonder, if one could see into their attics and closets. They have the 'saving mania,' and have indulged it all their lives; and many a one, especially she who has stayed in the old home, has not only her own, but the accumulations of generations of women before her.

"How can any sensible woman be so selfish, and so self-abusive at the same time, as to keep what benefits her in no possible way, and yet makes her so much extra work every year? Why not dispose of things to the best possible advantage as they become useless, and save half the work of the spring overhauling as well as do a great deal of good?"

Flies! Flies! Flies!

Get rid of them and help make your home and premises sanitary by the liberal use of ***Tanglefoot Fly Paper.*** There is fully one-third more compound per sheet on ***Tanglefoot*** than on any other fly paper; hence it lasts longest, catches the most flies and is the **best** and **cheapest** fly paper. If you ask for "fly paper" or "sticky fly paper" you may get a cheap imitation that will soon dry up or glaze over. **Ask for Tanglefoot.**

Sold by Grocers and Druggists.

TREE TANGLEFOOT, **put up in 1, 3, 10 and 20 lb. cans, Will protect your trees from all climbing insects.**

A Good Example to Follow.

Subscribers on Missouri Point of the West Alton and Machens Telephone Company have adopted a special call to summon help if there is distress in any of the homes of the subscribers. Most of the subscribers are on one line. The signal is one short and one long ring. Every patron of the line, on hearing the signal, is to take down the receiver and wait for the message.

What to Do When a Child Has a Convulsion.

In an article on the care of children in the April Woman's Home Companion, Dr. R. H. Dennett, a great New York specialist on the diseases of children, tells as follows what to do when a child has a convulsion:

"When a child is suddenly seized with a convulsion, proceed as follows: First—Loosen the clothing, but take off only the shoes and stockings. Second—Place the child upon a bed or table, with his legs hanging over the edge from the knees down. Third—Put his feet and lower legs in a pail of hot water, to which has been added one tablespoonful of powdered mustard. If you have no mustard, use hot water alone; be very careful it is not hot enough to burn. Fourth—Put an ice-cap to the head; lacking an ice-cap, use plenty of cracked ice done up in a towel. Fifth—Give an enema of warm soap-suds. Repeat it if it is not retained. Sixth—As soon as the child is able to swallow, give a large dose of castor oil."

A Clever Ruse.

Mr. A.—"Norah seems quite gone on the postman."

Mrs. A.—"Gone! Do you know what that girl does? She mails herself a postcard every evening, so as to make sure he'll call the next morning."—Boston Transcript.

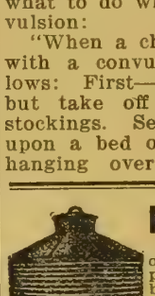
The Moment's Need.

"What do you think about Shakespeare and Bacon?"

"I don't. Eggs and bacon take up all my time and thinking."—Houston Post.

Land of Flowering Plants.

New South Wales is said to contain more kinds of flowering plants than all Europe.



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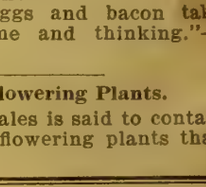
To protect the health of every member of your family. Medical experts have pronounced the brick and wood cistern to be the cause of many cases of sickness.

A Cistern to be perfectly sanitary must be made so tight that no impurities can possibly get through. This can only be accomplished by using the Steel Cistern.



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Freight Paid to any station east of the Rocky Mountains on all orders of six gallons or more, except to N. D., S. D., Colo., N. M., Tex., Okla., Miss., Ala., La., Ga. and Fla. Delivered price to these States 5c. per gallon additional.

Write for FREE Color Card, catalogue and prices, or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to the Southern Illinois National Bank.

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Play the Piano In One Hour

Without Lessons or Knowledge of Music You Can Play the Piano or Organ in One Hour.

Wonderful New System That Even A Child Can Use.

FREE TRIAL

She Doesn't Know One Note From Another, But Plays Like a Music Master.

Impossible, you say? Let us prove it at our expense. We will teach you to play the piano or organ and will not ask one cent until you can play.

A musical genius from Chicago has just invented a wonderful system whereby anyone can learn to play the Piano or Organ in one hour. With this new method you don't have to know one note from another, yet in an hour of practice you can be playing the popular music with all the fingers of both hands and playing it well.

The invention is so simple that even a child can now master music without costly instruction. Anyone can have this new method on a free trial merely by asking. Simply write, saying, "Send me the Easy Form Music Method as announced in The National Farmer and Stock Grower. The complete system together with 100 pieces of music will then be sent to you Free, all charges prepaid and absolutely not one cent to pay. You keep it seven days to thoroughly prove it is all that is claimed for it, then if you are satisfied, send us $1.50 and one dollar a month until $6.50 in all is paid. If you are not delighted with it, send it back in seven days and you will have risked nothing and will be under no obligations to us.

Be sure to state number of white keys on your piano or organ, also post office and express office. Address Easy Method Music Company, 2831 Clarkson Building, Chicago, Ill.

THE MONDAY MORNING DANCE.

Would you see some pretty capers,
Would you see some waltzing fine?
Watch the Monday morning dancing
Of the stockings on the line.

All the ages and conditions
Join the frolic mad and gay,
Stockings dainty, long and filmy,
Stocky socks of sober gray.

Stockings full of holes and ragged
Prance around with merry hop;
Baby's socks, absurdly little,
Execute an aimless flop.

Grandma's sturdy knitted woolen—
Who would think it?—dances high
While the socks of rainbow colors
In gyrations giddy vie.

To the music of the zephyrs
In a happy, free design,
Watch the Monday morning capers
Of the stockings on the line.
—McLanburgh Wilson, in N. Y. Sun.

JIM PARKS'S STORE.

You know Jim Parks? He used to farm
Out Hopkins Corner way.
Well, he got tired of planting corn,
And cutting oats and hay.
It was too hard and dull a life—
He said he could make more
To move to town and open up
A little grocery store.

The opening up was easy done,
And things just 'peared to swim.
You work a farm, but keep a store—
It seemed like fun to Jim.

His trade? Well, he had more or less—
'Twas hardly ever more—
But times would better in the fall,
And—he liked keeping store.

One day last week I called around,
And found him dreadful blue;
He's kept the store all right, but kept
The things inside it, too.
"The business suits me lots of ways,
But tell me how," said Jim,
"A man can keep on keeping store
When it will not keep him?"
—Woman's Home Companion.

ACCORDING TO PRECEDENT.

The hen that cackles loudest may not lay
the largest eggs;
The mule that kicks the hardest may not
have the toughest legs;
The tree that is the tallest may not bear
the sweetest fruit,
And the girl who is the fairest may not
wear the smallest boot.

The man whose brow is highest may not
always know the most;
The hero who is bravest may not make the
loudest boast;
The arm that is the strongest may not have
the farthest reach,
And the man who talks the longest may
not have the finest speech.

The rose that is the reddest may not have
the sweetest scent;
The man whose trust is proudest may not
be most prominent;
The woman who has jewels that she
measures by the peck
May not have the slimmest fingers or the
most delightful neck.

The man who works the hardest may not
draw the highest pay;
The man with deepest knowledge may not
have the most to say;
But the man who is the most modest gets
the last seat in the rear,
And the man who blows his bugle is the
one whom people hear.
—Chicago Record-Herald.

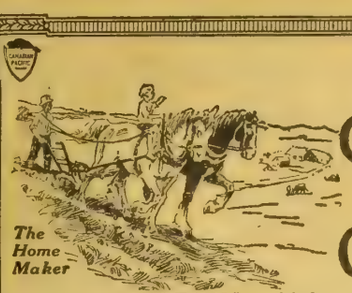
REAPERS OF LIFE'S HARVEST.

Ho! reapers of life's harvest,
Why stand with rusted blade,
Until the night drags round thee,
And day begins to fade?
Why stand ye idle, waiting,
For reapers more to come?
The golden morn is passing,
Why sit ye idle, dumb?

Thrust in your sharpened sickle,
And gather in the grain.
The night is fast approaching,
And soon will come again.
The Master calls for reapers,
And shall He call in vain?
Shall sheaves lie there ungathered,
And waste upon the plain?

Come down from hill and mountain
In morning's ruddy glow,
Nor wait until the dial
Points to the noon below;
And come with stronger sinew;
Nor faint in heat or cold,
And pause not till the evening
Draws round its wealth of gold.

Mount up the heights of wisdom,
And crush each error low;
Keep back no words of knowledge
That human hearts should know;
Be faithful to thy mission,
In service of thy Lord,
And then a golden chaplet
Shall be thy just reward.
—I. B. Woodbury.



Get Your Canadian Home from the Canadian Pacific

WHY FARM on high-priced, worn-out lands when the richest virgin soil is waiting for you in *Manitoba*, *Saskatchewan* and *Alberta*, the great Prairie Provinces of Western Canada? In many parts of the United States you have to spend as much money to fertilize an acre of your farm, as a fresh, rich, virgin acre will cost you in Western Canada. The first prize of $1000 for the best wheat in the world was awarded to a Western Canada farmer at the New York Land Show—farmers on our low-priced lands won first, second and third prizes for wheat in competition with the world.

Go where you too can prosper, where you will find perfect health, where you can earn a farm and a home in a few years' time at most—many farmers have paid for their farms with one crop—where it does not take a lifetime of drudgery to make a competence and where energetic efforts bring riches quickly.

Land from $10 to $30 an Acre Ten Years in Which to Pay

The Canadian Pacific Railway Company offers you the finest irrigated and non-irrigated land along its lines at low figures, and on long terms of payment—lands adapted to grain growing, to poultry raising, dairying, mixed farming, and to cattle, hog, sheep and horse raising—in the Prairie Provinces of Manitoba, Saskatchewan and Alberta. Select your own land. Decide what kind of farming you want to follow, and let the Canadian Pacific Railway put you on the road to fortune. Magnificent soil, good climate, good markets, excellent schools, good government, all are awaiting you in Western Canada; and a great Railway Company whose interest it is to help you to succeed, is offering you the pick of the best. *The best land is being taken first.* Don't wait. Ask for our handsome illustrated books and maps, with full information, free. Write and investigate this great proposition today. Address

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Summer Bedding.

In the old days everyone had a supply of bed quilts for summer, but there are not many housekeepers now who have the time to piece quilts, and for this reason the summer blankets and light-weight comforts are coming into general use. There is nothing nicer for cool nights in the summer than light, soft comforts, and these can be quickly and easily made at home and cost very little, and the nicest materials for them are the cotton challies and pretty colored cheesecloth, and for summer bedding a pound or a pound and a half at most of pure white cotton is sufficient for each one, and if they are hung on the line in a strong breeze occasionally and beaten with limber switches they will not readily lose their freshness.

Cream-colored cheesecloth tied with blue or pink makes a pretty cover, while old gold tied with cardinal red is the most serviceable, as they do not show soil so quickly.

A very good comfort can be made without any expense. Sew together pieces of old, soft muslin and calico and make this the size you want the cover to be, then take pieces of outing cloth, scraps and pieces of old, soft underwear and baste these firmly on the muslin sheet and aim to have it the same thickness all over. Then use this as a filling for the outer covering. This covering can be made from the best breadth of summer dresses and the comfort tied with tidy cotton, and you can make the comfort as heavy or light as you want it to be; but for summer a very light filling will make it heavy enough.

The cotton blankets are almost as easily washed as a sheet and they are cleaned with very little rubbing by putting them to soak in warm suds in which some borax is dissolved, and the quantity of borax used must depend entirely upon the quality of the water, as hard water will require more than soft. The best way is to put a little of the borax powder in the water at a time and when the water feels soft to the touch no more of the powder is needed. The suds in which borax is dissolved are excellent for washing the white counterpanes and light-weight comforts. After washing the comforts and blankets, rinse them, drain a little and hang them dripping over the line, and when partly dry turn them crosswise on the line, pulling into shape, and they will be light, puffy and almost like new when well dried.—M. H.

Orders From Hindquarters.

Murphy was a new cavalry recruit and was given one of the worst horses in the troop. "Remember," said the Sergeant, "no one is allowed to dismount without orders."

Murphy was no sooner in the saddle than the horse kicked and Murphy went over his head.

"Murphy!" yelled the Sergeant when he discovered him lying breathless on the ground, "you dismounted!"

"I did."

"Did you have orders?"

"I did."

"From headquarters?"

"No, sir; from hindquarters."—Ladies' Home Journal.

It is the real joy of friendship that one may think out loud to a friend.

Hammond's Handy Atlas of the World.

This great Atlas contains 107 pages, 6x8 inches, is printed in colors and is bound in a durable red-cloth cover. It contains seventy full-page maps of every state and territory, with new railroads and towns. Every country in the world is shown by maps of the latest plates. We use this Atlas as a subscription premium. For fifty (50) cents paid in advance we will send one copy of **Hammond's Handy Atlas** post free by mail and credit one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Hold Out Your Hand

It is Yours

No matter where you are, whether you are a man or woman, twenty years old or seventy, whether you live in the town or country, whether you are rich or poor, all you need do is *hold out your hand for it.* Give us the signal that you want it, say the word, and it will be sent right out to you, without a penny from you. If you need it, if you want to try it and see what it will do, if you are ill, poorly, weak or suffering, hold out your hand and get it, as thousands have done during the past three years. You don't need to write a long letter, don't need to fill out any tiresome blanks, don't need to send references, money or stamps. It is yours to try at our risk, *yours for the asking*, no matter who or where you are, if you will hold out your hand for it, so we will know you want it. We place it right in your hand, and are *glad to do it when you ask for it.*

Clip the coupon, fill in your name and address, and we will send you a dollar box of Bodi-Tone without a penny from you.

This is how a quarter-million people have already tested Bodi-Tone, including hundreds of readers of this very paper, and *this is how we want you to try it.* We know Bodi-Tone, we know how quickly it acts in the body, how it makes its great power felt soon after you begin to use it, how it sends the glow of returning health into every nook and corner, and we want to prove it to you, absolutely at our own risk. If you are entirely satisfied when you see what the trial box of Bodi-Tone does for you, pay a dollar for it. Otherwise, that ends it. *We leave it all to you.*

Bodi-Tone

does just what its name means—*cures disease by toning all the body*, and we want you to try a box at our risk and see what it will do for *your* body. Bodi-Tone is a small, round tablet, that is taken three times every day. Each box contains seventy-five of these tablets, enough for twenty-five days' use, and we send you the full box without a penny in advance, so that you can try this great remedy and learn what it is, so you can learn how it works in the body, how it *cures stubborn diseases* by helping nature to tone every organ of the body. Tone is a little word, but it means a great deal, everything in health. When all the organs are doing their part, when each is acting in a perfectly natural way, when all the functions are healthy and performed with natural vigor, when the energy, strength and power of resistance to disease are all at a natural point, then the body is in proper tone. When disease has attacked any part, when lack of vitality is found and felt, the tone of the entire physical body should be raised to the highest possible point, to make all the body help to cure and restore. This is the power which underlies all of Bodi-Tone's great work for the sick, this is the power it offers you to help you get new health and strength, vigor and vitality.

WHAT IT IS

Bodi-Tone is not a patent medicine, for its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit.

When you use Bodi-Tone you know just what you are using, know it is good and safe and know you are taking the kind of medicine to provide real help for the body. It is a pure remedy that satisfies the most exacting. It contains no narcotics or habit-forming drugs, nothing that your own family doctor will not endorse and say is a good thing. It does not depend on killing pain with cocaine, opium, morphine, or other dangerous drugs. It does not excite the body with alcohol, but it tones the body, and corrects disorders with remedies Nature intended to tone and cure the body when that power was gone from them. Thus, Iron gives life and energy to the Blood, Sarsaparilla drives out its impurities, Phosphate and Nux Vomica create new nerve energy and force, Lithia aids in the Kidneys, Gentian does invaluable work for the Stomach and Digestive forces, Chinese Rhubarb and Oregon Grape Root promote vigorous Liver activity, Peruvian Bark raises the tone of the entire system, Golden Seal soothes the inflamed membranes and checks Catarrhal discharges, Cascara gives the Bowels new life in a natural way, and Capsicum makes all more valuable by bettering their quick absorption into the blood. *A remarkable combination that does wonderful work for health.* Each of these ingredients serves to assist, to help, to build upon the others work. Each adds a needed element from nature to the body. Each has work to do and does it well. They are used because of this ability. We claim no credit for discovering the ingredients in Bodi-Tone, each of which has its own well-deserved place in the medical books of most of the civilized world. We simply claim the credit for the successful formula which we invented, for the way in which these valuable ingredients are combined, for the proportions used, for the curative force which thousands have found in Bodi-Tone, for the cures which make it different from other remedies. Most of these ingredients are as old as civilization itself, for the curative forces which Bodi-Tone ably uses are the forces which have always existed in nature for the restoration of the body's health. Many are regularly prescribed in some form by the medical profession for various diseases and irregular conditions, being used either separately or in combinations with such drugs as each doctor may favor, for there are wide differences of opinion among the doctors of various schools. The *exact combination used in Bodi-Tone* is what gives it the far-reaching and thorough curative and restorative power that makes possible its remarkable cures.

Try it And See

If you are tired of ceaseless doctor bills and wearied of continual dosing without results, *you need Bodi-Tone right now.* If your local doctor has done you no real good, if you have given him a chance to do what he can and the ordinary medicinal combinations he used have failed, give this modern, scientific combination of special remedies a chance to show and prove what it can do for you. Its greatest triumphs have been among men and women with chronic ailments who had tried physicians and specialists at home and elsewhere without lasting benefit, and for this reason all chronic sufferers are invited to *try it at our risk.*

Bodi-Tone offers you its services if you are sick, if you need medicinal help, if your bodily organs are not acting as they should, if your body is not in right and natural tone. That is what Bodi-Tone is for—to restore health, vigor, vitality and strength by restoring tone to the body.

If there is anything wrong with your Kidneys, Bodi-Tone helps to restore tone to the Kidneys, helps to set them right. If there is anything wrong with your Stomach, Bodi-Tone helps to tone the Stomach, helps to set the wrong right. If there is anything wrong with your Nerves, your Blood, your Liver, your Bowels or your General System, the health-making ingredients in Bodi-Tone go right to work and keep on working day after day, exerting always a definite action that produces curative results of the kind sufferers appreciate. If you have Rheumatism, Bodi-Tone helps to eliminate the Uric Acid from the system while it restores tone to the Kidneys, Stomach and Blood, thereby preventing a continuance of Rheumatic poison and putting new activity into muscles, nerves and joints. Bodi-Tone should be used by all women suffering from any Female Ailment, for its toning properties have been found especially valuable in such ailments.

EASY TO GET

Why delay another day, when a trial of this proven medicine is yours for the asking. Why keep on suffering, when by filling in your name and address on the trial coupon and mailing it to us, you can get a full twenty-five days trial treatment of this great remedy which has already restored thousands to health. It just costs a two-cent stamp, and you don't need to pay a single penny unless Bodi-Tone benefits you.

Thousands of cures of Rheumatism, Stomach Trouble, Kidney, Liver and Bladder Ailments, Uric Acid Diseases, Female Troubles, Bowel, Blood and Skin Affections, Dropsy, Piles, Catarrh, Anaemia, Sleeplessness, LaGrippe, Pains, General Weakness and Nervous Breakdown, have fully proven the power and great remedial value of Bodi-Tone in such disorders.

Its history of success has proven beyond a shadow of doubt how the Bodi-Tone plan of *toning all the body* is a right plan that helps to *cure* these and other disorders, that it is *a real aid to nature.* Many who had for years been in poor health and had tried good doctors and most all of the prominent medicines, have found that *one single box of Bodi-Tone* did more good than *all* other treatments combined. Read the reports, showing how Bodi-Tone cures, send for a box on trial at our risk and see if it will not prove the *right thing* for you.

Cured a Year Ago and in Fine Health Since.

Comanche, Okla.—I have suffered almost all my life with Rheumatism, which bothered me since girlhood.

As it became settled in later years it affected my heart, and I would have spells in which I thought I would surely die. I have taken all kinds of medicine and bathed and rubbed with liniments, but nothing that I ever did seemed to do me any good. I saw Bodi-Tone advertised over a year ago and was attracted by the formula printed in the advertisement, which looked to me like a good medicine, and I sent for a trial box. It worked like magic from the start, and showed me that I had gotten the right medicine at last. I am in fine health now, and feel better than at any time within my recollection. I feel that I owe my life to Bodi-Tone's wonderful formula, for I was in a serious condition when I began to use it. I am forty-six years old, MRS. J. E. BOBO.

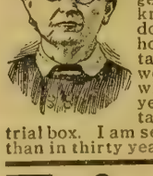
Missouri Preacher Found New Vital Vigor.

Macomb, Mo.—I want to give a word of testimony for Bodi-Tone. At the age of twenty-three I suffered a sun-stroke, and my health has been bad ever since. My Stomach, Liver and Bowels never seemed right. I was

treated by doctors at various times and have also taken my share of patent medicines, and by the time I learned of Bodi-Tone I was practically resigned to my physical infirmities and had learned to bear with them. I am a preacher, fifty years old, and if my experience will be of value to other sufferers, I would be glad to have you publish same. I have received more permanent good and renewed vital vigor from Bodi-Tone than I could have thought possible before I began its use. It has been of such benefit to me that words fail me in expressing the good I have derived. I find it has taken hold of the entire body, to the betterment of every vital part, and life has become a greater blessing to me. My aged mother, who has been helpless at 81 years, has also been using it and is experiencing great good from it. C. N. FINDLAY.

Was a Wreck With Pain.

Conroe, Tex.—I cannot speak too highly of Bodi-Tone. When I sent for the trial box I was a wreck with pains



from my head to my feet. I had pains of all descriptions, sharp and shooting and dull aching pains, in my back and in my hip. I was so weak, and had no strength to do anything. I could hardly get out and in at the door with my knees. It was a burden to me to try to do anything. I had to hire all of my housework done. Now, since I have taken Bodi-Tone, I can do all my housework and wash and iron, something which I have not been able to do in years. Bodi-Tone did it all, for I have taken nothing else since I sent for the trial box. I am seventy-three years old, and feel better than in thirty years. MRS. E. MC ILPINE.

Trial Coupon

Clipped from National Farmer and Stock Grower

Bodi-Tone Company,
Hoyne and North Aves, Chicago.

I have read your offer of a dollar box of Bodi-Tone on 25 days' trial and ask you to send me a box by return mail, postpaid. I will give it a fair trial and will send you $1.00 promptly when I am sure it has benefited me. If it does not help me I will not pay one penny and will owe you nothing. Neither I nor any member of my family have ever used it.

Name_____

Town _____

State _____

St. or R. F. D._____

National FARMER

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SCOTTISH LASSIE, 305,352—HEREFORD HEIFER, AS A TWO-YEAR-OLD. She was calved Septemebr 3, 1908; bred by Dr. J. E. Logan; sire, Young Bean Brummel; dam, The Last Rose. SCOTTISH LASSIE was exhibited at the Chicago International Live Stock Exposition of 1910 as a senior yearling; was first in class, junior and grand champion of the breed. SCOTTISH LASSIE was again exhibited by Mr. J. P. Cudahy, of Kansas City, in class for two-year-old heifers and under three, and was first in class, senior and grand champion cow at the Chicago International Live Stock Exposition of 1911. The picture of SCOTTISH LASSIE is from a photograph by Hildebrand, of the Union Stock Yards, Chicago, Ill., and from the same photograph an illustration of this famous female heifer appears in our Book of Live Stock Champions, and is one of 720 similar pictures in said book. All readers of this publication are earnestly requested to read the advertisement on page 23.

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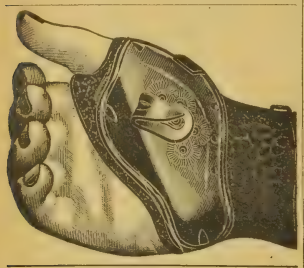
5 Cents a Copy. Published Monthly by The Hale Publishing Co. 50 Cents a Year.

and Stock GROWER

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The



strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Effect of Light on Plant Growth.

We all know that light is necessary to the growth of most plants, but most of us do not appreciate the very great importance of direct sunlight. Diffused light cannot take the place of direct sunlight.

The failure to appreciate this often leads to the allowing of trees to develop to a point where they shadow the vegetable garden and the flower garden. Sometimes the strawberry patch and the grapery are ruined by the cutting off of the direct rays of the sun.

Most of our farm plants need direct sunlight to do well. Even the shadow of the house or barn for a part of the day makes a great difference. High hedges are detrimental to plant growth. We see here and there a big hedge of osage orange separating the garden or field from the highway. The thick shadow thrown reduces the cultural value of a long strip of land next the hedge.

Plants fight to get to the light. The house plants all turn their leaves and stems toward the windows where the direct sunlight is. The potato sprouts in the cellar grow to great length in their search for light.

Go into the forest and note how many small trees there are that are dead or dying because their light has been shut off by the other trees. See the dead branches on the lower trunks of the spruces and note the richness of the color of the top branches which are bathed in sunshine. On the outskirts of the forest see the trees composing the outermost line, especially on the southeast, south and southwest. The branches stretching outward are big and strong; those on the inside are weak and dwindling.

Grass is a tenacious plant, able to endure under hard conditions, but note what the shade of that big maple tree does to it. Under the tree it is thin and sparse, while in the sunlight it is heavy and dense. Yet under the tree it gets diffused sunlight and some direct sunlight when the sun is low in the heavens.

Yonder is a splendid hard maple tree that has been standing in its present position since the land was cleared. It has made a magnificent growth during the past twenty-five years, and now has a spread of seventy feet. Its top rises grandly with thick foliage. It has had the sunshine in abundance with nothing to shade it. That is the only condition under which a tree can attain its full development.

Long rows of trees along the side of the road may be a pleasant feature of the landscape, but they cause a great deal of loss to the farmer whose fields they adjoin. If they chance to be on the south side of his field and running east and west, the ground will be reduced in its capacity to produce crops, though this is not a loss that can be estimated. It is one of the many cases where art conflicts with productiveness.

The matter of light is one which every farmer must watch, for the shadows of growing trees steal upon him so slowly and imperceptibly that he does not easily recognize the fact of his loss nor the cause for it.

THERE'S MONEY IN HAY.

Hay is Second Only to Corn as a Money Crop—A Plea For More and Better Grass.

"Although we see a good deal about clover and other legumes as a means to gather nitrogen into the soil," said Mr. P. E. Goodrich, President of the National Hay Association, "everybody seems to have overlooked the fact that there is more money in hay than there is in any other one crop except corn. In other words, clover and alfalfa are not only means to an end, but no mean end themselves.

"Taking the United States as a whole, it does not produce per acre over half as much as it should, and it only has about half as many acres as the demand requires.

"Grass crops are less trouble than any other crop, and our association is very much interested in bringing up the hay production, not only in quantity, but eventually in quality.

"The price of hay is all out of reason, and inasmuch as the prosperity of other kinds of crops depends so much upon hay crops, our association is ready to join with the Crop Improvement Association of the Grain Exchanges in preaching a sensible rotation."—National Crop Improvement Service.

Free Bulletins For Farmers.

Bulletin No. 98, "The San Jose Scale in Missouri," tells the story of one of Missouri's worst orchard enemies. It gives a complete history of the San Jose Scale and how it spreads, together with detailed information concerning remedies and methods of control. The bulletin comprises fifty-seven pages and fifteen illustrations. Every farmer who owns an orchard should have it. For free copy address Agricultural Experiment Station, Columbia, Mo.

Bulletin No. 99, "Inspection of Commercial Fertilizers," tells what the College of Agriculture has done during the year 1911 to prevent farmers from being defrauded by worthless fertilizers. It gives the analysis of every brand of fertilizer sold in Missouri and tells exactly what every brand is worth in dollars and cents. No farmer should spend any money on commercial fertilizers without first reading this bulletin. It is free. Write to the Agricultural Experiment Station, Columbia, Mo., for a copy.

Circular 51 tells how to prolong the life of fence posts by the use of creosote. Complete details are given for applying the treatment, its cost and its effectiveness. The information contained in this little four-page circular is worth a good many dollars to every farmer who uses wood posts for fencing. Write to the Agricultural Experiment Station, Columbia, Mo., for a free copy. Ask for Circular 51.

"Growing a Woodlot From Seed" is the title of an eight-page circular which should be in the hands of every farmer who maintains a woodlot to furnish fuel, fence posts and other wood material for which there is a constant demand on the farm. The circular tells how to keep the old woodlot well stocked and how to start a new one, what trees to select, how to grow them from seed and how to plant the seedlings. Write to the Agricultural Experiment Station, Columbia, Mo., and ask for a free copy of Circular No. 52.

What Certain Motors Can Do.

Below are given some data which have been compiled from actual tests, and are taken from recent publications of the General Electric Company:

Six horse power will drive a grain separator and thresh 2,500 bushels of oats in ten hours.

Three horse power furnishes all power needed to make 6,000 pounds of milk into cheese in one day.

Six horse power will run a feed mill grinding twenty bushels of corn an hour.

Five horse power grinds twenty-five to forty bushels of feed, or ten to twelve bushels of ear corn an hour.

Seven horse power drives an eighteen-inch separator, burr mill and corn cob crusher and corn sheller, grinding from twelve to fifteen bushels of good, fine meal.

Six horse power runs a heavy apple grater, grinding and pressing two hundred to two hundred and fifty bushels of apples an hour.

Five horse power will drive a thirty-inch circular saw, sawing from fifty to seventy-five cords of stove wood and from hard oak in ten hours.

Six horse power saws all the wood four men can pile in cords.

Twelve horse power will drive a fifty-inch circular saw, sawing 4,000 feet of oak or 5,000 feet of poplar in a day.

Ten horse power will run a sixteen-inch cutter and blower, and elevate the ensilage thirty feet high at the rate of seven tons per hour.

One horse power will pump water from a well of ordinary depth in sufficient quantity to supply an ordinary farm house and all the buildings with water for all the ordinary uses.

The Largest Grape-producing States.

According to the census, over 83 per cent. of all vines of bearing age in the United States is in three states—California, New York and Michigan. California had, in 1910, a total of 144,098,000 vines, an increase over 1900 of 53,412,000 vines. The production in 1909 amounted to 1,979,687,000 pounds, valued at $10,847,000. In 1899 there were produced 721,433,000 pounds.

In New York there were, at the present census, 31,802,000 vines of bearing age. The production reported for 1909 was 253,006,000 pounds, as against 247,698,000 pounds in 1899. The value of the crop in 1909 was $3,962,000.

Michigan had 11,014,000 vines of bearing age in 1910. The product in 1909 amounted to 120,696,000 pounds, valued at $1,531,000. In 1899 a production of 11,530,000 pounds was reported.

DAIN
SIDE DELIVERY RAKE
This Machine Makes Hay
WORTH MORE
To Feed—To Sell
Let hay lie in the swath and the sun scorches it robbing it of its color and much of its nourishment. In the ordinary close-packed windrow, the air is shut out. But throw it up in a loose fluffy windrow with the
DAIN
Steel Frame
Side Delivery Rake
And the hay is evenly dried by the warm air. All the rich juices and natural color are preserved. If you sell hay, get the highest price. If you feed hay, get the benefit of the increased feeding value by your stock.
Handles the Hay Gently
The rake bars have a slow, steady motion. The spring fingers lift the hay softly. The tender, foliage parts, high in feeding value, are not shattered or wasted.
Cures the Hay Quickly
Hay cures slowly in the swath thatch. Tedded hay falls back on the damp ground. The Dain Side Rake makes loose open windrows and exposes the damp stubble so that it dries out and warms up. This reflected heat helps cure the hay more quickly. In "catchy" weather, quick curing is of greatest importance.
Special Features
Teeth may be raised or lowered.
Teeth turn with gentle motion.
Handles to tender products.
Rakes clean, leaves trash and dirt.
All gears absorbed by rubber springs.
Easy regulation of bevel gears.
Easily adjusted to handle light or heavy hay.
All Dain Hay Tools Are Money Makers
They're made by hay tool specialists, 20 years of experience back of every machine. They're the most simple, the most sure and work saving, the most durable and dependable. Ask your John Deere dealer to show you the Dain line of mowers, rakes, stackers, loaders, presses, etc. Write us for new booklet of the tools on which you are interested. We'll also send you free "Better Farm Implements and How to Use Them," the most practical and valuable book published for farmers.
Be sure to ask for package No. 77.
John Deere Plow Company
Moline, Illinois
"Get Quality and Service, John Deere Dealers Can Both"

WHITMAN'S
HAY PRESS
40 Years Standard of the World
New Model Steel Beauty
ALL STEEL
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Canton, Ohio

SOME RULES FOR SHADE TREE PLANTNG.

By Prof. W. W. Robbins, Department of Botany and Forestry, Colorado Agricultural College, Fort Collins.

It is better to use stock that has been grown under climatic conditions similar to those where the tree is to be planted.

Trees two inches in diameter are large enough.

Root system should be compact and trunk straight.

Watch for shipment. Do not allow trees to dry out on depot platform.

Plant the trees as soon as possible after they come from the nursery. However, if the grower is not ready to plant, the trees must be properly cared for. Unpack large bundles of stock, dig a trench in a shady place and heel the trees in until ready to plant. In any event, do not expose roots to air any longer than absolutely necessary.

Trim the lower branches to a height of six or seven feet from the ground. Remove about one-half of the previous year's growth in order to maintain the balance between root and stem systems.

Trim off all torn or broken roots before planting.

Plant with as large root system as possible.

The hole should be larger than the root system.

Do not put fresh manure in the hole; it will burn the roots.

Set trees an inch or two deeper than they stood in the nursery.

Arrange the roots to spread naturally.

See to it that the soil is firm about the roots.

Do not leave a depression about the stem in which water will stand; standing water at the base of young trees causes sun-scald.

Water young trees freely. Two good soakings a week are better than a small amount of water each day.

Cultivate about the trees. Do not allow sod or weeds to grow about young trees.

Place a guard about the tree.

Support the young tree so that its growth will be erect, not leaning in the direction of the prevailing wind. Do not allow any part of the tree to rub against supporting stake or guard.

Avoid Low-grade Nitrate.

The following letter has been received from the Nitrate of Soda Propaganda of the United States and Colonies, 71 Nassau street, New York:

Dear Sir:—Several cases of low-grade nitrate have in the past appeared on the market, and I am writing you to suggest that you advise correspondents to purchase nitrate from trustworthy dealers only. One adulterant is common salt, and sometimes salt cake has been used. Both are worthless as fertilizers and contain no plant food. It is preferable to purchase nitrate in original bags, which contain about two hundred pounds.

So far as the Chilian producers of nitrate are concerned, however, the greatest care is taken, and samples drawn by inspectors from all cargoes before they leave the ports of Chili, and heavy fines would be imposed upon any producers who attempted to export low-grade nitrate. Salt cake residue made as a by-product in the manufacture of nitric acid has also been used to adulterate nitrate, and in certain cases has been sold as niter-cake. This name tends to give it a false value. It is also worthless as plant food. On our part, we have done all that is possible to maintain a high standard, and that our policy will be the same in the future you may be fully assured, and I hope that you will be able to co-operate with us in helping to prevent sales of low-grade nitrate, which we would greatly deplore. Very Truly Yours, (Signed) William S. Myers, Director.

Effect of a Good Fertilizer.

"I purchased of Culberhouse & Salmons by the solicitation of their salesman, Mr. R. R. Houston, 1½ tons of the Empire Cotton and Corn Grower Fertilizer. I left six rows through the middle of the patch unfertilized. They averaged twenty pounds to the row, while the six rows on the east and west side that were fertilized averaged sixty pounds to the row. That is what the fertilizer did for me."—W. J. Brown, Jonesboro, Ark. See advertisement of Empire Carbon Works on page 14.

Mississippi Steers at St. Louis.

At St. Louis, on April 29th, twelve head of Mississippi steers, 1,148 pounds average, sold at $8.50 per 100 pounds; eleven head steers, 1,125 pounds average at $8.00; twelve head, 1,148 pounds, at $7.75; and twelve head, 1,148 pounds, at $7.55. The $8.50 cattle brought the highest price for native Mississippi cattle at any time at any market. These cattle were fed at the Agricultural College near Starkville, Miss., under the direction of Prof. E. R. Lloyd, who is in charge of the experimental work at the college. In later issues of this paper, when a bulletin is issued, giving the particulars of the cost of cattle, cost of feed, gain per day, etc., we will refer to this shipment again.

Be sure to look up page 23 and read about the magnificent Book of Live Stock Champions, which is just issued from the bindery.

The Wheat Harvest Is Everybody's Business

MORE than a hundred million people await the report from the wheat fields. Everybody is interested. A good harvest means prosperity to all. It means more than prosperity to the man whose work lies in the city or town; to him it means existence. Two-thirds of our people depend absolutely upon the other third for the very bread they eat. Truly, the wheat harvest is everybody's business, a matter of the deepest concern to us all.

Fortunately the farmer's reward for his work in the wheat fields is reasonably sure. Scientific preparation of the soil and seed bed, rotation of crops, selection of seed, and the use of high grade farm machines, have made a good crop almost an assured fact. For work of such importance the best machines that can be made are absolutely necessary. The harvest time is short; every minute is important; delay is intolerable and expensive. The choice of machines to harvest your growing crop is your most important duty. Make your investigation thorough and complete and you will decide that the harvesting machine for you is one of the world-famous I H C line:

Champion
Deering

McCormick
Milwaukee

Osborne
Plano

One of these will meet your harvest conditions better than any other machine made, because they have been developed in just such fields as yours. Improvements have been added year by year until I H C machines are practically perfected. They cut equally well, short, tall, standing, down, or tangled grain. They have been simplified until anyone can handle them safely and efficiently.

Because the harvest time is short and delay expensive, and because accidents to farm machines can never be foreseen, we have been careful to provide a stock of interchangeable repair parts where you can lay your hands on them at once if they should ever be needed. In choosing your harvesting machine do not overlook this most important feature. A day's delay on account of a broken part may cost you more than the price of a new binder. When you buy an I H C machine you buy it with the assurance that any needed part is no further away than your dealer's place of business.

This service does away with all unnecessary delay in the field and assures you a full harvest garnered in good season. This fact in itself is a strong reason for the purchase of an I H C harvesting or haying machine or tool.

The experience of many farmers for many years points to one of these machines as the one best buy for a man whose profit lies in the successful harvesting of a small grain or hay crop. I H C machines have been tested thoroughly under every harvest field condition, and have made good in every test. You are not asked to make any experiments, the experimenting has all been done. You take no risk, I H C experience has provided against all risks. With an I H C machine you are safeguarded against all harvesting chances except those of the weather, and very largely against them.

Of next importance to the choice of a machine is the buying of binder twine that will work without waste or trouble in that machine. Here again we have arranged to supply your needs with the best twine that can be made. Take your choice of seven brands—Champion, Deering, McCormick, Milwaukee, Osborne, Plano, or International, all made in four grades—Sisal, Standard, Manila, and Pure Manila.

See the I H C local dealer and discuss with him the machine and twine you should buy. It is his business to help you decide right. You can rely on what he tells you about I H C machines. If for any reason you prefer to have us do so we will send you catalogues. A post card will bring them.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
(Incorporated)
CHICAGO **U S A**

IHC Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U S A.

AUTOMOBILES.

Buy The Mitchell, BECAUSE Every Ounce of horsepower in the **Mitchell** is available for the road, no matter what it may be; it makes little difference whether hills, ruts, sand, mud or clay, its all the same; it meets the demands of every condition of American roads. Buy the **Mitchell**—BECAUSE—Its simplicity brings it within the comprehension of the average man and woman, the average person can run it under any and every road condition. Buy the **Mitchell**—BECAUSE—Its motor is simple, its transmission is simple, its cooling system is simple, its pump is simple; simplicity reduces the cost of operation and upkeep. Buy the **Mitchell**—BECAUSE—In the **Mitchell** is found a standard of motor efficiency, correct transmission and drive; correct carburition, ignition and lubrication. Buy the **Mitchell**—BECAUSE—The **Mitchell** price is figured to give the buyers of motor cars the most that can be had for the money. Buy it—BECAUSE—Its the car known the world over, its the car you cannot wear out. Buy it—BECAUSE—The **Mitchell** "Make-Good" policy Protects you. Prospective buyers call on us and examine the **Mitchell** line at your leisure.
Weber Imp. & Auto Co., 1900 Locust, St. Louis. 2 phones

Sandow $37.50
2½ H.P. Stationary Engine—Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil), gasoline, alcohol, distillate or gas. Sold on 15 days' trial. YOUR MONEY BACK IF YOU ARE NOT SATISFIED.

5-year ironclad guarantee. Sizes 2½ to 20 H. P., at proportionate prices, in stock, ready to ship. Postal brings full particulars free. Write for proposition on first engine in your locality. (116)
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Everything for Bees.
We manufacture the latest approved supplies and sell direct at factory prices. We're old-time bee people in a bee country. We know your needs. Early order discounts. Send for catalog. Don't buy till it comes.
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4 BUGGY WHEELS FREIGHT PAID STEEL TIRES **$8.75**
With Rubber Tires, $18.45. Your Wheels Rerubbered, $10.30. I make wheels ¾ to 4 in. tread. Tops, $6.50. Shafts, $2.10; Repair Wheels, $5.95; Axles $2.25; Wagon Umbrella free. Buy direct. Ask for Catalog 67
SPLIT HICKORY WHEEL CO., 567 F St., Cincinnati, Ohio.

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Fill your **SILO** with a **DICK** BLIZZARD Ensilage Cutter. Capacity, 4 to 15 tons pr hour, requiring 3 1-2 to 12 h.p. Will ship on trial, if desired.
We also sell STOVER GASOLINE ENGINES.
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FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Corn Market Situation.

There have been some remarks about corn selling high, which is not bad news for the farmer who has corn to sell. But there are lots of people who can pay almost any price for luxuries and do it with a smile who will "kick like a bay steer" at a fair price for bread. Corn is really not high at a dollar a bushel, which is less than two cents a pound.

Let us not disguise the fact, between ourselves, that 80-cent corn sounds good to the farmer. On April 30th, at St. Louis, Mo., in car lots sold by sample, the corn delivered and cash received, and under the circumstances, No. 2 corn sold from 81½ to 82 cents a bushel.

In the trading at Chicago, on April 30th, the May corn option closed with sellers asking 80¼ cents; the July option closed at 78⅞ cents, and the September option closed at 76⅜ cents, each of these quotations showing advances of three to six cents a bushel over the quotations of the closing day of the previous month. A year ago No. 2 corn was selling at 52¼ cents, and two years ago at 58¼ cents a bushel, or thereabouts.

We have often stated that there is nothing in the line of news or information that is of more value to the general farmer than these future quotations studied from the actual basis of trade, the end of one month to the end of another. They are not idle figures; they are subject to change; but every figure represents the buying and selling which are done by parties who are posted to the minute with every item of information having a bearing on crop growing, grain markets and actual values.

The Oats Market Situation.

In the closing transactions in cash oats at the St. Louis market, April 30th, 1911, the price for No. 2 oats was 32½ cents a bushel. On April 30th of this year, 1912, in the trading on the St. Louis market, the price of No. 2 oats varied from 56 to 57 cents a bushel.

At Chicago, the headquarters for large grain trading, the May oats option advanced from 54⅞ cents a bushel on March 30th to 56⅞ cents on April 30th. For the present that is a strong feature. The July option also advanced from 50¾ cents on March 30th to 54⅜ cents on April 30th, indicating that until another crop is in the traders expect no decline.

But a decline is expected from 54 and 56 cents when the new crop of oats comes to be harvested, for the September option quoted at 43⅜ cents on March 30th advanced to 45 cents, but that is 9⅜ cents a bushel less than the corresponding quotation for July. The expectation is that the new crop will be sufficient to reduce prices by its own weight. We do not anticipate such a large crop of oats, but we have considerable respect for the figures that are arrived at by buying and selling the goods.

Fertilizers For Corn.

There is an increasing interest in Missouri regarding the use of fertilizers for corn, and a large number of inquiries are being received at the Experiment Station as to the best methods.

In general, it is better practice to keep up the soil by a careful system of rotation, clover and cowpea growing and manuring, than to depend upon commercial fertilizers; but properly-used fertilizers may be a great help.

Briefly, the recommendations of the Experiment Station, according to the results secured on the various outlying soil experiment fields are as follows: On the average upland which is medium to low in fertility the application in the hill or drill with a fertilizer planter of 75 to 90 pounds of a fertilizer containing 2 to 3 per cent. potash will usually be accompanied by the highest net return per acre, per dollar invested in fertilizer, if the corn crop alone is considered. The same application of steamed bonemeal is also good.

On very thin lands the use of the same fertilizers at the rate of 200 to 250 pounds per acre ahead of the corn planter with a fertilizer grain drill is usually better. The same is true on lands medium to poor in fertility, if the crops following are considered, since some return will also be secured from the fertilizer on these crops. Care should always be taken not to apply too much fertilizer, particularly in the hill or drill, as there is danger of the corn firing on a dry season. On seasons of abundant rainfall double the amounts recommended for hill fertilization will often pay better; but taking the seasons as they run, 100 pounds is about the maximum that should be used.

It must be remembered that the use of fertilizers for corn does not keep up the land. It is merely a temporary expedient of getting a crop and should be used only in connection with the best system of rotation, legume growing and manuring that a farmer can practice. Used year after year on the same land, the effect on the soil is the same as if corn had been grown without fertilizer. Where proper systems of keeping up the land through rotation and manuring are practiced, particularly where occasional clover or cowpea crops are plowed in with a cheap phosphate like raw rock phosphate, the use of fertilizer at the time of planting is rarely remunerative.—M. F. Miller, University of Missouri, Columbia.

Two More Farm Publications.

Circular No. 55, entitled "Forage Crops For Swine," is a four-page circular which summarizes in concise form the more important results obtained in the feeding trials with hogs reported in Bulletin No. 95. Ten thousand copies of the latter were printed, but the demand for it was so great that the supply was soon exhausted. The new circular discusses the value of alfalfa, clover, rape and blue grass as forage crops for hogs. Farmers who have not received Bulletin No. 95 should write now for Circular No. 55, addressing the Agricultural Experiment Station, Columbia, Mo.

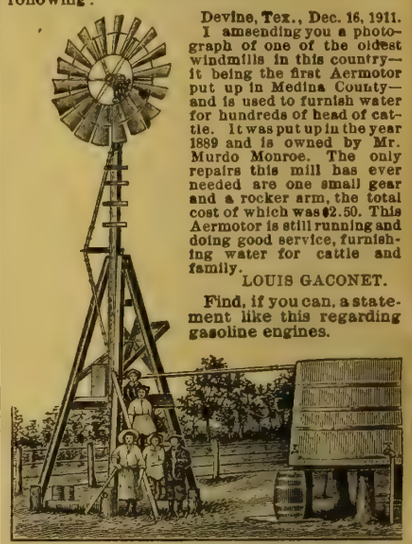
Bulletin No. 101 is the official report of the Director of the Missouri Agricultural Experiment Station for the last fiscal year. The report shows that during the year twelve publications were issued, nineteen new men were added to the Station staff, over 50,000 letters were received and answered, nearly 400 public addresses were made to over 143,000 people, and fifty distinct lines of investigation were carried on for the benefit of Missouri farmers. The report tells of the extensive co-operative experiments on several hundred farms in this state, and gives the interesting results obtained on the outlying experiment fields. Every farmer who wants the official statement of what the Experiment Station is doing for the state should write to the Agricultural Experiment Station, Columbia, Mo., and ask for the report of the Director, Bulletin No. 101. It is free.

The Aermotor with the automatic regulator stops when the tank is full and starts when the water is lowered 4 inches. You oil it once a week. A gasoline engine has to be started and stopped and oiled and attended almost constantly, and you have large expense for gasoline and oil. The wind is free.

We make gasoline engines (exceedingly good ones) but, for the average water supply for the home and 150 head of stock, an 8-foot Aermotor with a storage tank,—which is a necessity with any kind of water supply—is all that is needed and is by far the more economical. The supply of wind for the Aermotor is more to be relied upon than the supply of gasoline, batteries and repairs for the gasoline engine.

The cost of gasoline, oil, batteries and repairs in pumping for 150 head of stock with a gasoline engine, will buy an 8-foot Aermotor every year, and you are still to the bad the amount of time you spend over the gasoline engine.

But the gasoline engine has its place on the farm notwithstanding the fact that 100 people are maimed or killed with gasoline where one is injured by a windmill, and that 100 farm buildings are burned with gasoline where none is injured by a windmill. For the water supply, the windmill is the thing. Thousands of farmers who have done their first power pumping by a gasoline engine have become tired of it and are buying windmills. That is one reason why our windmill business increases from year to year. We can furnish you much testimony like the following:



Devine, Tex., Dec. 16, 1911.
I amsending you a photograph of one of the oldest windmills in this country—it being the first Aermotor put up in Medina County—and is used to furnish water for hundreds of head of cattle. It was put up in the year 1889 and is owned by Mr. Murdo Monroe. The only repairs this mill has ever needed are one small gear and a rocker arm, the total cost of which was $2.50. This Aermotor is still running and doing good service, furnishing water for cattle and family.
LOUIS GACONET.

Find, if you can, a statement like this regarding gasoline engines.

Of course, there are places where a windmill cannot be used. There you will have to use a gasoline engine, with all of its disadvantages. We will furnish for that place a small engine which costs but $37.50 complete, so it can be set to pumping in 30 minutes. Or we will furnish you a pump jack—the best made—for $6.00, to do pumping with a larger gasoline engine.

Send for catalogue giving full information about water supply. Aermotor Co., Chicago. Branch Houses: Oakland, Cal.; Kansas City, Mo.; Minneapolis, Minn.

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$9,000 offered for certain inventions. Book "How to Obtain a Patent and "What to Invent" sent free. Send rough sketch for free report as to patentability. Patents advertised for sale at our expense in Manufacturers, Journals.
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Make $25 to $50 Weekly
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Stover GASOLINE ENGINES are famous for simple and best known mechanical construction and are fully guaranteed. The merits of the Stover are worthy the consideration of prospective purchasers. Size, 1 to 50 h. p. Free catalog to interested parties.
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Plain or Bailey Treads, for Clincher, Quick Detachable, or Dunlop Rims (Quick Service), from
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Circular Saws Of Best Makes, such as Ohlen, Curtis, Atkins and Disston. Prices on application. Address
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is 50 cents.

For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The Paint Instruction Book.

The Sherwin-Williams Company, of Cleveland, Ohio, will send an instruction book for painters that is very valuable. To paint the barn, the house, the fence, the vehicles and the implements does not require much skill, but you need practical guidance, showing paints, oils, dryers, varnishes for each particular class of work. Messrs. Sherwin-Williams will surprise you with the amount of assistance they can render if you will write for their free paint book and address the post card or letter to Sherwin-Williams, 689 Canal Road, N. W., Cleveland, Ohio.

Cash Wheat Sales at St. Louis.

On April 30th, on the St. Louis market, the following were the cash prices for grain sold in car-loads by sample:

Wheat.—No. 2 red wheat, $1.19 to $1.20½; No. 3 red, $1.18; No. 4 red, $1.10 to $1.15; No. 2 hard, $1.13 to $1.19, nominal; No. 3 hard, $1.11 to $1.16, nominal; No. 4 hard, $1.05 to $1.12.

Corn.—No. 2 corn, 81½ to 82c.; No. 3 corn, 78 to 79c.; No. 4 corn, 77 to 77½c.; no grade, 70 to 74c.; No. 2 yellow, 82 to 82½c.; No. 3 yellow, 79½ to 80c.; No. 4 yellow, 77½c.; No. 2 white, 83 to 84½c.; No. 3 white, 82 to 82¼c.; No. 4 white, 77½c.

Oats.—No. 2 oats, 56 to 57c.; No. 3 oats, 56c.; No. 4 oats, 55c., nominal; No. 2 white, 58 to 58¼c.; standard, 57¾ to 58c.; No. 3 white, 57 to 57¾c.; No. 4 white, 56 to 56½c., nominal; No. 2 rye, 94c., nominal.

Something New in Gates.

It's a far cry from the cradle to the self-binder; from ox team to auto; from the old-fashioned "bars" in the "gap" of the back pasture to the modern steel and wire gate; but alive and alert men are constantly improving and bettering our already almost perfect machinery in all lines.

The Peerless Wire Fence Company are just putting on the market an improvement on steel and wire gates which looks like a money saver for farmers. They have discovered a method by which every part of a steel gate can be galvanized, making it rust-proof.

This galvanizing is applied by the electro process, in much the same way silverware is plated. We all know that galvanized wire is better than painted wire for fence purposes, and the manufacturers claim their galvanized gate will give the same additional service, which looks entirely reasonable, as it is possible to do a better job of galvanizing by the electro process than by the old hot process, the method by which fence wire is galvanized. They will be glad to send their new catalogue free. Write them for it. Address, Peerless Wire Fence Company, 242 Michigan street, Adrian, Mich.

The Hay Market at St. Louis.

On May 2d the following sales were made in St. Louis, sales on St. Louis Side: One car no-grade at $20; part car wild grass and timothy at $20 and $25; one car clover-mixed at $27.50; three cars light do. at $27.50; two cars part clover-mixed at $25; part car No. 1 timothy at $27, delivered. Timothy—Two cars No. 3 at $21; part car at $25; one car scant No. 2 at $25.50; part car at $26; two cars No. 2 at $26, delivered; one car do. at $26.50, delivered; three cars No. 1 at $28, two cars delivered; three cars do. at $28.50; five cars do. at $29, two cars delivered; three cars high No. 1 at $29.50, one car delivered. Prairie—One car common Nebraska at $14; one car No. 2 do. at $22; one car do. at $22.50; one car do. at $23; four cars No. 1 at $24; two cars do. at $24.50; one choice at $25. Alfalfa—One car No. 2 at $23.50; three cars No. 1 at $24.50; one car do. at $25. On East Side: Timothy—One car No. 1 at $28; two cars do. at $29; one car high No. 1 at $29.50.

Vegetable Market Report.

The following were conditions during the first week in May at the wholesale vegetable market of St. Louis:

Cabbage.—Market weak and dull, depressed by large offerings of heated and damaged stock—couple cars Texas in bad order refused. Car Mobile sold at $2.25 per crate, delivered. Florida crates offered at $2.25, delivered, and only $2.10 bid. Choice green Texas bulk cabbage at $40 per ton—heated and ripe less. One car heating sold at $15 per ton on track and three loads trimmed at $20, delivered.

Old Potatoes.—Market weak and demand dull; receipts lighter, but some stock on tracks which receivers are endeavoring to move. Sales load sacked foreign dark white at 90c., delivered; couple loads sprouted Northern Rural at 95c., delivered; one car Wisconsin Rural at $1.00, track; one-half car do. at $1.00, delivered; one car dusty do. at $1.05, delivered.

New Potatoes.—About steady; freer offerings and demand fair. Car Texas sacked Triumphs sold at $2.90 per bushel; Louisiana hampers Triumphs at $2.00, delivered, and barrels red and white at $6.00 to $6.50, delivered; Florida hampers Triumphs at $1.50 to $1.60 for No. 2 to $1.75 to $2.00 for No. 1, and white at $1.35 to $1.50 for No. 2 to $1.65 to $1.75 for No. 1.

New Onions.—Lower, slow and weak; offerings large and in excess of the demand. Texas Cummer crates yellow at $1.30 to $1.40 for fancy; $1.00 for No 2; Crystal Wax at $1.25 to $1.60, delivered. Sales: One car delivered, including 394 crates fancy yellow onions at $1.40; 18-bushel baskets Triumph onions at $2.25; 32½-bushel baskets do. at 75c., and 22-Cummer crates do. at $1.75; one car yellow onions (damp and out of condition) at $1.00, delivered.

String Beans.—Florida round green (refrigerating car receipts) at $1.40 per hamper, delivered; and express receipts round green ranged at $1.00 to $1.40, and wax beans at $1.00 to $1.25 per hamper; New Orleans round green at $1.25 and flat at $1.00; lower coast round green at $1.65; pale do. at $1.50 and flat at $1.00 per hamper; Kenner wax at $1.00; Texas hampers (fancy round green) at $1.00—couple lots stale at 75c. and 90c.; Alabama hampers round green at $1.65, and Mississippi at $1.75.

Sweet Potatoes.—Home-grown eating Queen and Bermuda from farmers' wagons at $1.00; yellow and red Nansemond at $1.10 per bushel loose. Lot of fifty hampers Louisville yellow seed sold at 75 to 90c.

Tomatoes.—Weaker; three cars on sale and not all cleaned up; demand fair for sound ripe. Florida in jobbing way delivered at $2.50 to $2.75 per six-basket crate for choice and $3.00 to $3.25 for fancy. One car sold at $2.60 to $2.75 for choice and $3.00 to $3.25 for fancy.

Southern Agriculture.

The Southern Field for April contains a concise, general writeup of each of the Southeastern States, those commonwealths which are so prominently before the public eye to-day for their tremendous increase along every line of agriculture and industry. Anyone can get a copy of the Southern Field by writing to Mr. M. V. Richards, Land and Industrial Agent, Room 71, Washington, D. C. He has helped to find many superior locations for farmers who wish to live and work in the South.

Recent sales of wheat straw on the St. Louis market were at $10 per ton.

YOUR CROPS

can get more nitrogen out of one single sack of

Nitrate of Soda

than out of a two-horse wagon load of manure. The Nitrogen in Chilean Nitrate of Soda is 100% available and is *immediately* so the day you apply it! It produces

More powerful growth and healthier, bigger plants. Easy to handle, clean, cheap, odorless, free from fillers.

Write to us for valuable free literature on the crops that mean a living to you. A post card will bring it to you.

Dr. William S. Myers Director of Chilean Propaganda **17 Madison Ave., New York**

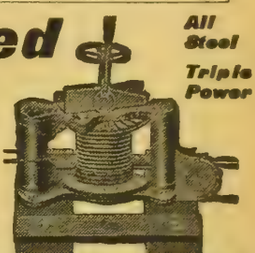
NO BRANCH OFFICES

Big Stumps Pulled Quick and Easy

No Stump can Resist the Hercules

All Steel Triple Power

Pulls an acre a day. It doubles land values. Enables you to grow crops instead of paying taxes on land that yields nothing.



HERCULES

More power than a tractor. 60 per cent lighter, 400 per cent stronger than cast iron puller. 30 days' free trial. 5-year guarantee to replace, free, all castings that break from any cause whatever. Double safety ratchets insure safety to men and team. Accurate turning means light draft. Mail postal for free book showing photos and letters from owners. Tells how to turn stump land into big money. Special introductory price proposition will interest you. Write now.

HERCULES MFG. CO., 140—17th St. Centerville, Iowa

CURE FOR WORMS

A horse that is infested with worms can never do well. Worms cause a derangement of the whole system.

FRAZIER'S DISTEMPER CURE

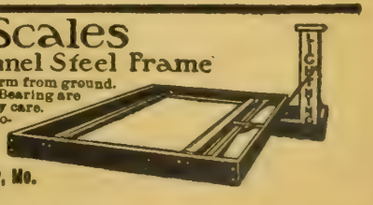
Is an excellent remedy for worms. We offer it on an absolute guaranty that it will give satisfaction to all who use it, or your money back. $1.00 bottle holds three 50-cent bottles. Free horse booklet on request. Sold by druggists or prepaid from

BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

GRAND SUBSCRIPTION OFFER.

A Splendid Magazine One Year —The Ladies' World—National Farmer and Stock Grower One Year—Eight Standard Grapevines —All For One Dollar.

This is a startling subscription offer, especially valuable to farmers' wives and families and to anyone who owns a home. "The Ladies' World" is a monthly magazine,

forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful, splendidly edited, lovely stories, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. No better, cleaner or more useful paper can possibly enter the farm home.

The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets and instructive matter concerning general farming, stock raising, dairy, poultry keeping and all the especial features that keep a farmer posted on his own interests in dealing with the world of business.

The subscription offer includes a magnificent collection of **Eight Two-year Standard Grapevines.** These

grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe; **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar.

SUBSCRIPTION COUPON.

Please Cut Out and Mail to Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar ($1.00), for which send me **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Eight Two-year-old Standard Grapevines** as advertised.

Name.. .....

Address..... .....

State..... .....

A Kingly Vegetable Grower.

In the Flaneur letters concerning European affairs, the fact, which is not generally known, was stated that King George of England is extremely fond of gardening, though now, of course, he has not so much time to devote to it as was the case when he was Duke of Cornwall and York. In those days the present ruler of Great Britain and his consort passed the greater part of their year at York cottage, Sandringham, and he cultivated a small garden entirely by himself, resolutely refusing any assistance, save that of his wife, who occasionally would help him to prune the rose trees and other light tasks of that description.

Vegetable growing strongly appealed to His Majesty, and he was always highly delighted when he could send a couple of cabbages or a basket of peas to his mother, Queen Alexandra, for her special use, saying that he had planted and grown them himself.

The love of gardening has been King George's hobby since he was quite a boy, when he and the late Duke of Clarence and Avondale, his brother, each were assigned a plot of land in the kitchen garden at Sandringham for their especial use. This garden they are expected to keep trim and in proper order throughout the year. But the tastes of the two young princes varied in a striking manner.

The late Duke of Clarence grew flowers to the exclusion of everything else. Roses, in particular, were his passion, and during the summer months, wherever Queen Alexandra may have been staying, there always was a vase upon her writing table filled with a handful of blooms grown by her elder son.

King George, in those youthful days, shaped his garden in a more practical way, devoting his attention to the growing of useful things, such as potatoes, turnips and carrots. He used to say with naive frankness: "Roses are all very well, but you can not eat them when you are hungry." The fact is, that the King of England to this day is a first-class agriculturist.

Anything connected with farming, from the raising of prize cattle to the experimenting with a new variety of seed potatoes, appeals to him strongly. Often he will sit up way into the night reading some new treatise upon farming.

The king also encourages his sons to take an interest in farming. Each one has his own plot ot York cottage. This is carried on to such length that Prince Henry, the third son of the royal pair, just a little shaver and a pupil, has a small garden at his school. Imagine the surprise and gratification of Queen Mary when finding upon her breakfast table on the morning of her coronation last June a bunch of sweet peas which the little son had grown for his mother.

King George is fully persuaded that gardening is the most invigorating pastime in the world, and that if more men would devote an hour or two each day in their gardens there would be fewer complaints of liver trouble and less need of physical culture of an artificial nature. (The most sensible thing he or any other king ever has been known to utter.) And what is more to the point, he lives up to his teachings. For within the past year he has been known to take a spade and dig vigorously for some time.

A Change in Wool Freight Rates.

For many years it has been well known that railroad tariffs were distinctly to the disadvantage of the sheep and wool-growing interest, so much so that between the cheap ocean freights and the transatlantic railway discriminations it was cheaper to ship wool from Sidney, Australia, to Boston than from Montana, Wyoming, New Mexico or Texas to Boston or any other Eastern market.

We are now informed that in a far-reaching decision rendered by the Interstate Commerce Commission the freight-rate situation has been changed for all Western wool growers, and large reductions have been ordered by the Commission on wool, hides and pelts from all points west of the Mississippi river to every point east, and the decision operates to upset the present wool rate system, which has been maintained by the railroads for many years. The Commission has ordered "blanket" rates supplanted by graded rates. It prescribed lower rates on baled wool than on wool in sacks and advised Western growers to bale their wool; establishes car-load rates on wool at a cheaper classification than is now maintained and gives to intermediate cities the privilege of cleaning and treating wool in transit, and yet under restrictions gives the railroads permission to charge lower through rates on wool from the Pacific coast to the East than from the intermountain districts.

The suit resulting in the far-reaching decision was brought by the National Wool Growers' Association and the Railroad Commission of Oregon. The railroad managers were given until May 1st to submit new tariffs in line with the decision.

In the wholesale market at St. Louis, Mo., Western pecan nuts are quoted at 10 and 10½ cents a pound, and Texans at 10½ to 11 cents. Peanuts, farmers' stock, at 3 to 3½ cents a pound. Black walnuts at 25 cents a bushel.

Take notice of the splendid rose premium offered on page 25.

The Culvert That Lasts

Culverts that crack, break and wear out quickly are useless. You want culverts that will endure under every condition—that once installed will last a lifetime. You can get such a staunch, serviceable culvert at a lower cost than any other make, by asking for the American Ingot Iron Culvert—the choice of the biggest railroads.

Why They Outlast Others

These wonderful metal corrugated culverts are **not** made of galvanized steel, but of galvanized **American Ingot Iron—guaranteed 99.84% pure.** Steel, on account of its impurities, rusts and corrodes quickly. This means a short life and unsatisfactory service. American Ingot Iron, due to its purity, resists rust for many years, and culverts made from this iron outlast steel culverts many times over. They will not crack, break, or wash out in freshet time as other culverts do. Easy to handle and install—no maintenance cost.

AMERICAN INGOT IRON CULVERTS

Guaranteed 99.84% Pure Iron

Leading railroads are displacing concrete, brick, tile and stone culverts with these durable and economical culverts. They **know** by experience the superiority of American Ingot Iron Culverts over all other makes. Look for the triangle trademark on every section—it insures you getting **genuine** American Ingot Iron.

Tell Us Your Road Troubles and Plans

Any manufacturer named below will gladly send you expert money, time and labor saving advice. Road builders, county officials, taxpayers, etc., can profit by this free service. **Only** the manufacturers named here make and sell American Ingot Iron Corrugated Culverts.

Send for Particulars and Prices

Dixie Culvert & Metal Co., Little Rock, Ark.; Atlanta, Ga.
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Delaware Metal Culvert Co., Clayton, Del.
Illinois Corrugated Metal Co., Bloomington, Ill.
W. Q. O'Neall Company, Crawfordsville, Ind.
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Fort Dodge Culvert Company, Fort Dodge, Iowa.
Independence Corrugated Culvert Co., Independence, Ia.
The Road Supply & Metal Co., Topeka, Kan.
Kentucky Culvert Company, Buechel, Ky.
New England Metal Culvert Co., Palmer, Mass.
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Michigan Bridge & Pipe Company, Lansing, Mich.
Bark River Bridge & Culvert Co., Bark River, Mich.; Eau Claire, Wis.
Lyle Corrugated Culvert Company, Lyle, Minn.; Minneapolis, Minn.
Corrugated Culvert Co., Moberly, Mo.
Montana Culvert Company, Missoula, Mont.
North Carolina Metal Culvert Co., Greensboro, N. C.
Northwestern Sheet & Iron Works, Wahpeton, N. D.
North-East Metal Culvert Co., Nashua, N. H.
Pennsylvania Metal Culvert Co., Flemington, N. J.; Warren, Pa.
Economy Culvert Company, Auburn, N. Y.
Nebraska Culvert & Mfg. Co., Lincoln, Neb.; Wahoo, Neb.
Ohio Corrugated Culvert Co., Middletown, Ohio
The American Rolling Mill Co., Middletown, Ohio
Oklahoma Corrugated Culvert Company, Shawnee, Okla.
Security Vault & Metal Works, Portland, Oregon
Sioux Falls Metal Culvert Co., Sioux Falls, S. Dak.
Atlas Metal Works, Dallas, Texas.
Lone Star Culvert Company, Houston, Texas.
Western Metal Manufacturing Company, El Paso, Texas.
Tennessee Metal Culvert Company, Nashville, Tenn.
Utah Culvert Company, Woods Cross, Utah.
Virginia Metal Culvert Company, Roanoke, Va.
Spokane Corrugated Culvert & Tank Co., Spokane, Wash.
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AMERICAN ARMCO INGOT IRON

American Ingot Iron May Be Had in Sheets, Plates, Roofing and Fence Wire

[Please mention National Farmer and Stock Grower.]

Amatite ROOFING

Mineral Surface Needs No Painting

IF you intend to build, use Amatite. You will do away not only with all roofing troubles, but with all unnecessary roofing expense, because Amatite *needs no painting or attention after it is laid.*

It has a wear-resisting *mineral surface* on top instead of paint. Amatite is easy to lay, fire retardant, attractive and absolutely waterproof.

Send for sample and make roofing comparisons, and know roofing before you buy. The man who knows, buys Amatite — always.

TRADE B MARK

Barrett Mfg. Co.

New York, Chicago, Philadelphia, Boston, St. Louis, Cleveland, Pittsburgh, Kansas City, Cincinnati, Minneapolis, New Orleans, Seattle, London, England

Live Stock and Agricultural Prosperity.

The richest agricultural countries in the world are those in which live stock is a considerable factor. Live stock raising develops where land areas are large and farm workers few.

The greatest single item of profit in the raising of live stock is the saving of labor. The steer harvests his own supply of grass or hay. Even in the winter time, in the shadows of the Rockies, he feeds on the grass that cured on the stem and become hay without the help of man. He gets his own water and provides his own shelter in the lee of a rock or a bush. If he is a tame steer, on an Eastern farm, he pastures in the spring, summer and fall, and asks no labor on the part of his owner. In the winter time he lives on the coarsest of fodder, hay and straw. The amount of labor put on him at any time is small. And during his whole life he is changing the food he eats into valuable meat or into fertilizer only a little less valuable than the food he eats.

The sheep takes care of itself in much the same way, and so does the horse. The hog does it to a lesser degree, but is a good grazer, when given the opportunity. The hog changes cheap products of the farm into the highest-priced meats. The value of the meat of the hog is always on the up-grade, taking one ten-year period with another, because bacon, hams and lard can be kept indefinitely and can be carried to the remotest corners of the world without spoiling. The navies of the world use great quantities of hog products, and these are largely purchased from the United States of America.

Bacon, ham and lard are now the staples of the merchant ship supplies, and ten thousand ships on all the seas carry these articles of food because of their great keeping quality and their nutritive value. These have helped to make agricultural prosperity, and yet the meat of the hog, being so largely fat, is made largely of the carbon of the air and the water so abundant everywhere.

The dairy cow comes in for her share of the credit for this prosperity, for her butter also is made from carbon and water, elements which do not impoverish the farm.

Through the medium of animals the cheapest vegetable growths of the farms are changed into high-priced products for which the world is waiting.

On every farm where live stock can be raised some stock should be kept to consume the roughage of the farm and to assist in keeping up its fertility. It is usually a poverty-stricken farm that never has anything that is capable of walking to the shipping point.

The parts of the United States where live stock is being least raised are feeling least the effects of agricultural prosperity. For this reason efforts are being made to introduce animal husbandry into the Southern States, where the land has been impoverished by long years of tillage under a system of agriculture that has not included a large element of stock raising.

International Exposition Notes.

At the recent Directors' meeting of the Chicago International Live Stock Exposition Association, the classification for the 1912 Show was made the principal subject for discussion, and it was decided to adopt, with some minor changes and additions, that used in connection with the 1911 Exposition.

In compliance with numerous requests made by Eastern breeders and feeders, the Board decided to divide the territory known as the "Eastern District" in the car-lot classification, and accordingly that section of the country comprising the states of New York, Pennsylvania, Virginia, West Virginia, New Jersey, Delaware and the New England States will hereafter be known as the "Atlantic Coast District," while the remainder of the territory will hereafter be known as the "Corn Belt District."

The Romney-Marsh sheep were given an opportunity to participate in shows of the future and will be given a classification in connection with the 1912 Exposition.

Mr. R. H. Keene, Westfield, Medmenham, Marlow, England, was selected as "foreign" judge and will pass on the grade steer and grand champion classes.

In the Book of Live Stock Champions advertised on page 23 of this paper there are pictures of fully four hundred of the animals that one year with another have won championship honors at the Chicago International Live Stock Exposition.

How to Renovate an Orchard.

Four important steps must be taken in the improvement of the general-farm orchard. These steps are practically the same as those which would be employed in the average orchard under normal conditions. With but little modification, the methods to be outlined may be continued after renovation. These are: (1) Pruning, (2) fertilization, (3) cultivation, and (4) spraying.

A general outline of work or a plan of campaign may be briefly summarized as follows, details being given later on:

1. If the orchard is and has been in sod for a number of years, plow in the fall about four inches deep. If not, plow either in late fall or early spring.

2. During the winter put on from twelve to fifteen loads of barnyard manure per acre, or one load to from three to five trees. Another plan is to apply in the spring 100 to 200 pounds of nitrate of soda, 300 to 500 pounds of acid phosphate, and 150 to 300 pounds of sulphate or muriate of potash.

3. In the winter or early spring, before growth starts, cut out all dead and diseased wood from the tree, head back the highest limbs, and thin the branches to admit sunlight.

4. Apply 1,500 to 2,000 pounds of lime per acre and work it and the manure or fertilizer into the soil thoroughly with a disk harrow or spring-tooth harrow. Keep up this cultivation until midsummer.

5. After cultivation ceases for the season, sow a cover or green-manure crop to plow under the following spring. Clover is one of the best leguminous crops in the North, while cowpeas are widely used in middle latitudes and in the South. For a non-leguminous crop rye is the most extensively used, though buckwheat is commonly used in some sections of the North.

6. Spray the trees in accordance with the directions given in government and state publications on this subject.

The foregoing six items are from Farmers' Bulletin No. 441, issued by the United States Department of Agriculture, Washington, D. C. The bulletin is a pamphlet of twenty-two pages and it is entitled "The Profitable Management of the Small Apple Orchard on the General Farm."

Advertising the Reo Motor Cars.

Farmers and stockmen who wish to understand something concerning motor cars will find it to their advantage to read the advertisement on page 32 with the utmost care. The statements are written in the clearest of language and by an expert who has created more cars than any other designer in the business. When a man has led the procession of automobile designers for twenty-five years and has finally reached the car that satisfies him, then the buyer can safely study that car and the price tag upon it. Farmers are not slow in appreciating clean-cut statements with good reasons to support them, therefore we commend this advertising to their notice.

Hire The Red River Special

CAN you afford to put the amount of your thresh bill into your straw pile? That is what too many ordinary and indifferent threshers do.

The **RED RIVER SPECIAL** is the only machine which beats the grain out just as you would do by hand with a pitchfork.

The Big Cylinder throws the intermingled straw, chaff and grain against the Man Behind the Gun. Over 90 per cent of the grain is **beaten out** right there.

The uplifting shakers keep tossing the straw up as long as it is in the machine, **beating out all the grain.**

Hire a **RED RIVER SPECIAL** this year and

Save Your Thresh Bill

Put that money into your pocket instead of wasting it. If you buy, buy a **RED RIVER SPECIAL.** If you hire, tell your threshermen to bring a **RED RIVER SPECIAL** to do your job.—It will Save Your Thresh Bill.

Write us for the proof.

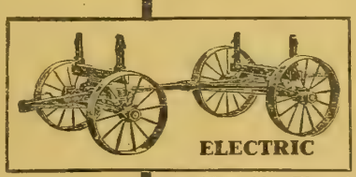
NICHOLS & SHEPARD CO.
Battle Creek, Mich.

Sole Builders of **The Red River Special Line,**—The Red River Special Thresher, Steam Traction Engines, OIL-GAS Tractors, Self Feeders, Straw Stackers etc.

The Wholesale Meat Market.

At Brooklyn, N. Y., on April 29th, the wholesale price of beef advanced a cent a pound to a higher record than any year since 1881. A carcass of native corn-fed beef was quoted at Wallabout Market at a top figure of 13 cents, which old-timers agreed was the highest price in more than thirty years. The retail butchers were equal to the emergency and were selling soup meat at 15 cents, two cents over the carcass price, also 25 to 26 cents a pound for porterhouse, and 24 cents for sirloin steak, 20 to 22 cents for rib roast, and other cuts in proportion.

Have You Written to the Electric Wheel Company Yet?



Do it now. Get one of the Electric Low Down Handy Wagons with broad tire Steel Wheels for your Summer and Fall work and save yourself and your horses. Wagons in stock, ready to ship. Also Electric Steel Wheels to fit old running gears and make old wagons new. We send *free*, on request, with full directions for using, rule and calipers for measuring old spindles, so that new steel wheels will fit perfectly.

ELECTRIC Steel Wheel Handy Wagons

Wagons in Stock Ready to Ship

Act promptly. Your wagon is waiting for you. Don't think of beginning the long busy season's hauling with your old-style high-wheeled wagon. We save you thousands of high lifts. It is the useless high lift that kills. Think of the hay, grain, fence material, lumber, stone, manure and other hauling that is before you—this year and every other year. *Cut out the high lifts. Stop cutting meadows and fields.* The Electric Handy Wagon lasts a lifetime. Send for book giving all information. Use the coupon or write us a letter or postal today.

ELECTRIC WHEEL COMPANY
BOX 40, QUINCY, ILL.

Fill out, cut off and send this Coupon to ELECTRIC WHEEL CO., Box 40, Quincy, Ill.

I am interested in knowing how to get a set of Steel Wheels or Handy Wagon Gears. [illegible] and colors are wanted. I put X here [ ]

Name .....

Address .....

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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The National Farmer and Stock Grower ought to be read at a desk with a bundle of postal cards at hand. We usually mention a number of valuable booklets which are well worth having, although free for the asking, and a postal card is very handy to ask for anything that is desired.

Several thousand of Myers' Sewing Awls, advertised on page 19, have been sent out from this office as subscription premiums and we have had but one complaint. The fact is, the awl is perfect for the purposes intended. Those who receive the awl get it direct from the factory and are able to send for new needles, thread, etc., at any time it becomes necessary to do so and to receive them without delay.

The Webster's Dictionary, which is advertised in The National Farmer Stock Grower on page 21, is certainly one of the best books we have ever sent out, and we do send out some specially serviceable books as subscription premiums. We guarantee it to be better than it is represented; in fact, it is equal to any purpose in school, college, farm, office or country house.

Every farmer who will read this publication through and through will most likely come to the conclusion that there is something in it that is useful in the conduct of his business.

Between floods, cyclones, railroad wrecks, ocean disasters and many varieties of ills and hardships, the month of April was full of trouble—a very sad month for very many homeless and distressed families. Let us hope that during the month of May the lives of the distressed will be brightened, and let us lend a helping hand to contribute to that end.

The National Farmer and Stock Grower was one of the first of the publications to use rose premiums in our subscription department, and we have a million rose plants growing in the gardens of our subscribers. May is the last month in which we advertise to send out roses. See page 25.

May is the last month in which we can furnish the grapevines which are advertised on page 6 in connection with the subscription to The National Farmer and Stock Grower and the Ladies' World. This is probably the last time we will be able to advertise such a bargain. The Ladies' World alone is worth the money.

The astonishing record of the cow Banostine Belle de Kol is worth reading. The record is on page 10 and the picture is on page 1. The picture of this cow with 730 pictures of equal size will be found in the Book of Live Stock Champions advertised on page 23.

Our Book of Live Stock Champions.

We specially request all our readers to study the advertisement of the Book of Live Stock Champions which appears on page 23. This is our own favorite publication. It contains a magnificent array of illustrations such as was never before brought together. There are 352 pages in all, 750 different illustrations, and there is a complete index. The book contains one to five champions to the page, and the record of each is given with name and address of owner in nearly every instance. There is no advertising in the book. This book would sell in limited numbers at $5.00 a copy, but our purpose is to place one on every stock farm in the United States, therefore we issue the Book of Live Stock Champions at practically a nominal price of $1.00 a copy to our own subscribers. Read the advertisement; it is well worth reading, and the book is certainly a credit to any farming establishment in the United States.

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government. Import duties on various products as now collected amount to over three hundreds of millions of dollars a year, and if not collected that way would have to be collected by direct taxes upon our own productions.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal service the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service and the farmer has a very moderate degree of what is called protection. In times of scarcity caused by drouth or other unavoidable influences the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmers' products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Raw Rock Phosphate.

We regret very much that since forming the opinion that raw rock phosphate is no good as plant food we have been unable to change it. We advise farmers not to buy it until the United States Department of Agriculture gives them a demonstration that will justify them to do so.

We have just received a pamphlet entitled "Fertilizers For Corn," from the Missouri Agricultural Experiment Station and looked eagerly for some endorsement of raw rock phosphate, but we did not find it.

We are aware that raw rock phosphate has its advocates; but we have not looked for advocates recently, but for impartial judgment. We have failed to understand why the nitrate men and the potash men are not advocating raw rock phosphate to make up the complete fertilizers. It is clearly to their interest to do so, providing the raw rock is an available fertilizer, but their silence is more eloquent than words. They do not dare to advocate raw rock phosphate for the reason that they know it is absolutely no good.

Several hundred thousand tons of ground rock phosphate have been paid for and distributed in the soils of Illinois and the answer from that investment should come in the crop reports and the market reports and not from half-acre tract results that may just as well be attributed to lime, to improved tillage, to barnyard manure, to rotations, to other fertilizers.

Raw rock phosphate has been dumped on Illinois soils long enough to have produced crop results large enough to be seen as a monument. Where is that monument?

Germany produces thirteen bushels more wheat to the acre than Illinois, but the record of Germany is not made up with raw rock phosphate; neither do they turn under clovers and other legumes until they sell the hay. And here raw rock phosphate is bought on the faith that in one well-certified instance it caused a gain of 34½ bushels to the acre, and it is no good unless you turn under with it the most valuable crops in the market to-day.

We have been told that raw rock phosphate is not sold as a fertilizer, but every salesman is backed up by the endorsement of the experiments which discountenance every form of fertilization except raw rock phosphate. It is certainly bought as a fertilizer, and many of the farmers are looking in vain for results from the first-year's treatment.

If a farmer entered a restaurant and called for a beefsteak and the restaurant keeper showed him a calf in the pasture and told him he would get his beefsteak when that calf weighed 1,500 pounds, the farmer would be nearer to his beefsteak than he would be to a loaf of bread made from wheat grown by the influence of raw rock phosphate.

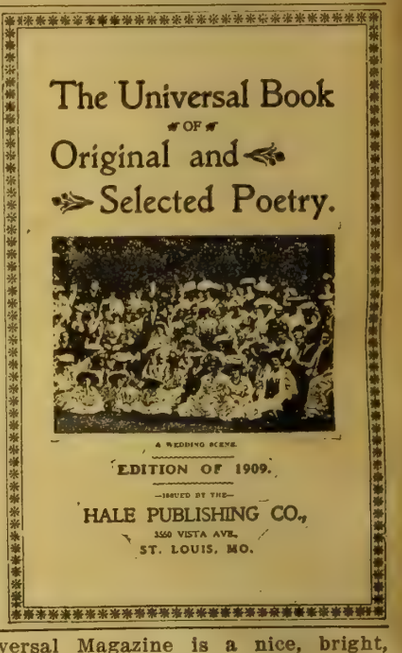
The owners of phosphate rock sell the high-grade material to be treated with acid to make it available plant food, and the lower grades which cannot be sold for that purpose are ground to be sold to farmers, and the only reason farmers buy it is because it is supposed to be cheap. They do not know that they would get more actual value in plant food if they bought a ton of earth from a neighbor, and there are some alluvial lands in the South that are worth, ton for ton, ten times as much in available plant food than ground raw rock phosphate.

The Market For Apples.

At St. Louis, on May 1st, 1912, the following were prices of apples sold at wholesale: Ben Davis, common storage, $2.00 to $2.25; sound cold-storage Ben Davis, $2.50 to $3.00; Gano, $2.75 to $3.00; Willowtwig and Roman Beauty, $3.00 to $4.00; Winesap, $3.25 to $5.50; Baldwins, $3.00 for No. 2 to $4.00 for fancy; No. 1 Russets, $3.50 to $3.75 and No. 2 do $2.50 to $3.00; damaged, special, slack-packed, etc., nominal.

UNIVERSAL POETRY BOOK.

This book consists of One Hundred Pages, containing three hundred and ninety beautiful, interesting, pathetic, descriptive, humorous and delightful poems. These poems have been selected from the very best of the ancient and modern authors and the occasional pieces which have attracted favorable attention. It is a book to be kept by the bedside to compose one to sleep, a book to carry in the satchel or to read on the train and street car. It is a book for all people at all times. We issued the Universal Poetry Book for the purpose of using it as a subscription premium in connection with our own new successful paper, the Universal Magazine. The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions—a splendid publication. Anyone who will send 10 cents to pay for four-months' trial subscription to the Universal Magazine can select one copy of the Universal Poetry Book as a free premium and we will send it by mail, prepaid, safe delivery in good order guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



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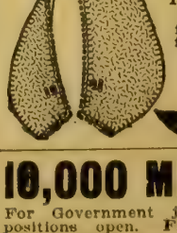
Ventiplex PADS
The Collar Pad without a fault
because it is made right.

This is the pad which is made of ventilated fabric that keeps a constant circulation of fresh air under the collar and prevents sore shoulders, galls and sore necks.

Your horses are always ready and willing to work when they have **Ventiplex** Pads in their collars.

If you have a horse with a sore neck, buy one of these pads and see how quickly it heals.



Your dealer should have them, but if not, send us his name and we will ship a sample promptly.

Better than other kinds, but cost no more

Patented Sept. 20, 1910

Write for our interesting folder. We also make the famous "Stay-on" Blanket.

Burlington Blanket Co., Dept. 46 Burlington, Wis.

10,000 MEN WANTED

For Government jobs. Write for list of positions open. **FRANKLIN INSTITUTE, Dept. B 107, Rochester, N. Y.**

Increased Use of the Silo.

Our readers should not fail to read about the A. P. Grout Vitrified Tile Silo on page 11. It is proof against fire, wind, weather and decay. At a recent experiment at the Agricultural College of Illinois it was found that silage made a grand showing in feeding beef cattle and of as much value to a cattle feeder as to a dairyman. Write for the booklet entitled "Silo Facts" and address St. Louis Clay Products Company, Room 1601, Third National Bank Building, St. Louis, Mo.

Feeding High-priced Cattle.

Mr. Thomas Laking, of Grant Park, Ill., marketed two loads of first-class cattle at Chicago and explained to the Drovers' Journal how he fed them, as follows:

"The two loads of 1,369-pound steers I marketed at Chicago which sold at $8.75 were Angus and Shorthorns. They were bought in Kansas last October and were two and three years old when put on feed. During the summer and fall they were fed on grass. The cattle were all dehorned. I think dehorning cattle makes them more quiet and they will feed better. These cattle were range-bred. They were bred at Russell, Kas.

"I began feeding them a little shock corn on grass for about two weeks. Then ear corn in feed lot, increasing rations as cattle cleaned up feeds. Corn and cob meal was fed. Shredded corn fodder in racks was fed from the first and a little hay for the last two weeks. I should say each steer received about twenty ears, or a bundle a day. No other grain than corn was fed at any time while in the feed lot. Cotton-seed meal was fed as an additional ration. The cotton-seed meal acted as a great appetizer. At first two pounds was fed and later three pounds a day to each steer. I think feeding the cotton-seed meal paid well in the end. The feed-yard was four rods square. Plenty of straw was put in the feed-lot, which is about the best way to keep it from getting muddy. Good sheds sheltered the cattle while in the feed-lot. Sixty-five hogs followed the cattle through the feeding period and made a gain of one and one-half pounds a day. Just one feed-lot was used in the work. When I feed again the same process will be followed, as it seems good to me.

We think by feeding part corn-meal the latter part of the time that the cattle fatten a trifle quicker, but we have observed by so doing that we have often foundered steers by trying to fatten them too fast, hence our decision to feed cobmeal, as we have been more successful, having never lost a steer or had one foundered by feeding rations as described above. One word of advice: Keep the feed boxes clean and sweet, for cattle as well as people lose appetite when untasty dishes are put before them."

Missouri Apples and Peaches.

The Secretary of the State Board of Horticulture has received reports from correspondents throughout the state relative to the outlook for the apple and peach crop.

Indications on May 1st are that the apple crop will be unusually large if proper attention be given to spraying. Reports show that there will be a very heavy bloom, only a few reporting the bloom below the average, while many place it above the average.

The peach bloom is practically confined to a very limited area in the southwestern part of the state, and even there the prospects for a crop are far below the average. Practically all report very severe winter injury to trees.

Considerably more spraying than usual is being done. This gives a hopeful aspect to fruit growing in Missouri. Well-sprayed orchards are, as a rule, good paying orchards. (Signed) W. W. Chenoweth, Secretary.

Write to Nearest Manufacturer of Iron Corrugated Culverts.

The letters in answer to the advertisement of the American Ingot Iron Corrugated Culverts should be sent to the nearest manufacturer, as shown by the advertisement on page 6. This is very important advertising and it gives the buyer the opportunity to save considerably in freight bills and in time, besides insuring that they are the true American Ingot Iron Culverts.

Attention is invited to page 20, which contains a statement by Mr. McCormick in regard to the suit brought against the International Harvester Company. Notwithstanding the sensational news items concerning it, the suit is part of a friendly plan to shape Harvester affairs in strict accordance with the law. The suit will settle disputed and contested points; that is all; the business of manufacturing and selling harvesters will not be disturbed.

Ways to Get the Greatest Value Out of the Manure Pile.

Manure fertilizing is the cheapest kind of crop insurance. The farmer who has an eye to profits will not let a pound be wasted, but will adopt methods to get the manure back in the soil as soon as possible. Where manure accumulates rapidly it should be spread at very short intervals, and beyond question the intelligent way is to use a manure spreader. The general recognition of this fact has led to the manufacture of all kinds of spreaders, some of which are little more than spreaders in name.

Obviously, the first in importance is that a spreader should spread, and this, it should be remembered, is a different thing from dumping the manure on the ground—a big quantity here, none there, and so on all over the field. A machine that does not spread evenly ought not to be given serious consideration by the farmer who knows the value of manure to the soil.

Another essential is large capacity. Time required to drive back and forth for another load is time actually lost, and if the field is some distance from the stable the time can be considerable.

There are other points that enable one to make an intelligent choice of what has been termed the most valuable implement on the farm. It is the manufacturers of the New Idea Manure Spreaders, we believe, who claim at least twenty points of difference in their machine over others. This is the spreader that won the great Hartman contest a year or so ago, completely outclassing a large competitive field. Farmers who have not yet bought spreaders should write to the New Idea Spreader Company, 126 Sycamore street, Coldwater, Ohio, for one of their free books. It is an eye-opener on spreader facts and how to get the most out of a spreader.

The Best Hay Tools.

With hay selling higher than ever before it is well to study the subject with a view to obtaining hay tools that add a dollar or two to the market value of the hay. We have advertised the Dain hay tools for many years and have reason to believe that they have been kept up to the highest standard of excellence. Write to the John Deere Plow Company, Moline, Ill., for Package No. T 7 and you will get full particulars concerning Dain hay tools.

There's Nothing Cheap About Waterloo Boy Except the Price

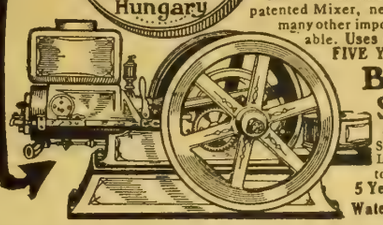
The best thought of mechanical experts, best materials, best skilled labor, and the biggest factory, all combine to make the Waterloo Boy the best GASOLINE ENGINE in all the world—a fact which is proven by the recent winning of gold medal in World's Competition.

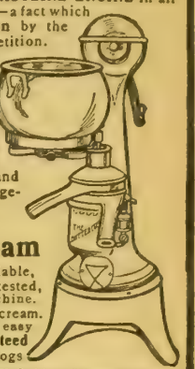
Gold Medal Awarded by International Gasoline Engine Show at Budapest Hungary

This great engine gives the most power at the smallest cost—the best service with the least attention—and the longest life for the lowest price.

It is the simplest engine made—has fewest parts, starts easy in coldest weather, its speed lever works like the throttle of a locomotive, patented Mixer, new, simple, positive Igniter and many other important features. Parts interchangeable. Uses either Gasoline or Kerosene.

FIVE YEAR GUARANTEE.





Buttercup Cream Separator is an old reliable, thoroughly tested, close skimming, standard machine. Skims down to 1-100 of 1% of the cream. Low, convenient, light-running, easy to clean, heavy base, etc. Guaranteed 5 Years. Write today for FREE catalogs

Waterloo Gasoline Engine Co., 228 W. 3rd Ave. Waterloo, Iowa

Saws, Tools and Files.

There is no excuse for using inferior tools when the best makers are selling their famous reliable brands of tools for the same money that inferior tools are sold for. Neither is there any excuse for not getting the right tools by asking for them. Henry Disston & Sons' tools advertised on page 18 are sold by all progressive hardware dealers, and the Keystone brand upon them is a guarantee of their quality. The subject of saws and tools for the farm is interestingly treated in a book that can be had by asking for it. Just write to Henry Disston & Sons, P. O. Box 1537 M, Philadelphia, Pa., and ask for the Disston Farm Tool Book.

Steel Wheel Handy Wagons.

The Electric Wheel Company of Quincy, Illl, have a coupon for our readers to sign on page 7. The low-down wagon wheels are very handy. They fit old running gears and make old wagons new. These wheels are very reasonable in the matter of cost and save their value every year. They are known all over the world and are the only wheels which are used to cross the sands of the Nubian desert. Send to Electric Wheel Company, Box 40, Quincy, Ill., and ask for Electric Wheel Book.

To Farmers Interested in Hay.

All farmers who are interested in hay presses and balers should send and get Whitman's Big New Catalogue. It shows all that is best in hay presses and balers. These new improved presses are great labor, time and money savers. This catalogue will be sent free to anyone mentioning our paper. Write for one to-day. Their address is Whitman Agricultural Company, 6901 Broadway, St. Louis, Mo.

Recent quotations for hops at St. Louis: Western at 42 to 44c. per pound; New York at 56 to 58c.; foreign, $1.00 to $1.10.

One car of high No. 1 timothy hay sold at St. Louis, May 2d, at $29.50 per ton.

Prevent Hog Cholera.

Don't wait until your hogs are sick and die. Prevent disease—give them sure protection. Use Snoddy's Hog Cholera Powder on them, made at Nashville, Tenn. It is fatal to the hog cholera germ and harmless to the hog. It will pay any hog man to use this hog medicine, as it is sure protection against disease. Snoddy's Hog Cholera Powder destroys all disease germs immediately and restores the herd to thrift. It means health to the hogs and wealth to the farmer. Write for book on how to prevent disease. Agents wanted in every county in the United States. Address Dr. D. C. Snoddy Company, Dept. H, Nashville, Tenn. When writing, send all mail and orders to Nashville, Tenn.

The Twice-a-Week GLOBE-DEMOCRAT

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Republican newspaper in the United States, and is published at St. Louis, Mo.

The National Farmer and Stock Grower

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

The American Poultry Journal

Published at Chicago. The oldest, largest and best Poultry Journal in America. Beautifully illustrated. Issued on the first of each month.

Subscription Club.

SEND US ONE DOLLAR

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THE ST. LOUIS GLOBE-DEMOCRAT TWICE-A-WEEK EDITION for one year.

THE NATIONAL FARMER AND STOCK GROWER for one year.

THE AMERICAN POULTRY JOURNAL for one year.

Address,

THE HALE PUBLISHING CO.,

3550 Vista Ave., - St. Louis, Mo.

Illinois Butter Scoring.

The monthly scoring exhibitions instituted for the instruction of Illinois buttermakers have now been in progress for one year; during that time 303 entries were made with an average score of 90.91.

Of the 303 tubs exhibited for scoring during the year, 19 per cent. were classed by the judges as extras (score 93 or above); 50.49 per cent. were placed in the extra first-class (score 90-93); 19.8 per cent. were classed as firsts (score 88-90); 7.59 per cent. came in the class of seconds (score 86-88); 2.6 per cent. received a score of less than 86 per cent.

The average water content of this butter was 13.47; average fat, 83.46; average salt, 2.15; and average curd, 0.94.

During the year, December, 1910, to January, 1912, eight buttermakers completed their year by totaling twelve exhibits and received their diplomas.

The highest average score of those completing their year was received by Forest Glen Creamery, Round Lake, Ill., a plant operating practically on the whole-milk basis; average score, 93.68. K. B. Carpenter, Mt. Carroll, Ill., ranked second, with an average score for the year of 92.83. Sam. Grimm, Crete, Ill., received third place, with an average score for the year of 92.65.

Brought First Cream Separator.

About the middle of last March Jeppe Slifsgard, aged 85 years, died at his home in Cedar Falls, Iowa. Mr. Slifsgard had the distinction of importing the first cream separator into America from Denmark in the early sixties. He was on a visit to his native country and found the separator in operation.

He hired an operator, bought a machine and had it set up at his country home, ten miles west of Cedar Falls. Then he sent for all of his neighbors and friends for miles around to come and see his newly-imported machine in operation, as he believed it to be a most useful invention for the use of his farmer friends. There are several farmers living in that locality who can recall having seen the separator soon after it was brought to Cedar Falls by Mr. Slifsgard.—New York Produce Review and American Creamery.

NEW DAIRY QUEEN.

The Wonderful Record of a Holstein-Friesian Cow.

Banostine Belle De Kol is a five-year-old pure-bred Holstein-Friesian cow owned by Dan Dimmick & Bro., of Maplecrest Farms, East Claridon, Ohio, and her fame is being carried to the ends of the earth as the new "Queen of the Dairy World." Her official records are as follows:

Length on record; Days.	Milk; Lbs.	Butter-fat; Per cent.	Butter. fat; Lbs.
7.. ...	672.5	3.67	27.697
30.. ...	2,828.0	3.50	98.987
60.	5,505.0	3.53	194.053
90.	7,856.8	3.61	283.543
7.. ..	492.1	4.31	21.195
365.. ...27,404.4		3.86	1,058.34

The second seven-day record was extraordinary by reason of it being made eight months after freshening.

The 365-day record was finished in April, 1912. The milk record was 27,404.4 pounds, and, roughly figuring, as milkmen do, at twelve gallons to the 100 pounds, the cow gave an average of nine gallons of milk every day in the year. The butter-fat content was 3.86 per cent. fat, which is a total production in one year of 1,058.34 pounds of butter-fat.

Banostine Belle De Kol was bred, reared and developed by Dan Dimmick & Bro. at the Maplecrest Farm. She is a strong, vigorous cow of wonderful capacity and will weigh in the neighborhood of 1,600 pounds. She is the daughter of Banostine Belle, who was a grand-daughter of Euphrasia A., one of the greatest foundation cows the breed has ever produced.

The sire of Banostine Belle De Kol is Friend Hengerveld De Kol Butter Boy, all of whose A. R. O. daughters have records of twenty pounds or more. Friend Hengerveld De Kol Butter Boy is a son Kol, 2d's, Butter Boy, 3d, and is showing himself to be the greatest son of that great sire.

During the time that Banostine Belle De Kol was in test she received nearly, if not all the time, more or less ensilage and alfalfa. When available, she received roots and a mixed grain ration, the foundation of which was bran and oats. The heavier feeds were varied frequently according to the condition of the cow, and that which seemed best at one time did not seem best at other times. She was also fed some dried beet pulp, especially when fresh roots were not available. Her grain ration from the first was gradually increased to twenty-five pounds, or a little more, but later reduced to as low as nine pounds per day. As near as can be estimated, the average amount of grain fed was twelve or fourteen pounds daily. She also received, when it was available, green corn with the stalks, and also green clover and any other green feed that might be available, including feed from the pasture. Banostine Belle De Kol has given birth to three calves, this record having been made after the birth of the third calf. All of her calves to date have been heifer calves.

Holstein-Friesian Records.

The high-class Holstein-Friesian cows that are tested for admission to the Advanced Register will show what large numbers of good cows will do. Seven-day tests were made of 246 animals. These 246 animals, of which much over one-half were heifers with first or second calves, produced in seven consecutive days 98,111 pounds of milk, containing 3,540 pounds of butter-fat, thus showing an average of 3.61 per cent. fat. The average production for each animal was, in round figures, 399 pounds, containing 14⅛ pounds of butter-fat, equivalent to 57 pounds or 27 quarts of milk per day, and 16¾ pounds of commercial butter per week.

The Cost of Building a Creamery.

During the past few years a large number of creameries have been built in the United States. Many of them have been successful from the start, while others have failed after a few-months' operation, and some were never even started.

An investigation of the creamery business in several states by Secretary Wilson, of the United States Department of Agriculture, has shown that the cause of many of the failures was due to lack of a sufficient number of cows, which should not be less than 400, and that others failed because of improper organization, in the case of co-operative creameries, and excessive cost of building and equipment. Many creameries have cost about twice their actual worth, and were not of the type suited to the locality in which they were built.

The cost of a creamery building about 28 by 48 feet will vary from $1,000 to $1,800, dependent upon the locality, the construction and the cost of material and labor. Such a building usually consists of a main work room, engine and boiler room (including space for refrigerating machine), coal room, refrigerator, store room and office.

Machinery for a gathered-cream plant, consisting of a fifteen-horse-power boiler, ten-horse-power engine, combination churn with a capacity of 600 pounds of butter, and other necessary apparatus, will cost approximately $1,200. Machinery for a whole-milk plant will cost about $1,850. This equipment will handle from 1,000 to 1,200 pounds of butter per day. If a refrigerating machine is included, the cost will be from $600 to $1,000 more.

The total cost of a creamery would therefore vary from $2,200 for a small gathered-cream plant without artificial refrigeration, where labor and material are cheap, to $4,650 for a whole-milk plant, including artificial refrigeration and a higher cost of labor and material.

The Department of Agriculture is prepared to furnish information for the proper organization of creameries and cheese factories, and upon request will supply plan of organization, list of machinery and plan of creamery. Correspondence should be addressed to the Bureau of Animal Industry, Washington, D. C.

Difference in Quality of Butter.

An average score of 92.33 was placed upon the seventy-seven exhibits of butter shown in the April scoring recently held at the College of Agriculture of the University of Wisconsin at Madison. Prof. C. E. Lee, in charge of the scoring exhibitions, states that many buttermakers have not been delivering as good butter to the markets as they send in for the scoring. In many cases, a special churning is made for the scoring exhibition, and often the man who makes the highest score at the college delivers comparatively poor butter in the markets.

On the Fort Worth, Texas, market quite recently a load of 353-pound calves, shipped by Welder Bros., Victoria, Texas, sold at $4.75 per 100 pounds, netting the shipper $15.62 per head for the calves.

DAIRY AND CREAMERY.

It is reported that Swift & Company have decided to build a large creamery at Seattle, Washington, that will have a capacity of 10,000 pounds of butter a day. It will be conducted in connection with the trade in meats and poultry.

The Congressional Committee on Agriculture has postponed consideration of the oleomargarine legislation until December 4th, 1912.

Creamelle Vale, a Holstein-Friesian cow owned by Fred F. Field, of Montello, Mass., has given 13,008 pounds of milk in four months and sixteen days, thereby breaking all records for the period. The test will be continued for a year.

SHERWIN-WILLIAMS PAINTS & VARNISHES FOR THE FARM

For painting and varnishing at one operation vehicles of all kinds—buggies, carriages, automobiles, sleighs, carts, etc., use Sherwin-Williams Buggy Paint. A durable, gloss finish—may be washed and cleaned without injury. Eight colors and black and clear.

Sold by dealers everywhere. Ask for color cards
Address all inquiries to The Sherwin-Williams Co., 689 Canal Road, N. W., Cleveland, Ohio

[Please mention National Farmer and Stock Grower.]

$29.50 Buys This Elegant Top Buggy.

WARRANTED FOR Five Years.

Retail Price $60.00. Buggies, Surreys, Spring Wagons, Farm Wagons. We have cut out our Jobbers, our Wholesalers and our Retailers and offer YOU their profit. Write today for our

Free Catalog and Delivered Prices.

Mutual Carriage & Harness Mfg. Co.
Station 47 K. East St. Louis, Ill.

Silo Facts

Free: This book tells the reason why you can immensely increase the profits from the same amount of feed by use of the cheapest, best and indestructible

A. P. GROUT
Vitrified Tile
SILO

Acknowledged to be the only perfect silo material. Proof against fire, wind, weather and decay.

Rat-proof and sanitary: filled solid with concrete and otherwise reinforced. Vitrified Tile will not absorb nutriments of silage. No expense for shrinkage, insurance or repairs. Easy to erect; cannot collapse.

Agents wanted: Write for "Silo Facts."

St. Louis Clay Products Co.
Room 1601 Third Nat'l Bank Bldg.
St. Louis, Mo.

Bacteria in Milk.

Bacteria in Milk, by L. A. Rogers, of the Dairy Division, Bureau of Animal Industry, is the title of Farmers' Bulletin No. 490, issued by the United States Department of Agriculture, Washington, D. C. All our readers know, or ought to know, this bulletin can be had by writing for it, therefore we have no intention of reproducing the twenty-three pages of this bulletin in full, first because we have no room for it, and secondly because the bulletins are in handy form for reference, and every dairyman should have his own copy.

The chapters include: Milk; its ocmposition and characteristics; —bacteria; their nature;—relation of temperature to growth of bacteria;—sources of bacteria in milk; —flavors in milk;—souring of milk; —sweet curdling and digestion;— bitter milk;—ropy or stringy milk; —disease-producing bacteria in milk;—the handling aud care of milk, etc. We have therefore informed our readers where they can obtain a splendid line of information at the cost price of a one cent postal card.

In this connection we desire to say that our new edition of the Book of Live Stock Champions includes the pictures of about 175 of the leading bulls and cows of the dairy breeds. The Book of Live Stock Champions is advertised on page 23.

The Pasteurization of Milk.

Pasteurization as applied to milk is the process of heating for a short or long period, as the different methods demand, at temperatures usually between 140 and 185 degrees. The process to be complete and effective must be followed by rapid cooling. The term originated from the experiments of Pasteur in France on the "diseases" of wine, in which he found that heating for a few moments at a temperature of 122 to 140 degrees was sufficient to prevent abnormal fermentations and souring in the wine. A little later Pasteur found that by a similar heating beer could also be preserved from souring. The application of the process gave rise to the term pasteurization. In this connection it may as well be understood that all first-class breweries pasteurize all their bottled beers; and all first-class city milk distributing companies pasteurize their milk after receiving it and before it is sold to consumers.

It is claimed for pasteurization that all the injurious germs in milk are destroyed by the process, or at least are rendered harmless, and it increases the length of time milk can be kept from souring. Pasteurizing is not advanced as a means of sweetening dirty milk, but as a means of prolonging the commercial life of sweet, clean milk.

All milk producers and sellers should be interested in Circular No. 184, issued by the Bureau of Animal Industry, Department of Agriculture, Washington, D. C., which sets forth and illustrates methods of pasteurization and machinery for the purpose of pasteurizing, with full instructions for all purposes. A letter to Dr. A. D. Melvin, Chief Bureau of Animal Industry, Washington, D. C., will surely get a copy.

The National Dairy Show.

At the recent annual meeting of the National Dairy Show Association, the Directors and officers whose terms had expired were all re-elected. The Board of Directors was increased by the addition of Messrs. F. L. Ames, of Massachusetts; J. R. Valenine, of Pennsylvania; C. D. Ettinger, of Illinois; John L. Smith, of Washington; Robert Scoville, of Connecticut; and Arthur G. Leonard, of Chicago. The date for the Dairy Show was fixed for the period of October 24th to November 2d for this year's show and as a permanent period for all future Expositions, and the International Amphitheater at the Chicago Union Stock Yards was leased for the show of 1912.

The success of the National Dairy Show and the assurance of increased interest and enlargement of all branches of the dairy business has induced the Board of Directors to arrange for a permanent manager of superior ability. The association is primarily undertaking to aid in meeting changed live stock conditions on this continent, with a full knowledge that decreased production of all farm commodities, with a rapidly-increasing population, may, if permitted to continue, jeopardize the standing of our nation as a world's food supply country to that of a food dependency. Therefore the slogan is: "More and better cattle; live stock on the farm, for the double purpose of money makers directly and as soil fertility increasers." This campaign will be waged on clean educational lines from one end of the country to the other in the firm belief that low prices will not again affect the results of farm activities.

To accomplish the purposes of the association to the fullest degree the Board of Directors have obtained the servies of Mr. W. E. Skinner as Active Manager. He is a pastmaster of the art of creating live stock expositions. He is also President of the International Live Stock Exposition. Mr. Skinner has an acquaintance with the live stock industry of this country which extends from coast to coast, having established the Stock Show at Fort Worth and placed the Western Stock Show at Denver on big national lines. He is essentially a show man, winning the confidence of exhibitors and public alike by adhering to the strictest lines of integrity in the intelligence and conduct of his work, and he will bring to the National Dairy Show his great executive ability, which will not fail to produce tremendous results.

The Directors of the National Dairy Show are now fully representative of every breed of dairy cattle. They are leaders in the improvement of dairy farming, and the general farmer, the breeder who is beginning and the breeder who is established can look to them for help and guidance, with the assurance that the National Dairy Show is the Clearing House for perfection in dairy cattle, the same as the International Live Stock Exposition is the Clearing House and Final Court of Resort for beef catle breeds and the various breeds of horses.

In this connection we also desire to say that ten of the Directors of the National Dairy Show are breeders and owners of animals that have made records and won premiums entitling them to appear in their places in the Book of Live Stock Champions advertised on page 23.

Be sure to look up page 23 and read about the magnificent Book of Live Stock Champions, which is just issued from the bindery.

On April 29th, at St. Louis, Mo., the best bid for Kaffir corn was $1.38 per 100 pounds. This is for car-load lots.

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How Fertility is Maintained.

To the inquiry, to what is this fertility of European soil due, after so many years of cultivation, we answer:

First, it is due to the general system of a rotation of crops, which includes leguminous crops to gather nitrogen from the air, and thereby enrich the soil. The crops are never turned under but are fed and the manure saved.

Second, it is due to a general use of a system of grain and live stock farming in which all the manure, both solid and liquid, is carefully saved and returned to the soil. We do not mean to say that live stock is practiced exclusively, but the great bulk of the farm land is devoted to grain and live stock, either for meat or dairy products. Where other kinds of farming are practiced, we find the same principles in use, namely, rotation of crops, use of manure and of fertilizers.

Third, it is due to the purchase of imported feeding stuffs from America and other countries, whereby plant food is secured, and saved in the manure for the purposes of soil fertility.

Fourth, it is due to the extensive use of commercial fertilizers.

Fifth, it is due to the use of lime where needed.

Sixth, it is due to the prevention of loss of plant food from the farm. Thus, many landlords do not allow hay or straw to be sold, unless there is an equivalent purchase of plant food in the form of other feeding stuffs, or of manure. Hay, it is recognized, carries a large amount of plant food in proportion to its selling price.

In other words, the fertility of European soils is maintained by maintaining the supply of active plant food, and of organic matter. A part of the nitrogen is secured from the air, a part from the purchased feeding stuffs, and some from nitrogenous fertilizers. The losses of potash and phosphoric acid in the crop are counterbalanced by purchases in feeds and fertilizers. Every care is taken to prevent the loss of plant food. Leaves, stalks, etc., are either saved and fed, or are used as bedding.—From observations upon European agriculture by G. S. Traps, Chemist of the Texas Agricultural Experiment Station.

How to Make Hay.

Grass should be mown at a time when it is in the condition best fitted for the purpose to which it is to be put. In my experience I find that when grass of any kind is in bloom it is not best to cut it, but either just before or immediately after it comes in bloom. Should the grass be cut during the period of blooming, the countless pollen grains prevent the best curing of grass and cause a musty and dusty hay. The dried hay then should be secured with as little waste as possible.

Should the hay be intended for sale it should then be made with care in such a manner that it will present a fine appearance. Among a number of qualities that salable hay should possess is a bright green color. A good way to maintain a greenish tint throughout the hay is to dry the grass gradually; that is, expsose to direct sunlight only as much as may be practicable. If newly-mown grass were left to lie too long in hot sunlight, without turning a part of it, it would become brown and withered while the rest would remain green. It is bad practice to scorch hay or to leave it too long unturned in the hot sun. The change of color by the action of sunlight is a mere matter of fading, just as colored cloth will fade when exposed to sunlight. And nothing fades clothes more rapidly than alternate rain and sun. It is important therefore to avoid dew and rain as well as too much sunlight when green-colored hay is desired.

Rains and dew on newly-mown grass also promote evaporation and therefore the hay aroma so agreeable to live stock and to the salesman is lost in form of volatile gases by drying of the grass that has been rained upon. Not only the flavor of the hay is lost, but also its nutritive value is reduced thereby.

In order to cure hay thoroughly the grass when cut should be allowed to sweat freely. This may be done by piling the mown grass in small heaps. The leaves continue to transpire water very much, as they would do if the grass were standing uncut. The idea is this: As long as the grass remains alive water will continue to be exhaled from the pores upon the surface of the leaves and in this way the water will be pumped out constantly from the stalks in a natural way, much in the same fashion as though the grass were still standing. On the other hand, if newly-cut grass were spread in very hot sunshine the leaves are generally scorched to such an extent that circulation of moisture in them ceases and transpiration of moisture from the pores becomes impossible. It will readily be seen that the moisture in the stalks can only escape by simple evaporation, and this process is very slow. In this manner much moisture in the hay is brought to the barn, although the leaves of the hay may seem tolerably dry and crisp.

It is not good practice to spread and turn hay in the fields any more than is absolutely necessary. Should the hay lie in hay cocks or in windrows, the custom is to let it remain there untouched as long as the weather holds out, foul or uncertain, in spite of the imminent danger of its molding in the heaps in case the weather should happen to turn warm and muggy.

Fresh-cut grass, like fress-cut meat, keeps fairly well in cool weather, though considerable soluble matter may be washed out in rainy weather. When it rains on grass that has dried but little the cells within it are better able to resist attacks of the fungi, an excrescence which causes decay. But when rain comes on dead grass, bacterial organisms develop with great vigor and rapidity and cause decay. The present method in practically all localities is to make hay as rapidly as possible by turning or tedding with a hay machine the wilted grass which exposes it to the sun and air much more effectively than could be done formerly by hand labor. Tedded hay may then be raked into windrows and can be loaded directly onto wagons.

The ideal way of making hay would be to spread the mown grass out and let it wilt, not too much, and then put it into windrows or small haycocks, so that the leaves might continue to draw moisture from the stems. I believe that hay cured in this manner and by being allowed to stand in haycocks two or three days keeps better than that made by spreading the grass. Of course, if the bunches of half-dried hay are left too long unopened they will ferment; i. e., chemical changes will result from the action of microorganisms and heat will be developed. It would seem plausible that roughness and coarseness of the grass might be diminished by small touches of fermentation and the hay thereby made more palatable to the stock. There is really no need of actual fermentation. But in general it may be said that the sweating process is a valuable resource for dealing with the succulent hay or any kind of hay when the weather will not permit it to be made in the ordinary manner.—William Hardy, Rural Route No. 2, Tunnel Hill, Johnson county, Ill.

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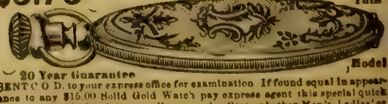
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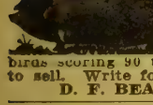

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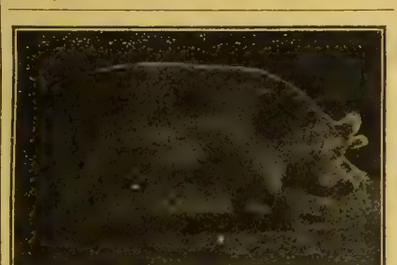

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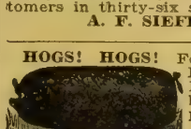

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BLOODED STOCK NOTES.

An extraordinary sale of pure-bred Shorthorns held at Chicago by Thos. Stanton, of Wheaton, Ill., and George J. Sayer, of Chicago, was held at the Union Stock Yards, Chicago, Ill., April 4th and 5th. The fourteen bulls averaged $306, with a top of $1,700, paid by W. C. Thompson, President of the Independent Harvester Company, Plano, Ill., for Selection, grand champion of the Chicago International Live Stock Exposition of 1909. The female average was $230 for 124 head, with a top of $1,385, paid by H. L. Emmert, of East Selkirk, Man., Canada, for Countess Selma, with bull calf at foot by Selection.

The sale of Shorthorn cattle by F. W. Harding, of Waukesha, Wis., on April 3d, resulted in thirty-four females selling at an average of $344, and eight bulls averaged $620, making the general average $400 for forty-two head. Two bulls sold above the thousand-dollar mark and one female. Robert Miller, of Stouffville, Canada, paid $1,650 for Gloster Fashion, a bull calved in November, 1910; H. O. Weaver, of Wapello, Iowa, paid $1,305 for Sultan's Last, a yearling son of Whitehall Sultan; and R. W. Caswell, a Canadian breeder, paid $1,305 for Clipper Sultana, a show heifer.

Mr. J. P. Vissering, Box 1, Alton, Ill., writes that in his opinion we will have high markets for cattle for years to come, and that no one can do better than start a herd of blocky Angus beef. His card is to be found with the live stock breeders, as usual, and he has had thirty-years' experience as a breeder of the right kind.

Mr. N. V. Cusick, of Isabel, Edgar county, Ill., is advertising Hampshire hogs for sale. He is located on the Vandalia Line, with express facilities for shipping all over the United States. The Hampshire hog was formerly known as Thin-rind Hogs, and they make a pretty good showing as breeders and fat hogs in market.

The American Royal Live Stock Show will be held this year at the Kansas City Stock Yards, as usual, and the opening day is Monday, October 7th, and the closing day Saturday, October 12th. There has been considerable negotiation tending to remove the show, but it will probably stay at the Kansas City Stock Yards indefinitely.

One of the best lot of heavy beeves seen at the St. Joseph Stock Yards was on sale April 24th. It comprised a shipment of eighteen head of Hereford steers, fed by Mr. J. P. Martin, of Tarkio, Mo., which averaged 1,565 pounds and sold at $8.40 per 100 pounds, the top for the week, and equaling the highest-priced load of steers sold on the market this year, says the St. Joseph Stock Yards Journal.

At Menardville, Texas, a sale of range-raised Hereford cattle was held at auction on April 6th by V. B. Latham, of Eden, Concho county, in which thirty-four bulls sold for an average of $107.35. Ten females averaged $92. The forty-four lots averaged $1,033.36. With the exception of two or three bulls these cattle were strictly grassers.

At Kingsley, Iowa, April 12th, at an auction sale of pure-bred Herefords by Edmunds, Shade & Co., the average of fifty-two head of Herefords was $150. The twenty-six females sold at $151.50 per head, and the twenty-five bulls sold for $150.40 per head. L. A. Clifford, of Oshawa, Ontario, Canada, bought Beau Albany, a calf dropped August, 1910, for $500; and Len Lessenick, of Sioux City, Iowa, paid $275 for the full aged cow, Jersey Lady.

George Allen, of Lexington, Neb., sold forty-nine pure-bred Shorthorn cattle at auction at Omaha, Neb., on April 23d, for an average of $220. Ten bulls averaged $182.50, and thirty-nine females averaged $229.70. The top price for a bull was $325, paid for Barmpton Sultan, a calf of 1907, by A. N. Sutton, of Colon, Neb.; and Albert Hultine, of Sharonville, Neb., paid $580 for Countess Duchess, a mature cow with a heifer calf at side.

At Whitehall, Ill., on April 22d, forty-seven head of pure-bred Shorthorn cattle were sold at auction at an average of $130 per head. There were six bulls at $120 and forty-seven heifers at $130. The best price for a bull was $200, paid by George Thomas, of Patterson, Ill., for a bull calf, White Hope; and the heifer Princess Isabella, calved November, 1910, topped the females at $275, being purchased by Frank Sisson, of Bowling Green, Mo.

On April 10th the second importation of Shire and Percheron stallions for 1912 arrived at Trumans' Pioneer Stud Farm, Bushnell, Ill. The firm has the largest and choicest collection of imported horses of these two breeds in America. Also a choice collection of Belgian and Hackney stallions on hand. Catalogue can be had by writing for it.

Passed Over the River.

During the month of April the death of Joseph G. Marriott was reported, at the age of 79 years. Mr. Marriott was known in St. Louis as a former mill owner and member of the House of Delegates. To us he was Farmer Marriott, who, twenty-five years ago, established a herd of pure-bred Holstein cattle near Sulphur Springs, Jefferson county, Mo. He died at Barnhart, Mo., and is survived by his widow and two daughters, Mrs. P. H. Morrison and Mrs. L. F. Linning, and two sons, Joseph B. and Ellis T. Marriott.

Mr. J. J. Hamilton, for the past forty years engaged in the live stock business and one of the first shippers to the Chicago market, died at his home in Lenox, Iowa, in April.

It was reported on April 23d from Muskogee, Okla., that Captain F. B. Severs had died at the age of 77 years. He was for fifty years a shipper to the St. Louis market, first as a buyer and shipper of pecans and later as a cattle raiser and shipper. For several years at a time he shipped the best grass cattle to the St. Louis market. Paralysis was the cause of his death. He was one of the four white men adopted into the Creek tribe of Indians.

Good News to Stomach Sufferers.

A Chicago chemist is giving away ten thousand bottles of a remarkable stomach remedy that is accomplishing wonderful results for all stomach, liver and intestinal ailments and gall stones. In many cases one dose has accomplished a cure. The discoverer of this remedy, George H. Mayr, 271 Mayr Building, 156 Whiting street, Chicago, Ill., has been so encouraged by the good this remedy has been doing that he is making this most liberal offer to those who are in need of a cure. Write him to-day and he will send you a full $1.00 bottle free.

Have you a copy of the Book of Live Stock Champions? See page 23.

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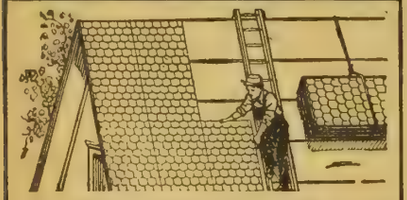

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Horse Books; Horse Papers; How to Lay Out a Track; Leading Brood Mare Sires; Leading Brood Mare Sires of 1911; Leading Events of 1911, Arranged Chronologically; Leading Extreme Speed Sires; Leading Grandsires, Etc.; Leading Progenitors of Speed; Leading Sires of 1911; Leading Sires; Leading Sires of Dams of Extreme Speed; Pool Selling Law; Racing Rules.

Ready Reference Table; Registers and Associations; Registration Rules; Stake Winners; Time by Eighths, 2:00 to 3:00; To Tell the Age of a Horse; Trotting Champions From 1806; Trotting Rules; 2:30 Performers — 1911 — Under Sires; 2:30 Performers — 1911 — Under Sires of Dams; 2:10 Performers of 1911; Winners of Stakes; World's Records; Yearlings With 2:30 Records, Etc. Every horseman, novice or expert ought to have it.

GREAT PREMIUM OFFER.

We have made arrangements to use the **Horseman's Annual** as a subscription premium. Send us one dollar ($1.00) and we will send this paper, The National Farmer and Stock Grower, and we will send you the **Horseman's Annual**, postpaid, safe delivery in good order guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Illinois Experiment Cattle.

On April 25th, at the Chicago market, the Illinois Agricultural Experiment Station sold seven lots of beef cattle, ten head to the lot, which had been fed 150 days to determine the value of different feeds.

In the test corn was valued at 50 cents a bushel on the farm; cotton-seed meal at $30.00 per ton; silage, $3.16 per ton; and alfalfa, $16.00 per ton.

Lot No. 1 was fed corn, cotton-seed meal and silage, and after deducting value of pork produced, cost $6.49 per 100 pounds and sold at $8.40 per 100 pounds. This lot was fed the most silage and the profit was $21.74 per steer.

Lot No. 2, fed more corn, more cotton-seed meal and less silage, after deducting value of pork produced, cost $6.59 per 100 pounds and sold at $8.40. This lot made a profit of $15.65 per steer.

Lot No. 3, fed corn, cotton-seed meal, silage and alfalfa, after deducting value of pork produced, cost $6.75 per 100 pounds and sold at $8.40. This lot made a profit of $13.99 per steer.

Lot No. 4 was fed corn, silage and alfalfa, and no cotton-seed meal, and after deducting value of pork produced, cost $6.41 per 100 pounds and sold at $8.35. This lot made a profit of $14.68 per steer.

Lot No. 5, fed corn, silage and alfalfa, after deducting value of pork produced, cost $6.48 per 100 pounds and sold at $8.35. This lot made a profit of $14.63 per steer.

Lot 6, fed the most corn, some sialge and a liberal ration of alfalfa, after deducting value of pork produced, cost $6.61 per 100 pounds and sold at $8.40. This lot made a profit of $18.45 per steer.

Lot No. 7 was fed corn and alfalfa, but no cotton-seed meal or silage, and, after deducting value of pork produced, cost $6.90 per 100 pounds and sold at $8.40. This lot made a profit of $11.25 per 100 pounds.

This memorandum is made up from partial information. Later on the Illinois Agricultural Experiment Station will issue a bulletin giving results in detail, when this particular experiment will again be referred to. At the Chicago market Professor H. P. Rusk, Assistant Instructor in Animal Husbandry at Illinois College, was in charge of the shipment. He said: "We found our test in feeding silage highly satisfactory. It proved a most valuable feed, although we have discovered that a moderate ration of silage (and a larger ration of corn) is better in the last stages of the feeding period than is a heavy silage finishing feed, since lot 6, which was fed one-third as much silage as lot 5, made the highest daily average gains and the second largest profit."

If, however, the final figures will stand as they are and silage-fed beef cattle be finished at 2½ cents less per cost of a pound of gain than when fed corn and alfalfa, then will silage feeding become as general in beef-cattle finishing as it is in handling dairy cattle. In the market the steers averaged 1,104 to 1,198 pounds.

A Pointer in Favor of Pruning.

Properly-pruned trees, trained from the start, will hold, without breaking a branch, four times as much fruit as the tree should bring to maturity. On such trees, even when in bearing for several years, all the fruit should be gathered without the aid of a stepladder. Neglect this shortening, in process with trees on strong land and the fruit (always on young wood) will soon be found beyond reach and at the extremities of long, tall branches where only a light weight is necessary to break the tree to pieces.—Connecticut Farmer.

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A Good Suggestion.

The next Country Life Commission ought to begin at the suburbs and then investigate the cities. A report on city life would be interesting.

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Send a postal card for our proposition; and our representative will call and talk it over with you.

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THE EUROPEAN USE OF LIME.

From Observations on European Agriculture by G. S. Traps, Chemist, Texas Agricultural Experiment Station.

Lime is quite frequently used in Europe. It appears to be used more or less in every locality, except where the soil is naturally calcareous. We found it much used in Switzerland, for example; to some extent in Scotland; also in England, France and other countries. It is an old saying "Lime makes the father rich and the son poor." This is on account of the property of lime to make some plant food available, thereby increasing the loss from the soil and leaving less for future use. In connection with crop rotation and the use of manure and fertilizers, lime aids in maintaining the soil at a high degree of productiveness.

One use of lime is to correct acidity and bring the soil to a basic reaction, which is more favorable to most crops than an acid condition. But this is not the only action of lime. It flocculates clay soils and makes them more easily worked. It liberates potash so that plants can take it up more readily. It increases the action of bacteria so that they produce more available nitrogen. This action, at times, leads to loss of nitrogen by leaching. All these effects of lime may, indeed, lead to loss of plant food.

Lime and Acidity.

When the soil is fertilized with sulphate of ammonia, it takes out lime and in time the soil becomes acid. With nitrate of soda, this is not the case. In one case, when the nitrogen is removed, the residue is acid; in the other case, it is alkaline. Hence the difference in the effects. The effect of soil acidity is strikingly shown at the Woburn, England, Experiment Station. On the unlimed sulphate of ammonia plots, barley did not grow at all—the plot was bare—and wheat was growing little. Where the acidity was partly neutralized with lime, or, on other plots, neutralized by large applications of lime, the differences were easily perceptible.

At the Rothamsted Station, where sulphate of ammonia was used on the permanent grass land, the soil was beginning to become acid, and peat was beginning to form, but application of lime (on other plots) caused the peat to disappear and a change in the character of the vegetation. Similar results could be seen on the grass land at Woburn.

The new catalogue just issued by the University of Missouri shows that the enrollment of students in the College of Agriculture has increased from 211, four years ago, to 794 during the present session. This is an increase of 276 per cent. Few Colleges of Agriculture in the United States have had such a remarkable increase in their enrollment during the same period of time.

A Test of Lime.

Whether or not the use of lime on fields in Oneida county, Wisconsin, where alfalfa and clover are to be grown, is advisable, is being determined this year by tests inaugurated by E. L. Luther, County Representative of the College of Agriculture of the University of Wisconsin. About 100,000 pounds of lime have been secured from the Menomonie Sugar Beet Factory and will be distributed free to thirty of forty farmers in Oneida county, who will try it on their farms this year.

The first Farmers' Course ever held under the direction of a county representative was recently held by Mr. Luther, and it was during this course that the experimental work with lime was inaugurated. About 150 farmers, or 25 per cent. of the total number in the county, attended this first Farmers' Course.

The Leading Egg-laying Pullets.

It is not the part of wisdom to count chickens until they are hatched, neither is it advisable to name the winners in a twelve-month contest after but five months have passed. But there is a story about five Buff Orpington pullets that lay 402 eggs in five months that lead the procession so far that will not keep for twelve months.

It appears that the five leading Black Orpington pullets in the National Contest at Maryville, Mo., were entered by Miss S. C. Fellows, of Springfield, Mo., and were all bred from one hen. Miss Fellows had five varieties of poultry. Her family insisted that she must get rid of four varieties and stick to one. She had quite a number of each of the other varieties, but only had one Buff Orpington hen. She said to the family she would not part with this hen for all the rest of the flock. This hen had laid nearly twice as many eggs as any other. She had made such a remarkable record that Miss Fellows was willing to part with a whole flock instead of this one hen. She got rid of all others, kept this hen and bred from her, and this pen of five pullets which leads 131 pens from all parts of the United States and Canada is the result. Was the trouble which she went to in discovering and breeding from such a hen worth while? Was she not wise in turning down four varieties and the entire flock for this one hen? Select the variety of your choice, for no one variety can claim all the good points, and then strive to improve it in both beauty and productiveness.

Take notice of the splendid rose premium offered on page 25.

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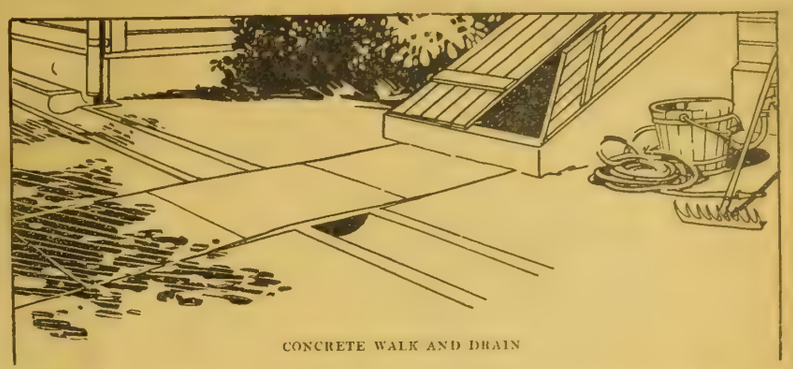

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PROF. F. J. HAGERLING, Belleville, Ill.

The High-priced Mule Trade.

Mules never sold any higher than they are selling now, but that only applies to good mules. Three pairs of mules sold for $2,100 at the St. Louis National Stock Yards, which is $700 a pair, and as they left the yards the trade turned out to look them over because they were extra good matched mules. The National Live Stock Reporter quotes mules as follows: 14 hands, $75 to $135; 14½ hands, $85 to $135; 15 hands, $120 to $140; 15½ hands, $150 to $210; 16 hands, $125 to $250; 16½ hands, $190 to $290. On May 1st Holland, Nugent & Maxwell Bros. said: "The mule supply is light; not many mules on the commission alley. All good, big mules are selling on arrival at strong prices. Good miners are selling well; in fact, all mules with finish are selling all right."

HORSE AND MULE NOTES.

At auction sale in New York City, held recently, nine head of high-class Polo ponies sold for an average of $1,095 per head.

At the St. Louis National Stock Yards, in April, 1912, 14,751 horses and mules were received, this being 5,070 more than were received in April of 1911.

Horsemen will find a boon advertised on page 14 that will interest them. It is called "The Horseman's Annual," a new edition just off the press. It is interesting to all lovers of the horse, and that ought to include all stock farmers and ranchmen.

At La Plata, Mo., on March 14th, a sale of jacks and jennets was held, and nineteen jacks sold for an average of $607.10, and twenty-two jennets sold for an average of $190.90. The top price was $1,470, paid by G. W. Cantwell, of Sterling, Kas., who bought the four-year-old jack Clover Leaf King; and French Carter, of Rutledge, Mo., paid $1,000 for the two-year-old Clover Leaf Burleigh. The jennet, Lady Von, seven years old, with jack colt at foot, sold for $550, which was the top price. The sale was by G. C. Roan.

On March 27th, at Holstein, Iowa, Mr. P. McGuire sold fifteen head of Percherons, Clydes and standard-bred horses at an average of $344.10 per head. Extremely unfavorable weather caused a curtailment of the sale. There was much mud underlaid with ice, and some horses were held for private sale.

Grass Steers at $7.50 Per 100 Pounds.

On April 30th, at Fort Worth, Texas, a load of grass Texas steers which averaged 1,131 pounds and shipped to market by Ellis Perry, of La Pryor, Zavalla county, was sold at $7.50 per 100 pounds, and reported as the highest sale of grass steers at any time at any market. The load was in a train consignment, but outclassed all others in the train and outweighed them by 115 pounds.

The Retailers' Margin.

Whenever beef at wholesale is advanced a cent a pound, beef at retail goes up about three cents a pound. When beef is scarce the retailer must make a larger profit per side of beef, therefore the basis of three to one.

New Hereford Record Completed.

Volume 36 of the American Hereford Record has been received by the Secretary from the printers and is now ready for distribution. The volume contains 21,000 pedigrees, from No. 365,000 to No. 386,000, and includes all animals recorded from March 15, 1911, to December 31, 1911. The volume will be sent, postage prepaid, to association members at $1.25 each. Orders should be addressed to Secretary R. J. Kinzer, 1012 Baltimore avenue, Kansas City, Mo.

PERSONAL HARDWARE.

Many Tools Have Come Into Use in Recent Years.

Not so many years ago a pocket knife was about the only piece of personal hardware owned, and its uses were as many as woman's proverbial hairpin. Now, however, there is quite a formidable list. Of course, a knife is still indispensable to the sex that has clothes with pockets. There is practically no limit to knife styles, ranging from the old-style one-bladed barlow up to six or seven blades, while inventive ingenuity has added special "tools"—nails, files, scissors, punches and so on—until almost any knife fancy or taste can be satisfied. But in addition to these, men's hardware now includes razors with concave blades, or safety razors, nail files, manicure scissors, nail clippers, pocket scissors and perhaps others in less common use.

A poor knife is an ever-present vexation, while to get an old-style razor that will hold its edge against a stiff beard is almost like hunting for the philosopher's stone. There is only one safe plan for the buyer to follow; that is, buy a trademarked brand. All the "hardware" mentioned in this article can be had in the famous Keen Kutter goods. The meaning of this trademark is that if what you buy is not satisfactory, you can get a new one in its place or your money back. You are the judge and the dealer knows it, so there is never any question or quibbling or chance to feel that the dealer did not give you a square deal.

For the ladies there is a seemingly unlimited assortment of shears and scissors, buttonhole scissors, lace and embro[illegible] lamp-trimming shear[illegible] ught singly or in co[illegible]

On [illegible] town ask to see t[illegible]rs. If he does not ha[illegible]ll not have our custom[illegible], write to the Simmons [illegible]e Company, St. Louis or New York, for a copy. It is a book every farmer ought to keep at hand for ready reference, as it lists almost everything in the way of tools for household as well as individual use. Keen Kutter tools of every kind are famous for quality. They are made upon the principle that "the recollection of quality remains long after the price is forgotten."

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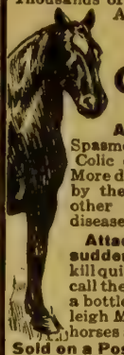

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Feather Prices at St. Louis.

Wholesale quotations: Prime white live goose, 63c. a pound; prime gray do., 44c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck — White, 41c.; dark, 30c. Chicken—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c. Turkey—Wing, tail and pointers, mixed, 19c.; prime body, 9c.

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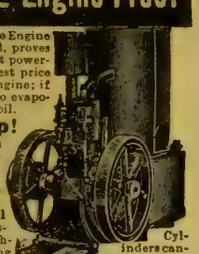

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Hog Book Free.

Valuable hog book, great assistance to any one interested in hogs. On the care and management of hogs. It tells how to cure sick hogs, prevent disease and clear hogs of worms. It tells how to manage young pigs. It tells how to make hog raising and feeding a pleasure, and certain success. It tells how to make the hog business pay big. This book is mailed free to all who write Dr. D. C. Snoddy Co., of Nashville, Tenn. Dept. H.

St. Louis Hog Market Prices.

The prices paid for hogs on the St. Louis market, April 30th, ranged in general from $7.50 to $8.00 per 100 pounds. The bulk of the hogs sold at $7.70 to $7.90, the weights averaging 175 to 237 pounds. The best hogs bringing $8.00 were butcher quality, even lots, 215, 229 and 232 pounds. Many pigs and lights sold at $5.00 to $6.85 per 100 pounds.

Range Polo Ponies in New York.

Towards the end of April, at New York City, the horse commission firm of Fiss, Doerr & Carroll sold for Miller Bros., of Bliss, Oklahoma, one hundred head of Polo ponies and other range horses at an average of $200 a head. The New York Herald says of them:

"There were bloodlike little Polo types, trained to play the game; plain-looking bronchos, with brands and barbed-wire marks to attest their origin on the range, and then a lot of larger horses without distinctive character, some of them standing sixteen hands and looking like trotting-bred nags. Prices ranged from $625 for Casey Jones, a fast, handy, racy little chestnut sorrel, down to $150 for some of the blemished ones."

Record Price For Heifers.

On April 30th, F. O. Link, of Callaway county, Missouri, a large and prosperous farmer and feeder, marketed a load of choice 802-pound Shorthorn and Hereford heifers, which sold to Armour & Co. for $8.60 per 100 pounds. This price equals the top of the market for the year. The cattle were of Mr. Link's own feeding and speak well of his ability of finishing cattle. He expressed himself as being well pleased and said that cattle in his section of the country were getting very scarce.

Native Cattle Quotations.

On April 30th, the following were native cattle quotations at the St. Louis National Stock Yards: Choice to prime steers, $8.00 to $8.75; good to choice steers, $7.25 to $8.00; medium to good steers, $6.50 to $7.50; common to medium steers, $5.25 to $6.00; choice to prime yearlings, $7.50 to $8.00; good to choice yearlings, $6.75 to $7.75; fair to good yearlings, $6.50 to $6.65; common steers, 850 to 1,000 pounds, $4.75 to $5.50—all quotations being at the price stated per 100 pounds.

Advice to Horse Shippers.

The circular issued by Messrs. Holland, Nugent & Maxwell Bros. at St. Louis on May 1st mentions the sale of some strictly good horses, weighing 1,300 to 1,500 pounds, that sold at $220 to $275 in the auction ring. The circular is specially addressed to car-load shippers and describes exactly the horses that will and exactly the horses that will not bring the money. Mr. T. H. Holland writes these letters for the benefit of his personal shippers, and he can help those who are buying horses to avoid costly mistakes. Messrs. Holland, Nugent & Maxwell Bros. hold auction Monday and Tuseday of each week, and they can sell a few more car-loads that come direct from country buyers. Address, T. H. Holland, National Stock Yards, Ill., and let him know what horses you ship regularly and he will advise you in regard to them.

Missouri Steers at $8.60.

On May 1st, at St. Louis, straight car lots of steers sold up to $8.60 per 100 pounds. This price was obtained by Warner Robertson, from Cooper county, Missouri. The drove included twenty-two head that averaged 1,357 pounds. They were Mr. Robertson's own feeding and had been on a ration of molasses feed, corn and hay for about six months.

To Keep Hogs Healthy.

Providing a farmer can keep his hogs healthy there is nothing to prevent him making a handsome living raising them. On the other hand, sick hogs can demoralize a farm and lose a small fortune in a short time. Write to E. Myers Lye Company, Dept. 22, St. Louis, Mo., for a free copy of te book "How to get large profits from hog raising." You will then receive something valuable and interesting about powdered lye and healthy hogs.

Record Price on Steers.

W. H. Bosworth, the well-known Chariton county, Missouri, feeder, broke all 1912 steer records when he shipped in a load of his own fed beeves that sold on the April 30th market at $8.80 per 100 pounds. The shipment included twenty-three head that averaged 1,320 pounds. They were sold to Armour & Co. "To-day's sale of my steers was certainly a pleasant surprise to me," remarked their feeder, "although I knew they were in good condition, I did not figure that they would sell quite as high as they did. I had them on full feed for six months, using a ration of corn, cotton-seed meal and some roughage. They made a very good gain and their sale pleased me in both weight and price. I was very glad to get the record for the year, and though I have topped the market on several occasions, I have never received such a price as this."

Native Steers at $8.75.

On April 30th, at the St. Louis National Stock Yards, a four-car shipment of heavy-weight beeves that averaged 1,460 pounds brought $8.75 per 100 pounds. The consignment was made by T. P. Harrison, one of Callaway county, Missouri's, most extensive and reliable feeders. They were an extra fine drove of heavy-weights and showed the very best of quality. Mr. Harrison was along with his consignment and expressed a good feeling for the St. Louis market. "The cattle were roughed on shocked corn for a length of time," said the owner. "They were full fed for five months and a half on a ration of corn and hay. Their gain was a remarkable one."

Western Range Horses.

Owing to the severe winter and late spring the Western range horses are not in as good condition as they were last year. The season is estimated to be two weeks late. The first auction sale for the year 1912 under the management of Messrs. Campbell & Reid and Western Sale Stables Company will be held at the St. Louis National Stock Yards on Thursday, June 27th. At this sale there will be 1,200 select horses and mares that will be in good condition, and there may be 2,000 or more, all to be sold without reserve. The horses are very nearly fit to be sold in the domestic horse auction, but need a little finishing and handling. Keep in touch with these sales by writing to J. J. Searcy, sale manager, National Stock Yards, Ill.

Have you a copy of the Book of Live Stock Champions? See page 23.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country will be conducted by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.,
As usual, during the season of 1912.
The First Sale will be held

THURSDAY, JUNE 27,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

The Thoroughbred.

James Russell Lowell said: "Some kind of force may be got out of the veriest jade by the near prospect of oats; but the thoroughbred has the spur in its blood."

FARM AND RANCH LANDS.

ARKANSAS FARMS.—Nice level land. Fertile soil. Choice locations. $8 to $15 an acre. Write for Homeseekers' Guide and Large List of Bargains. L. E. Moore, Searcy, Arkansas.

FLORIDA SUBURBAN HOMES.

One of the most choice tracts of land in Florida sold direct to you by the owner. GEORGIAN HEIGHTS, FLORIDA, is not the ordinary kind of land. It is better and more conveniently situated. Only fourteen miles west of Jacksonville. The Florida Railway runs through the center of GEORGIAN HEIGHTS. Two other railroads, good, hard-surface wagon roads and automobile highway all run into Jacksonville, which is the largest and best city in Florida. All these conveniences, the high elevation of the land, good soil, together with the mild Florida cimate all the year round, make GEORGIAN HEIGHTS one of the most desirable locations in the state. I will give you a valuable town lot free with each five-acre tract purchased. Price for tract, $300.00. Easy terms by the owner, J. T. George, Wainwright Bldg., St. Louis, Mo.

ILLINOIS.—Splendid farm property in Madison county, Ill., a short ride from St. Louis; 100 acres fine land; cannot be excelled. Two miles from station on Big Four Route; four-room house, summer kitchen; 1,200 fruit trees just in bearing. Rare opportunity to buy excellent farm property. Price reasonable. For further particulars address Illinois Farmer, care National Farmer and Stock Grower, 3550 Vista Ave., St. Louis, Mo.

MINNESOTA.—Farms for sale. Send for my list of CHOICE FARMS for sale, the best in the United States, considering location, terms, etc. Ask for my FREE BOOKLET, telling about the country, crops, markets, etc. Geo. W. Elder, McGinn Block, Thief River Falls, Minnesota.

TEXAS.—We have for sale 5,502 acres in the famous Pecos Valley, near Pecos City, Texas. Shallow water belt; inexhaustible supply of water. This land lies in three tracts, but close together; three sets of houses, barns, wells, windmills, tanks, gardens, fruit tres, etc. All fenced and cross fenced. Schools, telephone, auto road. Dark chocolate loam. As fine land as the sun shines on for alfalfa, fruits, grapes and general crops. Ideal for dividing into small farms. Will sell in a body or in sections of 640 acres cheap for one-half cash, balance easy terms. Don't delay, if interested, as this land must be sold at once and is a real bargain. For full particulars address Robt. H. Rinehart & Co., Box 98, El Paso, Texas.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.

Your Name Will Get $2 Eggs

For 50 Cents Per Sitting

The White and Brown Leghorns are the greatest layers in the World. I keep 2000 of the celebrated Chamberlain laying strains on my Experimental Farms, and to increase the sale of my Perfect Chick Feed, I will send to any one who will send me their name so I can send them my Perfect Chick Feed Catalogue, 2 sittings of Single Comb Brown or White Leghorn Eggs for $1 for the 2 sittings. Not less than 2 sittings sold. White or Barred Plymouth Rock or Rhode Island Reds or Silver or White Wyandotte or Rose Comb Brown Leghorn or Single Comb Black Minorca or W. Orpington Eggs, $2 per sitting. Leghorn eggs, 13 to a sitting; other varieties, 15 to a sitting. Leghorn eggs, $6 per 100; all other varieties $10 per 100. Large White Pekin Duck Eggs $2 for 10 Eggs. This is a rare chance to get a start of extra fine stock. Send Post Office order on St. Louis and have your orders booked early. Write for our prices on Old Trusty and Buckeye Incubators. Freight paid.
W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*)
KIRKWOOD, St. Louis County, MO.

SHOEMAKER'S BOOK on **POULTRY**

and Almanac for 1912 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. **Only 15c.**
C. C. SHOEMAKER, Box 945, Freeport, Ill.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower and the American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Egg-laying Contest at Storrs, Connecticut.

For the past six weeks every pen in the contest at the Connecticut Agricultural College, Storrs, Conn., has been shelling out eggs in grand style, and making new records, which will be very hard for the birds in any other contest to beat.

The Stoneburn Broody Coop has been installed in all the houses, and at the first signs of broodiness on the part of any bird, in she goes to the broody coop. Usually forty-eight hours is enough to cure any broody bird, and they are released and go right to laying again, which speaks pretty well for this broody coop.

There are just 490 birds in the contest, and at the present they are averaging about 325 eggs per day. The writer has been asked a great many times how it is we get so many eggs in the cold weather. He will tell you that Prof. F. H. Stoneburn, the Supervisor, and he himself have always insisted that the birds should eat at least as much dry mash as they do whole grain, and to bring about this order of things, they close the Norwich grain feeders until late in the afternoon, but the dry mash is before them all the time. This is what produces the eggs, combined with the best of care. This mash contains ground oats, corn meal, bran, middlings, gluten, fish scraps, beef scraps and ground bone.

Some of the birds still continue to lay two eggs a day; just recently a White Wyandotte pullet, owned by the Woodside Poultry Farm, of Philadelphia, Pa., performed the feat. Her first egg was laid about 9 a. m., and the second was laid about 2:30 p. m., the hen being trap-nested both times, and both eggs being collected by the same man. Assistant J. H. Austin. The largest and heaviest egg laid was by Wood's Lane Poultry Farm, Leaman Place, Pa. This egg weighed 24-100 of a pound, or nearly four ounces. There are five birds to each pen.

The wire fencing for the yards is being put up by the American Steel Wire Company. This fencing is five feet high, with two single wires four inches apart on top. All the parts used are hollow steel, and are made to last.

The English pen of S. C. W. Leghorns still leads in total number of eggs laid to date. At the end of the fourteenth week, Pen No. 45, R. C. R. I. Reds, owned by E. S. Edgerton, West Willington, Conn.; Pen No. 43, S. C. R. I. Reds, owned by J. A. Fritchey, Harrisburg, Pa.; and Pen No. 93, Buff Orpintgons, owned by O. Wilson, Carlisle, W. Va., were all tied for first position, each pen laying 26 eggs. Pen No. 63, S. C. W. Leghorns, owned by F. G. Yost, Sayre, Pa., was second with 24 eggs, and Pen No. 35, S. C. R. I. Reds, owned by Brother Wilfred, Inst. Agricole, La Trappe, Que., Can., was third, laying 23 eggs.

The fifteenth week the pen winning had to keep busy nearly every day to carry off the honors, which went to Pen No. 43, S. C. R. I. Reds, owned by J. A. Fritchey, Harrisburg, Pa., having laid 29 eggs; Pen No. 93, Buff Orpingtons, owned by O. Wilson, Carlisle, W. Va., was second with 28 eggs; and the third pen for the week was No. 91, Buff Orpingtons, owned by Barr and Skattowe, Mt. Orchard Poultry Farm, Marvon, Pa., this pen laying 25 eggs.

The sixteenth week is the record so far, Pen No. 93, Buff Orpingtons, owned by O. Wilson, Carlisle, W. Va., having laid 31 eggs out of a possible 35. The second pen for the week was not far behind, being No. 15, White Plymouth Rocks, owned by Hans Lobert, Pittsburg, Pa., who is a ball player on the Philadelphia Nationals. This pen laid 29 eggs; Pen No. 37, S. C. R. I. Reds, owned by Arthur Evans, Colonial Farms, Temple, N. H., was third, laying 27 eggs.

The seventeenth week the average is about the same as the week previous. Pen No. 96, S. C. W. Orpingtons, owned by L. O. Keeton, Brookland, D. C., won first position, having laid 29 eggs; Pen No. 37, S. C. R. I. Reds, owned by Arthur Evans, Colonial Farms, Temple, N. H., was second, with 28 eggs, and Pen No. 35, S. C. R. I. Reds, owned by Brother Wilfred, Inst. Agricole, Que., Can., was third, laying 27 eggs.

The eighteenth week a dark horse shows up. Pen No. 39, S. C. R. I. Reds, owned by Arnold Francis, Oaks, Pa., won first honors, having laid 28 eggs; two pens were tied for second place, No. 24, White Wyandottes, owned by Woodside Poultry Farm, Philadelphia, Pa., and No. 91, Buff Orpingtons; each laid 27 eggs. Pens No. 10, Barred Rocks; No. 11, Barred Rocks; No. 14, White Rocks; No. 15, White Rocks; No. 17, White Rocks; No. 36, S. C. R. I. Reds; No. 74, S. C. W. Leghorns; No. 92, Buff Orpingtons; and No. 96, S. C. White Orpingtons, were all tied for third place, each having laid 26 eggs.

All the game men in the country should be interested in the result of the nineteenth week, as a pen of Dark Cornish Games, owned by John W. Ward, Pennington, N. J., was first, with 30 eggs; the second pen was S. C. R. I. Reds, owned by Arthur Evans, Colonial Farms, Temple, N. H., having laid 29 eggs; third pen, White Plymouth Rocks, owned by W. J. Tilley, Packersville, Conn., 28 eggs.

DISSTON Cross-Cut Saws Will

run easiest, cut fastest and last longest. Our free book explains *why* in detail and illustrates the cross-cut saws we make which are best for farm use. For felling trees a cross-cut saw saves labor, time and wood—it has practically replaced the axe for this purpose in all parts of the world.

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especially adapted for your use are fully described in this book, which also tells how to properly care for your tools. You should have it.

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SOLD BY ALL PROGRESSIVE HARDWARE DEALERS

[Please mention National Farmer and Stock Grower.]

A short time ago a S. C. R. I. Red, owned by Howard Steel, Philadelphia, Pa., died suddenly, and on examination it was found that she had two perfect oviducts, which in a way may account for a hen laying two eggs in one day. These items are from a report by A. M. Pollard to the Feather, published at Washington, D. C.

POULTRY NOTES.

White Leghorns first, White Leghorns second, White Leghorns third, White Leghorns fourth, Black Leghorns fifth, White Leghorns sixth, White Wyandottes seventh, Brown Leghorns eighth, White Leghorns ninth and White Leghorns tenth, account for the first ten pens in an egg-laying contest in South Africa, there being twenty-five pens in competition, and nineteen of them were Leghorns.

In the year 1912, that is to say, in the first three months thereof, three cities—Chicago, New York and Boston—received a total of 1,382,619 cases of eggs, and that number was actually 769,495 cases less than the number received at the same cities during the past three months of 1911. The long, severe winter was charged with the falling off in egg shipments.

Sample Distribution of Amatite Roofing.

The manufacturers of Amatite ask us to say that they are ready to distribute samples of their roofing to anyone who is interested in the new type of roofings. Anybody can obtain one of these samples by simply addressing a request for it to the nearest office of the Barrett Manufacturing Company, New York, Chicago, Philadelphia, Boston, St. Louis, Cleveland, Pittsburg, Cincinnati, Kansas City, Minneapolis, New Orleans, or Seattle. In writing, kindly mention The National Farmer and Stock Grower.

This sample serves to show the mineral surface of Amatite, which is its great unique feature. By this mineral surface Amatite eliminates the painting nuisance.

You lay Amatite on the roof, leave it alone and it will take care of itself year after year. It needs no painting or attention. Of course, this reduces the total roofing expenses considerably, for nobody who has had experience with the ordinary smooth-coated roofing is willing to consider that paint is cheap. It might be expected that Amatite would cost more than the smooth-coated roofings, but its price, in fact, is somewhat lower than roofs of the old type.

If you are interested in ready roofings, Amatite is worth remembering.

To Buy Groceries Right.

Our readers are well acquainted with the great merchandise firm of Montgomery Ward & Co., and will be glad to know that they have issued a new pure-food grocery catalogue. This firm is well and favorably known as a strictly reliable house, and hundreds of thousands of farmers will testify to this from having bought of them for many years. To get this catalogue, all you have to do is to write a postal card, saying: "Please send us your grocery catalogue as advertised in The National Farmer and Stock Grower. Address, Montgomery Ward & Co., Chicago Avenue Bridge, Chicago, Ill., or to Montgomery Ward & Co., Nineteenth and Campbell streets, Kansas City, Mo. The service is equally as good from either establishment.

Read about the "last chance for roses" on page 25. It refers to the best premium ever offered.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

"DONT'S" IN THE CARE OF LIVE STOCK.

By C. L. Barnes, Veterinarian, Colorado Agricultural College, Fort Collins.

"Don't" water a horse soon after feeding him grain.

"Don't" feed a large quantity of hay to a horse that is afflicted with heaves.

"Don't" change the grain ration abruptly.

"Don't" keep the idle horses on full feed of grain.

"Don't" turn horses to a straw stack and expect them to get a living, keep in condition and with certainty escape impaction of the bowels.

"Don't" fail to have your horses' teeth examined once a year.

"Don't" drive overheated horses through a stream of cold water, and by no means allow them to drink while in this condition.

"Don't" feed wheat or barley to horses when oats and corn are available.

"Don't" allow your mares or cows to deliver their young in a dirty barnyard.

"Don't" feed your horses when they are very tired, especially grain.

"Don't" wait until your mare is almost dead, at time of foaling, before calling a veterinarian.

"Don't" administer medicine to the horse, or any other animal, through the nose; nature never intended it that way.

"Don't" administer any drug to an animal until you are familiar with its action and the exact condition of your patient.

"Don't" administer medicine on the "gun shot" plan.

"Don't" be continually dosing your horse; keep him well by proper care.

"Don't" clip your horse and leave him unprotected while not in motion.

"Don't" leave the shoes on a horse longer than five or six weeks without resetting.

"Don't" allow the blacksmith to rasp the hoof wall and otherwise mutilate the foot in shoeing.

"Don't" shoe with calks unless absolutely necessary.

"Don't" leave the grain bin where the horse can get to it, should he become untied.

"Don't" allow the horse to stand in a draught.

"Don't" wash the horse's legs; curry them when dry.

"Don't" wait until the horse's shoulders are sore before properly fitting the collar.

"Don't" put chains behind the horses to keep them from backing out of the stall.

"Don't" allow the horse to drink too much water at one time.

"Don't" feed irregularly.

"Don't" water horses at public watering troughs.

"Don't" try to doctor a glandered horse.

"Don't" fence your farms with barb wire, if you can afford a better way.

"Don't" wait until the cow or bull has become ugly before dehorning; do it while they are young.

"Don't" feed the cows heavy just before calving time.

"Don't" leave poisoned meat for the rats in the daytime; Rover may get it.

"Don't" stand the horse on an inclined-plank floor.

"Don't" wait until your animals are beyond help before calling a veterinarian.

SHEEP AND LAMB NOTES.

There are generally sufficient "ups and downs" in the mutton and wool markets to permit anyone to get in or get out of the sheep business whenever he determines upon doing one thing or the other; but the farmer who keeps some sheep under any and all circumstances is the one who always cashes the surplus at a good price and obtains a good income.

At Johannesburg, in South Africa, there were 33,673 pigs marketed in the year 1911, and 689,851 sheep and lambs were sold in the same year. This shows why there is room for American pork products in South Africa.

J. R. Hamilton, of Terrell county, in Southeast Texas, recently distinguished himself by shipping 4,000 sheep in one consignment to the Fort Worth market. His next consignment, also large, consisted of 3,300 fall shorn wethers and ewes, 104 pounds average, sold at $6.00 per 100 pounds.

On April 26th, at Chicago, over 3,000 head of prime Colorado lambs arrived on the Chicago market. They averaged 85 to 90 pounds and sold at $9.75 per 100 pounds, the highest mark since April, 1910.

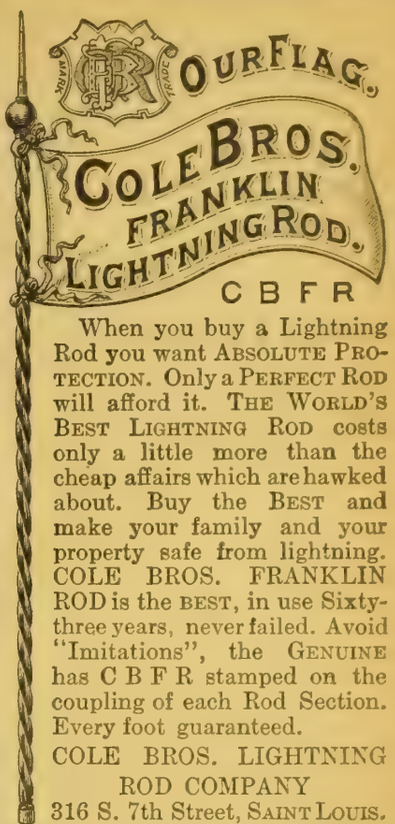
During the third week in April the house of Armour & Co., at Fort Worth, Texas, bought and slaughtered 400 sheep that were shipped dressed to their house at Omaha. This was the reverse of the usual practice, because Omaha, having a surplus of mutton, usually ships mutton to supply deficiencies at other markets.

Increased Use of Nitrate.

According to the reports of the United States Department of Commerce and Labor, the consumption of nitrate of soda for agricutural purposes during 1911 increased 108,000 tons. The United Kingdom consumed 10 per cent. more than in 1910, the United States 10 per cent., Holland 7 per cent., Belgium 7 per cent., France 4 per cent., and Italy 12 per cent., while Germany consumed about 4 per cent. less.

Golden Arrow Seed Corn.

We commend to our readers the Golden Arrow Seed Corn sold by the A. W. Schisler Grain Company, 708 North Fourth street, St. Louis Mo. This is a true bred Reid's Yellow Dent, and has been improved from original stock until it has some characteristics of its own. It is a very bright yellow corn, symmetrical, with small proportion of cob to grain, and is a large yielder. Mr. Schisler is selling it at $2.50 per bushel, and it is all butted and tipped, so that every kernel can be sown with confidence. Higher-priced seed corn can be found on the market, but none better at any price. Time is short. Send in your money for the amount of seed you need. It is a safe investment.



When you buy a Lightning Rod you want ABSOLUTE PROTECTION. Only a PERFECT ROD will afford it. THE WORLD'S BEST LIGHTNING ROD costs only a little more than the cheap affairs which are hawked about. Buy the BEST and make your family and your property safe from lightning. COLE BROS. FRANKLIN ROD is the BEST, in use Sixty-three years, never failed. Avoid "Imitations", the GENUINE has C B F R stamped on the coupling of each Rod Section. Every foot guaranteed.

COLE BROS. LIGHTNING ROD COMPANY
316 S. 7th Street, SAINT LOUIS.

THE BEST POULTRY PAPER.

We are often asked which is the best poultry paper published in the United States, and the answer is, The Reliable Poultry Journal. There are other good papers, but this is the best. The subscription price of The Reliable Poultry Journal is 50 cents a year, and the subscription price of the **Universal Magazine** is 25 cents a year. We have made arrangements whereby we can send the **Universal Magazine** and The Reliable Poultry Journal, both papers one year for 50 cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

At a recent California butter scoring contest the average was 91.97 and the top score 95.

BETTER CISTERNS --- WHY?

To protect the health of every member of your family. Medical experts have pronounced the brick and wood cistern to be the cause of many cases of sickness.

A Cistern to be perfectly sanitary must be made so tight that no impurities can possibly get through. This can only be accomplished by using the Steel Cistern.

STEEL ROOFING Of All Kinds,
Stock and Storage Tanks,
Wagon Tanks, Etc.

Send for Free Catalogue.

O. K. HARRY STEEL WORKS, 2353 Papin Street, ST. LOUIS, MO.

Don't Pay for This Sheep Shearing Machine Until You See and Examine it

Most dealers have it. If yours hasn't, ask him to get one for you, and when it comes have it set up and try it. If you are convinced that it is what you want, buy it and try it on your sheep with the distinct understanding that it must do the work O. K. or no sale.

This STEWART BALL BEARING MACHINE No. 9

is just the easiest of all shearing machines to turn. A boy can run it all day without tiring. It is ball bearing throughout, including a ball bearing shearing head, shears quick and evenly all over.

The price including four sets of knives is only **$11.50**

It is really a wonderful machine and you will be agreeably surprised at the work it does.

Get your dealer to send now, or if you prefer send $2 and we will ship C. O. D. for balance and you may try the machine and if not satisfied we will refund all you paid out.

Send for copy of new 1912 catalogue and Expert Instructions on shearing sheep.

CHICAGO FLEXIBLE SHAFT COMPANY
182 Ontario St., CHICAGO

CASE OF THE INTERNATIONAL HARVESTER COMPANY.

It is very well known throughout the country that an action is pending in the courts by the government against the International Harvester Company which will probably be settled in the course of time. In the meantime, by request of the I. H. C. Company, we publish their side of the case, as set forth by Mr. Cyrus H. McCormick, President of the International Harvester Company, who says as follows:

"The International Harvester case differs radically in its facts from all the so-called "Trust" cases heretofore decided under the Sherman Law. The International Harvester Company was organized in 1902 for the purpose of securing economy in the manufacture and sale of harvesting machinery and of increasing the foreign trade. It had no water in its capitalization and it has earned only a reasonable return on its capital—less than seven per cent. per annum on the average. The prices of its machines are now substantially the same as in 1902, notwithstanding an increase of 15 per cent. in raw material prices and 30 per cent. in wages. The company has caused a large saving to American farmers in the cost of agricultural implements. It has increased the foreign trade in agricultural implements four-fold in nine years; its foreign sales in 1911 were over $42,000,000. It has not sold cheaper abroad than at home. Its treatment of its customers, its employes, its agents and its competitors has been in accord with the highest standard of ethics and honorable business methods. To the farmer it has given better service and better machines; to agents and dealers, a less hazardous and fluctuating business; and to its employes it has given higher wages, improved and sanitary working conditions, insurance against sickness, accident and old age, and a share in the profits.

"The charges of misconduct found in the bill have been met and disproved by the company in other cases; and they will again fail, because they are untrue. The Supreme Court of Missouri, in a suit in which these charges were fully gone into, said:

" 'On the whole, the evidence shows that the International Harvester Company has not used its power to oppress or injure the farmers who are its customers.' "

"And again: 'The price of harvesting machines has not increased in proportion to the increased cost of construction or the increased merit of the machines, and Respondent has brought other farm implements into trade.' "

" 'The evidence also shows that the machines manufactured by the International Harvester Company have been greatly improved in quality, and the item of repair material has been reduced in price and placed within closer reach of the farmer.' "

"The organizers of this company acted under the advice of able counsel and in the sincere belief that they were violating no law. If under later decisions it should be held that the law was violated, it could only be through the creation of a power to oppress, which has never been exercised."

"More than six years ago the company asked for its investigation by the United States government and opened all its books and records for inspection and furnished all information requested. No suggestion of any change in its business methods has been made to it by the government at any time. Recently a full and frank discussion of the whole situation has been had between the representatives of the government and the company, in an honest desire upon both sides to avoid litigation. Some plan may yet be found which will obviate the necessity of any protracted litigation by satisfying the claims made under the Sherman Act without seriously impairing the economic advantages and benefits secured by the organization of this company. No form of reorganization, however, was suggested by the government which seemed practically possible."

"The government has been careful to avoid embarrassment to the foreign business from the litigation; the bill makes no attack upon and seeks no change in the export business of the company. The filing of the bill will in no way interfere with the company's carrying on its business the same as heretofore."

I Am the Paint Man

O. L. Chase, The Paint Man
St. Louis Chicago

O. L. Chase Made-to-Order Paint, Sold Everywhere Has Established A New Standard of Paint Worth.

YOU should get "My Fresh Paint Book." It's new — it's original — it's unique. It tells you all about paint—how you can know good paint—how you can make yourself a judge of what serviceable, worth-while paint really is. It will help you to avoid buying cheap, shoddy paint often sold at high prices on extravagant claims.

You can get O. L. Chase Made-To-Order Paint either direct from me or through a responsible accredited dealer in your town.
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After reading my book you can depend on your own best ideas—you can buy paint that will give you eye pleasure,—and will last longer than the ordinary paint—which will serve the real purpose of paint, namely: For Protection, Appearance and Cleanliness.

Read What the U. S. Government Says About Paint.

The U. S. Department of Agriculture, in Bulletin No. 474, issued Nov. 29, 1911, says, in part:

"It would probably not be denied by any one that a better paint can be made in a well equipped factory than by an individual at home in a small shop. Many ready-mixed paints are of the very best quality, but many are of poor quality, made of cheap materials and at the same time are sold with extravagant claims and for high prices."

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"Most people know little about Paint. Too many of them . . . . either go to a store and lay down their money for 'any old kind' of *stale*—ready-mixed Paint the dealer may have on hand or try to mix some themselves. . . . . Any good painter—and they all are with us—we'll tell you that O. L. Chase *Made-to-Order Paint* gives you longer life and is the only kind of paint to use—Any good painter knows. . . . . Just a little practical knowledge will enable YOU to avoid all that—and practical paint knowledge is what I am giving in this book. I know paint from the standpoint of the painter—I know paint from the standpoint of the manufacturing chemist—I know paint from the standpoint of the manufacturer—and ALL my knowledge is YOURS FREE."

Study what the Government Says—Study What O. L. Chase Says. Isn't My Made-To-Order Paint the Right Paint?

Over fifty thousand users all over the country have enthusiastically decided it is.

When you receive your Made-to-Order paint, if it's six gallons or more, use two gallons. Then if you're not satisfied, return the balance to me. The 2 gallons you use won't cost you a penny.

You can't know paint till you have read "My Fresh Paint Book." It's the only book that tells of the new standard of Paint Worth, O. L. Chase Made-to-Order Paint. It's free. Write to nearest address.

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ROYAL DELFT BLUE AND GOLD 42 Piece Dinner Sets FREE

I want to give one of these beautiful Delft Blue and Gold Dinner Sets to every Lady Reader of this Paper ABSOLUTELY FREE.

I Pay the Freight—

When I say you can have this dinner set free, I mean that it will not cost you one single penny as **I pay all the freight charges.** I will deliver it in your town prepaid and **guarantee it against breakage.**

A Prize for Prompt People

I like prompt people and if you are prompt I will reward you with 6 lovely handkerchiefs. I insist on promptness so **don't delay a minute, write me today.** Remember you get these handkerchiefs in addition to the Dinner Set so get your pencil and write me at once.

A Most Beautiful Set

My Royal Delft Blue and Gold is the handsomest set of china you have ever seen and it is **a complete set too.** It is not a little breakfast or tea set, but **is a full sized Dinner Set of 42 pieces** with large platter and a big covered dish. Delft Blue and Gold are the most expensive as well as the most beautiful decoration for china and has become famous in aristocratic homes. No picture can do justic to the beauty of this dinner set, a flawless, pure white with rich blue at the edges shading to the most delicate tints and a dainty filigree design in pure gold overlapping, with a beautiful gold spray in the center of each piece. The colorings and decorations are underneath the glaze and will wear a lifetime.

You will be proud of this set as long as you live on account of its beauty and quality and because **it costs you absolutely nothing.**

My Offer:

I want every lady reader of this paper to grasp this opportunity **now** to own a set of my **Royal Delft Blue and Gold** dishes absolutely free. Just write me a letter and enclose 10 cents as evidence of good faith on your part. For your 10c I will mail you 15 of the most beautiful art post cards you ever saw. These cards are really worth 25c. Now I ask you to send me the 10c merely to keep out curiosity seekers and children. All that I ask of you is that you help me among your friends and neighbors on my great introductory offer. Something that you can do easily and quickly. Write me today enclosing 10c to convince me that you really want one of my 42 piece Dinner Sets and that you are not a mere curiosity seeker. I will immediately send you the 15 fine post cards and arrange to place my big 42 piece **Dinner Set in your home free and all charges prepaid.**

DON'T LET THIS WONDERFUL OFFER WAIT BUT WRITE ME NOW--TODAY.

L. R. FORD, Manager, 36 Friend Bldg., **KANSAS CITY, MISSOURI.**

The Wheat Market Situation.

There is no politics in the wheat trade, neither is there much "hot air." Business is done on a business basis, entitled: "Put up or shut up." The man who buys wheat has to put up earnest money; the man who sells wheat also has to put up earnest money. In the market the earnest money is called a "margin."

The May option is now in sight. On May 31st, unless previously settled, the man who bought the wheat must pay the balance of the money, and the man who sold the wheat must "deliver the goods" or pay the difference. It is this "paying the difference" which the legislators are asked to do away with, but there is no sense in doing away with what is really the Clearing House manner of doing the business. If legislators lost their pay every time they passed unjust and injurious laws the sessions would be shorter and there would be more thinking before legislating.

Coming to the wheat market, we find that on April 30th cash wheat sold at St. Louis from $1.05 to $1.12 per bushel for hard winter to $1.19 to $1.20½ for No. 2 red. The cash market for soft wheat at St. Louis for immediate delivery was nearly 10 cents higher than the speculative market of Chicago, where the goods are to be delivered at Chicago thirty days later. During the month of April, at St. Louis, cash wheat advanced about sixteen cents a bushel.

Returning to the subject of the May option, Chicago trading, we left it quoted at $1.02½ on March 30th, and we find it closing on April 30th at $1.14⅞, a good twelve cents a bushel gain and a fraction more in thirty days.

On March 30th we noticed that the July wheat option closed at 97⅝ cents, and by April 30th that option advanced to $1.11¼, which is a clean gain of nearly fourteen cents. The advance of the July option is of considerable value to farmers, whereas there is not much wheat in farmers' hands that can be marketed before the May option closes, hence the farmers' great interest in the July option.

Furthermore, the September option also advanced from 95⅞ cents on March 30th to a close of $1.08¾ on April 30th, and this also is a cheerful indication to farmers that the chances are good that the new crop of wheat will be worth in market twenty cents a bushel more than it was quoted at the time a year ago.

In concluding our review of the wheat situation (written after the close of the market on April 30th) we quote the telegram of a dealer in grain on that date. Bartlet-Frazier's wire to their representative said:

"The best advices show that on account of lack of opportunity to do fall plowing last year the acreage of spring wheat in North Dakota will be materially less than harvested in 1911. If we have a perfect spring wheat yield this year it will not be possible to make 600,000,000 total wheat crop, and this would not be enough for bread and seed. That part of this crop that comes from the Pacific coast cannot be used to supply the territory east of the Rocky Mountains unless we reach a price where we will be compelled to import wheat, in which case we would go to Canada. If the spring wheat crop falls down, it means there will not be enough wheat east of the Rocky Mountains this year for domestic consumption. It must be remembered that the carry over this year will be extremely small, there being little left on farms."

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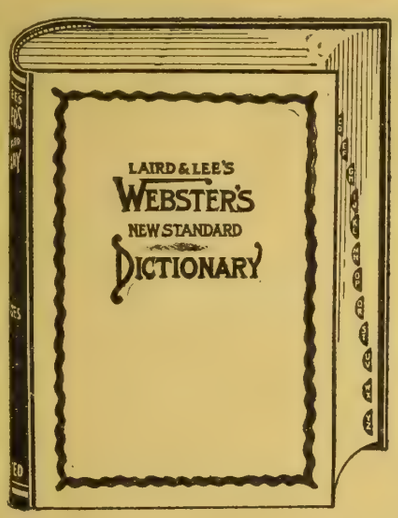

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or are troubled with

Ringing Noises in the Head

My Illustrated Free Book Contains

JOYFUL NEWS

I do not offer you makeshifts such as artificial ear drums or other apparatus; **I do not approve** of saturating your system with habit-forming drugs. I am not content to merely give you a brief period of relief from deafness but my aim is

TO CURE YOU PERMANENTLY

I am a practising physician of 32 years' active, extensive, experience. I know the only satisfactory method of conquering deafness and head noises is in getting at the seat of the trouble and curing it.

I have published a book; it is written in easy, plain language and is **illustrated.** It tells you facts you probably never imagined and you may see just why you probably never succeeded in getting a real, lasting cure before. It is the one treatise you have been seeking and it tells all about **the one Method** you should adopt and which is comparatively **inexpensive.**

DEAFNESS IS DANGEROUS

There always was some danger in being deaf but with the introduction of rapid speeding automobiles, no deaf or partly deaf person can feel safe. Accidents to those who could not hear well, are being recorded by thousands. **Moreover, deafness**

Always Others by Forcing Them to Shout at You
Prevents You from Enjoying Theatres, Concerts, etc.
Makes You Feel a Bore When in Company
Hinders Your Success in Business or Socially
Stops You from Hearing Sweet Sounds of Nature
Is usually Allied with Nervousness and Despondency

My book explains why it is very probably your own fault that you remain deaf and why you are becoming a little harder of hearing every year. Explains nervousness. Shows wherein the underlying causes of continued deafness or head noises are probably

SHORTENING YOUR LIFE

My book tells you how I have cured cases which have been given up as hopeless, it explains wherein you may gain **wonderful benefit** from the very outset. It is a book for **men and women of any age.** It fearlessly exposes the frauds that prey upon those who are deaf. It shows you how **Nature is patiently waiting** for you to give her a chance to help you. This book you may say, is WORTH ITS WEIGHT IN GOLD to you, yet **it will cost you nothing** but the expense of a postcard or stamp in writing for it. Don't pass this by and say "it is like the rest of them—I am disappointed and discouraged," but get the book now and be **surprised—joyous—at the prospect of a**

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Throw aside your prejudice over past failures, no matter what bad luck you may have had even with skilled specialists. My book shows you why they so often fail and gives you simple directions for testing whether your own case is hopeless or **probably curable.** There are many genuine pleasant surprises in my book. **You will feel better** for having read it. Let me send it to you, in plain wrapper, **absolutely free.** Keep this ad't. Address:

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How to Cut Out Cutworms.

Tomatoes, cabbage, sweet potatoes and other vegetables and garden plants, and especially those which are started under glass and transplanted, are subject to serious injury by cutworms. They appear sometimes in great numbers in spring and early summer and frequently do severe injury before their ravages are noticed. The method of attack is to cut off the young plants at about the surface of the ground, and as these insects are of large size and voracious feeders, they are capable of destroying many plants in a single night, frequently more than they can devour. During the past two years these insects, working generally throughout the United States, destroyed hundreds of thousands of dollars' worth of crops. By the timely application of remedies, however, it was demonstrated by the Department of Agriculture, through field agents and others of the Bureau of Entomology engaged in the investigation of insects injurious to truck crops and sugar beets in some of the principal trucking regions, notably in tidewater Virginia; in Southern Texas; in the vicinity of Rocky Ford, Colo.; in Southern California; in the vicinity of Sacramento, Cal.; in Stark county, Indiana, and in some other regions, that these insects can be readily controlled, large areas being successfully treated. The usual method of control is by the use of poisoned baits.

Take a bushel of dry bran, add one pound of arsenic or Paris green, and mix it thoroughly into a mash with eight gallons of water, in which has been stirred half a gallon of sorghum or other cheap molasses. After the mash has stood several hours, scatter it in lumps of about the size of a marble over the fields where injury is beginning to appear and about the bases of the plants set out. Apply late in the day so as to place the poison about the plants over night, which is the time when the cutworms are active. Apply a second time, if necessary.

When cutworms occur in unusual abundance, which happens locally and sometimes generally, in some seasons, they exhaust their food supply and are driven to migrate to other fields. This they do literally in armies, assuming what is called the army-worm habit. At such time it is necessary to treat them as we do army worms. While the methods which have been advised are valuable in such cases, these remedies may be too slow to destroy all the cutworms and we, therefore, have to employ other methods. These include trenching, ditching, the plowing of deep furrows in advance of the traveling cutworms to trap them, and the dragging of logs or brush through the furrows. If the trenches can be filled with water, the addition of a small quantity of kerosene, so as to form a thin scum on the surface, will prove fatal. In extreme cases barriers of fence boards are erected and the tops smeared with tar or other sticky substances to stop the cutworms as they attempt to crawl over.

Clean cultural methods and rotation of crops are advisable, as also fall plowing and disking. Many cutworms can be destroyed where it is possible to overflow the fields. This is particularly applicable where irrigation is practiced.

NOTES CONCERNING SWINE.

No one need be afraid of there being an oversupply of hogs. There never will be again, and, what's equally important, there is no place on earth where hogs can be raised to match those which are produced in the corn belt.

The Fort Worth market is about 80,000 hogs behind in the receipts of hogs, as compared with last year. Texas has not yet reached the capacity of Missouri in raising hogs.

Turn Second Rate Hogs Into "Top Notchers" By Feeding Merry War Powdered Lye

E. Myers, President, E. Myers Lye Company

You owe it to yourself *not* to raise thin, scrawny, light weight, second rate hogs. They are only fit for the soap maker and never were profitable for any hog raiser—and never will be.

The hog raiser who expects to clear *big* profits *must* raise "top notch" pork and if your pork producers are thin, scrawny, "second raters" you *must* raise their standard of quality until they can rate as "top-notchers."

My experience of over 20 years of untold experiment and the experience of thousands of Hog Raisers has amply proven that feeding *Merry War Powdered Lye* to hogs, with their daily rations, is the greatest thing the world has ever known for improving the standard of quality of your porkers—turning every ounce of feed into a grade of pork on which you can realize big, quick profits.

Feed Merry War Powdered Lye Every Day

Don't delay another day—for the sooner you begin to feed *Merry War Powdered Lye* the sooner I will be able to convince you this is the easiest, cheapest way to improve the quality of your pork.

It keeps your hogs on their feed and on their feet every moment, from weaning to marketing, giving them hearty appetites, toning them up, making them fat and sleek, insuring that improvement in their standard, in the shortest possible time, that brings you top notch prices.

Follow These Directions Carefully

Mix one tablespoonful *Merry War Powdered Lye* with slop for ten hogs, or half a can with barrel of swill. Stir well and feed every day, night and morning. If your hogs are on a dry feed ration, mix half a can *Merry War Powdered Lye* to each barrel of drinking water.

These Letters Convincing Evidence

C. M. Cooper, Grocer, Dawson, Neb. "Cholera all through our district. Those who have used Merry War Powdered Lye have escaped it."

C. F. Newman, Lebo, Kans. "Have best results with my hogs and no sickness since I've used Merry War Powdered Lye while near neighbors have lost heavily."

Melvin Bolton, Independence, Kans. "Since I commenced feeding Merry War Powdered Lye according to directions I never saw hogs fatten faster."

Important Warning

Some commercial lye makers are trying to persuade dealers and hog raisers that any lye will do what *Merry War Powdered Lye* will for hogs—*but it will not, it can't*—because no other lye maker knows the combination in *Merry War Powdered Lye* that improves the quality of your pork producers.

Merry War Powdered Lye is the only Lye which is absolutely *safe* to feed hogs—the greatest hog remedy the world has ever known, and Hog Raisers who make the mistake of thinking any lye will do—fail to obtain results—pay the penalty in loss of hog profits. Don't allow yourself to be talked into a substitute.

For Hog Cholera, Worms, Etc.

Merry War Powdered Lye is also the best and cheapest protection against hog losses ever discovered—preventing Hog Cholera; killing worms; rendering hogs immune from infectious diseases.

You are not asked to accept my statement, alone, for this. My Hog Booklet, which is yours for the asking, carries testimonials from hog raisers everywhere, regarding wonders worked by *Merry War Powdered Lye.*

Kettle Powdered Lye for Soap Making

If you want the best lye, exclusively for soap-making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—but DON'T feed it to your hogs. I SELL ONLY MERRY WAR POWDERED LYE TO YOUR HOGS.

At All Leading Dealers

Most grocers, druggists and feed stores handle *Merry War Powdered Lye,* 10c a can, 4 dozen cans to the case, $4.80. If your dealers can't supply you, write us, stating their names and we will see that you are supplied and will also send you free, a valuable booklet on "How To Get The Biggest Profits From Hog Raising."

E. MYERS LYE COMPANY, Dept. 22, St. Louis, Mo.

Which Kind Do You Want?

Increase in Number of Grapevines.

At the census of 1910, taken as of April 15th, there were reported 224,097,719 grapevines of bearing age, as against 182,227,655 vines in 1900 (census taken as of June 1st), an increase of 41,870,064 vines, or 23 per cent., in ten years. In 1910 there were 923,396 farmers in the United States who reported growing of grapevines, or 14.5 per cent. of the total number of farmers in the United States. No report was received in 1900 showing the number of such growers. The average number of vines per farm is given as 243, but this high average is due largely to the fact that in the Pacific Division, which reports considerably more than half of all grapevines in the country, the average per farm amounts to 5,855.

The teacher had been telling the class about the rhinoceros family. "Now, name some things," said she, "that are very dangerous to get near to, and that have horns." "Automobiles!" replied little Jennie Jones, promptly.—Unidentified.

Rubber Roofing

Warranted For Twenty-Five Years.

FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
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TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

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Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept. 356, East St. Louis, Ills.

The Girl Graduate.

The season of high school commencements is at hand, and many are the mothers who are striving to make the penny do the work of two, and go without necessities, personal and in the home, that Mary may have the proper attire for the occasion.

Surely, it is one of the events of a life and deserves, as such, most careful consideration. But the public school system, which so encroaches upon the funds of its patrons at these special exercises, in some instances almost forfeits its right to the adjective "free." Usually, however, it is custom which has rendered the preparation for commencement a burden, and it is one which needs reform. The great object of free education is in danger of being forfeited when fashion steps in to dictate a costume which means painful economy in other parts of the home.

The simple graduating gown is the most appropriate for the young girl. Silks and expensive trimmings are not in keeping with "sweet sixteen," and very often not in keeping with her father's purse. Lawns and other sheer cotton goods may be made into many beautiful combinations with the addition of a little lace or embroidery. In some places we have noticed that the cost of the graduating dress has been officially fixed not to exceed five dollars. And the move is commendable, for with this amount one may combine a simplicity which is charming with all the richness suitable to extreme youth. One of the most admired graduating dresses was a plain sheer organdie, made over an embroidered waist.

There are always some in the class compelled to count expense very closely, and for this reason, if for no other, the simple dress is best. It is also most appropriate. There is nothing more suitable than the peasant sleeve effect, lawn trimmed with lace or embroidery being a popular material. By watching remnant counters for trimming or using a little skill in hand embroidery one may find the work of evolving a beautiful dress at small cost possible.

Gloves, shoes and other necessaries vary much with the neighborhood, but where the girls of a class can come to an amicable decision as to these details and thus secure uniformity the effect is more pleasing. Just now the rage for white footwear is at its height, and those who find the white buck too expensive may be glad to avail themselves of the less expensive white leather known to the trade as "Nubuck." Though its wearing qualities are less enduring than buck, it has several advantages over canvas, and is very popular in the high cuts with fourteen or sixteen pearl buttons, or in the low styles.

The simpler forms of hair dressing now so much in vogue are a pleasing feature in the dress. Whatever style you choose, adapt it to your own face, rather than becoming a mere copyist, regardless of whether the style chosen is becoming or not.

Not long ago we heard of a little girl who is going to take pills made from a most poisonous drug "to make her white," believing that in small quantities the deadly poison will not hurt her. This is a great mistake. Any drug taken in quantities to produce a change in the color of the skin cannot but be harmful, to say nothing of the possibility of fatal effect through overdose. If you must improve upon nature (?), get a reliable druggist to give you a safe powder. Better plaster this on a dozen thicknesses deep than be so foolish as to take any of the powerful drugs prescribed by quacks for the complexion.

A simple and becoming dress is in much better taste than senseless frills and gewgaws. Avoid extremes. Remember that what you have in your head amounts to more at commencement time than what you wear. It does not pay to go beyond what one can afford for the sake of display; neither is it in good taste for one member of the class to materially outstrip her mates, just because her father is rich. In the public school children meet on a supposably common basis, and the unity of the class is always a happy feature.—Bessie L. Putnam.

Cabbage growers ought to send to the Secretary of Agriculture, Washington, D. C., for Farmers' Bulletin No. 448. It is entitled "Diseases of Cabbage and Related Crops and Their Control."

Take notice of the splendid rose premium offered on page 25.

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912.

Now Ready For Delivery.

True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS,

Winners in Annual Live Stock Contests at State and National Fairs and Expositions.

THIS is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special Inducements

To Paid-in-Advance Subscribers--To Old Friends and Patrons.

We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title.

This is An Extraordinary Offer.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1912.

Name.....

Address.....

My occupation is.....

Remedies For Children's Ills.

If more young mothers would prepare good home remedies and have them ready to use the moment they are needed, there would be a great saving of doctor's bills and also of suffering, and these remedies should be kept together by themselves, where they may be easily found when wanted.

Colic is the complaint from which children suffer much, and quick and ready relief should be given, and in case of sudden and severe pains in the bowels caused by an accumulation of gases in the stomach, a hot infusion of peppermint is a valuable remedy for the older children, and for the very small ones who are troubled with colic two or three drops of the essence in water will quickly give relief.

The essence of peppermint is good for summer complaint, and put five drops of paregoric in half a teacup of thin starch water and use this as an injection. For vomiting or sour stomach, a few drops of peppermint in a little warm water often gives immediate relief. For earache, that bane of childhood, we know of no remedy so effective as onion juice. Put the onion in the oven to roast, and when tender extract the juice by squeezing in a piece of cheese cloth, after which it may be bottled and kept for use as needed. When needed, warm a drop or two in a teaspoon and drop into the ear and cover with a bit of warm cotton to exclude the air.

Long, continued bleeding from the nose is very terrifying to mothers, and although rarely dangerous, should not be allowed to contiue too long. First bathe the face and neck with cold water, then roll a little piece of white paper in a tight roll and place it under the upper lip, where it press against the gum. If the bleeding continues, snuff up powdered alum.

In a family of children cuts and bruises are of common occurrence, and several thicknesses of clean cheese cloth or soft linen saturated with a boric solution and placed on open wound is a fine antiseptic and cleanser, and on small cuts and wounds this is all that is needed, and if you have a bottle of this boric solution you have a valuable home remedy. This solution is prepared by dissolving one-half ounce of the boric powder in one pint of boiled water; then this can be bottled ready for use. Every infant's mouth should be washed twice daily with a piece of clean, sterilized linen dipped in warm water to which a little of this solution is added and it will keep the breath sweet and the gums healthy and the dry powder mixed with corn starch makes an excellent powder for chafed skin.—A. M. H.

A Few Items in Egg Laying.

Unfortunately for us, when we go to press with the May issue of The National Farmer and Stock Grower the April record of the Missouri National Egg-laying Contest is not made up. We will therefore try to interest our readers with a few March items.

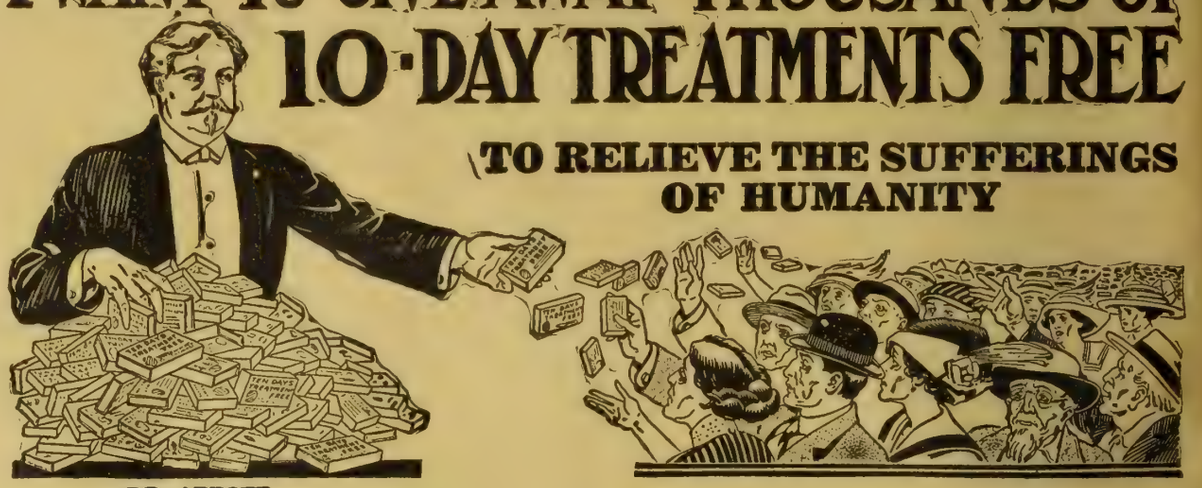
A total of 10,828 eggs was the record for March, or a grand total of 28,673 eggs for the five months. Twenty-seven pens of five hens laid more than 100 eggs each this month. Several pens laid 32 eggs in seven days out of a possible 35 eggs. The pen of R. C. R. I. Reds, owned by D. E. Hall, of California, Mo., won the Golden Egg Cup for March by laying 126 eggs. The Buff Orpingtons went to first place with 421 eggs to their credit for the five months, and the Silver Wyandottes retain second place for the month with 118 eggs and second place for the entire time with 416 eggs as their best record. A Barred Plymouth Rock pullet owned by Miss Lillian C. Adams, of Tipton, Mo., laid an egg every day for thirty consecutive days, and as she was still laying at the close of the month, she will probably continue for some time yet. A White Orpington pen of Bailey & Carson's, of Parsons, Kas., laid 55 eggs in twelve days, or 55 eggs out of a possible 60. A Barred Rock pullet from Canada has laid 39 eggs in 49 days, and laid twenty-two days without missing. Two Buff Cochin pullets owned by Byrd Bryan, of Mercer, Mo., laid 29 eggs each during this month, and one laid 40 eggs in forty-five consecutive days, which is considered a good record for a Cochin.

See the Rose Premiums. Page 25.

Breese, 21st, a pure-bred Hereford cow, owned by J. C. Dibrell, proprietor of the Echo Ranch, Coleman county, Texas, has 554 descendants recorded in the American Hereford Herd Book. She lived to be twenty-four years old and was bought in the year 1888 at a sale held at the Dallas Fair. At that time many imported Herefords died of fever, and in this purchase Breese, 21st, was the one survivior of three purchased.

I WANT TO GIVE AWAY THOUSANDS OF 10-DAY TREATMENTS FREE

TO RELIEVE THE SUFFERINGS OF HUMANITY



DR. ABBOTT

I want every man or woman reader of this paper who suffers to write me and get this wonderful TEN DAY TREATMENT of mine, FREE.

It is not an experimental distribution of medicine, such as have been made before, that I am offering you. It is not a sample of a medicine or a proof, but a bonafide ten-day treatment that has cured a great many people and should cure you. And it **is absolutely free to you.** There is no money to pay. I even pay postage and all charges. **I just want to relieve thousands of sufferers** in return for the success that my thirty-two years of labor in the medical profession have brought me.

If you have rheumatism, back-ache, kidney or bladder troubles, chronic catarrh, or any of the other Uric Acid complaints, such as often are female weakness and so-called male nervous debility, write to me, filling out the little coupon herewith attached and I will send you **at once a full Ten-Day Treatment,** as thousands of earnest testimonials I have in my possession will prove to you.

There is too much sickness in the world **and it is mostly due to neglect.** Long treatments, expensive courses of medicine, with their consequent expense, **are no longer necessary.** I can and do cure with these **Ten-Day Treatments** and I want to give thousands of sufferers a chance to profit by my discovery **at my expense. It costs you nothing, now nor at any time.**

Don't send me any Money

not even postage—I will pay all expenses. But if you value happiness, success, a healthy mind in a healthy body. Don't waste any time but fill out this coupon and mail it to me. Remember it is FREE. You will owe me nothing now nor later.

My Ten Day Treatment Positively Cures BACKACHE FREE

Are you racked with pain?

Do you suffer so that your daily work is a torture instead of being a pleasure?

Have you lost ambition, zest, enterprise, the desire to better yourself because of pains, aches, dullness?

Has rheumatism set its clutches on your muscles and palsied your limbs so that life is hardly worth living, your days a horror, and your nights a terror?

I can relieve your sufferings and I want to do it now. Write to me. Fill out the coupon and mail it to me. That is all you need to do. **I will do the rest and it will cost you absolutely nothing.**

Rheumatism, back-ache, kidney troubles, bladder troubles, chronic catarrh, female weakness and the so-called weakness of men are generally due to one cause—uric acid poisoning. My treatment, which is different from all others, will dispel your pains; it will make life worth living. Take it and you will get up in the morning after a sound night's sleep, refreshed and invigorated. Once more your muscles will respond to your will and do so readily without twinges of agony, without reluctance. Your backache will vanish and you will bless me and thank me as have done thousands of others.

This treatment is not an experiment. It does not contain drugs that injure you while giving temporary relief. We have vouched for it according to law.

I am not offering to send you a sample but a full ten days' course of treatment with full instructions as to how to use it and all of it is absolutely free to you.

I want to convince you that it is your duty to yourself and to those who love you and are dependent on you to try this free 10 day treatment of mine.

No man tortured with uric acid complaints is fit for the battle of life. He cannot bring his brain nor his hands to work properly when his body is racked with pain. No woman can care for her home, bring up her children right or work if she is cross, miserable, distracted by suffering. The struggle is too keen, competition too merciless, the fight for success too strenuous to be handicapped by physical ills. To the man or woman who suffers I want to bring relief, comfort, happiness, success. Fill out the coupon attached here and mail to me. **Don't wait until tomorrow,** tomorow never comes, **do it at once.** With my Ten-Day Treatment, I will also send my book on Uric Acid Diseases. It is a pamphlet full of the results of an experience of thirty-two years, during which I have specialized in uric acid complaints. It contains also a few of the tens of thousands of testimonial letters from preachers, lawyers, men and women of affairs the country over who have not hesitated to say just how much I have benefitted them.

DR. G. B. ABBOTT

P. S. Perhaps you have a friend who is a sufferer. Don't hesitate to have him or her fill out this coupon or write me a letter, or you do it for your friend. They will call you blessed.

COUPON

TEN DAYS' TREATMENT FREE

Dr. G. B. Abbott, 1090 Austen Building, Chicago, ILL.

Have you pain in the back?.....Have you Rheumatism?.....

Kidney Trouble?.....Do You Get Up Nights to Urinate?.....

Are you constipated?.....Where is the most pain?.....

Have you Catarrh?.....Your age?.....Married or Single.....

Name.....

Address.....

ECZEMA

(Also called Tetter, Salt Rheum, Pruritus, Milk-Crust, Weeping Skin, Etc.)

ECZEMA CAN BE CURED TO STAY, and when I say cured, I mean just what I say—C-U-R-E-D, and not merely patched up for awhile, to return worse than before. Remember I make this broad statement after puting ten years of my time on this one disease and handling in the meantime a quarter of a million cases of this dreadful disease. Now, I do not care what all you have used, nor how many doctors have told you that you could not be cured—all I ask is just a chance to show you that I know what I am talking about. If you will write me TO-DAY, I will send you a **FREE TRIAL** of my mild, soothing, guaranteed cure that will convince you more in a day than I or anyone else could in a month's time. If you are disgusted and discouraged, I dare you to give me a chance to prove my claims. By writing me to-day you will enjoy more real comfort than you had ever thought this world holds for you. Just try it and you will see I am telling you the truth.

DR. J. E. CANNADAY, 352 Park Square, Sedalia, Mo.

References: Third National Bank, Sedalia, Mo. Could you do a better act than to send this notice to some poor sufferer of Eczema?

WOMAN'S HAPPINESS ON THE FARM.

By J. E. Buck, of the I. H. C. Service Bureau.

In the latter part of March there convened in Philadelphia one of the most noted assemblages ever brought together on the American continent. The gathering was made up of statesman, scholars, educators, clergymen, professors of agriculture, scientists and agriculturists. The conference was held under the auspices of the Pennsylvania Rural Progress Association, the oldest agricultural society in the United States, having been organized in 1785.

At this gathering were discussed the problems of the farmer's wife and the conditions under which she struggles, not only to bring up her family, but to help make the living and means to alleviate her from isolation and bring about conditions favorable to her well being.

Miss Martha Van Rensselaer, of New York, struck the keynote to the meeting when she declared that rural progress depends on the happiness and comfort of the woman on the farm more than upon well-tilled fields and well-built and well-stocked barns.

Importance of Contentment.

"If the woman is not satisfied," she said, "and if no effort is made for her comfort, the farmer might as well give up his aspirations to become successful, for the family cannot remain on the farm if the wife and mother rebels. On thousands of farms in this country there is every reason for rebellion, for absolutely nothing is done to give the woman the aid she needs in housekeeping, in the bringing up of her children and the performance of her share of the farm duties. How many men who have reapers and binders think of the washing machine and the ironing machine for their wives?

"In how many cases would the woman think this was a needless expense, simply because she has been trained to believe that her health and her happiness and conservation are inferior matters and do not measure up to the needs of the live stock and the farm? The farmer's wife should be taught how to conserve her time and energy; how to get the latest labor-saving devices; how to do her work scientifically and intelligently; and how to combine pleasure with duty. She should have some idea of art, so that her home may be beautiful, and she should not be given to believe that there is nothing in life beyond the dreary routine of daily toil.

Education For Farmers' Wives.

Mrs. Jean Kane Foulke, of West Chester, Pa., spoke along the same lines, emphasizing the field for educational work among farmers' wives, who, she said, do not know the value of good cooking, have no idea of the application of business methods to housekeeping, and are not even, in many parts of this state, good buttermakers, because they have not been taught to give scientific consideration to the task in hand of making farm life interesting and profitable. Mrs. Foulke declared that part of the trouble is caused by the division of interest on the farm; that the man thinks that the stock and the products are his lookout, and that his wife should do all the work of the house unaided.

"No matter how many improvements are inaugurated, how many reforms are brought about," she said, "you will never get the ideal condition on the farm until the man and the woman realize that their tasks are equally important and that their interests are one. The man must give up the old notion that his wife is his chattel and simply part of the machinery of the estate, and must allow her some time for individual development, some time to make herself a real companion for him."

Some Machines That Help.

Among the more noteworthy helps that have recently been placed within the reach of the farmer's wife is the gasoline engine. It pumps the water for cooking and other purposes and makes it possible for the country home to be lighted by electricity. The gasoline engine is also utilized to operate the cream separator, washing machine and churn, and this in a large measure removes drudgery from the woman's work on the farm. Where the farm is equipped with all these modern appliances the children can be a material help and learn to do many things that will be of service to them in after years.

A Delicious Beverage.

Coca-Cola as a refreshing, wholesome, thirst-quenching beverage, has withstood every test. It is sold at every soda fountain in the United States because it is exactly what it is claimed to be. See card on page 31.

A Coupon Worth a Fruit Jar.

Our lady patrons are invited to understand the advertisement of the Hazel-Atlas Glass Company, of Wheeling, W. Va. They manufacture the E-Z Fruit Jar and wish to introduce them into families where fruits and vegetables are canned. These jars are kept for sale by grocers, and if you can find the grocer handling their jars he will furnish you with a free sample that when canning time comes around you will buy their jars because you like them. It will do no harm to write the Hazel-Atlas Glass Company, Wheeling, W. Va., and ask for a free book on fruit jars.

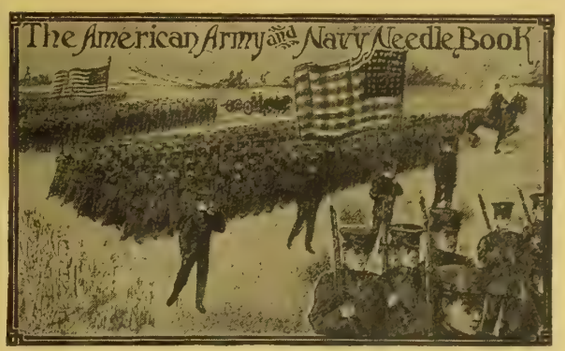
Protection Against Lightning.

Cole Bros. Lightning Rod Company have a card on page 19. Their Franklin Rod has been tested and found to be reliable in many states. For many years lightning rods were considered to be of doubtful value, whereas to-day in building and construction the lightning conductor is considered of the first importance.

Read about the "last chance for roses" on page 25. It refers to the most delightful subscription premium ever offered by a farm paper.

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine,** our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



LAST CHANCE FOR ROSES.

Eight Hardy, Ever-blooming Roses---Perfection in Rose Culture---Sent as Subscription Premium.

A GARDEN OF ROSES—FINE, STURDY PLANTS.

The Most Delightful Subscription Premium Offered By Any Farm Paper.

The National Farmer and Stock Grower has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition and with each package we send complete directions for planting, care and culture.

The collection, briefly stated, is: **Etoile de France,** the acme of perfection of hardy red roses; **President Taft,** an ever-blooming pink rose of superior merit; **Yellow Kaiserin,** rich canary yellow, that will thrive under most unfavorable conditions; **White Killarney,** the wonderful new "Irish Beauty," of surpassing elegance; **Helen Gould,** vigorous, growing velvety red; **Marigold,** a most valuable variety for outdoor planting, producing deep, full, saffron-yellow flowers; **Clothilde Soupert,** the premium bedding rose with white, pink-tinted flowers, which always appear charmingly fresh and sweet. **Ever-blooming Crimson Rambler** is the eighth of the collection, making a total of the grandest collection ever grown.

OUR SPECIAL LAST-CHANCE ROSE OFFER.

Send us only **fifty (50) cents,** by money order preferred. We will send you **The National Farmer and Stock Grower** for one year We will send you direct by mail, postpaid, the full set of **Eight Hardy, Ever-blooming Roses** exactly as stated above. You will be greatly pleased with the roses and the paper.

HERE IS A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:—Gentlemen: Herewith please find fifty (50) cents. Please send me **The National Farmer and Stock Grower** for one year, and the full set of **Eight Hardy, Ever-blooming Roses,** one-year plants, safe delivery guaranteed.

Name..... .....

Address.. .....

MAY MANTON PATTERNS.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering.

DAINTY UNDER GARMENTS.

No.6935.—Three-piece Adjustable Chemise. Small, 32 or 34; medium, 36 or 38; large, 40 or 42 bust. For the medium size will be required 2½ yards of material 36 inches wide, 7½ yards of insertion, 6 yards of edging, 1½ yards of ribbon.

No. 7318.—Princess Combination Corset Cover and Drawers. 34 to 44 bust. For the medium size will be required 3¼ yards of material 36 inches wide, with 4¼ yards of embroidery 5 inches wide, 2⅛ yards of beading, 11 yards of insertion and 3½ yards of lace edging.

No. 7369.—Night Gown With Body and Sleeves in One. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust. For the medium size will be required 4¼ yards of material 36 inches wide, with 3¼ yards of insertion and 4¾ yards of lace, as shown in large view.

No. 7359.—Combination Corset Cover and Closed Drawers, For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 3½ yards of material 36 inches wide, with 3¼ yards of insertion, 6½ yards of edging and 2 yards of beading.

No. 7159.—Five-gored Petticoat. 22 to 32 waist. For the medium size will be required 3¼ yards of material 36 inches wide, 2¾ yards 44 inches wide for petticoat, 2 yards 36 inches wide for circular flounce, 2¼ yards of beading to trim as illustrated.

VARIOUS MODELS.

No. 7378.—Tucked Blouse or Shirt Waist. 34 to 42 bust. For the medium size will be required 2⅝ yards of material 36 inches wide, with 2 yards 27 inches wide and 1½ yards of edging for frill.

No. 7362.—Fancy Blouse With Front Closing. 34 to 42 bust. For the medium size will be required 2⅜ yards of material 36 inches wide, with 1¼ yards for collar and cuffs, 1 yard of lace 18 inches and 3½ yards of velvet banding.

No. 7313.—Plain Blouse or Shirt Waist. 34 to 44 bust. For the medium size will be required 2 yards of material 36 inches wide.

No. 7238.—Four-piece Skirt. 22 to 30 waist. For the medium size will be required 3¾ yards of material 36 inches wide.

No. 7345.—Girl's Costume. Eight to twelve years. With long or three-quarter sleeves. For the ten-year size will be required 2¼ yards of material 36 inches wide for blouse with peplum, 2¼ yards 36 inches wide for skirt and trimming, with ¾ yard 36 inches wide for under waist.

No. 7361.—Boy's Suit. Six to twelve years. With high neck or open neck and separate shield. For the ten-year size will be required 4⅝ yards of material 36 inches wide, with ½ yard 27 inches wide for collar and 5 yards of braid.

ATTRACTIVE MODELS.

No. 7382.—Cutaway Coat, For Misses and Small Women. Fourteen, sixteen and eighteen years. With long or three-quarter sleeves, with or without collar. For the sixteen-year size will be required 2¼ yards of material 36 inches wide, with ½ yard of satin for collar and cuffs.

No. 7368.—Straight-fitted Coat. 34 to 40 bust. With cutaway or straight fronts, plain or simulated Empire back. For the medium size will be required 2¾ yards of material 36 inches wide, with 1¼ yards of velvet and ¾ yard of silk for collar and cuffs.

No. 7385.—Belted Semi-Princess Dress, For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 4 yards of material 36 inches wide, with ¾ yard of 27 inches wide for the trimming.

No. 7372.—Two-piece Skirt With Tunic Effect. 22 to 30 waist. For the medium size will be required 2¾ yards of material 36 inches wide, with 1½ yards 21 or 27 ninches wide for foundation.

No. 7367.—Two-piece Skirt With Tunic Effect. 22 to 30 waist. For the medium size will be required 2½ yards of material 36 inches wide, with 2 yards 36 inches wide for foundation.

FASHIONABLE MODELS.

No. 7364.—Surplice Blouse, For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 3½ yards of bordered material 16 inches wide to make as illustrated.

No. 7383.—Fancy Blouse. 34 to 42 bust. With or without chemisette and under sleeves. To be made over a fitted lining. For the medium size will be required 2¾ yards of material 36 inches wide, with 1½ yards of all-over lace 18 inches wide for chemisette and under sleeves, 1 yard of fringe, and ⅜ yard 36 inches wide for girdle.

No. 7362.—Fancy Blouse With Front Closing. 34 to 42 bust. For the medium size will be required 2⅜ yards of material 36 inches wide, with 1¼ yards 21 inches wide for collar and cuffs.

No. 7269.—Skirt With Tunic Effect. 22 to 30 waist. For the medium size will be required 3½ yards of material 36 inches wide, with 1½ yards of any width for the foundation.

No. 7363.—Straight Skirt, For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 2 yards of bordering material 36 inches wide, or 3¼ yards of plain material 27 inches wide.

No. 7380.—Two-piece Skirt. 22 to 30 waist. For the medium size will be required 5 yards of material 36 inches wide, with 1½ yards 18 inches wide and 1¼ yards of lace 4 inches wide to make as illustrated; 4¼ yards of material 36 inches wide to make in walking length when material has figure or nap; 3¾ yards 44 inches wide when material has neither figure nor nap.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Garden Notes.

When you clean out the hen house save the refuse for onions, cabbages, tomatoes, cucumbers or melons. Many are afraid to use this concentrated fertilizer, but there is no danger if it is well mixed with the soil. All of the above-named plants require an abundant fertilizing, and if done in the row or hill before planting, all of the plant food will go where it will be aprpopriated.

Strive when transplanting to avoid letting the plants get wilted. This gives a check for several days at least, and if they become badly wilted it is even longer before they fully regain their vigor. Drench the soil several hours before transplanting, or place the roots in a dish of water in the cellar for a few hours. Choose a cloudy day or do the work in the evening, in order that the plants may have in part recuperated before the hot sun comes up. If they show the least sign of wilting, stick a leafy twig into the ground beside each plant to shade it. By the time these have wilted the plants will be so well established as to need no further protection.

If your garden is small, sow early radish seed among the melon and squash vines. The radishes will be ready for use before the vines seriously encroach upon the space. Celery may be planted between the rows of early potatoes after the final cultivation is made. If you use the hilling-up system, this will provide the trench for the celery.

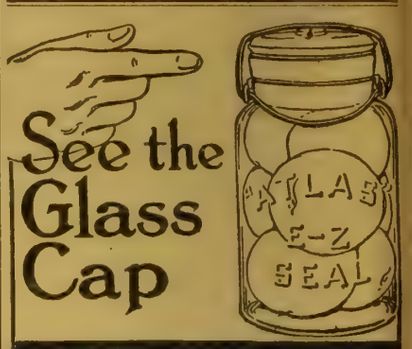
As the early onions are used, fill in with pepper plants. The large, mild-flavored varieties for stuffing will form a fine addition to your pickles next fall. One or two plants of the fiery sorts may prove sufficient; but of sweet peppers one can use quite a quantity.

Do not neglect to sow a row of salsify. Even if you do not care for it this season, when there is an abundance of other vegetables, next spring you will be glad to be able to dig something fresh out of the ground.—Bessie L. Putnam.

Wisdom From the Bench.

"A man hit me, and I hit him back," said a woman at the Marylebone Police Court. "Yes," said Mr. Plowden, 'you wouldn't be a woman if you didn't nowadays."—London Express.

Be sure to look up page 23 and read about the magnificent Book of Live Stock Champions, which is just issued from the bindery.



The very best jar from the cap—down!

It is no trouble to "jar" things these days. Even many vegetables that you never thought of "canning"—it is *easy* in these all-glass jars.

No spoiled vegetables or fruit—no sweltering over hot stoves for nothing! Just put up most fruit and "garden stuff" *whole* and get *best* results from the

E-Z SEAL JAR

This jar is *safe*. The glass cap fastens with a wire spring—it closes with a *touch* and opens with a *tilt*—no wrist-turning, no neck-twisting, no shattering or splattering!

Then — the heavy, green-tinted glass keeps out the light. Your fruit opens fresh and plump instead of faded and *wilted*. Try the E-Z Seal way.

Free Jar—Free Book

Cut out this coupon, take it to your grocer — he will give you one E-Z Seal Jar — FREE. Be sure and write us for FREE Book of Recipes—it tells many things you should know. Get the Jar from the *grocer*. Get the Book from *us*.

HAZEL-ATLAS GLASS COMPANY
Wheeling, W. Va.

1-Qt. E-Z Seal Jar CG FREE for the Coupon

Please note—In order to secure free jar this *coupon must* be presented to your dealer before Sept. 1st, 1912, with blank spaces properly filled out.

HAZEL-ATLAS GLASS CO.,
Wheeling, W. Va.

This is to certify, That I have this day received one "Atlas" E-Z Seal Jar Free of all cost and without any obligation on my part. This is the first coupon presented by any member of my family.

Name_____

Address_____

TO THE DEALER:—Present this to jobber from whom you recieved E-Z Seal Jars. All coupons must be signed by you and returned before Nov. 1st, 1912.

DEALER'S CERTIFICATE. This is to certify, that I gave away one "Atlas" E-Z Seal Jar to the person whose signature appears above.

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To Guard Against Typhoid.

One of the most deadly scourges of modern times is typhoid fever. Some other diseases, such as smallpox, formerly were more destructive, but vaccination has made smallpox of little terror to our modern communities. Civilization has proved the stronger.

But civilization has not been able to stop the ravages of typhoid fever, which has become a greater menace with the increase of population. With the increase of density of population the volume of the sewage of cities has increased in a corresponding ratio. The sewage often carries the germs of typhoid fever, and it is harder and harder to prevent it getting into our drinking water.

Many of our cities and villages are supplied with drinking water from lakes and rivers, which in turn receive the sewage from numerous localities. The tendency of water to purify itself is about the only protection the people have against typhoid, and that protection is a very uncertain one.

The well in the thickly-settled community is no longer a protection, because fissures in the rocks and gravel strata in the soil permit water to move under ground in ways that the dwellers on the surface of the soil cannot know. We have on record many instances of drinking water being contaminated by movement of water through soil.

It is therefore the part of wisdom for people when traveling to be on guard against the disease germs lurking in the clear-looking water they may drink here and there. Every year the physicians of some of our large cities report an increased number of typhoid cases due to contamination while on vacation.

Many of the summer resorts are poorly supplied with pure water. They are thronged only during a few months in the year, and everything is of a temporary nature—wells, water closets, the milk supply, the vegetable supply, and so on. On the Fair Grounds the provision for the supplying of pure water is miserable. On one of the largest and most expensive Fair Grounds in the United States—that at Springfield, Illinois—one finds the drinking water supplied in open barrels, into which cakes of ice are dumped. Tin dippers hanging by chains are the means by which the people slake their thirst. Thousands of months contain germs of disease, which get into the drinking cups and into the barrels of ice water. Disease-laden dust can blow and does blow into the water. Moreover, there is no certainty that the ice is not from some pond that is receiving sewage from some source. Such water should not be used for drinking purposes, and a general protest should be raised wherever such a mode of supplying drinking water is practiced.

Every person, on the farm or elsewhere, should be on guard against typhoid, which comes through the food or liquids taken into the body. A mild heat kills the disease germs—typhoid—and when one is on a journey among suspicious surroundings it is better to eat food that has been cooked and drink water that has been heated to above 150 degrees. Many a farm home has been wrecked by typhoid carelessly brought in.

Value of Screens on the Farm.

Screen wire is very cheap, and a few dollars invested in it give a great deal of comfort from the time the first fly appears in the spring till the last mosquito has disappeared in the fall. It is astonishing that there are yet to be found homes and even small hotels where screens are not used. The writer has stopped at more than one hotel where he had to fight flies at least three times a day, at meal times.

Screens are protectors against disease. The house fly is a great spreader of diseases. In an epidemic in a big American city it was found that the house flies had been visiting closets and then the dining tables in the homes. This was proven by scattering flour in the closets. The flies that afterwards were seen crawling over the food on the tables were white with flour.

In the country, most closets and privies are not sufficiently protected from the invasion of flies. Screens should be on every such closet and the flies rigorously excluded. This is a precaution against the spread of disease, which is generally neglected. With the screening of closet windows and of doors should come the tightening of the other parts of the closets to make them fly-proof.

Some of our very progressive farmers have for years been screening their stables where dairy cows and horses are kept. Often the whole barn is screened. This is particularly desirable in the case of the dairy cows, as milk is one of the very important foods of every country family.

Too many farm houses are without screens. This is generally caused by neglect merely. The materials for the making of screens can be purchased and the screens made at a cost of less than 50 cents for an ordinary window. These screens will last indefinitely if painted after the first year's service. It is just as well, however, to paint them at first, as some of the wire purchased in the general market is so poorly coated that rust spots will appear on it the first season.

Screen to keep out every fly and every mosquito from the entire house. The cellar windows should be screened, so that there may be a free circulation of air during the periods when it is desired to air the basement of the house. The screens in the cellar windows will do the double duty of keeping out flies and of keeping out mice, which try so hard to get into the house in the fall of the year.

If there is a large porch, screen it in and it will become an additional room during all the warm months. It is the cheapest way to add another room to the house. The screening of the porch will still further decrease the number of flies that get into the house, as the flies will then have a double obstacle to pass before getting into the rooms where food is kept. Houseflies and mosquitoes are the two most disagreeable insects with which we are compelled to associate.

Trouble For the Cattle Tick.

The members of the Cotton Seed Crushers' Association of Georgia have begun a campaign of education in an effort to drive the cattle tick out of the state. If this pest is destroyed it means that Georgia will profit hundreds of thousands of dollars a year in cattle raising.

Live Stock in Argentine.

The Minister of Agriculture of Argentine estimates the live stock in that country as follows: 29,124,229 cattle; 1,404,281 hogs; 67,383,952 sheep, 3,946,750 goats, 7,537,675 horses, 465,054 mules, and 285,113 jacks and jennets.

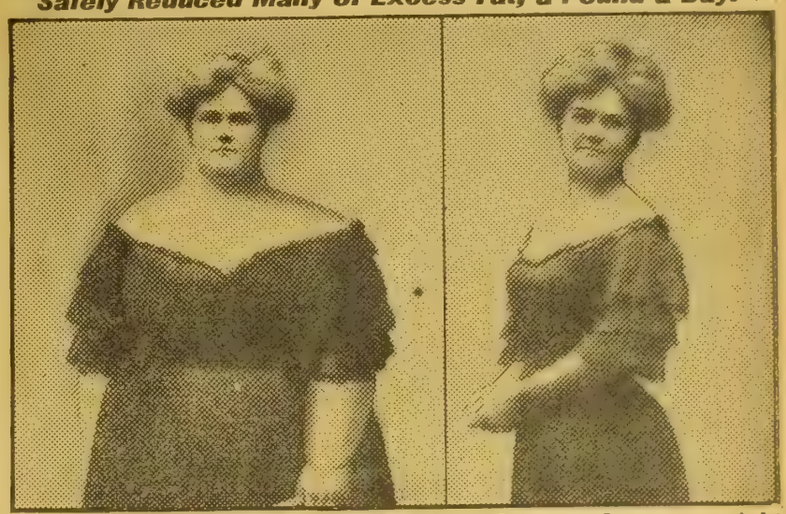
Roasting pigs, fifteen to thirty pounds weight, are selling at St. Louis, Mo., at $1.50 to $2.00 per head.

Take notce of the splendid rose premium offered on page 25.

FAT is Dangerous

It is Unsightly, Uncomfortable, Spoils the Figure, Causing Wrinkles, Flabbiness and Loss of Vigor.

Let me send you my Proof Treatment absolutely Free; I Have Safely Reduced Many of Excess Fat, a Pound a Day.



Note what my treatment has done for others; let me reduce your weight.

Lost 51 Pounds. Mrs. W. D. Smith, Box 34, Abbott, Me., writes: **"I have lost 51 pounds** by your treatment. I used to have heart trouble and shortness of breath; now I am well and can walk and work with ease."

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Many other testimonials from well known persons will be mailed with **FREE PROOF TREATMENT.**

I could fill every page of this journal with testimonials from grateful patients.

It is dangerous, unsightly, uncomfortable, and embarassing to be too fat. Excess fat weakens the heart. The liver, lungs, stomach and kidneys become diseased, the breathing becomes difficult and the end may come in **HEART FAILURE** and sudden death. You may save yourself from these **DANGERS.**

I want to prove to you that my treatment has positively reduced legions of persons to normal, no matter where the excess fat was located, stomach, bust, hips, cheeks, neck. Weight is quickly and safely reduced without tedious exercise or starving. Eat what you like. **Your figure will be beautified; wrinkles disappear.** Rheumatism, asthma, shortness of breath, kidney and heart troubles usually leave as the fat goes away. I will send you without a cent of charge to you my PROOF TREATMENT FREE.

FREE

Don't miss this offer. My PROOF TREATMENT is FREE. It should make you feel better at once. I will also send you **Free my new book of advice,** together with testimonials from many well known people. **Write to-day. DR. H. C. BRADFORD, 287-H Bradford Building, 20 East 22d St., New York**

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FAULTY METABOLISM AS A COMMON CAUSE OF DISEASE, is the subject discussed in Bulletin No. 1 of the Shafer Pathological Laboratory. The Bulletin is sent free on request and will prove interesting to everyone in Pain and Poor Health.
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This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household

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The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to food for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen dont's; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.

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The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar, and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Razorback Hog.

When the train stopped at the little Southern station, says The Housekeeper, the Northern tourist sauntered out on the platform. Under a scrub oak stood a lean animal with scraggy bristles. The tourist was interested. "What do you call that?" he inquired of a lanky native.

"Razorback hawg."

"Well, what is he doing rubbing against that tree?"

"He's stropping himself, mister; jest stropping himself."

How It Started.

It is a not unreasonable supposition that many, if not most, quarrels are like that described in the Washington Star. "So you and your husband are always quarreling?" asked the lawyer. "Yes," answered the young woman. "What do you quarrel about?" "I forget the subject of the first quarrel. But we have been quarreling ever since over who was to blame for it."

Had No Objection.

A Union officer appeared before the mistress of a Southern home, saluted and said: "Madame, a federal soldier has been killed on your place. Have we your permission to bury him here?" The old woman drew herself up proudly. "Sir," she replied, "you may bury the whole Union army here, if you wish!"

Difficult Mark.

A story that Lincoln used to enjoy telling is recalled by the Housekeeper. It is easy to imagine the maxims of homely philosophy that it could be used to illustrate. A certain old backwoodsman had very heavy, overhanging eyebrows, and wore big spectacles with brass rims. One day he came rushing into his cabin, and, seizing his rifle, aimed it carefully through a crack of the door at a great oak tree that stood near, and fired. "What is it?" whispered his wife. "A wildcat, Sairy," he said, excitedly, "an' I missed him!" He hastily loaded and fired again, and then again. "Now hold on, Joshua," said his good wife. "Let me look at you. Why, laws-a-daisy, it's nothin' but a little bug on one o' your eyebrows!"

When They Came to the Fold.

A Boston clergyman tells of a gentleman in that city who has a somewhat patronizing manner, due to the exaggerated notion he has of the amount of "bad blood" that runs in his veins. When not long ago this man was introduced to a Syrian of good birth and education, who lives in Worcester, the Hubbite blandly inquired, during the course of their conversation: "May I ask if you are of the Christian religion?" The Syrian smiled. "My family," replied he, "was converted to Christ's teachings at the time of John's second visit to Lebanon."

Retains Memory at 125.

In Prussia there lives a woman who has completed her one-hundredth-and-twenty-fifth birthday. Census officials have been interested in her case for the last fifty years, first on account of her marvelous memory, and more lately because of her longevity. She is now almost blind, and bent fairly in two with rheumatism. She has been transferred, within the last year, to a Catholic institution, where she will be cared for.—Harper's Weekly.

Much Rubber in Rhodesia.

The vast extent of Northern Rhodesia renders it impossible at present to estimate even approximately the extent of the rubber areas, but such evidence as is available points to the great prospective value of this asset.

$1 Worth of Mayr's Wonderful Stomach Treatment FREE

It is a positive remedy for all Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas around the Heart, Sour Stomach, Distress After Eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid and catarrhal accretions,** backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you will feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to. I will send the complete $1.00 treatment to sufferers absolutely **Free** so you can try it in your own home at my expense.

The most eminent specialists declare that 75 per cent of the people who suffer from Stomach Trouble are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of Stomach and Liver troubles and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment at once. I would be pleased to send you the names of people who state they have been cured of various Stomach ailments and speaking the highest praise of this medicine. Just fill out the Coupon below—let me send you this wonderful treatment together with highly interesting literature, testimonials, etc. Don't suffer with agonizing pains—don't permit a dangerous surgical operation, which gives only temporary relief, when this medicine will permanently help you.

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The above is C. E. Brooks, inventor of the Appliance, who cured himself and who has been curing others for over 30 years. If ruptured, write him today.

Pennsylvania Man Thankful

Mr. C. E. Brooks,
Marshall, Mich.
Dear Sir:—

Perhaps it will interest you to know that I have been ruptured six years and have always had trouble with it till I got your Appliance. It is very easy to wear, fits neat and snug, and is not in the way at any time, day or night. In fact, at times I did not know I had it on; it just adapted itself to the shape of the body and seemed to be a part of the body, as it clung to the spot, no matter what position I was in.

It would be a veritable God-send to the unfortunate who suffer from rupture if all could procure the Brooks Rupture Appliance and wear it. They would certainly never regret it.

My rupture is now all healed up and nothing ever did it but your Appliance. Whenever the opportunity presents itself I will say a good word for your Appliance, and also the honorable way in which you deal with ruptured people. It is a pleasure to recommend a good thing among your friends or strangers. I am,

Yours very sincerely,
JAMES A. BRITTON.
80 Spring St., Bethlehem, Pa.

Recommend From Texas Farmer

C. E. Brooks,
Marshall, Mich.
Dear Sir:—

I feel it my duty to let you, and also all people afflicted as I was, know what your Appliance has done for me. I have been ruptured for many years and have worn many different trusses, but never got any relief until I got your Appliance. I put it on last November, but had very little faith in it, but must say I am now cured. I have laid it away—have had it off for two weeks and doing all kinds of farm work with ease. While I was wearing it, I had lagrippe and coughed a great deal but it held all right. Words cannot express my gratitude towards you and your Appliance. Will recommend it to all ruptured people.

Yours sincerely,
Bald Prairie, Texas. J. E. LONG.

Others Failed But the Appliance Cured

C. E. Brooks,
Marshall, Mich.
Dear Sir:—

Your Appliance did all you claim for the little boy and more, for it cured him sound and well. We let him wear it for about a year in all, although it cured him 3 months after he had begun to wear it. We had tried several other remedies and got no relief, and I shall certainly recommend it to friends, for we surely owe it to you. Yours respectfully,
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Cured At the Age of 76.

Mr. C. E. Brooks, Marshall, Mich.
Dear Sir:—

I began using your Appliance for the cure of rupture (I had a pretty bad case) I think in May, 1905. On November 20, 1905, I quit using it. Since that time I have not needed or used it. I am well of rupture and rank myself among those cured by the Brooks Discovery, which, considering my age, 76 years, I regard as remarkable.

Very sincerely yours,
High Point, N. C. SAM A. HOOVER.

Child Cured in 4 Months.

21 Jansen St., Dubuque, Iowa.
C. E. Brooks,
Dear Sir:—The baby's rupture is altogether cured, thanks to your appliance, and we are so thankful to you. If we could only have known of it sooner our little boy would not have had to suffer near as much as he did. He wore your brace a little over four months and has not worn it now for six weeks.

Yours very truly,
ANDREW EGGENBERGER.

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1. It is absolutely the only Appliance of the kind on the market today, and in it are embodied the principles that inventors have sought after for years.
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7. There is nothing about it to get foul, and when it becomes soiled it can be washed without injuring it in the least.
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10. My reputation for honesty and fair dealing is so thoroughly established by an experience of over thirty years of dealing with the public, and my prices are so reasonable, my terms so fair, that there certainly should be no hesitancy in sending free coupon today.

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I send my Appliance on trial to prove what I say is true. You are to be the judge. Fill out free coupon below and mail today.

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R. F. D.....State.....

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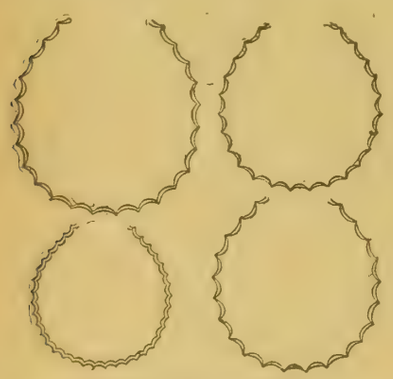
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron when a perfect outline will result. Please order by embroidery number.

Attractive Twelve-inch Doylies.

No. 648.—Design for embroidering doylies twelve inches in diameter. Two transfers are given. The price of the pattern is 10 cents.

For a Stylish Wrist Bag.

No. 649.—Design for embroidering a wrist bag, including outline of bag. The price of the pattern is 10 cents.



Neat Designs in Scallops.

No. 647.—Designs for scalloping the necks of girls' and children's dresses. The price of the pattern is 10 cents.

A Nine-inch Doyley.

No. 646.—Design for embroidering a doyley nine inches in diameter. Four transfers are given. The price of the pattern is 10 cents.

A Neat Border.

No. 645.—Design for an embroidered border one and one-quarter inches in width. Four yards and four corners are given. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Home Paper Hanging.

Paper that is fresh has not only the greatest renovating power in a room, but it will renew more surface more quickly and at less cost than any other method. Paint is good, but think of renovating a strip sixteen yards long and eighteen inches wide for from three to five cents! Paper is the only thing which will do this.

To employ a professional paperhanger will just about double the expense when a moderate-priced paper is selected. But those who have more time than spare change can do the work themselves, when once they have had a little practice. Even ceiling papering is not so laborious as many suppose, and after a bit of practice many prefer it to side walls, because it is all straight work, with no corners to cut and fit around.

Patterns are more than usually attractive this year, and one may find something beautiful as well as appropriate, whether in the cheaper or more expensive grades. The beginner in the work will wisely select a fairly good grade of paper, even though it costs a little more. The wet paste renders the cheapest grades so tender that they are easily torn, and while the experienced hand knows just how to manipulate it and get good results, the amateur is apt to get nervous, and only invites more rents, until the extra labor more than balances the small saving in original cost. Avoid plain papers also. You may gain in having no figure to match, but you will lose more because of troublesome wrinkles, the slightest of which shows on the plain surface. Pictures, however, show to best advantage on a plain wall.

There is a decided tendency toward a softening of colors. Instead of the intense reds for the library, they have a subdued tone. The greens have in them a touch of brown. Some of the flowered borders show elaborate cut-out patterns in festoons of flowers; but the extra work which this feature involves will scarcely insure for it a long life. Never before were granite papers for the kitchen so attractive, and the tile effects for the bath room are very artistic.

If a room is low, a striped effect will seemingly raise it, and nothing wider than a nine-inch border should be used. If it is dark, creams or yellows will brighten in. Avoid the bright pinks and blues, which usually fade easily. A touch of gilt or a silver or satin stripe adds to the rich appearance of the paper, providing it is not given in a flashy form.

Walls which have never been papered before should be gone over with a sizing of glue, made by soaking a pound of glue for twelve hours in cold water and adding twelve quarts of hot water and a tablespoonful of powdered alum. Apply with a whitewash or kalsomine brush. Or washing the walls with a weak solution of vinegar is sometimes done to counteract lime.

To make the paste, rub three pints of flour in two quarts of cold water until it is perfectly smooth. Then add enough boiling water to make it the right consistency, stirring constantly during the process. About two gallons will probably render it thin enough to be easily spread. It should be semi-transparent in color. If it is not, let it cook a little, but much boiling on the stove impairs its adhesive properties. Let it cool before using.

Cut the ceiling paper in strips long enough to come down on the side wall two or three inches. Match each strip as you go along and number them. Draw a chalk line along the ceiling sixteen inches from the side wall. This may be done by fastening the chalked line tight at each end of the room and then pulling it down in the middle and quickly letting it go, just as they mark lines on the old-fashioned patchwork quilt for quilting. It is very important to start the line straight, for if this is not done there will be trouble with every later strip hung.

Lay strip No. 1 on the table, face down. Commencing at the left-hand side of the table, apply paste to half the strip, a whitewash brush making a good pasting brush. Fold over the side that is pasted, bring the end to the middle of the strip, keeping the edges smooth. Paste the remaining half of the strip and fold over to the middle in the same way. Carefully trim, thus preparing the two thicknesses at once.

Next mount the platform extending across the room and preferably so that your head will come about two feet from the ceiling. Start at the right-hand corner of the room, and if the strip is so long as to give trouble after the one-half is partly unfolded, have an assistant hold it. Paste so that the line chalked will guide the outer edge, and this will give room for the paper to drop down on the side. Then when the border is applied, any inequality in the wall will still insure against leaving a bare spot. Work gradually from right to left, unfolding the last half as needed. Smooth with a whisk broom. If the first strip is applied straight, the rest will give little trouble. The main point is to remember that paper is quite strong unless it is twisted or jerked. A straight, even strain seldom does mischief.

After the ceiling is completed, cut the side wall, allowing it to come well up under the place to be covered with border. Commence at any door. Short pieces will usually fill in around doors and windows, but let the first strip hung be one of full length. See that it swings naturally into the proper place. If there is much fitting around doors and windows it is well to paste narrow waste strips at the edges of these before hanging the paper. Then, if there is a defect in carpenter work, the little gaps left will be covered with the same ground tint, and not leave a thread of glaring white to annoy as long as the paper lasts. After the paper is in place, crease with the back of the shears just where the line of the baseboard comes, loosen the paper a little and trim in the crease. Then return to its place and brush down tight to the wall. Small dots at the margin of the paper serve as guides to matching, so little trouble will be found in this. Some use a caster from a bedstead for rolling seams, but this should never be done for at least ten minutes, as it is apt to press out surplus paste and mar the paper. Beginners often make the mistake of using too much paste, causing the paper to tear easier. A little experimenting will show that just enough to cover the surface brings best results.

The border is more easily managed, commencing not in, but just a few inches beyond a corner, working from right to left. If the ceiling is uneven, mark with a chalk line around the lowest point and bring the edge of the border just even with this. The fact that the ceiling paper has been allowed to drop and the side walls raised will insure against any bare spot. Put on in sections of four or five yards at a time.

Be sure to allow liberally for paper. You may injure a strip so that you would be glad to throw it aside if the extra material to replace it was at hand. Cutting around windows and doors implies waste. Some of this can be used in filling up the various blanks. But, on the other hand, the waste in matching figures must be taken into consideration, especially if they are large ones. Paper is so cheap that it is better to have a little left than to run the risk of lacking a few feet or yards. Measure the dimensions accurately and then make an allowance for waste. What if you do have a little left! It will prove useful in renewing some portion where there is extra wear.—Bessie L. Putnam.

Take notice of the splendid rose premium offered on page 25.

Flies! Flies! Flies!

Get rid of them and help make your home and premises sanitary by the liberal use of ***Tanglefoot Fly Paper.*** There is fully one-third more compound per sheet on ***Tanglefoot*** than on any other fly paper; hence it lasts longest, catches the most flies and is the best and cheapest fly paper. If you ask for "fly paper" or "sticky fly paper" you may get a cheap imitation that will soon dry up or glaze over. Ask for Tanglefoot.

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TREE TANGLEFOOT, **put up in 1, 3, 10 and 20 lb. cans,**

Will protect your trees from all climbing

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, Profitable Dairying, as a premium. Address,

HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

LEANDER'S BRINDLE COW.

Leander Leghorn's brindle cow got breachy
one fine day,
And off she went on mischief bent, head
down, tail t'other way.
When Leghorn saw her cuttin' up he said a
thing or tew;
Around the house and barn they ran, a
perfect tandem team,
And every time Leander'd spurt the cow
put up more steam.
With both dead game and hoein' in, be-
twixt 'em who could choose?—
Leander said if he should win he thought
the cow would lose,
The neighbors, eager for the fun, came
rushin' down the street
To see Leander Leghorn run with bunions
on his feet;
As he tore on behind the cow, hot foot
upon her trail,
Some bet their wads that he would win,
while others said he'd fail.
They streaked like mad across the fields,
their hoofbeats rent the air;
A-thunderin' on towards the corn ran that
ungainly pair.
Old Brindle rushed into that corn, just
comin' out in silk,
She stumbled o'er a punkin vine, fell
down and strained her milk.
The Milk Trust heard she strained her
milk—they bought it on the spot,
And sold it to the Brookline swells at 13
cents per quart;
And while the Trust raked in the dust,
raked in the dust in glee,
Leander fussed and cussed the Trust for
paying him but three.
That critter's milk is rich in cream, though
once 'twas blue and thin,
Till Leghorn shingled her to keep the rain
from soakin' in.
No more does Leghorn's brindle cow get
gay and caper round—
Old Daffy Howes has got her now locked
in the Maiden Pound.
"Whit," in Boston Post.

THE SCARECROW.

I met an aged gentleman beside a field of
rye,
With form as thin as any rail, and dull,
lack-luster eye.
"Oh, tell me, ragged wanderer," I ques-
tioned then and there:
"Why do you seem so satisfied with what
you have to wear?"

He waved an armless sleeve and grinned,
and shook his simple head.
"I'm waiting for the grain to grow," was
all his queer lips said.
I puzzled o'er his silly words, and turned
again, to see
The hay blow from his padded form—but
still he smiled at me.

"Oh, tell me, childish simpleton, about
your foolish youth,
And keep your wit for duller minds and
only tell the truth."
"Alas!" he said, and smiled again. "A
sorry tale I know,
I've waited 'ere me whole life through for
this 'ere grain to grow.

"I love th' little dicky birds, an' all th'
wise old crows,
An' lawks! it's mostly all of 'em as comes
'ere, I suppose.
An' so I stays an' wisits 'em. They come
an' then they go,
An' all th' while I'm waitin', sir, for this
'ere grain to grow!"
—Stacy E. Baker, in Youth's Companion.

FARM YARD SONG.

O'er the hill the farm boy goes,
His shadow lengthens along the land,
A giant staff in a giant hand;
In the poplar tree, above the spring,
The katydid begins to sing;
The early dews are falling—
Into the stone heap darts the mink;
The swallows skim the river's brink;
And home to the woodland fly the crows,
When over the hill the farm boy goes,
Cheerily, calling—
"Co', boss! co', boss; co'! co'! co'!"
Farther, farther over the hill,
Faintly calling, calling, still:
"Co', boss; co', boss! co'! co'! co'!"

Into the yard the farmer goes,
With grateful heart at close of day;
Harness and chain are hung away;
In the wagon-shed stand yoke and plow;
The straw's in the stack, the hay in the
mow,
The cooling dews are falling—
The friendly sheep his welcome bleat,
The pigs come grunting to his feet;
The whinnying mare her master knows,
When into the yard the farmer goes,
His cattle calling—
"Co', boss! co', boss! co'! co'! co'!"
While still the cowboy, far away,
Goes seeking those that have gone astray—
"Co' boss! co', boss! co'! co'! co'!"

Now to her task the milkmaid goes,
The cattle come crowding through the gate,
Lowing, pushing, little and great;
About the trough, by the farm yard pump,
The frolicsome yearlings frisk and jump,
While the pleasant dews are falling—
The new milch heifer is quick and shy,
But the old cow waits with tranquil eye;
And the white stream into the bright pail
flows,
When to her task the milkmaid goes—
"So, boss! so, boss! so! so! so!"
The cheerful milkmaid takes her stool,
And sits and milks in the twilight cool,
Saying: "So, boss! so, boss! so! so! so!"

To supper at last the farmer goes,
The apples are pared, the paper read,
The stories ahe told, then all to bed.
Without the cricket's ceaseless song
Makes shrill the silence all night long;
The heavy dews are falling.
The housewife's hand has turned the lock;
Drowsily ticks the kitchen clock;
The household sinks to deep repose;
But still in sleep the farm boy goes
Singing, calling—
"Co', boss! co', boss! co'! co'! co'!"
And oft the milkmaid, in her dreams,
Drums in the pail with the flashing
streams,
Murmuring: "So, boss! so! so! so!"
—J. T. Trowbridge.

A COWBOY'S PRIZE.

Never was no gal like Mollie
In creation, I don't think!
Hotter'n a hot tomale
When her temper's out of kink;
Han'some ain't the word to fit 'er—
She's a beauty, head to heel—
Lightnin'-built, git-up-an'-gitter,
An' as true as polished steel.

Case o' love at first sight, reckon—
On my part, you understand—
An' I swore she'd soon be packin'
This same ol' cowpuncher's brand.
Went into the game an' won 'er,
From all rivals yanked the prize;
Cut 'er from the bunch an' run 'er
Off before their jealous eyes.

Now she's mine. There ain't a prouder
Rider on the ranges, see?
Mortal couldn't yawn no louder
Crackin' up her worth than me.
From the crupper to the snaffle
She's a thorrerbred, than that mare,
That I won at Johnson's raffle
At the T Ranch on the Bear.
—Denver Post.

REFORM.

If I could have the makin' of the country
laws, I'd do
Funny things, you'd better reckon, that I'm
sort of plain, too;
I'd make each dad burned bachelor adopt
some little girl,
Just an infant, wash an' dress it, too, an'
keep its hair in curl;
An' make each sour-visaged spinster 'dopt
some orphaned little chick
To bring up, an' see she kept it rosy-
cheeked an 'span an' spick,
And each crusty married couple, without
babies, I would see
Was provided with a fam'ly of small babies
—two or three;
An' each woman with a lap dog I would
make to choke the beast,
And, place of the nasty critter, take one
little babe, at least,
To look after, an'—an' that is all—the
babes 'ud do the rest,
Ever'one that holds a baby for a minute to
her breast,
Or his breast, would give their life up for
the little lass or lad,
An' the feelin' of protectin' 'em would keep
'em feelin' glad,
Till she'd loosen up an' notice trees an'
blooms an' skies above,
An' their days an' nights be loaded to the
muzzle just with love.
—J. M. Lewis, in Houston Post.

THE PESSIMIST.

Nothing to do but work;
Nothing to eat but food;
Nothing to wear but clothes,
To keep one from going nude.

Nothing to breathe but air;
Quick as a flash 'tis gone;
Nowhere to fall but off;
Nowhere to stand but on.

Nothing to comb but hair;
Nowhere to sleep but in bed;
Nothing to weep but tears;
Nothing to bury but dead.

Nothing to sing but songs.
Ah, well, alas! alack!
Nowhere to go but out;
Nowhere to come but back.

Nothing to see but sights;
Nothing to quench but thirst;
Nothing to have but what we've got;
Thus thro' life we are cursed.

Nothing to strike but a gait;
Everything moves that goes.
Nothing at all but common sense
Can ever withstand these woes.
—Ben King.

GONE!

Our little girl is gone, alas! She was so
young, so fair;
There is the lonely looking-glass at which
she combed her hair;
Here are the slippers that she wore; how
lonely they appear;
Her bath robe hangs behind the door, and
all is silent here.

Our little girl who yesterday could cheer us
with her song
Has left us sitting in dismay through mo-
ments that are long;
The curtains of her rooms are drawn and
all is silent there;
Our little girl, alas, is gone! She was so
young, so fair!

Her laughter gladdens us no more, fond
hopes we had have died;
Here are the slippers that she wore, where
they were kicked aside;
She's gone with one who cannot earn half
what they'll need, alack,
But they will doubtless soon return, and
we will take them back.
—Chicago Record-Herald.

Drink
Coca-Cola
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BOTTLED UNDER
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Satisfies
There never was a thirst that Coca-Cola couldn't satisfy.
It goes, straight as an arrow, to the dry spot.
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Whenever you see an Arrow think of Coca-Cola.
Free
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3-J

THE DYING SHOEMAKER.

"Dear wife, I'm waxing near my end,"
The dying cobbler said;
"Soon to an upper world my soul
Its lonely way must tread.

"I fear indeed I'm pegging out;
But then what boots it, love?
Here we've been a well-fited pair,
And so we'll be above.

"My ills I know no drugs may heal,
So it's well to prepare;
We can't run counter to our fate—
Just put a peg in there.

"The future need not give you care,
I've left my awl to you;
For deep within my inner sole
I know that you've been true.

"I've always given you your rights,
But now you must be left;
However, do not grieve too much
When of me you're bereft.

"A last farewell I now will take."
He smiled and raised his head.
"B-last the cruel malady
That lays you low," she said.

"I'll slipper away in peace," he sighed,
"The strife will soon be past."
His head fell back, he sweetly smiled,
And then he breathed his last.
—Unknown Author.

THE BRINDLE HEIFER.

Pa sold some cows; I didn't want
Our brindle heifer sold;
For she's so kind, and gives more milk
Than any five-year-old.

I knew the man would have his pick,
For Pa had told me so.
And I felt bad, I couldn't bear
To have our brindle go.

So I just took a rope and tied
Her foreleg to her head;
And when the man came to the field,
He spoke right up and said:

"I'll not take her; I wouldn't care
To buy that sort of cow."
And Pa cried out: "You rascal boy,
Why did you do that, now?"

The man he said: "You won't fool me
With no softsoap, you bet."
Now, I don't know just who was fooled;
But we've got Brindle yet.
—Cora A. M. Dolson.

Alfalfa in Argentine is grown upon 13,345,000 acres.

8 Hardy Rose Plants Free.

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My Greatest Success

By R. E. Olds, Designer

Trainloads of Reo the Fifth

In the past 25 years, a dozen models of mine have become the season's sensation.

Again and again I have seen the factory swamped, and men paying a bonus to get my latest creation.

But Reo the Fifth has broken all records. I never saw a demand which compares with this.

Five cities at this writing have **trainload** orders with us—**orders for forty carloads each**—to go in a single shipment.

But the demand is just beginning. Very few men have yet discovered this car.

Soon there will be 10,000 cars in the hands of 10,000 owners. Ten thousand men will be telling others how Reo the Fifth performs.

Then will develop the real demand for this final car of mine.

Not a Passing Sensation

Other season sensations have come and gone. New cars and better came out to displace them.

Those days are over now. Reo the Fifth comes close to the limit in motor car engineering. It embodies the final results of my 25 years of experience. In every detail it marks the best I know.

There is no probability that we shall ever see a materially better car. The years can bring only minor changes.

It Deserves It

This car deserves popularity. That is my satisfaction.

The men who buy it get the utmost of which I am capable. There will be no regrets—none to say I misled him. And none will ever see a car which gives more for the money.

The steel in this car is all analyzed. Every vital part is put to radical test.

Parts are ground over and over, to get utter exactness. Inspection is carried to extremes.

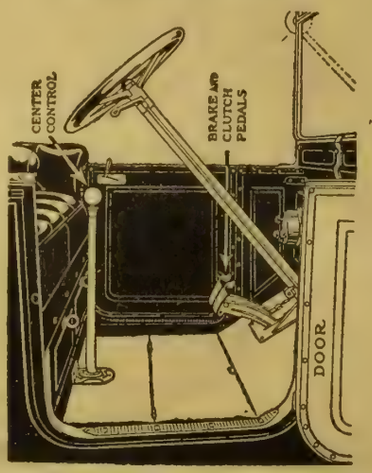
There are big margins of safety. The bearings are Timken and Hyatt—roller bearings, in place of the usual ball bearings.

The tonneau is roomy, the wheels are large, the car is overtired. The carburetor is doubly heated.

The body is finished in 17 coats. The upholstering is deep, the lamps are enameled. Even the engine is nickel trimmed.

Every part of the car shows the final touch—the avoidance of petty economies. I am proud of it. Not an iota has been omitted which could add to the worth of this car.

Center Control—No Side Levers



Then here, for the first time, we get rid of all side levers. All the gear shifting is done with this center cane handle—done by the right hand. It is done by moving this lever less than three inches in each of four directions.

Both brakes are operated by foot pedals, one of which also operates the clutch. So the entrance in front, on either side, is clear.

This arrangement permits of the left side drive. The driver sits, as he should sit, close to the passing cars—on the up side of the road. Heretofore this was possible in electric cars only.

Thus we have solved the last important problems in designing.

Price Still $1,055

The price of this car remains at $1,055, though subject to instant advance. This price is too low for a car like this. It leaves no adequate margin.

But we shall continue this price, in all probability, until materials on hand are exhausted.

1,000 Dealers

Reo the Fifth is shown by dealers in a thousand towns. We will direct you to the nearest when you send for our catalog. Please write for it now. It shows the various bodies. Address

R. M. Owen & Co. General Sales Agents for **Reo Motor Car Co., Lansing, Mich.**

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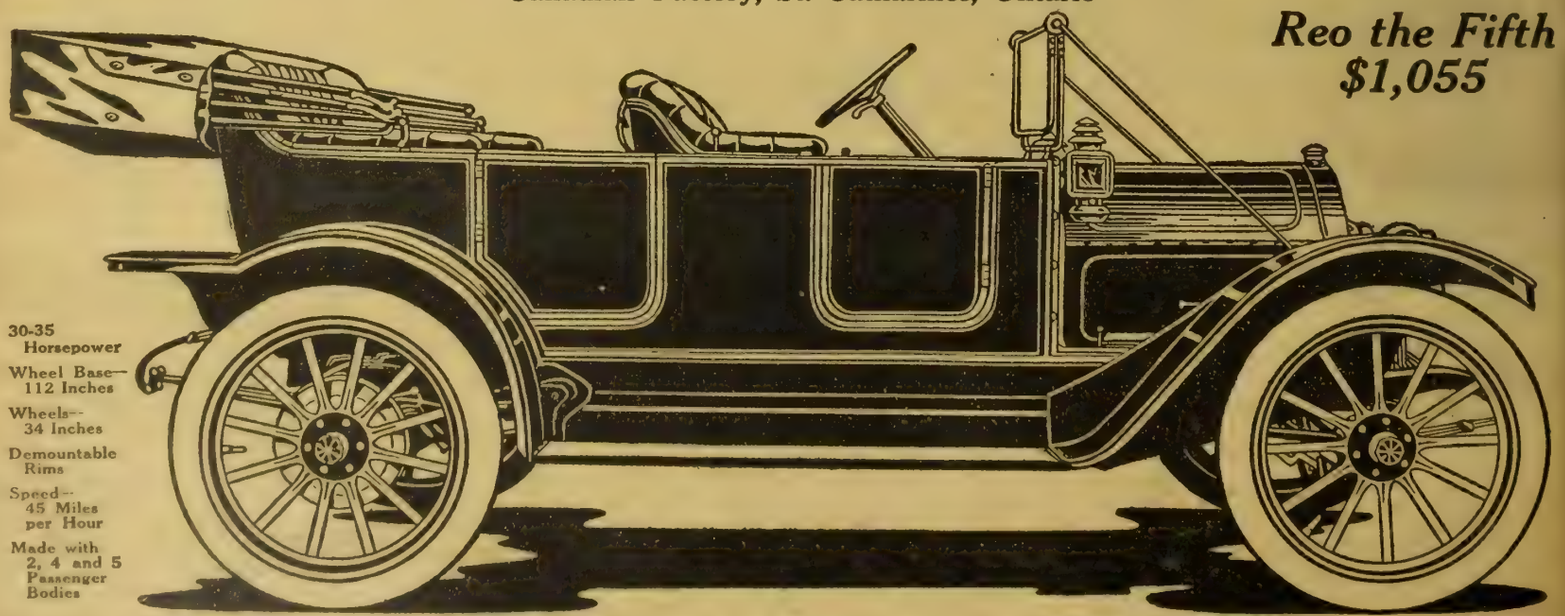
Reo the Fifth $1,055



30-35 Horsepower
Wheel Base—112 Inches
Wheels—34 Inches
Demountable Rims
Speed—45 Miles per Hour
Made with 2, 4 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank and speedometer—all for $100 extra. Self-starter, if wanted, $20 extra.

National FARMER

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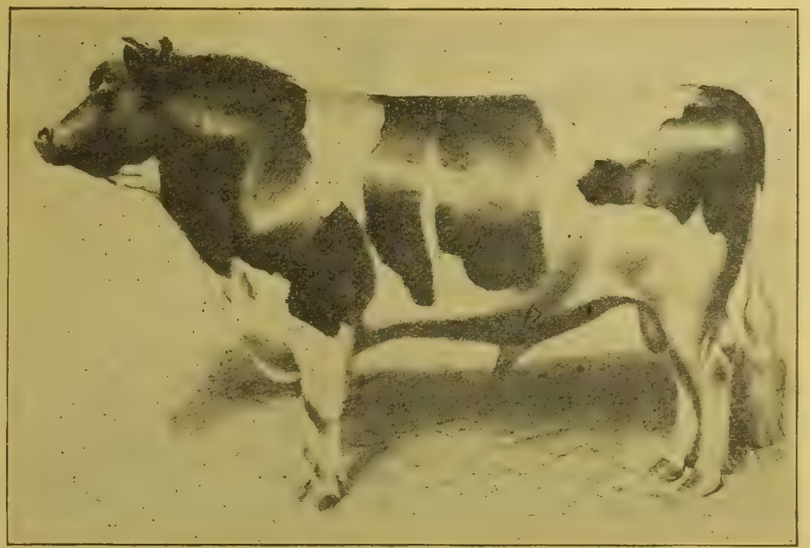
SPOTSWOOD DAISY PEARL, 17,696—GUERNSEY COW. The record of this wonderful cow as a seven-year-old is 18,602.80 pounds of milk in one year; butter-fat content, 5.15 per cent.; butter-fat production, 957.38 pounds. SPOTSWOOD DAISY PEARL was bred by Edward F. Price, of Broad Axe, Pa., and is now owned by O. C. Barber, of Anna Dean Farms, Barberton, Ohio. The picture is one of 750 that appear in the Book of Live Stock Champions.



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By R. E. Olds, Designer

To the Thousands Who are Buying

I am not writing this to sell more cars. The present demand taxes our utmost capacity. And the cars in use will sell our future output better than words of mine.

In all my experience of 25 years I have never seen a success like that of Reo the Fifth. I have never seen a car so popular.

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And you who took my word—who are buying first—are getting an underprice.

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Reo the Fifth is not built for a season. The present demand is just the beginning.

This car, remember, is the final result of 25 years spent in car building. It marks my limit—the very best I can do. And no car of the future can greatly improve on it.

The cars we sell now are sent out to sell others—to create reputation for My Farewell Car. And you may be sure that not a car goes out until we know it is utterly perfect.

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We analyze the steel that goes into this car. Every part is inspected over and over. Every part with a flaw is rejected.

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The engines are tested for 48 hours. The finished cars are given more severe try-outs than in any other factory I know.

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Each body is finished in 17 coats. The upholstering is perfect. To every part we give the final touch, regardless of time or cost.

For each of these cars is a salesman. Each will tell to hundreds of people the story of Reo the Fifth. And all our success in the future depends on the tale they tell.

The Underprice

There was never a car so underpriced as Reo the Fifth at $1,055. Every man knows this who makes any comparison.

This price is ridiculous. It is too low to endure. The coming advance in the cost of materials is bound to send it soaring.

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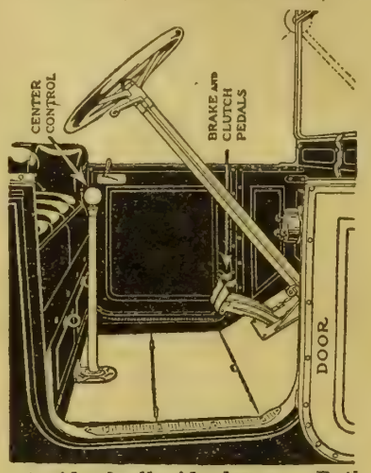

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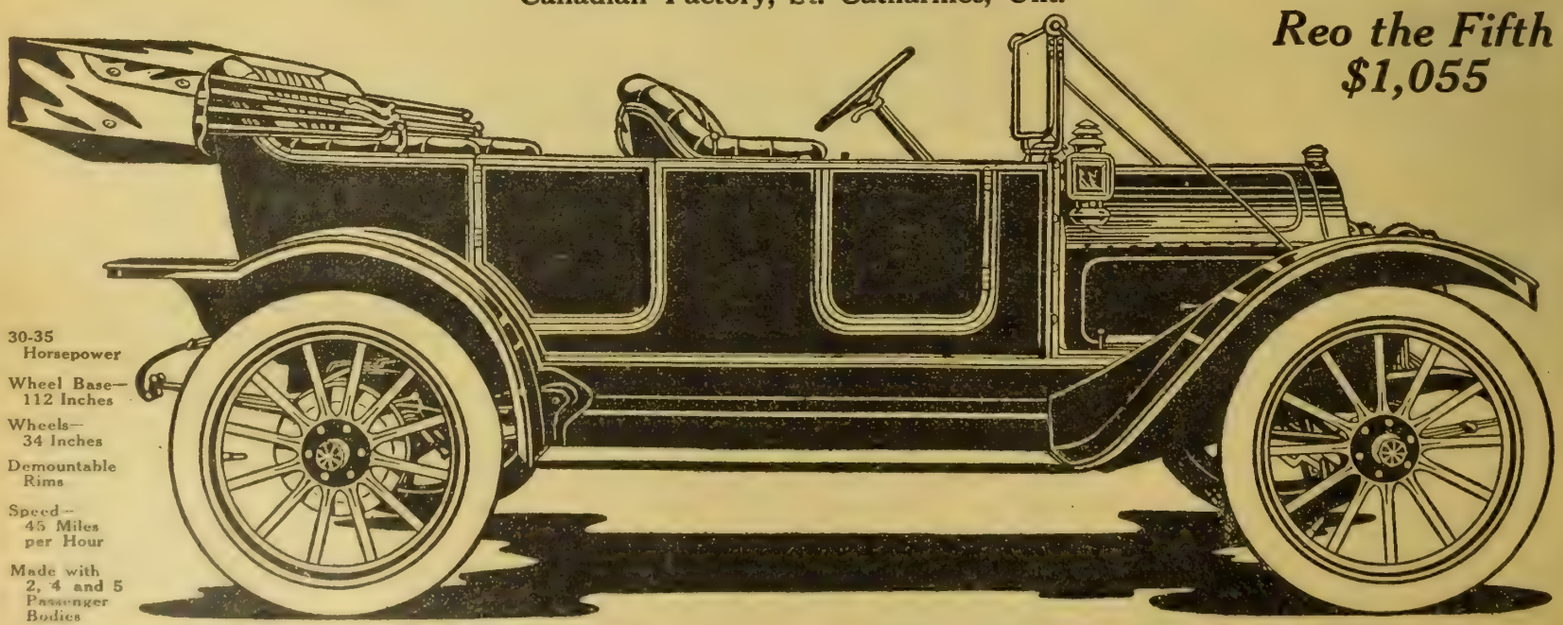

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THE BRITISH MEAT TRADE.

Information Showing the Needs of the British Isles in the Matter of Meat Supply.

The Department of Commerce and Labor furnishes a nice line of information concerning the British meat trade, as follows:

The Port of London Authority is building a storehouse to hold 84,000 carcasses of cattle alongside its premises at Smithfield and is preparing to enlarge its storage supplies at the docks to meet the annual increase of the frozen-meat trade. The frozen-meat trade is increasing and the live cattle imports are decreasing.

Live Cattle Importations.

In the year 1911 there were 200,397 head of live cattle imported into the United Kingdom, against 219,561 head in 1910, of which 155,816 head came from the United States, 42,239 head from Channel Islands. The number of sheep and lambs imported was 47,673, of which 42,805 came from the United States and 4,868 from Canada.

Home Supply of Cattle and Sheep.

There was an increase in 1911 of 100,658 cattle in the United Kingdom, the total being 11,866,111, against 11,765,453 in 1910, but a decrease of 684,780 in the number of sheep, bringing the aggregate down to 30,479,807, against 31,164,587 at the close of 1910. With the reduction in the number of sheep and with an increasing number of cattle being utilized for dairying purposes it is manifest that in 1912 even to a greater extent than last year the supplies of meat for the United Kingdom must come from abroad. The drouth of last summer caused the slaughter of a large number of animals to save the abnormal expense of feeding them.

Frozen Beef Supply.

Of the total imports of frozen beef, amounting to 3,420,071 hundredweight, against 3,766,799 hundredweight in 1910, Argentina furnished 2,357,878 hundredweight, Australia, 708,388 hundredweight, New Zealand 257,806 hundredweight and Uruguay 65,486 hundredweight. Frozen beef from the United States amounted to but 4,906 hundredweight, against 7,703 hundredweight for 1910.

Changes in Chilled Beef Supply.

The decrease in the receipts of chilled beef from the United States continued during last year, and during November and December the imports almost stopped. In 1905 the imports of chilled beef from the United States aggregated 2,232,200 hundredweight, while in 1911 the receipts were only 169,444 hundredweight. During the same period the imports from the River Platte, South America, increased from 653,560 hundredweight to 3,753,140 hundredweight. The arrivals from Canada in 1911 were only 2,520 hundredweight, against 8,680 hundredweight in 1910 and 13,580 hundredweight in 1909. There was a trial shipment received from New Zealand last year, and the meat arrived in fairly good condition. Four shipments were received from Venezuela, totaling 858 quarters, against 200 quarters for the preceding year.

The Actual Supply of Beef.

The total supply of beef available from all sources for consumption in the United Kingdom during 1911 was placed at approximately 1,227,134 tons, and of mutton and lamb at 594,719 tons, or a little over sixty pounds of beef and twenty-nine pounds of mutton and lamb per head of the population. These totals were made up of home-grown meat to the extent of 61.6 per cent., frozen meats 23.7 per cent., chilled beef 10.8 per cent., and 3.9 per cent. of foreign live cattle and sheep and fresh-killed mutton.

Imports of Fresh Pork.

The receipts of fresh pork in 1911 amounted to 401,107 hundredweight, compared with 429,252 hundredweight for 1910. Of the total last year the Netherlands shipped 370,345 hundredweight and Belgium 14,537 hundredweight. Frozen pork imported amounted to 51,825 hundredweight, of which the United States furnished 4,099 hundredweight, compared with 1,044 hundredweight for 1910. Australia and New Zealand increased their shipments of pork in 1911 over the previous year.

Imports of Bacon.

Of the total imports of bacon amounting to 4,868,738 hundredweight last year against 3,863,380 hundredweight for 1910, Denmark furnished the greatest amount, being 2,122,087 hundredweight, followed by the United States with 1,817,835 (an increase of 510,914 hundredweight over 1910), and Canada 615,807 hundredweight. The imports of hams totaled 954,811 hundredweight against 719,126 hundredweight in 1910, of which the United States furnished 887,303 and 665,775 hundredweight, and Canada 62,295 and 37,621 hundredweight for the two years, respectively.

Fresh Mutton Supply.

The imports of fresh mutton amounted to 117,175 hundredweight, of which the Netherlands furnished 113,386 hundredweight. The total receipts of frozen mutton amounted to 5,220,276 hundredweight, against 5,261,623 hundredweight, of which 1,981,467 hundredweight came from New Zealand, 1,782,066 hundredweight from Argentina, and 1,291,696 from Australia.

Rabbits Cut a Figure.

The imports of frozen rabbits in 1911 aggregated 23,393 tons, or 6,795 tons less than in 1910.

The "Grind" of Farm Life.

We hear the complaint that the great objection to farm life is its eternal "grind." But the writer has observed that the farmers that fail are frequently men that avoid doing much of this kind of grinding.

It is doubtful if there be more grinding in the farmer's life than in the life of many of the city business men, who work seven days a week and from twelve to fifteen hours each day. Some of the successful business men have built up their fortunes by a slavery that is not surpassed by anything that occurs on the farms. In either case, it is the greatest sacrifice of such a life that gets results in the end and an old age of competence.

The grinding the farmer does is under the bright skies, with the pure air blowing around him. In the spring the zephyr fans his warm cheek and in the autumn the invigorating wind gives him new life. In the winter the germs are nailed down under the snow and the frigid air breathed by the farmer is pure. The city man works in a close office, often poorly ventilated, and during much of the daytime under artificial light. Multitudes of men work in city offices in which the gas or electric light is turned on at the time the men begin work in the morning, and is used till the last worker is gone at night. The rising or setting of the sun is never an event with them, for they never see it. Its rising and setting are hidden by lofty buildings that are always throwing a shadow on one side of them. The wind that sweeps through the building is always laden with dust and smoke. Several times a day the worker has to wash the dust from his hands. When the snow comes in the winter it does not protect him from the dust and germs of disease. Then the rooms are closer, and in those rooms the "grind" goes on. So much does this affect the health of the workers in the long run that it is a common saying that "were it not for the fresh blood being constantly supplied from the country, the cities would go to decay."

Then, too, the "grind" in country life is largely the fault of the farmer himself. A good many farmers are greedy of land and own and try to farm more land than they can comfortably handle. When a farmer settles down to the idea of farming only what land he needs he frequently finds that the necessity for grinding has dropped from him.

The "grind" of farm life is being lessened by intelligence. The Agricultural Colleges and Experiment Stations are constantly working in his interest and finding new ways of doing the things that need to be done.

In spite of the so-called "grind" of farm life we find that many farmers take time in the winter to go on long journeys for pleasure's sake.

The more a farmer thinks the less he is likely to grind, for the thinking saves his work. The putting in of the telephone has saved the farmer many needless journeys and by that much has reduced the "grind."

With the passing of the years and the increase of intelligence we may expect to see the "grind" of farm life greatly lessened.

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"'I got acquainted with him,' the young wife answered, with a bitter laugh, 'three days after the honeymoon, when I first asked him for a little money.'"—New York Press.

"Honesty pays best, but it is never a bonanza."—Globe-Democrat.

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The Oats Market Situation.

Farmers who are raising oats ought to arrange to hold them either on the farm or in elevators until it suits their own good pleasure in selling the crop. Oats cost money to raise and should not be let go any year at any time under 50 cents a bushel, market basis.

At the time we are writing this article, May 31st, after the close of a dull market, the conditions affecting the market do not look any too rosy, but the fact remains that the statistical situation is strong, and were it not that there is considerable unrest in the business world that is making people fearful in conducting their business on normal lines, we would have a better market. The strikes which take place one after the other in one country after another are of sufficient magnitude to paralyze business.

The May oats option was closed out quietly. A year ago the Chicago May option for oats was closed out at 34½ cents a bushel, and this year it was closed out at 50½ cents, having declined from 56⅞ cents, which was the April 30th quotation for May delivery. The political battle is a most disturbing factor, and peace will not be declared very soon. Our trade with Mexico is at a standstill because of the revolutionary disturbance. We are in danger of intervention in Cuba and Mexico, but we hope not in either case.

A feature of the oats trade, so far as the Board of Trade is concerned, is the decline in the future estimate of values. A month ago the July oats option of 1912 was quoted at 54¾ cents, and on May 31st the same option was quoted at 49⅛ cents a bushel, and the September option declined in a month from 45 cents to 41⅞ cents a bushel.

Although we have profound respect for the figures arrived at by legitimate trading, we think they are mistaken whoever may believe that late in September they will be able to buy oats in Chicago at 41⅞ cents a bushel. There is no surplus of oats, there will be no surplus of oats and there is no occasion for farmers to sacrifice their oats. If farmers will just quietly go on with their business and not sell oats unless the market suits them, the prices will be satisfactory to those who raise them. Oats are worth 50 cents a bushel on the farm, and even at 60 cents a bushel those people in cities who buy oats and who feed on oats have no reason to complain of the high cost of living.

The Corn Market Situation.

The corn market situation does not please the people who have to buy corn, but it ought to look good to those who have corn to sell. On May 31st the May corn option at Chicago was closed out at 80 cents a bushel, which is 27⅝ cents higher than the close of the May option last year, and 24 cents a bushel higher than the May option closed out two years ago. If the market value of corn was decided by industrial conditions alone corn would be 25 cents a bushel cheaper than now, but corn is upheld by the cattle and hog feeding demand, and the corn that is required for usual city demands has to grade higher than the bulk of the corn in the country would grade in market, hence it takes good money to buy the corn which reaches the city market.

The May trading is over, the Board of Trade members traffic very little for June delivery, but the expectation is that corn for July 31st delivery is worth 75 cents a bushel; for September 30th delivery, 72¾ cents; and for December delivery, 62⅞ cents a bushel.

This review is written on May 31st, after the market closed. The immense crop of corn produced in 1910 is passing away; the good crop of corn raised in 1911 is also becoming a thing of the past, and, to say the least, the extent of the corn crop of 1912 is an unknown quantity and very likely will be small enough to keep prices up to a profitable basis, and it is very likely that the future estimates of prices will have to be revised upwards later on.

The Wheat Market Situation.

So far as the general trade is concerned as viewed from the Chicago Board of Trade, there was no scarcity of wheat when the May option went out, May 31st, 1912, at $1.10½ per bushel, which is 4⅜ cents a bushel less than was quoted thirty days previous.

The first time we began to notice the particular May option referred to was last July, when it was bought and sold for 98 cents a bushel, so that our readers can understand that there was 12½ cents' difference between the price of the first contracts entered into and the last. In other words, wheat for May, 1912, delivery was worth more on May 31st, 1912, than it was ten months ago.

On the basis of $1.10½ a bushel farmers would be getting about a dollar a bushel net on the farm. If wheat would always net $1.20 a bushel or 2 cents a pound on the farm, it would be a fair basis, and until farmers believe they are going to receive that much there will be no great extension of wheat acreage. We believe, however, that farmers who raise wheat now will receive a good price after harvest and after all harvests yet to come.

The Chicago Board of Trade quotation on May 31st for wheat deliverable July 31st was $1.10½, and for delivery next September 30th at $1.06, and for delivery next December 31st, $1.06¼. Allowing no more than usual fluctuations to take place according to conditions to arise, it appears that there is no expectation that wheat will sell lower than $1.06 per bushel on the Chicago market during the balance of the year.

So far as cash wheat is concerned at St. Louis, the trade seems to be on the basis of local supply and demand. On March 31st, when the Chicago option for No. 2 wheat was expiring at $1.10½, cash wheat, No. 2 soft, was selling by the car-load at $1.19 to $1.20½ per bushel at St. Louis.

Gas Engine Meeting.

The semi-annual convention of the National Gas Engine Association will be held at Milwaukee, Wis., June 17 to 22, in conjunction with the holding of the first Gas Engine Show at the Auditorium. The convention hall will be a commodious room in the Auditorium Building and convenient to the show. This meeting will bring together exhibits of nearly all the engines used on farms and will be very important to farmers for that reason.

Interstate Shipping of Live Stock.

A long article appears in this paper concerning shipment of stock and the requirements of each state for admission of live stock from other states. It is by Dr. C. D. Folse, of the Kansas City Veterinary College, and is based upon a published government bulletin, with recent regulations to bring it up to date. See page 20.

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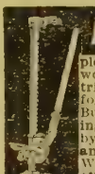

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For 60 cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Universal Exposition.

On Wednesday, May 29th, at the club house of the Universal Exposition Company, a banquet was given to a large number of citizens of St. Louis who are interested in re-establishing the old St. Louis Fair under the name and title of the Universal Exposition of St. Louis. The officers of the Exposition Company are C. F. Blanke, President; Geo. W. Maxwell, Vice-President; Thos. W. Garland, Secretary and Treasurer; and Joseph A. Murphy, General Manager.

The grounds of the Exposition Company consist of 175 acres fronting upon the St. Charles Rock Road. These grounds are already enclosed; a large amount of work has been done to beautify them; there is a speedway under construction; stabling for live stock is being completed, so far as horses are concerned, with many other improvements under way.

The Directors of the enterprise are C. F. Blanke, of the Blanke Tea and Coffee Company; G. R. Collett, Vice-President St. Louis National Stock Yards; P. E. Conroy, President Conroy Piano Company; G. Lacy Crawford, Vice-President St. Louis Horse Show; J. T. Dodds, City Engineer; Thos. W. Garland, Merchant; J. H. Gundlach, President City Council; Julius Kessler, President State Bank of Wellston; S. P. Keyes, of Keyes & Marshall Livery Company; George W. Maxwell, of the Maxwell Mule and Horse Company; Joseph A. Murphy, Secretary of the St. Louis Fair; A. O. Rule, Vice-President Kilgen-Rule Real Estate Company.

Other stockholders and club members include Mr. B. F. Bush, President Missouri Pacific Railroad; Paul Brown, of the American Tobacco Company; Dr. C. W. Crowley, Horse Expert; D. R. Francis, President Louisiana Purchase Exposition; Philip H. Hale, Editor National Farmer and Stock Grower; Mr. Goodman King, President Jaccard & King Jewelry Company; Hon. F. H. Kreismann, Mayor of the city of St. Louis; Robert McCulloch, President United Railways; George and Joseph Nugent, Horse and Mule Dealers; Gerald B. and Jos. M. O'Reilly, Real Estate Agents; T. E. Price, Stock Broker; John C. Roberts, of Roberts, Johnson & Rand Shoe Company; I. H. Sawyer, Wholesale Merchant; A. T. Stickney, of Stickney Cigar Company; Julius S. Walsh, Capitalist; Rolla Wells, former President St. Louis Fair; and Walter B. Woodward, of Woodward & Tiernan Printing Company.

At the banquet much encouragement was tendered the promoters of the new Exposition Company. Besides a number of enthusiastic talks additional stock was subscribed to the promoting company, and assurances given that aid would be forthcoming from civic organizations.

The Presidents of nine civic and commercial organizations all have declared themselves as favoring the movement, as have Fred C. Lake, President of the Retailers' Association, and former Mayor Rolla Wells, President of the Business Men's League.

Mr. Rolla Wells, who was President of the old Exposition Company from 1891 to 1894, spoke on the old Fair and its traditions. He said it had been one of the greatest factors in the city's betterment.

Former Gov. D. R. Francis, President of the Louisiana Purchase Exposition Company, was the first speaker of the evening. His subject was "St. Louis as a Fair and Exposition Center."

M. L. Wilkinson, of the Scruggs-Vandervoort-Barney Dry Goods Company, spoke on "The Fair From the Merchant's Standpoint."

Mayor Kreismann talked on the "Benefits to the City at Large From a Fair." He said the State Legislature might act more favorably toward the big cities, and especially toward St. Louis, if there were more of interest to them in the city.

J. H. Gundlach, President of the City Council, followed the Mayor with "Why St. Louis and St. Louis County Have Common Interests."

G. A. Wurdeman, Circuit Judge of St. Louis county, spoke of St. Louis county and its advantages and the possibilities of its helping St. Louis.

J. Van S. Barret spoke on "Why the Present Generation Owes St. Louis a Fair." Barret's father was the first President of the old St. Louis Fair.

Two speakers dwelt expressly on the live stock features which the new enterprise would offer. Joseph A. Murphy, General Manager of the Universal Exposition Company, told that it was projected to make a Live Stock Exposition the initial attraction for the Fair. He told that at a recent meeting of the Southern Illinois Editorial Association aid was promised to make the Live Stock Exposition an extraordinary event. Col. John I. Martin declared the new enterprise would tend to revive clean horse racing in St. Louis, which, he asserted, would be of great benefit to the city.

Mr. Joseph A. Murphy, General Manager of the Universal Exposition Company, announced recently that M. A. Bright, a commission man at the National Stock Yards, East St. Louis, had been selected by the Exposition's Board of Directors as Managing Director of the live stock exhibit of the Exposition. Mr. Bright accepted and named the personnel of an Advisory Board at the request of the officers of the Exposition.

The Advisory Board, composed entirely of live stock commission men at the National Stock Yards, is as follows: W. S. McBride, W. H. Keys, W. W. Stewart, L. O. Draggon, John W. Sanders, C. M. Raffety, Capt. J. H. Campbell, W. H. Ray, George P. Coy, Perry C. Sparks, A. J. Milton and J. S. Harrison. Mr. Murphy said that the live stock exhibit would be held the week commencing September 23d, one week in advance of the Missouri State Fair and two weeks in advance of the Illinois State Fair. Since the meeting and banquet the contract has been let for the grand stand—a structure of concrete. The office of the Universal Exposition Company is at 1027 Chestnut street, St.Louis,Mo.

Effective Spraying Mixture.

Many orchardists and fruit growers waste a great deal of time and money each year experimenting with different spraying mixtures in the hope that they will finally hit upon just the one that can be used freely without injury to buds and foliage and at the same time contribute towards a heavy crop yield of sound, perfect fruit

With so many spraying mixtures on the market, it is rather a difficult matter for the average fruit grower to select the one which is best adapted for his particular needs. Many such mixtures, especially those which contain a considerable amount of Paris green, really do more harm than good, because while they unquestionably kill the insect pests, they also sear and blight the buds and leaves. No such injurious effects as these are possible when a spraying mixture made of one can of Merry War Powdered Lye to fifteen gallons of water is used. Many of the most successful and practical fruit growers declare this to be the ideal spraying mixture.

It means instantaneous death to every form of insect pest; cannot injure the buds or foliage, no matter how freely it may be used, and has the additional advantage in that the droppings around the roots of the trees enrich the soil. Used frequently during the winter and early spring months, this solution will prevent and destroy San Jose Scale. This mixture is equally effective for fruit trees or for garden vegetables, grapes, vines, etc. If the solution is made a little stronger, in the proportion of one can of Merry War Powdered Lye to about ten or twelve gallons of water, it makes a most effective exterminator of borers. For this purpose it should be applied plentifully around the mouths of the burrows with a brush, so that it will trickle down into the burrows.

Merry War Lye is manufactured by the E. Myers Lye Company of St. Louis, who have just issued a most interesting booklet telling of the many practical uses for Merry War Lye on the farm and in the home. A copy will be sent free to anyone on request. Write to E. Myers Lye Company, Dept. 22, St. Louis, Mo., and ask for spraying booklet.

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A Difference.

George Ade, at a dinner in New York, urged a subtler use of words.

"Use words with delicate care," he said. "Observe all subtle distinctions. Never write 'vision,' for instance, when 'sight' is what you mean."

"There's no difference between 'sight' and 'vision,'" interrupted an editor.

"No?" said Mr. Ade, "and yet, Billy, when you and I passed each other on Broadway yesterday afternoon, the girl I was with was a vision, while the one with you was a sight."

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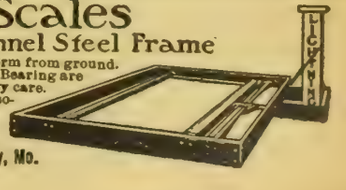


KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

Winter Wheat Growing.

The office of the Middle West Soil Improvement Committee has just issued another of its helpful bulletins. In this publication the authors give some very helpful suggestions relative to winter wheat growing, which will be of interest and value to our farmer readers. The tables of prominent agricultural colleges corroborate the statements made. The main points of the bulletin, entitled "Winter Wheat Growing," are as follows:

The population of America is increasing at the rate of over 20 per cent. per decade, while wheat production is remaining practically stationary. America is content with a yield of 14.8 bushels per acre, while European land, which has been under cultivation for hundreds of years, doubles and almost trebles this yield per acre.

James J. Hill has wisely said that the production of greater yields depends upon the attention that is given to the following conditions:

First. The farmer must cultivate no more land than he can till thoroughly.

Second. There must be rotation of crops.

Third. There must be soil renovation for fertilizers.

For winter wheat, the ground should be carefully prepared. It should be mellow and well supplied with a correct balance of plant food. Special attention should be given to drainage and the supply of organic matter in the soil.

A very important factor is the quality of seed that is used. None but sound, well-filled seed will give best results. This seed should be drilled at the right depth. It has been found that as a rule drilled seed makes an evener and more uniform growth than broadcasted seed, and survives a severe winter much better than that which has had an uneven planting.

The addition of a small amount of suitable fertilizer at the time of sowing, which supplies readily available plant food for the tiny plant, has given very satisfactory results. Not only does it assist the young plant into a strong and vigorous growth, but the experiments of a number of Experiment Stations, among which the most notable are Rothamsted Experiment Station, England, Ohio and Indiana, show a marked increase in both yield and weight per bushel where this amendment was used. A suitable wheat fertilizer should supply a fair amount of nitrogen to give the plant rapid and vigorous growth; an abundant supply of available phosphoric acid to fill and ripen grain of superior quality, and potash to give strength to the growing stalk.

Where due attention is paid to drainage of soil rotation of crops and fertilization, there is nearly always a satisfactory yield of grain of superior quality.

The bulletin entitled "Winter Wheat Growing" may be had on application to the Middle West Soil Improvement Co., 916 Postal Telegraph Building, Chicago, Ill.

Water Requirements of Corn.

The Nebraska Experiment Station has just issued Bulletin No. 128, on "Studies in Water Requirements of Corn." A brief report is made on results secured in past years, which have heretofore been published.

Results indicate that the best growth is secured when the soil contains about 60 per cent. of the water it could hold if saturated. Soil that is too wet gives decreased yields. It was also found that the amount of water required from day to day by growing corn varies with weather conditions, and in very much the same way as evaporation from the surface of a tank; also the greater the leaf area the greater the water requirement.

In 1911, corn was grown in two greenhouses, in one of which the air was dry, just as the natural outside air. In the other the air was artificially kept humid. The plant required twice as much water to make a pound of dry weight in the dry greenhouse as it did in the humid greenhouse, indicating that in a dry climate like Nebraska the water requirement for growing crops is very high as compared with a humid climate. It was found that in the year 1911 it took 345 pounds of water to make one pound of dry weight in corn, while in 1910 it took only 250 pounds. This was due to the fact that air was much drier in 1911. So even with equal rainfall, in certain years the water requirement is very much higher than in others.

Soils of three degrees of fertility were used, and these same soils were each fertilized with sheep manure in a second series. It was found that the more fertile a soil the less water required to produce a pound of dry weight, and that the adding of manure decreases the water requirement except in the most fertile soils. This would indicate that manuring soils low in fertility will give a greater yield for a given quantity of water, but if the soils are sufficiently fertile the addition of manure will probably have little or no effect.

The Competition (Crowding) of Plants.

A new Farmers' Bulletin, issued by the Nebraska Experiment Station, discusses the competition which takes place between cereal plants when grown under field conditions. For example, for several years to every 100 seeds of wheat or oats sown under favorable conditions only about sixty-six were harvested, or only about two-thirds of the plants reached maturity. In other words, about one-third of the plants that come up, for some cause or other, die out before maturity. While there are various causes for this loss, it has been found that at least one cause seems to be the natural competition which takes place when the stronger plants crowd out the weaker ones. This seems to be nature's method of maintaining the stronger and more vigorous plants in field crops when sown under ordinary conditions.

Our ordinary rate of seeding places a great many more plants on the land than is necessary, and a certain percentage of the weak ones are very soon crowded out. The thicker the rate of planting the greater number crowded out. Hence we should expect that saving seed from very thick planting would give us stronger and more vigorous plants than those that had been grown under thin seeding and not subjected to the effects of competition. Practical results with corn have shown that seed grown under thick planting, namely, five plants per hill, has produced a higher yield than seed from one stalk per hill, the difference after six years' selection from the two rates of planting amounting to seven or eight bushels per acre.

Nature seems to have a way of eliminating the weaklings, especially when very thick planting is done (as is the custom when sowing small grain crops), but this probably accounts for the productiveness of these crops, although practically no selection is practiced with them.

This bulletin, No. 127, may be had free of cost upon application to the Agricultural Experiment Station, Lincoln, Neb. Address, E. A. Burnett, Director.

Missouri Fruit Prospects.

Reports from special correspondents from every county of the state to the Board of Horticulture show that throughout the state the prospects are good for large crops of apples, cherries, pears, plums and strawberries. Grapes and bush fruits were injured somewhat by the severe winter and do not promise as well. Peaches are an entire failure throughout the state, except in one or two small regions, and these show only a partial crop. At the time of receiving reports, fruits were either in bloom or setting the buds, so that much still depends upon how well the fruit sets. In detail, conditions average about as follows:

Northwest Missouri.—Apples vary from 50 per cent. to full bloom, with an average of 97 per cent. Cherries, pears and plums all promise well, with average for each of 95 per cent. Grapes, through winter injury, drop to 86 per cent. Blackberries, 38 per cent.; raspberries, 65 per cent.; while gooseberries and currants show 80 to 85 per cent.

Northeast Missouri.—Apples show a falling off in this section, being only 87 per cent. of a full bloom. Pears, plums and cherries promise a full crop. Grapes show much more winter injury, the estimate being 65 per cent. Blackberries are 50 per cent.; raspberries, 60 to 65 per cent., while gooseberries and currants range from 80 to 90 per cent.

Central Missouri.—Apples are reported at an average of 90 per cent.; cherries, pears and plums at 90, 95 and 98 per cent., respectively. Grapes are placed at 80 per cent. Blackberries and raspberries appear to have been more seriously injured here than in the more northern part of the state, blackberries being placed at 25 per cent., and raspberries at 40 per cent. Gooseberries average 75 per cent., while currants are 80 per cent.

Southwest Missouri.—This section shows well in tree fruits, apples being 100 per cent.; cherries, 90 per cent.; pears, 98 per cent.; and plums, 90 per cent. This is the only section from which correspondents report peach bloom of any consequence. In a very small area there will be a partial crop. Grapes are placed at 80 per cent. Blackberries and raspberries appear to have received the worst injury in this section, being 30 and 25 per cent., respectively. Gooseberries and currants average 80 to 85 per cent. each.

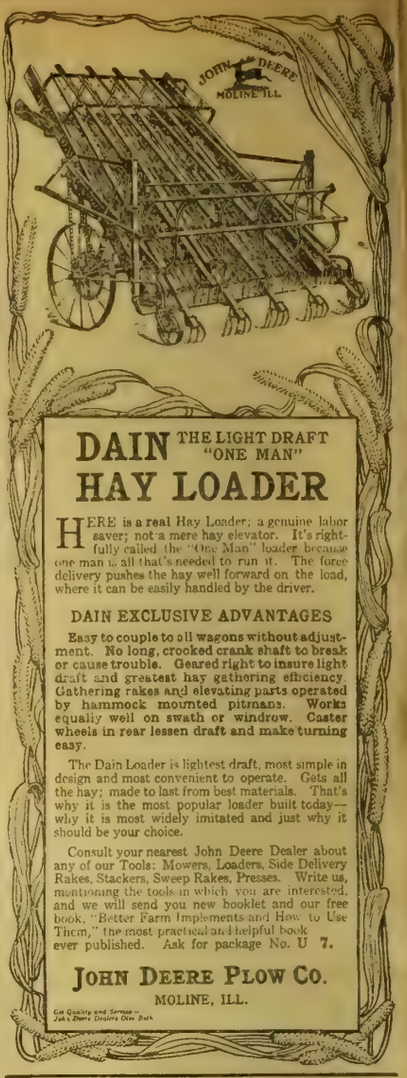
Southeast Missouri.—Apples show 95 per cent.; cherries, 80 per cent.; pears, 70 per cent.; plums, 82 per cent.; grapes, 90 per cent.; blackberries, 52 per cent.; raspberries, 50 per cent.; gooseberries, 84 per cent.; currants, 80 per cent. This report was dated May 14th and signed by W. W. Chenoweth, Secretary of the State Board of Horticulture.

Growing Willows For Basket Making.

In co-operation with the United States Forestry Service the Forestry Department of the Agricultural College has started an experiment to determine the species of basket willow best suited to the climate of Missouri. The state has a large area of land lying along its rivers which is subject to annual overflow and is, therefore, not suited for ordinary crops, but which would be admirably adapted to growing the basket willow.

An acre of suitable land will produce from 1,000 pounds to 1,300 pounds of willow whips each year. They have an average value of five to seven cents a pound. The demand for willow rods of high grade, for the manufacture of baskets and willow furniture, is constantly increasing. At present the United States imports over 1,000,000 pounds annually. It is believed that there is a large future for the industry in Missouri.

After determining the proper species for the state, the Agricultural College will endeavor to foster the industry by the distribution of cuttings. Later on this subject will be referred to again.



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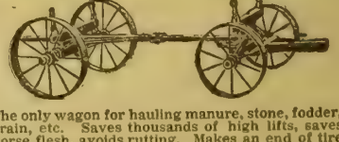

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Notes on Apple and Pear Orcharding.

Often the new orchardist makes more money from his orchard than does the old orchardist. The reason frequently is that the new man is willing to try new methods, while the old orchardist drifts along in the old ways.

If you have a family orchard on clay soil and have coal ashes, try using the coal ashes as a mulch around the trees. On some soils this will prove a great help to the trees. The writer has in mind two pear trees. One of these he has mulched heavily with coal ashes during the last four years; the other has been left unmulched. The tree that has received the coal ashes treatment is remarkably healthy and has made a much greater growth than the other tree. Doubtless the soaking rains carry down some fertility from the ashes, which is an additional help; but the first great effect is that of protecting the ground around the tree from evaporation in dry weather.

In the case of pear trees, go over the orchard in the spring and make sure that there are no blighted trees that can supply bees and other insects with the germs of the blight. The process of spreading the blight is for bees and perhaps other insects to visit the trunks of trees from which oozes out a sort of gummy exudation from diseased trees. Then the insects visit the blossom twigs and infect the tender shoots. The blight develops from the tenderest parts and spreads down the twig and limb. To prevent the insects coming into contact with diseased material, inoculation is very desirable and will save much trouble during warm, moist days, when fungus spores develop rapidly.

Mulching and cultivation seem to have about the same value in many cases. We have known farmers with orchards to fail to cultivate or mulch and at the same time get rid of materials that might be used for mulching. This is particularly true of coal ashes, which are exceptionally valuable for mulching purposes. They have the advantage of straw and hay in that they cannot take fire and destroy the orchard, which is the great danger when straw is used in large quantities. The writer once visited an orchard which was mulched with straw to a depth of six inches all over the ground. The owner told the writer that the fear of fire was constant with him and was the only one great drawback in that kind of mulching. It is easy to imagine what a fire would do in such a circumstance.

Mulching and draining are necessary in most soils. The draining is desirable to keep the roots from being too wet during the wet times. The mulching keeps a certain amount of moisture around the roots when the roots would otherwise be too dry. Too dry roots and too wet roots render no service. It is only when soil air and soil water are supplied together that the roots are able to perform their functions.

Most orchards are maintained in a half-starved condition. The other crops of the farm are given fertilizer to increase their growth, but the trees in the orchard are looked upon as able to do well and bear large crops without the supplying of plant food. Manure and fertilizer will often be found as profitably applied to an orchard as to any other part of the farm.

A Very Successful Prescription.

The combination of remedies used in the manufacture of Bodi-Tone is proving a wonderfully successful prescription for old, chronic ailments. The makers of Bodi-Tone publish the prescription broadcast, so all may read and judge it for themselves. Bodi-Tone contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Read the trial offer on the last page. No one need pay a penny for Bodi-Tone until they have tried it.

Fertilizer Testimonial.

Empire Carbon Works, St. Louis, Mo. Gentlemen: — Regarding your fertilizers, I have been using it for the last four years, and find that it gives good results on any kind of land and for any crop—corn or wheat. Especially good for tomatoes. We find that it will increase the crop from one-third to one-half more when properly used. I can highly recommend Empire Fertilizers to give results when used in proper way. Yours truly, Northview Canneries, (Signed) A. L. Bumgarner, Northview, Mo., February 17, 1912.

Testimonial For Visio.

Dixon, Ill., April 15, 1912.
Visio Remedy Ass'n.

Please send me one bottle of your Eye Remedy. My brother used your remedy and cured a horse that was almost blind, with one bottle.

J. T. LAWRENCE, JR.

Beware of the Daughter.

A gentleman who was once stopped by an old man begging, replied: "Don't you know, my man, that fortune knocks once at every man's door?"

"Yes," said the old man, "he knocked at my door once, but I was out, and ever since then he has sent his daughter."

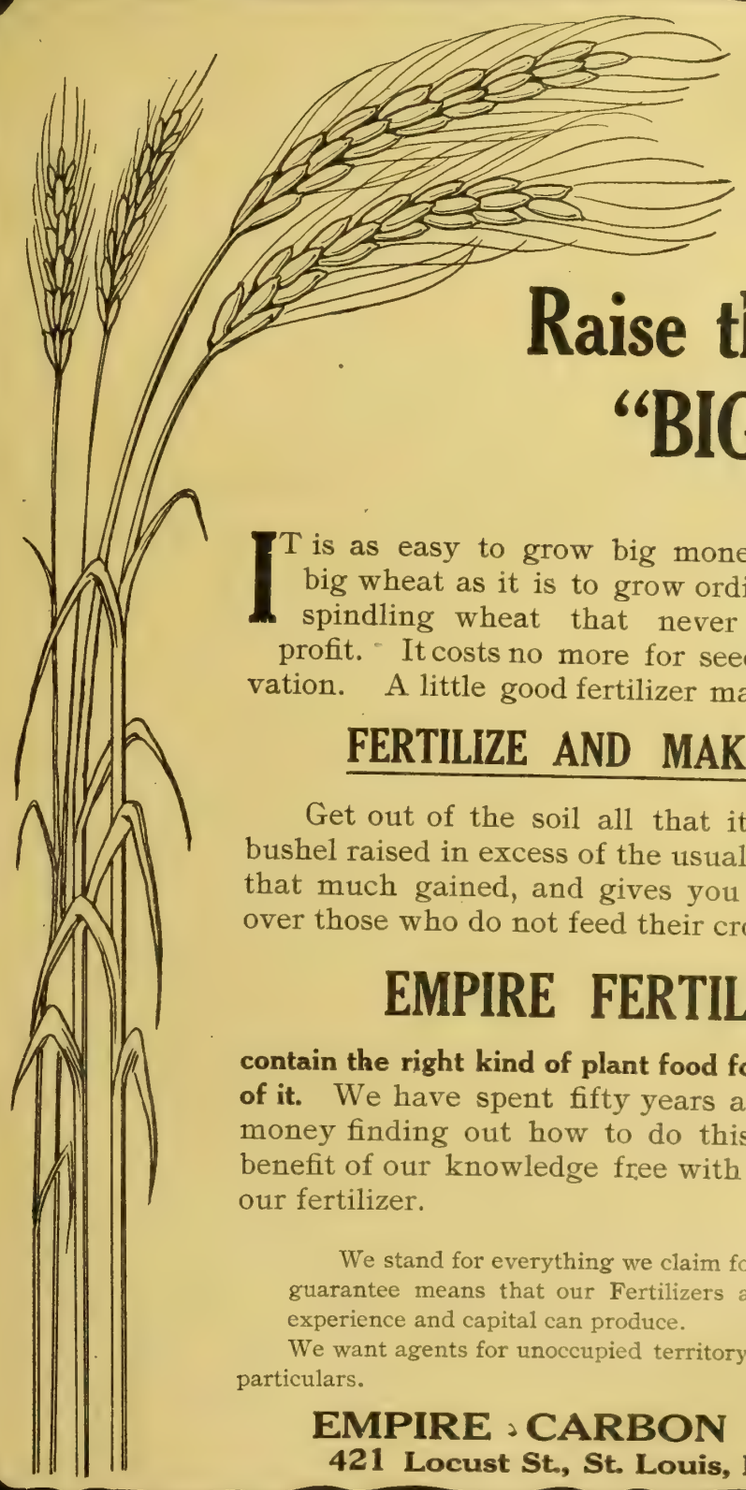
"His daughter?" replied the gentleman. "What do you mean?"

"Why, Miss Fortune."—Flashlight.

A Cross For a Bite.

Gabe—"What? Are you going back to that place for this summer? Why, last year it was all mosquitoes and no fishing."

Steve—"The owner tells me that he has crossed the mosquitoes with the fish, and guarantees a bite every second."—Cincinnati Enquirer.



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IT is as easy to grow big money-making crops of big wheat as it is to grow ordinary crops of small spindling wheat that never pay anybody any profit. It costs no more for seed, planting or cultivation. A little good fertilizer makes the difference.

FERTILIZE AND MAKE MONEY

Get out of the soil all that it can bear. Every bushel raised in excess of the usual production means that much gained, and gives you a great advantage over those who do not feed their crops.

EMPIRE FERTILIZERS

contain the right kind of plant food for wheat, and plenty of it. We have spent fifty years and a great deal of money finding out how to do this, and you get the benefit of our knowledge free with every purchase of our fertilizer.

We stand for everything we claim for our Fertilizers. Our guarantee means that our Fertilizers are the best that skill, experience and capital can produce.

We want agents for unoccupied territory. Write us at once for particulars.

EMPIRE CARBON WORKS
421 Locust St., St. Louis, Missouri.

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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The Book of a Thousand Champions in Live Stock.

The Honorable Uncle Piper, subscription manager of The National Farmer and Stock Grower, is not often allowed to break into the reading columns of the paper, but he insists upon doing so this month. He was in the office the other day and remarked that the new Book of Live Stock Champions makes him laugh. A man who reads about the book on page 23 may not become excited over it and rush madly to the postoffice to send an order for the book, but Uncle Piper says that whenever a stockman who is a true stockman gets his hand on the book, when he sees the beautiful blue cover, the gilt title, the 352 pages, the 750 illustrations, the thousand champions, and when he has become interested, it is impossible to take it away—the stockman will rather pay one great, big, hard-earned or one easily-earned dollar, as the case may be, and hold onto the book. "Why," said Uncle Piper, "the book is as fat as a butcher hog and it looks like a picture show. Everybody's buying it and can't do without it." The draft-horse man thinks it is a draft-horse book; the dairy-cattle raiser knows it is a dairy book; the Hackney horse breeder has never seen so many Hackneys before; the hog raiser takes it as a hog book; the sheep raiser has an idea it was published for his special benefit. There are more pictures of Shorthorn champions than in the Shorthorn Herd Book; there are sections full of Herefords and all other cattle breeds, and a French horse breeder wires from Paris: "Send me twenty of the Percheron champion books." The first order after publication was for six copies for the Porto Rico University, followed by six copies for the State Agricultural School of Kansas. Dr. Wm. Rommel, Chief of the Animal Husbandry Department, Bureau of Animal Industry, Washington, D. C., said: "I think the book is improving with each succeeding edition." Mr. F. D. Coburn, author of the great book "Alfalfa" and the great authority on Swine Husbandry, writes: "I wish I could help you sell a million." Wherever one copy of the Book of Live Stock Champions is seen it is greatly admired. We have many letters from stockmen who ordered the book in advance of publication, saying: "We are recommending this book to our friends." It is the highest compliment that can be paid the book, and we are thankful for all such recommendations. See page 23.

Uncle Piper.

The people of the United States are very hard up, owing to the high cost of living, but they managed to buy European luxuries in one year to the amount of two hundred millions of dollars. Let us hope that the people will have enough money left to buy bread.

Scrub Cows and Scrub Separators.

A young man who has a dairy farm in Central Illinois remarked recently that he had reduced his herd of milking cows from forty-five to thirty-six. He said he had profited by a careful examination of each cow's performance on a good ration of feed. "Now," said a man standing by, "maybe you have a scrub separator." "No," said the dairyman, "the only way to be absolutely safe is to own a 'De Laval,' and I have one of the latest and it is absolute perfection." A chapter on scrub cream separators being as unprofitable as scrub cows will be found on page 11.

More Money in Beans.

One of the most remarkable conditions of agriculture in the United States is that the systematic growing of white beans, the navy beans of commerce, is confined to three states. During the census year California produced 3,323,608 bushels; Michigan produced 5,282,511 bushels, and New York state produced 1,681,506 bushels, and all the other states combined raise very few over a quarter of a million bushels.

This is the more remarkable since it is a very profitable crop, and no doubt in Ohio, Indiana, Illinois and Wisconsin, as well as in Michigan, beans can be raised profitably, and in New Jersey and Pennsylvania as well as in New York. States which have successfully started growing beans are Arizona, Florida, Maine, New Hampshire, New Mexico and Vermont.

The bean is coming so much into general use that it is becoming a bonanza crop. On June 1st, the St. Louis market quotes beans at $2.90 to $3.05 per bushel, wholesale, and it is estimated there are very nearly as many bushels in a crop of beans as in a crop of corn on the same farm. The beans are harvested differently, but the machinery is fully up-to-date. In fact, it is ahead of the crop.

The domestic crop of beans—in excess of 10,000,000 bushels annually—has been proved entirely insufficient for home consumption. Large quantities are imported every year.

Considering the nationally wide popularity of beans as an article of food—a popularity that is constantly growing, largely through the great advertising campaigns of the big canning industries—it is easy to see why farmers have made a mistake in not turning their attention more closely to bean culture long ago.

Authorities tell us that any soil that will grow wheat and corn is adapted to the profitable production of beans.

A common rotation for large bean growing sections is clover, beans, and wheat. Bean experts recommend plowing not less than six inches to prepare the soil for beans. As to the planting time, it is a wise rule to wait till the soil is thoroughly warmed. Cold ground is death to the success of a good many beans.

The planting time recommended by the most successful bean growers of New York and Michigan is between June 5th and June 20th. The time, of course, depends entirely upon geographical location and the condition of the ground.

The United States Department of Agriculture has contributed literature towards the industry. In the Year Book of 1911 there is an article showing how to handle horse labor and man labor on a New York potato and bean farm. In the article it says: "Both are crops that yield better than average returns."

There is also a Farmers' Bulletin, No. 121, entitled "Beans as Food." We advise our readers to consider if they have not a few acres to devote to a crop of beans and to write at once to the United States Department of Agriculture, Washington, D. C., for all literature on the subject of "Beans as Food."

Raw Rock Phosphate.

Raw rock phosphate is being ground and sold as a fertilizer, and farmers are buying it because it is supposed to be valuable and cheap. So far as we have been able to ascertain, raw rock phosphate has absolutely no value as a fertilizer until the fertilizer material is made available by a chemical process, and that is an expensive process.

We have seen claims advanced, and have the claims before us, that raw rock phosphate is worth $30.00 per ton to a farmer.

We have seen, and have before us, the assertion that rock phosphate is credited with causing a gain of 34½ bushels per acre of wheat on an Illinois farm. We have before us the advertisement stating that the "final measure of phosphate rock is the unit cost of 'available,'" and yet we still stick to the original opinion.

In our opinion, as first formed, the unit value of phosphate rock as fertilizing material is nominal; that it is not available as plant food; the farmer has no available means to turn it into plant food. The farmer can spend ten dollars an acre upon raw rock phosphate and apply it to his land with barn-yard manure and turned under with green crops which are worth more, pound for pound, than the rock phosphate, and all the farmer will receive in return within the next ten or fifteen years will be what the green crops and barn-yard manure and his better cultivation will do for him without the raw rock phosphate, be it ground or unground.

The sale of rock phosphate in its raw state has been going on long enough, and such immense quantities have been sold in Illinois that in the matter of corn, wheat, oats and barley there ought to be some visible gains to attribute to it. Some few individual acres may be brought in evidence, but our lookout is for something more tangible. Improvements in cultural methods, better implements, legumes in rotations, differences in seasons, will account for any showing claimed for raw rock phosphate as a fertilizer.

Illinois is not such an old agricultural state as to be thoroughly worn out. It has had the advantage of being a first-class dairy and stock-raising state. Under modern conditions of agriculture Illinois stacks up as one of the best farming states in the Union, and if raw rock phosphate had any influence on Illinois crops there is no year in which it ought to have shown better than last year.

The United States Department of Agriculture bunches Illinois, Ohio, Indiana, Michigan and Wisconsin as being in the same range. Last year Illinois averaged 33 bushels of corn; Ohio, 38.6; Indiana, 36; Michigan, 33; and Wisconsin, 36.3 bushels to the acre.

Last year Illinois averaged 16 bushels of wheat to the acre; Ohio, 16; Indiana, 14.7; Michigan, 18; and Wisconsin, 15. Last year was a bad year for wheat growers.

Last year Illinois raised 28.8 bushels of oats per acre; Ohio, 32.1; Indiana, 28.7; Michigan, 28.6; and Wisconsin, 29.8.

Last year Illinois produced an average of 28 bushels of barley to the acre; Ohio, 27.2; Indiana, 26.5; Michigan, 24; and Wisconsin, 25.5.

We have referred to the figures which appear in the Year Book of the Department of Agriculture and we see no light therein that indicates any proof that the immense quantity of raw rock phosphate that has been dumped on Illinois soil has done any good.

We wish it were otherwise; if the immense deposits of raw rock phosphate were available as plant food, it would be a great help to agriculture, because if no treatment other than grinding was necessary it ought to be very cheap; but the Creator of the world probably intended the raw rock phosphate of the present day to be the plant food of a century yet to come for the benefit of farmers yet unborn, and that is the reason very much fertilizer material in the soil which can be ascertained by analysis as being there is not as quickly available as we would like it to be. The fertilizer subject is a very difficult one to handle, and we find that soil experts do not always agree, although we would like them to do so. At the same time they agree without exception that raw rock phosphate, standing alone, is worthless as a fertilizer.

"The man who is his own worst enemy carries on the fight to the bitter end."—Puck.

WATERLOO BOY
POWER
The Waterloo Boy is built of the best material throughout. It is so simple a 10-year-old boy can run it. Starts easy in any weather; always dependable. Will develop more power for its rating, at less cost, than any other engine.
Has reliable fly-ball governor and fuel saving regulation; patent mixer does away with pump; patent igniter that never misses; lever to change speed while running. All parts interchangeable.
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228 W. 3rd Ave. Waterloo, Iowa.
Runs with either gasoline or kerosene.
5 YEAR GUARANTEE
FROST PROOF
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SUBSCRIPTION PREMIUM — A POCKET COMPASS.

This is a true 1¾-inch Pocket Compass purchased from a reliable house. It is a fancy, nickel-plated, open-face, watch-shape Compass, with a silvered dial, and it weighs less than one ounce. Every farmer or ranchman should have one in his pocket. Send us One Dollar and we will send you The National Farmer and Stock Grower for one year, and we will also send you this Pocket Compass by mail postpaid. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

EVERLASTING WATERING TANKS.

How Stockmen Build Their Own Concrete Troughs.

Many farmers and stockmen want to know how to build their own concrete watering tanks and troughs. The method is easy and a tank is not expensive. To explain this, a horse and cattle tank is described below which holds thirty barrels of 31½ gallons each. If desired, smaller or larger troughs, round or square, may be built in exactly the same manner. Such tanks, well made, never crack, wear out or cause mndholes.

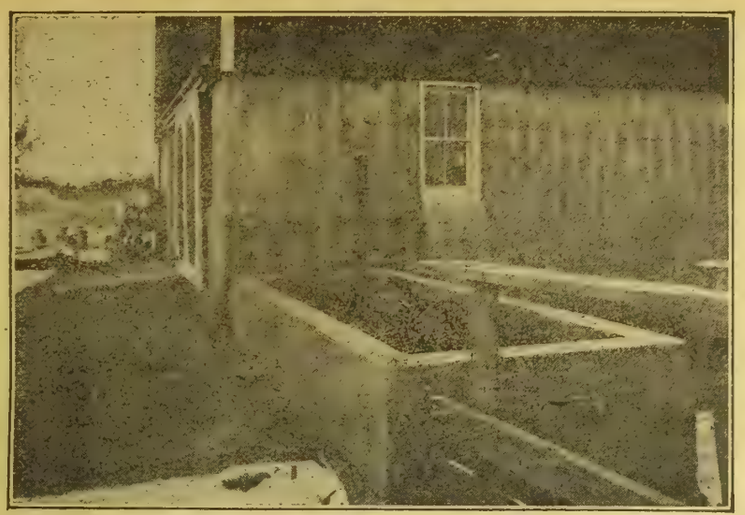
To build an oblong tank like the one shown in the picture, mark out the ground plan five by fourteen feet. Within these lines scrape away all trash and dig a foundation trench ten inches wide and two and one-half feet deep around the entire tank. Lay all inflow and overflow pipes (not less than one and one-half inches in diamter) so that the ends, fitted for connections, will be even with the finished bottom of the tank.

Before digging the foundation trench, build the forms and have all materials on hand. For forms use one-inch siding on two-by-four-inch uprights spaced two feet apart. The outside form is a bottomless box five feet wide by fourteen feet long, inside measurements. Make it three feet high to provide for a six-inch floor and a clear depth of two and one-half feet. The inside form must be narrower and shorter to make provision for walls five inches thick at the top and flaring to a thickness of eight inches at the bottom of the tank. When ice forms, this slope allows it to slip up the tank walls instead of pushing directly against them. The sides and ends of the forms may be made separate and put together in place; or, if there is sufficient help, each form may be entirely completed and set up as one piece. The forms are held in position by two-by-four-inch liners at top and bottom, and, if necessary, by sloping braces nailed to stakes driven in the ground. Cut strips of heavy woven wire fencing long enough to cover the bottom of the tank crosswise and to project up into the walls to within six inches of the top, and likewise a strip four feet longer than the inside length of the tanks.

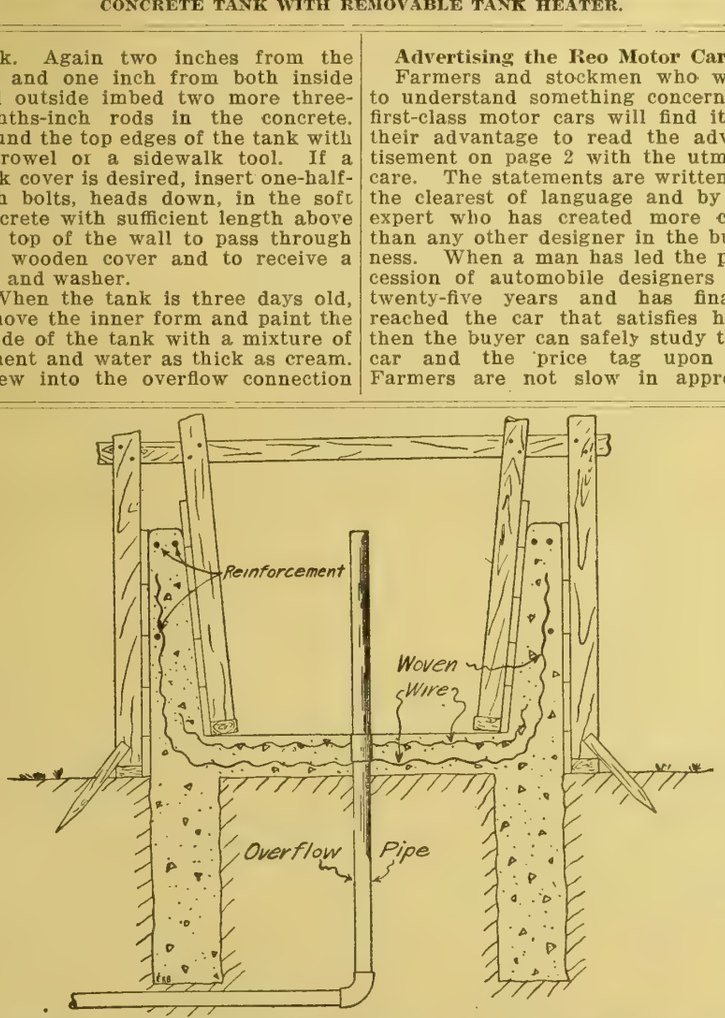
With the forms ready, mix the concrete one part Portland cement to two parts sand to four parts crushed rock. In measuring the materials, count one bag of cement equal to one cubic foot. If bank-run gravel is used, mix the concrete one part cement to four parts gravel. Fill the foundation trench with concrete. Set the outside form in place. See that it is level, so that the tank will be level and can be entirely filled with water. Lay the six-inch bottom reinforced one and one-half inches from the under side with the short lengths of woven wire crosswise and one and one-half inches from the upper side with the long strip of fencing. Bring up the extra length of wire so that the ends will project up into the future side-walls and can be fastened to the reinforcing rods. (This wire reinforcing in the bottom will prevent possible cracking due to heaving by frost.) Finish the surface of the bottom the same as for a sidewalk. Do not let concrete get into the inflow and overflow pipes.

With the bottom finished, immediately set the inside form in place and fill the wall space with concrete mushy wet. Half-way up the side, and one inch from the outside, lay a three-eighths-inch rod (or several hooked together) entirely around the tank. Again two inches from the top and one inch from both inside and outside imbed two more three-eighths-inch rods in the concrete. Round the top edges of the tank with a trowel or a sidewalk tool. If a tank cover is desired, insert one-half-inch bolts, heads down, in the soft concrete with sufficient length above the top of the wall to pass through the wooden cover and to receive a nut and washer.

When the tank is three days old, remove the inner form and paint the inside of the tank with a mixture of cement and water as thick as cream. Screw into the overflow connection the necessary length of overflow pipe. The tank may be used in ten days provided the outside form is left in place. If the outer form is removed at the same time as the inner, do not use the tank for two weeks.



CONCRETE TANK WITH REMOVABLE TANK HEATER.



CROSS-SECTION SHOWING FORMS AND TANK WITH REINFORCEMENT.

Bill of Materials.

Crushed rock, 6½ cubic yards at $1.10, $7.15; sand, 3¼ cubic yards, at $1.00, $3.25; Portland cement, 10½ barrels, at $2.50, $26.25; twelve rods, ⅜x10 inches, 45 pounds, at $0.02¼, $1.00; total, $37.65.

By getting prices from local dealers, the cost may be found to be less. Such a tank is by far the cheapest to be had, since it never needs repairs and never wears out.

Advertising the Reo Motor Car.

Farmers and stockmen who wish to understand something concerning first-class motor cars will find it to their advantage to read the advertisement on page 2 with the utmost care. The statements are written in the clearest of language and by an expert who has created more cars than any other designer in the business. When a man has led the procession of automobile designers for twenty-five years and has finally reached the car that satisfies him, then the buyer can safely study that car and the price tag upon it. Farmers are not slow in appreciating clean-cut statements with good reasons to support them, therefore we commend this advertising to their notice and recommend they mention The National Farmer and Stock Grower when writing for catalogue.

Large Sale of Mohair.

Late in April it was reported that C. D. Stokes, of Lampasas, had bought 250,000 pounds of spring mohair from the Wool Growers' Central Storage Company, of San Angelo. He paid from 28 cents to 34 cents per pound, a price better than the last fall prices. This is the first mohair to be sold in Texas, and represents almost the total spring clip of the San Angelo country. The clip was practically 90,000 pounds.

FARM AND RANCH LANDS.

FARM AND RANCH LANDS can be advertised effectively in The National Farmer and Stock Grower in small space at a reasonable price. The best land advertising in a general farm paper is classified and arranged by states. The National Farmer and Stock Grower will obtain for an advertiser more substantial inquiries in a ten-line advertisement than any other farm paper will give for five times the space or money. Send in your advertisement and let us quote you a price. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, corn, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS FARMS.—We have for sale a large list of well-located farms, nice, level, land and fertile soil at $8.00 to $15.00 an acre. If interested, write us. **Ross & Moore,** Searcy, Ark.

FLORIDA.—Write for special summer price and terms. Don't wait until winter and high prices. One of the most choice tracts of land in Florida sold direct to you by the owner. GEORGIAN HEIGHTS, FLORIDA, is not the ordinary kind of land. It is better and more conveniently situated. Only fourteen miles west of Jacksonville. The Florida Railway runs through the center of GEORGIAN HEIGHTS. Two other railroads, good, hard-surface wagon roads and automobile highway all run into Jacksonville, which is the largest and best city in Florida. GEORGIAN HEIGHTS is one of the most desirable locations in the state. I will give you a valuable town lot free with each five-acre tract purchased. Easy terms by the owner, **J. T. George,** Wainwright Bldg., St. Louis, Mo.

MINNESOTA.—Farms for sale. Send for my list of CHOICE FARMS for sale, the best in the United States, considering location, terms, etc. Ask for my FREE BOOKLET, telling about the country, crops, markets, etc. **Geo. W. Elder,** McGinn Block, Thief River Falls, Minnesota.

MISSISSIPPI.—464 acres, Yazoo county, Mississippi. All rich, bottom land, on which a fine quality of long staple cotton is grown except 20 acres, which is upland. Entirely free from overflow and not dependent on levees. 320 acres in cultivation; one residence, plastered and ceiled; six tenant houses; good water and barn. $17.50 per acre.

MISSISSIPPI.—507 acres, Yazoo county, Mississippi; bottom and rolling upland; 275 acres in cultivation; 100 acres in pasture; eight tenant houses, all with wells and barns. $15 per acre.

MISSISSIPPI.—3,176 acres, Yazoo county, Mississippi; black soil, underlaid with clay; gently rolling upland. Handsome six-room residence, thirty tenant houses, four rooms each, ceiled and painted, and pasture, barn and well with each. Large three-stand gin plant, new machinery. 1,800 acres in cultivation; 150 acres meadow. Easily worth $20 per acre, but we are offering it for quick sale at $12 per acre.

The finest grade of blue ribbon sugar cane is grown on these places, yielding from 350 to 500 gallons of the finest molasses to the acre, and sells for 50 cents per gallon. Our farmers who make this syrup are unable to supply the demand. The cost of production is so small, it enables some to clear $100 to $200 per acre easily. A sample of this syrup will be mailed to interested parties upon request.

As the climate here is mild and the grazing season long, it is one of the finest stock-raising countries to be found.

All of these places are on the main line of the Illinois Central Railroad and close to good towns.

Write or call on **R. C. Jarnagin,** Goodman, Mississippi.

MISSISSIPPI.—800 acres of land, in one body, for sale, located 1½ miles from the I. C. Railroad, south of Corinth. Good soil—no rocks; plenty of timber. Price, $10.00 per acre. Fine place for settlement. Every ten acres would make a good truck and poultry farm. Address, **Owner,** care National Farmer and Stock Grower, St. Louis, Mo.

TEXAS.—We have for sale 5,502 acres in the famous Pecos Valley, near Pecos City, Texas. Shallow water belt; inexhaustible supply of water. This land lies in three tracts, but close together; three sets of houses, barns, wells, windmills, tanks, gardens, fruit trees, etc. All fenced and cross fenced. Schools, telephone, auto road. Dark chocolate loam. As fine land as the sun shines on for alfalfa, fruits, grapes and general crops. Ideal for dividing into small farms. Will sell in a body or in sections of 640 acres cheap for one-half cash, balance easy terms. Don't delay, if interested, as this land must be sold at once and is a real bargain. For full particulars address **Robt. H. Rinehart & Co.,** Box 98, El Paso, Texas.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

I BRING BUYERS AND SELLERS TOGETHER. If you want to buy, sell or exchange a farm or business, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago, Ill.**

The Laws of Breeding.

"There are two fundamental laws which underlie breeding. The first is, that like produces like; and the second, that variation is more or less spontaneous. The first law can only be said to apply to breeds whose members have been uniform in type for several generations; in other words, to animals of good pedigree. Every animal has a pedigree, but it only becomes a good pedigree when it can be shown that the animal's ancestors were possessed in a marked degree of the desired qualities of that particular breed, and his power to transmit his good qualities to his offspring will vary with the number of his ancestors who have had these qualities. It must also be borne in mind that bad qualities can be accumulated in a beast just as well as good ones."

The foregoing, which is taken from an unknown source, indicates what ought to be always kept in mind, which is, that those who are not breeding up are sure to be breeding down. There is no such thing as holding what there is in sight for long. You must go either forward or backward.

Holstein Milk and Butter Averages.

Holstein cows and heifers to the number of 268 head were tested seven consecutive days for the purpose of obtaining admission to the Advanced Register of the breed. Naturally. The reports were received in April of the present year.

This herd of 268 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days **110,220.9** pounds of milk containing **4,406.216** pounds of butter-fat, thus showing an average of 3.67 per cent. fat. The average production for each animal was **411.3** pounds of milk containing **15.098** pounds of butter-fat, equivalent to **58.76** pounds, or nearly **28** quarts of milk per day, and over **17.6** pounds of the best commercial butter per week. Seven gallons of milk a day, 3.67 per cent. fat, for 268 cows and heifers looks good against any feed bill that can be put up against it.

Myers' Sewing Awl.

Several thousand of Myers' Sewing Awls, advertised on page 14, have been sent out from this office as subscription premiums and we have had but one complaint. The fact is, the awl is perfect for the purposes intended. Those who receive the awl get it direct from the factory and are able to send for new needles, thread, etc., at any time it becomes necessary to do so and to receive them without delay.

"The talent of success is nothing more than doing what you can do well and doing well whatever you do without a thought of fame."—Longfellow.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send **The National Farmer and Stock Grower** for two years and we will send the book, **Profitable Dairying,** as a premium. Address,

HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

Growing Appreciation of Concrete.

The farm is unusual to-day which does not show at least one example of concrete construction among its buildings or equipment.

Those farmers whose profits are larger than those of others are practically sure to be users of concrete. In the past many have seemed to believe that this was because of their larger profits. Now most of us realize that the use of concrete is one of the reasons for these profits instead of a result of them.

The same principle lies behind permanent building, as behind crop rotation and other progressive ideas on the farm. The foresight which acknowledges the lessened value to the owner of a perishable building within a few years after erection also appreciates the final serious weakening of the soil by continuous single cropping.

The farmer who uses wood to-day for construction, because of a seeming lower cost, realizes that it is really only a makeshift at best and will end by costing more than concrete—much more.

It is certainly true that while this growing appreciation of the advantages of concrete construction about the home and on the farm is due in a large measure to the educational work done by the government, others should justly receive much credit.

The larger cement companies, aside from the purely business viewpoint, have done a great deal of thoughtful educational work by distributing text books explaining many practical uses of concrete on the farm.

For instance, the Atlas Company, which is the largest in the world, has sent out over one million, five hundred and sixty-seven thousand farm books. As they are books of over one hundred and fifty pages, not small pamphlets, one realizes their value to the farmer when really studied.

Of course, they have resulted in a largely-increased use of cement, but at the same time have clearly shown the user why and how such use actually benefited him quite as much or more than the producer.

Efforts like this to improve conditions, once understood, have the right to meet with sincere and hearty approval.

Be sure to read about the free book to farmers issued by the Atlas Portland Cement Company on page 15 of this issue.

Compresses For the Eye.

A specialist in the study of the eye recently made this statement to a patient who had an abscess on his eye and who remarked that it was impossible to get to the oculist sooner and in the meantime he had been bathing his eye with hot water.

"You could have done nothing better according to your knowledge of the case. If the water had been hotter and you had used it more frequently on your eye the abscess might not have formed. As it is, your treatment has probably saved the necessity of an operation. I can give you this generad advice to follow in case of any acute eye trouble: Whether it is a swelling, a soreness, an inflammation or a growth, alternating compresses of hot and cold water will tend to alleviate the trouble. Take an old, soft, white rag that is perfectly clean and which has not been laundered with strong soaps and chemicals, fold it several times, dip in hot water and hold it against the inflamed organ until the heat leaves the cloth. Repeat this at frequent intervals and occasionally try the same treatment with very cold water instead of the hot. Destroy each cloth used in each treatment, as there is always a possibility of infection. These applications will do no harm, and they may do a vast amount of good. But most emphatically do I say, never use any kind of medicine in the eye unless it has been prescribed for your particular case by a competent oculist.—Janet Thomas Van Osdel.

A Volcano That Became a Lake.

Unique among the natural wonders of America is the lake in Crater Lake National Park in Oregon, which is described in a publication entitled "Geological History of Crater Lake," just issued by the Department of the Interior. The traveler who, from the rocky rim of the lake, looks across its limpid waters to the cliffs beyond, stands where once the molten lava of Mount Mazama boiled and seethed in its efforts to find an outlet, for Crater Lake is all that remains of a great volcano that ages ago reared its lofty summit high above the crest of the Cascade Range.

Before the Cascade Range existed the region now included in the state of Oregon was a great lava plateau that extended from the Rocky Mountains to the present Coast Range. Gradually mountain-making forces became operative; the surface of the plateau was arched and there rose the great mountain system which is now known as the Cascade Range. With the hardening of the crust the centers of eruptions became fewer until they were confined to a few high mountains that were built up by the flows of molten lava. In this way were created Hood, Rainier and Mazama, from whose sides and lofty summits streams of lava poured across a desolate land. Hood and Rainier still lift their snowy caps to the clouds and fling a defiant challenge to the mountaineer to scale their steep, ice-covered slopes. Mazama alone is gone, engulfed in the earth from which it came. In what is left of its caldera lies Crater Lake.

Mount Mazama in its prime rose to a height of over 14,000 feet above the sea. Mount Scott, which towers above Crater Lake on the east, was only a minor cone on the slope of Mount Mazama. The portion of the mountain that has been destroyed was equal in size to Mount Washington, in New Hampshire, and had a volume of seventeen cubic miles.

From the crest of the rim surrounding the lake the traveler beholds twenty miles of unbroken cliffs, which range from 500 to nearly 2,000 feet in height. The clear waters of the lake reflect the vivid colors of the surrounding walls, and, whether in the soft glow of early morning, in the glare of the noonday sun or in the rosy hues of the dying day, the view is one of awe-inspiring grandeur and beauty.

This publication contains a detailed account of the formation of this wonderful work of nature. It is well illustrated by photographs and is written in non-technical language so that it may be readily understood by the reader who has not the advantage of scientific training.

WHITMAN'S Steel Queen Hay Press
40 Years the Standard

Finest in the World

Strongest, Most Durable, Most Economical and Simplest Hay Press made—best work—greatest capacity—saves time, labor, trouble—exclusive features not in others. Fully guaranteed. Hand, Horse, Belt and Gasoline Engine Presses—also largest line of Bailers—write for free catalog.
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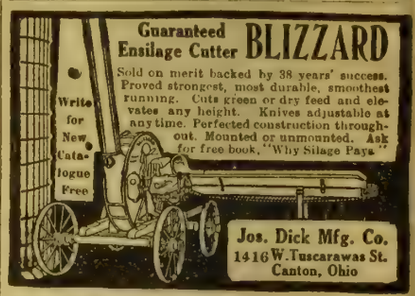

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Guernsey Cattle Club.

The Annual Meeting of the American Guernsey Cattle Club was held recently in New York City, and the reports of the year's business showed that the interests of the Guernseys were in a most flourishing condition.

A year ago the work of this club showed a gain of 97½ per cent. in two years. The reports of the work this year showed that there had been a gain over this increase of 39½ per cent. There was a gain in the number of bulls registered of 507, of cows, 1,030, while there have been 1,423 more transfers recorded than a year ago. This shows practically a gain of over 20 per cent. in the year.

The number of Guernseys imported in the year, including those in quarantine at the present time, are 975, or 157 more than were imported a year ago.

The reports of the Treasurer show that the total receipts of the year have been $59,400.32; that there were received for fees alone $5,590, or 23 per cent. more than a year ago. The expenditures for the year amounted to $57,383.34, leaving a cash balance of $2,016.98. This, with the amount of invested funds, $1,624.63, together with the inventory, showed that the present resources of the club amount to $26,499.81.

During the year the rapid growth has forced the club to seek larger office accommodations and add somewhat to the force. The club have purchased and fitted up a building for their own use in Peterborough, N. H., where the club has been located for the past eighteen years. Thirty-five new members have joined the club during the year, and there were four deaths reported. This leaves an active membership of 359.

The Advanced Register has grown materially during the year. There are now 786 cows under test, representing 122 breeders. During the year 132 bulls and 1,673 cows, with 121 registrations, have been placed in this Register. During the year the cow, Spotswood's Daisy Pearl, 17,696, has gone to the head of the Advanced Register with an official record of 18,602.80 pounds milk and 957.38 pounds butter-fat. There were also many other very meritorious records made.

The following officers were elected at the Annual Meeting: President, Charles L. Hill. Rosendale, Wis.; Vice-Presidents, Ezra Michener, Michener, Pa.; Gov. W. D. Hoard, Fort Atkinson, Wis.; Secretary and Treasurer, William H. Caldwell, Peterboro, N. H. Members of the Executive Committee — Robert Scoville, Chapinville, Conn.; F. Lothrop Ames, North Easton, Mass.; M. T. Phillips, Pomeroy, Pa.; Howard B. Tuttle, Naugatuck, Conn.; James Logan Fisher, Philadelphia, Pa.; S. M. Shoemaker, Eccleston, Md.; W. W. Marsh, Waterloo, Iowa; E. T. Gill, Haddonfield, N. J.; F. G. Benham, Canandaigua, N. Y.

The rules and regulations of the Advanced Register were revised and the club voted to hold a fall meeting and Guernsey Breeders' Convention in Chicago at the time of the National Dairy Show.

A Good Case For Cheese as Food.

While so much is being said and written about the high cost of foodstuffs, it is well to remember that the housekeeper who has the most knowledge of the materials with which she works and the most skill in applying her knowledge is the one who can make the money at her disposal go the farthest.

The cheaper cuts of meat are as nutritious, and, when well cooked, are as palatable as the more expensive cuts. If she wishes to use something in place of meat, she has fish—fresh and cured—milk, eggs, beans, peas and similar legumes; nuts, if they are relished; and last, but very important from the standpoint of its food value, palatability, and the great number of ways in which it can be used—cheese.

The ways in which these substitutes for meat can be served are numerous and varied. Individual taste and food habits are to be considered, but, in general, it is true that the relish with which other dishes are accepted in place of meat depends upon the ingenuity and skill of the cook. It seems a foundation principle that as meat is a savory dish, any acceptable substitute for it must be savory, or must be made so by suitable seasoning and proper cooking.

Those who wish to make substitutions of these foods for meat often desire to know how much of each is necessary in order to replace a given amount of meat. If we consider only the protein of the meat, the following general statement may be made: 2½ quarts milk, 1½ pounds fresh lean fish, three-fourths pound dried fish, two-thirds pound ordinary cheese, somewhat less than a pound of mixed nut meats, nine eggs, one-half pound shelled peanuts, or two-thirds pint dry beans, peas, cowpeas, or lentils, is equal to a pound of beef of average composition.

It will be seen that two-thirds of a pound of cheese contains as large an amount of what laymen call "the muscle-forming" materials, as one pound of beef of average composition. According to abundant analyses, cheese compares even more favorably with meat if its fuel value instead of its percentage of protein is taken into consideration, for one-half of a pound of ordinary cheese yields as much energy as a pound of beef of average composition.

If the housekeeper wishes to know how to make several sorts of macaroni and cheese, Boston roast, baked eggs with cheese, and a large number of other cheese dishes which are palatable as well as nutritious, she can find out by sending to the Secretary of Agriculture, to a Representative in Congress, or to a Senator, for a copy of Farmers' Bulletin 487, "Cheese and Its Economical Use in the Diet," which has been called "Uncle Sam's Welsh Rabbit Book."

Taken as a whole, the bulletin makes out a good case for cheese. It should be helpful to those who for any reason wish to use cheese in greater quantities in their diet. Since it shows, on the basis of many experiments, that cheese is not to be regarded as a cause of physiological disturbance with the average healthy person, it should remove any prejudice which may have been entertained regarding the desirability of eating cheese in quantity.

Canadian Butter in New York.

The New York Produce Review and American Creamery of May 8th said: "New York was so short of butter early last week that one or two operators bought some fresh goods in Canada and hurried them in here by express. In all about 600 boxes arrived. Of these 400 boxes were purchased by G. W. Martin & Bro. for the Great Atlantic and Pacific Tea Co., and 200 boxes came to another party. It is understood that the butter was bought in Montreal at a cost of 26 cents. The duty is 6 cents a pound and express charges 1 cent, which made the cost delivered in New York 33 cents. Part of the stock arrived in time to show a little profit, and the balance got here too late for satisfactory sale. The feature of interest in connection with the deal is that we should have to go to Canada for supplies so late in the season."

Mean Milk Competition.

A correspondent of the New York Produce Review states that in Freiburg, Germany, the competition among the milk dealers is not only lively but mean in the highest degree. Lately the manager of the Milk Dealers' Association was caught adding rennet extract to the cans belonging to a co-operative milk shippers' association, while they were at the railroad depot.

DAIRY AND CREAMERY NOTES.

During the middle of May the New York milk shippers were netting 3¼ cents a quart, and it cost the dealers $1.61 for each ten-gallon can delivered in New York City.

On December 2d, 1910, Anthony P. Ahrens sold a creamery at Westphalia, Mich., and in consideration of the amount paid agreed to not engage in the dairy business there again; but he changed his mind and started an opposition, which, after trial, the law courts made him close up.

Eastern dealers were surprised this spring by the unusual fluctuations in the price of butter. Some of the changes were considered demoralizing. For instance, a five-cent decline in one week was a pretty strong change to take place, as it did, early in May. One day the finest grades sold at thirty-five cents a pound and three days later the highest price was thirty-one cents. May as a rule, is not a high time in butter, it being a month when supplies usually increase.

As a producer of butter made on the farm as distinct from butter made at creameries, the state of Texas comes first with 65,000,000 pounds, followed by Ohio with 63,569,000; then Pennsylvania, 61,158,000; Michigan, 50,405,000; Illinois, 46,610,000; Indiana, 43,182,000.

A new moisture test for butter is described in Bulletin No. 220 of the College of Agriculture of the University of Wisconsin, prepared by Prof. G. H. Benkendorf. The apparatus needed for the new test is very simple in construction, and only five minutes is required for heating the butter in making the test.

A Page to Look Up.

Be sure to look up page 23 and read about the magnificent Book of Live Stock Champions, which is just issued from the bindery.

"Scrub" Cream Separators as Unprofitable as "Scrub" Cows

This is the good advice one of the big and long experienced Western cream buying concerns gives to its farm separator patrons, being taken from a letter to one of them.

"We believe the DE LAVAL is the best separator made. We feel that anyone wishing to purchase a separator makes a great mistake unless he purchases the best machine on the market. No one can make a success of dairying by continuing to use scrub cows. Neither can he make a success of dairying by using scrub separators."

There couldn't well be a more simple, comprehensive and forceful statement of the whole cream separator proposition than this. It's just plain common sense.

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LIVE STOCK BREEDING.

Address by W. J. Kennedy, Iowa State College, Before the Interstate Breeders' Association, Sioux City, Iowa, 1912.

This is a day and age of agricultural development. People, in all vocations of life, are manifesting an unusual interest in the farm and its products. This is as it should be. Every human being is more or less dependent upon the farm. We can never give too much attention to the study of agriculture. From a humane standpoint it is necessary. Before the middle of the twentieth century the farmers of this country will be called upon to feed at least one hundred and fifty millions of people. This problem can only be solved by a more intensified form of agriculture.

As an American people, we are a nation of meat eaters, not vegetarians. This being true, we must not neglect our live stock industry. It is up to us to produce the beef, pork and mutton products demanded by our people. In the past this has not been a difficult problem. In the future it is going to require business methods on the part of the producer. Both the land and feeding stuffs used are sure to be higher in price. The finished product cannot go much higher. This means either more pounds of edible meat from a given amount of food fed the animal, or a loss to the producer. This can only be secured through a more careful and intelligent system of breeding and selecting domestic animals. The "scrub" animal, whether pedigreed or not, must be obliterated.

There always has been and I believe there always will be in our agriculture a place for each and every class of live stock. We must have horses, beef cattle, dairy cattle, sheep and swine. To the man who breeds the right kind of animals of any one of the above-mentioned classes will always find his work both useful to the community and profitable from his own standpoint. We need them all in our farming operations. Some will succeed with one class of stock and make a failure with another, and vice versa. The real secret of success in any line of work depends a great deal upon the amount of individual attention given it. The amount of enthusiasm and interest which any particular individual will give to any line of work will always be governed very largely by his own likes or dislikes for the same. This being true, each man had best select and breed the class of stock which appeals to him most strongly. Where such a system is adopted success usually follows.

For over twenty years I have studied carefully the methods pursued by breeders of live stock, both the successful and the unsuccessful. The former are comparatively few in number compared with the latter. It has been my good fortune to have had the opportunity of observing the methods pursued on the best farms in the United States, Canada, and eleven different European countries. I am frank to say that in no other line of work is a well-defined purpose so necessary as in the successful feeding of live stock. Each and every one of our present-day breeds of live stock was brought up to its very highest degree of excellence by the sheer determination to carry out a well-defined purpose on the part of some two or three men. It is true that hundreds and thousands of men were breeding, but only two or three in each instance really succeeded. Why did the others fail? Simply because they were like the man walking slowly along the public highway, and, when stopped by a stranger who asked him: "Where are you going?" and his reply was: "I don't know, but I am on my way." It is just so with a great many breeders of stock; they don't know where they are going, but they are on the way, too often on the road to failure.

No man ever has succeeded and no man ever will succeed for any length of time in breeding live stock who does not have as his slogan that one word **Utility.** Almost a century ago, Amos Cruickshank, "the herdsman of Aberdeenshire," said that "the real test of value in beef cattle is their ability to turn straw, turnips and cake into pounds, shillings and pence at a profit." When ridiculed by his fellow-breeders because he overlooked fashionable pedigrees and color markings, he replied that the only question in his mind was: "What is best for our country, our agriculture and our people?" It would be a Godsend to our American live stock interests if we had to-day a thousand Amos Cruickshanks, so that we might put one in each of the thousand counties which constitute our corn belt states. The useful animal has always been a money-maker and will continue to be so in the future.

No man ever has succeeded and no man ever will succeed for any length of time in breeding live stock who attaches his kite to "faddism." We do not need to mention any one particular individual to demonstrate the folly of such work. There is hardly a country, in any live stock section of this country or any other country, which has not anywhere from one to twenty men who have clearly demonstrated that "faddism" is always a forerunner of failure. By "faddism" I refer to the tendency on the part of many men to disregard the really useful features on an animal and go to the extreme on certain blood lines, color markings, shape of ear, head, etc. I do not wish to be understood as being opposed to beauty of form, color or general appearance; I am not. In fact, I always like to see the same when combined with the utility points. But if I had to sacrifice something in selecting a breeding animal it would be the fancy points and not those which indicate individual utility.

The longer I study and handle live stock the more I am convinced that the first and most important point to be observed in all meat and milk-producing animals is a good middle. The signs of constitution and digestive capacity present their most visible manifestations in the body and not in the extremities. The animal is simply a machine to convert feed into more edible products, such as meat and milk. Its capacity is governed almost solely by the size of the middle. These are points which mean dollars and cents to every man who handles live stock.

We must pay more attention to the question of size and vigor in our animals. Size always has and always will be a vital point. It is usually associated with heavy and economical gains. Vigor is absolutely essential. It is associated with heavy gains and also helps to safeguard the animal in time of disease outbreaks. One of the chief causes for deterioration in both size and vigor of our animals is the use of immature sires and dams for breeding purposes. While both sire and dam exert an influence, it has been clearly proven that the immature dam is the most detrimental to progeny. The continued use of immature sires and dams, especially where corn rations are fed, will seriously reduce both the size and vigor of any breed or class of live stock. Anything which lessens the size and vigor of the animal renders it less profitable on high-priced land. Too much attention cannot be given to the importance of selecting breeding stock from mature parents. In this way, and only in this way, can we retain size and vigor in our herds and flocks.

The man who succeeds in breeding draft horses must ever keep in mind size, quality, feet, legs and action. These are all utility points. The markets demand horses weighing 1,700 pounds and upwards, that have good body conformation, large feet of good texture, strong, clean bone, large, sound joints, heavy muscular development combined with good, straight, snappy action. Such horses command high prices and are very scarce. The statistics for the year 1911 show that only one horse out of every twenty sold at our leading horse markets filled the bill. This is surely a good line of work to pursue for many years to come. The vast majority of our farmers make a serious mistake when they sell their good draft mares to go to the cities. A good draft mare is worth twice as much on any farm, if she is used for work and breeding purposes, as she will sell for in any market. Only mares of good weight, body conformation and absolutely sound should be retained for breeding purposes. It is very important that the stallion used should be sound, drafty, stand well on his feet and legs, short and straight in his back, heavily muscled and show good disposition as indicated by width and flatness of head between the eyes. Avoid unsound, small-footed, light-boned, crooked-legged or shallow-bodied stallions.

The profitable beef animal of the future must have size, large heart girth and middle, giving him constitution and capacity. He must also be low set, staight in his lines, back and loin and carry a good covering of natural flesh over these parts. The head must be short and wide between the eyes, the neck short and shoulders smooth on the sides and wide on top. Width on the top of the shoulders goes with good fleshing properties throughout. The hide should be soft and pliable. These are all utility points. We must ever keep the block type in mind, because the block is the ultimate end of all beef cattle.

In selecting dairy cattle, it is always difficult to judge accurately with the eye. The real test must be the weight scales and the Babcock tester. The cow is a machine to convert food into milk; thus she must have a large middle and a strong constitution to insure best results. She must also have a large udder, large milk wells, large, crooked milk veins and good-sized teats. Her head should be lean and angular in appearance, with the eyes standing out prominently. The neck should be rather long and lean in appearance, the shoulders pointed and the backbone rather prominent. The skin should be loose and soft to the touch. In selecting herd bulls, either mature animals which have already demonstrated their worth as sires or younger animals from high testing dams and sires only should be used. Remember that the best and surest results will always follow the use of a mature sire which has sired heifers with good records. A good dairy bull should be kept until he is twelve or fifteen years old; in fact, as long as he is a sure sire. Real good sires are so rare that when we do find one he should die only of old age. All breeders of dairy cattle should secure yearly tests on each and every cow in the herd. Shorter tests do not really mean very much. It is the cow that stays by her job that is really valuable.

Few lines of work offer greater financial returns for the capital invested than a good flock of breeding sheep. This is especially true when good mutton conformation is combined with a long, dense, fine fleece. The question of constitution is very important in sheep. In selecting rams, blockiness, low-setness, wide backs, loins and heavy, well-filled hind quarters should always be demanded. The head should be broad and masculine in appearance, the neck short and the shoulder broad and compact. The legs should be short and straight, especially at the hocks. The skin should be pink in color, and the fleece long, dense, fine and uniform on all parts of the body. Too much attention cannot be given the importance of density of fleece. It insures a heavier clip of wool, protects the sheep from rain, snow and cold weather and also sheds chaff and other foreign material so detrimental to the wool.

Breeders of hogs will do well to pay more attention to the utility end of the business and much less to the fad end as illustrated by the pedigree craze, shape of head, ear, nose, dish of face, etc. The one great need to-day in the hog business is a hog with size, quality and prolificacy combined with early maturity. Such a hog is best described as the kind that never lies to the assessor; that is, he is born after the assessor is around this year and marketed weighing three hundred pounds before the assessor comes back next year. Some such hogs may be found in almost any of the well-known breeds. With careful selection and judicious mating it is surprising how rapidly this type can be revived. In addition to the evil results of "faddism," the exclusive use of a corn diet and the policy of breeding from immature sires and dams have been detrimental, both from the standpoint of size and prolificacy. It is safe to say that over seventy-five per cent. of all the sires and dams used in the state of Iowa are under one year of age. It has been clearly proven by experimental work that pigs from young sows are inferior in every way to those from mature sows. The continued use of young sires and dams, especially

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SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.
TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, SEED CORN.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP and SPINACH, VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

DWARF ESSEX RAPE, $6.50 per 100 Pounds.
CANE SEED, Any Variety, $2.25 per 100 Pounds.

Send For GOLDEN ARROW Seed Catalogue.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

when associated with corn feeding, will cause marked deterioration in any breed of swine.

In selecting breeding swine, attention must be given to size, quality, strength of bone, evenness of fleshing and the use of more mature boars and sows. All pigs intended for breeding purposes should be selected from well-developed, mature sows. If the sires are mature animals, so much the better. These pigs should be fed on rations calculated to produce bone and muscle, not fat alone. In this way we could materially improve our swine herds without changing breeds.

In conclusion, I wish to once more emphasize the importance of utility in all classes of stock. Beware of "faddism" in any of its various forms. Demand masculinity in the sires and femininity in the dams. Also remember that the best results can only be obtained where careful selection is combined with intelligent mating and the proper feeding and management of the animals.

DISTEMPER AND INFLUENZA.

These are different names applied to a chain of symptoms which have many conditions in common and are attended in a greater or less degree by fever, dullness, loss of appetite, sore throat, discharge from the nostrils, quickened pulse and depression of strength. The diseases are most common in the spring, when the horse is shedding his coat, although they may occur at any season. They may develop in a few hours, last for weeks, or months, or again they may develop into chronic difficulties. A remedy is needed that will destroy the germs of these diseases. Frazier's Liquid Distemper Cure acts on the blood and destroys all germs. This remedy is guaranteed to cure and prevent distemper, shipping fever, influenza, pink-eye, coughs and colds. If you cannot procure it from your druggist, write the manufacturers, Binkley Medical Company, Dept. H, Nappanee, Ind., and send for their horse book.

D. O. Lively, Chief of Live Stock.

Our congratulations are extended to the Panama-Pacific Exposition in the appointment of Mr. D. O. Lively as Chief of the Live Stock Department.

Mr. Lively is a man of varied experience, from his initial Live Stock Show at Fort Worth, Texas, to the Vice-Presidency of the Portland Stock Yards. His ability has been fully demonstrated on the Pacific Coast, so much so that all the breeders there united to seek his appointment. Mr. Lively will not disappoint either the Fair Management or the breeders. Not only will there be a magnificent display of live stock at the Panama-Pacific Exposition, it will be so superior that the whole world will turn out to see it and so far as possible to be in it and a part of it.

We also understand that Colonel Charles F. Mills, able Chief of Live Stock at the St. Louis World's Fair and practical Manager of the Chicago World's Fair Live Stock Exhibit, has accepted an advisory capacity with Mr. Lively, and this is evidence, so far as it goes, that there will be an achievement in the form of Live Stock Exposition that will bring an exhibit together worthy of the last great Exposition to be held these many years.

The Two Concrete Books.

We sell a cement book that is well worth buying, as will be seen on page 5; but there is another book which is on the same subject, and it is sent absolutely free. It is entitled "Concrete Construction About the Home and on the Farm." It is not a catalogue; it is an illustrated, instructive book whereby you first learn to do little things with concrete and then greater and still greater as you get better posted. Write the Atlas Portland Cement Co., Dept. 165, 30 Broad street, New York, and ask for the free Cement Book. You will get it and you will find it very satisfactory.

It is reported that the Gravois Farmers' Club, an organization in St. Louis county, Missouri, with 150 members, intends erecting a ten-thousand-dollar club house on a tract of three acres near the old Grant farm. Mr. Fred Meister is President of the club; C. M. Treul, Vice-President; Charles Merckel, Secretary; J. C. Ruder, Treasurer; and Henry Kettler, Sergeant-at-arms.

BLOODED STOCK NOTES.

Mr. A. F. Siefker, Defiance, Mo., has an advertisement in the breeders' columns relating to his leading strains of Poland-Chinas. He mentions the great families represented in his herd, which make a splendid exhibit. Defiance, Mo., is in St. Charles county, a little way out from St. Louis, on the M., K. & T. Railway. Shipping facilities are good for any railroad point in the country.

Sidney B. Smith, of Springfield, Ill., Sale Manager, will hold a combination sale at the Union Stock Yards, Chicago, June 18, 19 and 20. The offerings will consist of Aberdeen-Angus, Herefords and Shorthorns. Mr. Smith is handling superior cattle and holds successful sales.

During the month of May, Messrs. Trumans' Pioneer Stud Farm, Bushnell, Ill., sold Shire horses as follows: To St. Marye Horse Company of Hancock county, Illinois, imported Shire stallion; to Omer D. Thornton, of Vermillion county, Illinois, an imported Shire stallion; to Cal.Walker, of Mahaska county, Iowa, an imported Shire stallion; to J. M. Springer, of Wyoming, a Shire stallion; to R. B. Brandon, of Hancock county, Illinois, an imported Shire stallion; to A. Simonson, of Nebraska, a Shire stallion; to Alf. Roberts, of Fayette county, Iowa, an imported Shire and also an imported Hackney stallion. Earl Bloom, of Adair county, Iowa, one of the leading Shire horse breeders of Iowa, purchased an extraordinary outstanding imported Shire stallion.

No Live Stock Show will be given this year at St. Joseph, Mo. The management claim that it is too great a luxury, and the average losses amount to $6,000 a year.

Messrs. C. J. Smith & Sons, near Greenville, Ill., again have a card in this paper offering pure-bred Shropshire rams and ewes. They are among the first-class breeders of Shropshires.

Those of our readers desiring to purchase a strictly first-class Shire, Percheron or Hackney stallion are advised that Messrs. Trumans' Pioneer Stud Farm have in their stables at Bushnell, Ill., the very choicest stallions of either of these breeds, running in ages from two to six years. This is the time of year when prices are shaded considerably.

Mr. R. Fleming, of Cuba, Kansas, raises Collie dogs of the farm and ranch type and useful for business. He has a card offering some females at bargain prices.

On May 16th, at Villa Nova, Pa., Frederick Phillips of Manor Farm, Villa Nova, Pa., sold eighty-nine head of Guernsey cattle at auction for an average of $362.35 per head. The top price for a bull was $1,050, paid by Alfred G. Lewis, of White Springs Farm, Geneva, N. Y., for Imp. Billy's France of the Isle. The highest price for a cow was $1,300, paid by Branford Farms, Groton, Conn., Henry Fielden, Manager, for Imp. Primrose, 2d, of Vimeria. Branford Farms also purchased Imp. La Fleur du jardin, 14th, calved July, 1909, at $1,025.

A shipment of fancy Hereford heifers sold at St. Louis, May 27th, at $8.25 and $8.30 per 100 pounds, average weight 726 and 720 pounds. They were fed and sold by J. T. Zook of Pike county, Missouri. When he purchased them at $5.25 they weighed 376 pounds. They nearly doubled their weight in the feed lot and brought $3.00 per 100 pounds more than cost as feeders.

LIVE STOCK BREEDERS' CARDS.

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HAMPSHIRE HOGS FOR SALE.

Registered Boars or Gilts, $25.00.

N. V. CUSICK, Lock Box 77, Isabel, Ill.

POLAND-CHINA PIGS, BIG BONE, GOOD BREEDING PIGS, $12. Extra Good Pigs, $15. Fancy Show Pigs, $25. Rose Comb Brown Leghorns and R. I. Reds. Eggs, $3.00 for 15 from birds scoring 90 to 92½ points. A few birds to sell. Write me for what you want.

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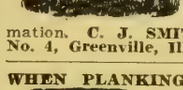
PURE-BRED SHROPSHIRE SHEEP,

Rams and Ewes. We have used Rams from some of the best known flocks of the United States, Canada and England. Our fine imported Ram, now at head of flock, for sale this seasn. Prices right. Write us for full information. **C. J. SMITH & SONS, R. F. D. No. 4, Greenville, Ill.**

WHEN PLANKING DOWN HARD CASH



for Big-type Prolific Pork Machines, any age or sex, **YOU WIN** if the last word is from

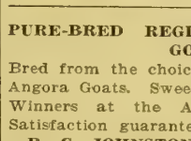
J. P. VISSERING, - Box 1, - Alton, Ill.

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

BLUE GRASS FLOCK OF SHROPSHIRES.



Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

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The day has come when every farmer in the United States should raise either a few sheep or more than a few. All flocks should have good, healthy ewes, and what is most important, there should be a pure-bred buck to head the flock. The National Farmer and Stock Grower is a first-class medium for advertising pure-bred sheep. The circulation is upwards of 120,000 copies each edition. Send in a copy of your advertising and write for rates. Address, **NATIONAL FARMER AND STOCK GROWER, 3550 Vista Ave., St. Louis, Mo.**

TAMWORTHS The hog that puts vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free. **W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.**

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

BREEDERS' ADVERTISING MEDIUM.

In the last eight years every edition of The National Farmer and Stock Grower has been 100,000 copies or more. In the year 1911 the average circulation was 123,829 copies each edition. This is by far the largest circulation in the United States of America, reaching live stock breeders, ranch owners and stock farmers. Small space in this publication is equal to large space in any other. Write for rate for breeders' cards and public sales of pure-bred stock. Send in your copy at the same time. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ENNIS FARM--GOLDEN SUNSET POULTRY

Buff Orpingtons, Rhode Island Reds, White Leghorns, Bourbon Red Turkeys, Buff and Indian Runner Ducks. Free mating list. Also Ennis Farm Quarterly Bulletin, listing for sale Jersey Cows, Heifers and Bulls and Big-boned Spotted Poland-China Hogs. **ALBERT S. ENNIS, 712-21 Central National Bank Bldg., St. Louis, Mo.**

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THE BREAKFAST BACON HOG.

Also produce finest quality of sweet, tender, juicy, fresh pork. Pure-bred.

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Earliest to mature. Appreciates all kinds of feed, relishes quantities of pasturage and cured forage and are splendid hustlers. Write for descriptive pamphlet.

T. C. KIMBER, P. O., Pilot Knob, Mo.

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for size as well as for quality, such as **The Wonder, Surprise, Giant Hadley, Jumbo, Big Bone, Chief Prince, Longfellow, Surprise Wonder, Giantess, Modesty, Sunshine, Osborne's Perfection, Faultless, Mischief Makers** and **Meddler** strains are represented in my herd. Choice of my Spring Pigs, $12.00 at three months, pedigree with each. I have many satisfied customers in thirty-seven states. Catalogue free.

A. F. SIEFKER, Defiance, Mo.

COLLIE DOGS.—Get a Collie that will be a worker cheap—out of grand working stock. I am long on a bunch of eight-weeks-old females that are beauties; just $5.00 each. **R. FLEMING, Cuba, Kansas.**

MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

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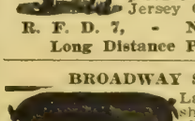
BROADWAY STOCK FARM.



Large English Berkshires of the most popular breeding. Spring Pigs and serviceable Boars for sale; also B. P. Rock Eggs for sale, $1.00 for 15. **E. L. JOHN, Broadway, Maries County, Mo.**

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires a needle with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Argentine Meat For Austria.

The Austro-American Steamship Company was granted permission to import Argentine meat into Austria, and for that purpose chartered the Gulf of Venice to transport 700 tons of this meat, two-thirds of which was intended for Vienna and one-third for other large Austrian cities.

The meat arrived at Trieste in March. The Board of Directors of the municipal slaughter house at Prague bought 33,000 pounds of first-quality meat at 7.4 cents a pound and sold it to the local butchers at 11.2 cents a pound. This same price was charged butchers of other districts who ordered the meat through Prague. About 4,840 pounds of second-quality meat were purchased at 6.9 cents a pound and resold to butchers at 10.7 cents. The maximum retail prices were 14.8 cents for first-quality and 13.3 cents for second quality.—From report of Consul J. I. Brittain, Prague, Austria.

The Crops of Ireland.

Everybody knows that potatoes represent a great crop of Ireland, and 591,259 acres were devoted to the tuber; but people are not aware that in Ireland 1,040,185 acres are devoted to oats. Average in other crops is 45,056 acres in wheat; 158,180 acres in barley; 9,026 acres in rye; 1,683 acres in beans; 301 acres in peas; 270,795 acres in turnips; 77,857 acres in beets; 1,444 acres in carrots; 696 acres in parsnips; 37,281 acres in cabbage; 2,317 acres in vetches; 2,941 acres in rape; 29,127 acres in other soiling crops; 66,618 acres in flax; and 14,045 acres in fruit. The crops mentioned account for 2,348,811 acres. Then there are 542,401 acres devoted to hay, first year; 396,822 acres the second year; and 1,573,180 acres devoted to permanent pasture. Total acreage, 4,861,214.

Of live stock, Ireland has 4,711,420 cattle, 1,415,119 hogs, 390,743 sheep, 258,474 goats, 616,331 horses, 246,353 asses, 31,743 jennets and mules, and 5,447,801 head of poultry.

A Profitable Dairy Cow.

During the past ten years there has been owned by the College of Agriculture, Ohio State University, what appears to be a grade Red Polled cow. No special information is known as to her history, for she was bought of a cattle dealer. Each year the total record of her milk production and percentage of fat in the same have been recorded. During this period of ten consecutive years she has produced 60,936 pounds of milk containing 2,549 pounds of butter-fat. The average record for these ten consecutive years is very close to 6,100 pounds of milk and 255 pounds of butter-fat. On the basis of estimated butter this cow would have averaged nearly 300 pounds a year. The record for 1906 was a poor one, on account of the cow being dry for some considerable period of time. In 1904 she produced 8,777 pounds of milk and 379 pounds of butter-fat. For the last three years she has averaged about 6,100 pounds of milk per year, and 230 pounds of butter-fat. She originally cost about $50, and is known in the University herd as No. 196. She is an interesting example of what may be secured in continuous production through a term of years from a fairly good grade dairy cow.

The Tennessee State Fair.

The Poultry Exhibition at the Tennessee State Fair, Nashville, Tenn., September 16-21, will be bigger and better than ever. The big poultry building will be remodeled and rearranged in such a manner that it will be the best lighted and ventilated poultry show building in the country. Additional coops will be purchased and provisions made for cooping 5,000 birds. The premium list will be made the most attractive ever presented. A large list of cash specials will be offered in pens of the various breeds and varieties. The best judges in America will be engaged. The Poultry Show at the Tennessee State Fair is made one of the big features of this great annual agricultural and live stock exposition. For premium lists, entry blanks and further information address John A. Murkin, 501 First National Bank Building, Nashville, Tenn.

Beware of "Gasoline Doping"

It is a favorite trick of the professional "gyps" who infest the great horse markets—also the "ginger trick" and the "artificial tail" frame-up. These smooth dodges and all the other rascalities of these brazen scamps are laid bare in

"Horse Secrets"

by Dr. A. S. Alexander, famous veterinarian. The only complete book of horse-trading swindles ever published as far as we know. Farm Journal has distributed seven editions of this book—75,000 copies—in the past two years. We want every farmer to have one for his protection against roguery and for the valuable information this book also contains about the feeding and conditioning of stock and the cure of diseases and bad habits.

The warning advice contained in this book and in the pages of Farm Journal have probably saved "Our Folks" $100,000 in the past year. Subscribers constantly write to tell us of the cash value—dollars and cents—they have received from

FARM JOURNAL

This wise little paper will be of real money-saving and money-making value to you. No other farm paper is so broad in its scope—so intensely practical—so interesting in its presentation of facts—so helpful and entertaining in its columns devoted to the home—so strict in its demands that all its advertisers shall be absolutely reliable.

You need it for yourself and your family—and you can have

Farm Journal every month for four years and Horse Secrets at once, postpaid, for only $1.00.

Send for them at once, and if, on receipt of the book, you don't believe that in it alone you have more than your money's worth, say so and we'll stop the paper at once.

If you order promptly, we will send, absolutely free, "Poor Richard Revived"—our splendid new Almanac for 1912.

FARM JOURNAL, 257 N. Clifton St., Philadelphia

THE BOOK OF CHAMPIONS.

The Book of Live Stock Champions advertised on page 23 contains the finest collection of pictures of dairy cattle ever brought together in one volume. There must be 350 of the dairy champions out of a total of nearly one thousand in the book. All farmers who are inclined towards the dairy branch of farming should buy a copy. The price is a dollar and the amount pays a two-year subscription to The National Farmer and Stock Grower at the same time.

Their Ancestors.

When in England, Governor Foss, of Massachusetts, had luncheon with a widely-known Englishman, noted for boasting of his ancestors. Taking a coin from his pocket, the Englishman said:

"My great-great-grandfather was made a Lord by the King whose picture you see on this shilling."

"Indeed!" replied the Governor, smiling, as he produced another coin. "What a coincidence! My great-great-grandfather was made an angel by the Indian whose picture you see on this cent."—Lippincott's.

A Serviceable Book.

The Webster's Dictionary, which is advertised in The National Farmer and Stock Grower on page 19, is certainly one of the best books we have ever sent out, and we do send out some specially serviceable books as subscription premiums. We guarantee it to be better than it is represented; in fact, it is equal to any purpose in school, college, farm, office or country house.

Have you a copy of the Book of Live Stock Champions? See page 23.

O. K. HARRY STORM —AND— VEGETABLE CELLAR.

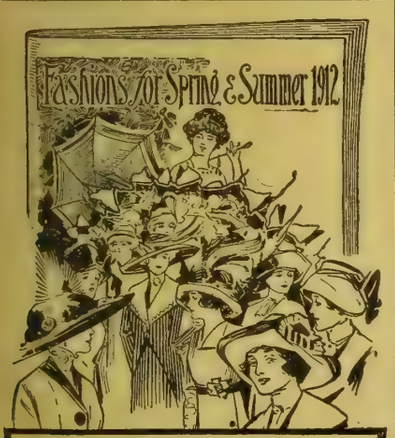
Always Clean, Cool, Dry, No Vermin.
Made of Heavy Extra Coated Galvanized Steel.
WRITE FOR PRICES.

O. K. HARRY STEEL CO.,
Manufacturers of Steel Roofing, Stock and Storage Tanks and Wagon Tanks,
2353 Papin Street, - ST. LOUIS, MO.

Grass Production in the South.

The Department of Agriculture is making efforts to encourage the production of grass as a feature of stock raising in South Carolina. Last spring an agent of the Farmers' Co-operative Demonstration Work started in to make a specific demonstration in portions of the Piedmont Region of South Carolina, in the matter of the possibility of grass and hay production. The work was taken up with 100 different farmers, inducing each of these farmers to make an acre demonstration with grass. The predominant industry in this section is of course cotton raising, and not a great deal of interest is taken in live stock. Each farmer put out an acre of grass under the direction of the agent. The land was thoroughly plowed, a ton of lime to the acre was applied, and in addition 400 pounds of fertilizer was used. The fertilizer consisted of 200 pounds of acid phosphate and 200 pounds of ground bone. The acid phosphate cost $12 a ton and the ground bone $29 a ton. This would make the 400 pounds of fertilizer cost $4.10. The lime cost about $5.00 a ton. The farmers furnished all the work, the lime and the fertilizer. The Department furnished the grass seed. The most successful mixture for hay grass in this section of the South is found to be one made up of orchard grass, tall meadow oat grass and Italian rye grass with red clover. There was a half bushel each of orchard grass, tall meadow grass and Italian rye, and 10 pounds of red clover sown to the acre. This very heavy seeding was believed to be necessary in order to insure a good stand. This mixture has been used for some time on the Arlington Farm with good success, cutting as high as two and one-half and three tons of hay to the acre.

The work in South Carolina has been eminently satisfactory, practically all of the 100 farmers having a fine crop of hay this season. From all indications, some of these plots will cut two and one-half to four tons per acre. So much interest has been aroused in the matter that farmers are now preparing to put out two additional acres, making three acres in all. They have found by this demonstration that they can grow enough hay to take care of two or three head of horses used in their general farm work. The success with the hay crop has encouraged farmers, furthermore, to look into the live stock proposition to the end of introducing greater diversification and devoting less acreage to cotton.



Where the Well Dressed Women, Who Wish to Save Money, Come From

At your disposal madam, in this book, is the pick of the new spring clothing. These suits, dresses and waists are the same pleasing designs and fabrics shown in all the first class fashion magazines and displayed in the most exclusive stores. But here is the difference—our prices are 20 to 50 per cent below what others charge. This is because we sell direct to you without your having to pay unnecessary profits to agents and dealers.

Undergarments, hats, shoes, gloves, parasols, dry goods—a full line of new, attractive, serviceable dress accessories—are also shown in this book at worth while money saving prices. Your spring and summer outfit, if you buy it from this book, will be prettier, more complete, than ever. Besides, think of the money you'll save.

Put your name and address on these two lines. Cut this coupon and send it by the next mail if possible. We will send you your copy of this money saving buying guide at once.

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163

Overcrowding Trees.

One of the most common mistakes in the planting of trees is placing them too close together. One has but to take a walk in almost any direction to observe this fact. Scientists on tree planting are always warning against it but the practice of too close planting goes on.

Some time ago the writer warned a committee of citizens against planting trees along the streets too close together. But the unsophisticated members of the committee argued that it would be a long time before the trees were large enough to crowd each other and in the meantime the growing trees, if quite close together, would be very ornamental. So they were planted with no room in which to develop in the distant years to come. The result will be that in a dozen years or so the trees will be injuring each other by their shade, and the limbs on the shaded portions will become dwarfed and the trees will never grow into the grand and beautiful trees that fill people with delight.

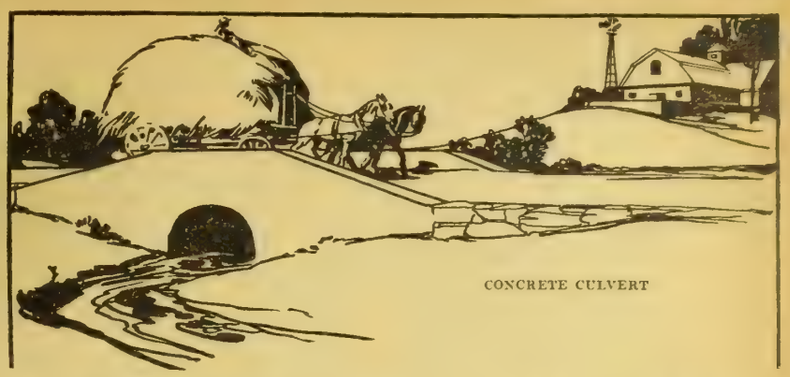
Trees along a village street should be planted so far apart that they will look too far apart for many years. But there will be this compensation: The grass under them will be a luxuriant greensward. There are two rows of soft maples known to the writer where the trees are so close together that all grass under them has long ago died out. The bare ground, being slightly sloping, is furrowed by the rills that develop with every spring shower. This gives an unsightly appearance to the vicinity. Were the trees farther apart they would be a help to the vicinity, with no drawbacks.

There are very few apple orchards in which the trees are given enough room. One crowds the other, and the crowding prevents that development that is necessary to produce the best results. This overcrowding is very observable in some of the older orchards.

Some orchardists have tried to meet the difficulty by planting rows of trees intended to be permanent and between those rows planting other rows of shorter-lived trees. The worst feature is that the secondary trees are not removed when they should be, but are permitted to grow, to the detriment of the others.

A few years ago a magnificent arbor vitae hedge was dug out because the individual trees comprising the hedge had been planted so close together that the limbs of many of the trees had been killed by too much shading, and the whole hedge had become an eyesore because of the dead spots in it.

The same occurs in many of the plantings of firs and spruces for ornamentation. The crowding results in masses of dead branches and gloom beneath, while a thinner planting would have let the sunlight in and kept the trees bright in color and made them truly ornamental. It is extremely difficult to induce people to heed advice of this kind, unless they have had disastrous experiences.



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There are many kinds of Portland Cement. There is only one kind of "Atlas"—the best. It's a cement that's *all* cement—a cement made of genuine cement rock—a cement without impurities—a cement of absolutely uniform quality.

Others say "as good as Atlas." But the Government said "Atlas," and is using 5,000,000 barrels of Atlas on the Panama Canal. Remember this in buying for farm use. You cannot get "Atlas" quality under another name and you cannot get the best results unless you use the best cement.

"Concrete Construction About the Home and on the Farm"
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Get it. Read it. Follow it. And you cannot go wrong.

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THE ATLAS PORTLAND CEMENT COMPANY, DEPT. 165, 30 BROAD ST., NEW YORK

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

[Please mention National Farmer and Stock Grower.]

When and How to Spray.

"Combating Orchard and Garden Enemies" is the subject of a new fifty-three-page bulletin which has just been issued by the Agricultural Experiment Station, Columbia, Mo. The bulletin is one of the most complete of its kind. It gives simple yet complete directions for identifying and combating all diseases and insect pests which prey upon fruit trees and bushes as well as garden crops.

The bulletin gives detailed directions for mixing and applying Bordeaux mixture, lime-sulphur, copper-sulphate solution, arsenate of lead, kerosene emulsion, carbon-bisulphide and a dozen other fungicides and insecticides.

There are thirty-seven illustrations which help to make the text clear. Not only the commercial fruit grower, but every farmer who has a home orchard and garden should read this bulletin.

Write to the Agricultural Experiment Station, Columbia, Mo., for a free copy of Bulletin 102.

High Water and Foot Ball.

Percy Haughton, the foot ball coach, was talking about queer foot ball games.

"There was a Thanksgiving Day game in Philadelphia at the end of the last century," he said, "that was played in a deluge of snow and rain, with Franklin Field a foot deep in cold, gray slush.

"The Princeton man who won the toss said rather bitterly before the game began:

" 'Do we have to play in this field?'

" 'Yes, of course you do,' was the impatient reply. 'Come,come—you've won the toss—which end do you take?'

" 'Well,' said the Princeton man, shaking his head at the gray waste of waters spread before him—'well, I guess we'll kick with the tide.' "—Washington Star.

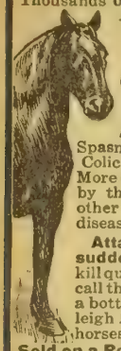
The National Farmer and Stock Grower ought to be read at a desk with a bundle of postal cards at hand. We usually mention a number of valuable booklets which are well worth having, although free for the asking, and a postal card is very handy to ask for anything that is desired.

NO PAY IF IT FAILS

Thousands of Horses and Cattle are saved Annually by the Timely Use of

Rawleigh's

Colic & Bloat REMEDY



A Specific for Engorgment Colic, Spasmodic or Cramp Colic, and Wind Colic or Bloat in Horses and Cattle. More deaths are caused by these than by all other non-contagious diseases combined.

Attacks are always sudden and generally kill quickly. No time to call the veterinary. Get a bottle from the Rawleigh Man this trip and save your horses and cattle.

Sold on a Positive Guarantee—No Pay if it fails—Only $1 for a Large Bottle

NOTHING BETTER—ACTS QUICKLY—EASILY ADMINISTERED—SAFE, RELIABLE

ASK THE RAWLEIGH MAN

Don't Have a Blind One

"VISIO"

An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis

Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.

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I WILL MAKE YOU PROSPEROUS

If you are honest and ambitious write me today. No matter where you live or what your occupation, I will teach you the Real Estate business by mail; appoint you Special Representative of my Company in your town; start you in a profitable business of your own, and help you make big money at once.

Unusual opportunity for men without capital to become independent for life. Valuable Book and full particulars FREE. Write today.

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EXPERIMENTAL FEEDING.

Five Lots, Ten Two-year-old Steers in Each—Comparison to Show Value of Silage as Feed of Beef Cattle.

Silage must be put into the feeding programme of every beef producer who wants to fit steers for the market economically and efficiently. The Animal Husbandry Section of the Iowa Experiment Station proved that in part a year ago in a thorough feeding test; it proved it fully this year in a second test completed only the other day. The animals fed on silage made cheaper gains, they lost less in shrinkage and they returned greater profits than other animals in the test fed on clover hay as roughage. The silage-fed steers put on gains at a net cost that was $2.01 per 100 pounds less than the clover-hay-fed steers, and the best lot of silage-fed steers made a profit of $23.46 per animal, as against $17.27 per animal for those fed with clover hay.

Fifty steers were fed in this test. They were not fancy steers when bought, but average animals from the Nebraska range. They were bought November last and fed 150 days, from November 23, 1911, to April 21, 1912. They cost in Omaha $4.50, and in the Station feed lots at Ames, $4.65. They sold well, bringing $8.10 to $8.20 at Chicago. These steers were divided into five lots of ten animals each, and put on separate rations as follows:

Lot 1.—Shelled corn, cotton-seed meal, clover hay.

Lot 2.—Shelled corn, cotton-seed meal, clover hay, corn silage.

Lot 3.—Shelled corn, cotton-seed meal, corn silage.

(The above lots were all put on full feed of grain in forty days.)

Lot 4.—Shelled corn, cotton-seed meal, corn silage.

Lot 5.—Shelled corn, cotton-seed meal, corn silage.

Lot 4 and Lot 5 were handled the same the first ninety days, silage fed heavily and shelled corn increased to full feed in the ninety days as follows: First month, 6.44 pounds; second, 10.48 pounds; third, 14.97 pounds daily. Beginning the ninety-first day, Lot 4 was allowed corn and silage according to appetite, while Lot 5 was held back on silage and shoved hard on corn, the object being to make the ration concentrated at the end of the fattening period. Cotton-seed meal was allowed in equal amounts of practically 2¾ pounds daily to Lots 2 and 5. Lot 1, because of clover, which contains protein, was fed somewhat less for best results.

All feeds were charged at actual market prices as follows: Shelled corn, first month, 50 cents; second, 51 cents; third, 55 cents; fourth, 57 cents; and fifth, 65 cents; cotton-seed meal, $20 a ton; clover hay, $15 a ton; corn silage, $3.20 a ton.

The silage cost is based upon the actual value of corn in field—eight cents below market—at time of siloing. Cost of filling silo, storage of silage and depreciation on equipment are included. This allows the farmer a field profit on the corn. The actual production cost on this silage would not exceed $2.40 a ton.

All roughage was fed twice according to the steer's appetite, excepting in Lot 5 last two months, where it was limited.

Hogs following cattle were valued at $6.10 first three months and $7.50 last two.

The record of feed, gains, costs and profits follow in lots for the entire feeding period.

Detailed Statement of Results—Ten Two-year-old Steers in Each Lot.

Lot No. 1.

Lot No. 1 averaged 940 pounds when put up to feed, finally weighed 1,229 pounds; average daily gain, 2.398 pounds; average feed eaten per steer, 20.20 pounds shelled corn, 2.28 pounds cotton-seed meal, 9.02 pounds clover hay, no silage. Cost of hundred pounds' gain, excluding hogs, $12.63; after deducting hog profits, gain per steer cost $10.83 per 100 pounds; necessary selling price at home to break even, $6.36 per 100 pounds; sold at $8.20 per 100 pounds at Chicago, $7.69 net at Ames; profits per steer, $17.27 per head; shrink in transit, 34.7 pounds, or 2.669 per cent.

Lot No. 2.

Lot No. 2 averaged 943 pounds when put up to feed, finally weighed 1,299 pounds; average daily gain, 2.373 pounds; average feed eaten per steer, 16.95 pounds shelled corn, 3.08 pounds cotton-seed meal, 3.90 pounds clover hay, 22.35 pounds corn silage. Cost of hundred pounds' gain, excluding hogs, $11.77; after deducting hog profits, gain per steer cost $9.62 per 100 pounds; net selling price at home required to break even was $6.01 per 100 pounds; sold at $8.15 per 100 pounds at Chicago, netting $7.72 per 100 pounds at Ames; net profits per steer, $22.22 per head; shrink in transit, 21.0 pounds, or 1.617 per cent.

Lot No. 3.

Lot No. 3 averaged 919 pounds when put up to be fed, finally weighed 1,261.3 pounds; average daily gain, 2.281 pounds; average feed eaten per steer, 15.60 pounds shelled corn, 3.08 pounds cotton-seed meal, no clover hay, 27.10 pounds corn silage. Cost of hundred pounds' gain, excluding hogs, $10.65; after deducting hog profits, gain per steer cost $9.10 per 100 pounds; net selling price at home required to break even was $5.86 per 100 pounds; sold at $8.10 per 100 pounds at Chicago, netting $7.61 per 100 pounds at Ames; net profits per steer, $22.03 per head; shrink in transit, 31.3 pounds, or 2.482 per cent.

Lot No. 4.

Lot No. 4 averaged 920.6 pounds when put up to be fed, finally weighed 1,246 pounds; average daily gain, 2.169 pounds; average feed eaten per steer, 13.71 pounds corn 3.08 pounds cotton-seed meal, no clover hay, 30.81 pounds corn silage. Cost of hundred pounds' gain, excluding hogs, $10.74; after deducting hog profits, gain per steer cost $9.08 per 100 pounds; necessary selling price at home required to break even was $6.80 per 100 pounds; sold at $8.10 per 100 pounds at Chicago, netting $7.60 per 100 pounds at Ames; net profits per steer, $22.45 per head; shrink in transit, 32 pounds, or 2.368 per cent.

Lot No. 5.

Lot No. 5 averaged 922.8 pounds when put up to be fed, finally weighed 1,257 pounds; average daily gain, 2.228 pounds; average feed eaten per steer, 14.64 pounds shelled corn, 3.08 pounds cotton-seed meal, no clover hay, 28.62 pounds corn silage. Cost of hundred pounds' gain, excluding hogs, $10.72; after deducting hog profits, gain per steer cost $8.91 per 100 pounds; net selling price at home required to break even was $5.95 per 100 pounds; sold at $8.10 per 100 pounds at Chicago, netting $7.63 per 100 pounds at Ames; net profit per steer, $23.46 per head; shrink in transit, 29 pounds, of 2.307 per cent.

It will be remembered that last year the Iowa Station called attention to the indicated possibility of feeding silage heavily in the early part of the feeding period, decreasing as the animal became finished and quite fat, for the evident reason that the large amount of silage was not desirable in producing rapid and economical gains at the close of the feeding period. It is somewhat interesting to note that Lot 5, handled in this manner, heavy silage and light corn at the beginning, with light silage and heavy corn at the finish, returned the largest profit per head, or $23.46. This in spite of the fact that corn increased to 57 cents and 65 cents, from 50, 51 and 55 cents during the first three months. In other words, everything was against this lot because of the high price of corn, but in spite of this big handicap it won out by a narrow margin.

In making a change of this sort, as the animal becomes fattened, it is advisable to do it rapidly, pushing heavily on the corn and coming back gradually upon the silage. The object is to concentrate the ration at the end of the fattening period.

Clover is an exceptionally good cattle roughage, but at present prices its use is quite prohibitive. Had the clover in this experiment been figured at $10 per ton instead of $15, the net profits would have increased practically $3.50, or actually $3.38, or $20.65. Even at this advantage it is readily seen that the silage at $3.20 per ton is a more valuable feed than clover hay at $10.

The value of silage for a short feeding period is again abundantly demonstrated, in that cattle in Lot 3 on shelled corn, cotton-seed meal and silage made an average gain the first three months of $3.95, $8.67 and $15.17 per 100 pounds, or an average cost of practically 7½ cents. For a short feed the experience of the Animal Husbandry Department has been that silage is a superior roughage.

It is gratifying to feeders of silage to know that the Iowa Station results again show that silage-fed cattle are not heavy shrinkers. This year they all beat those having clover, as last year the least shrinkage occurred on those cattle fed both silage and clover hay.

The least shrink occurred on those cattle which received both silage and clover for roughness, being very light at only 21 pounds. This is in accord with the experience of last year. That those which had clover should have a heavy shrink is somewhat surprising, but the facts speak for themselves.

Silage is highly relished by both cattle and sheep, and is fed with profit to these classes of animals. The feeder with the silo must not get the impression, however, that silage

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is a cure for all ills, but that it has its shortcomings as well as its longcomings. The dairyman has long since concluded that he cannot satisfactorily run a dairy herd without the silo, which furnishes, as nearly as human ingenuity has been able to figure out, pasture conditions in the winter time. The steer feeder is coming to feel that the silo is a valuable adjunct to his business, in evidence of which the rapid increase of the number of silos in the cornbelt states is unmistakable. Silage is a starchy food, however, and when fed must be supplemented with a protein feed, such as cold-pressed cotton-seed cake, cotton-seed meal or oil meal. At present prices we would recommend either the cold-pressed cake or the cotton-seed meal. Another mistake which is usually made in addition to feeding without supplement, is to assume that silage is a complete feed within itself and use it as a sole feed in thinking that it will produce a marketable finish. It is necessary in finishing animals to add considerable concentrate, especially corn, in that it is the cheapest one we have, especially toward the finish of the feeding period. The truth of the matter is that in finishing steers and heifers or other cattle for the block it is necessary and quite imperative that a concentrate grain be fed in considerable amounts throughout the feeding period. Cattle which are being stalked or roughed through the winter can get along nicely on corn silage and a little clover or alfalfa hay, thus fitting them well for grass and subsequent green feed; but for the fattening animal the grain must be added.

The most eloquent friends the silo has are those men who have fed silage. Certainly no greater recommendation can be offered for any feed than this.—J. M. Evvard, M. J. Kennedy.

Texas Sheep at St. Louis.

N. H. Corder & Son, sheepmen of Kinney county, Texas, had a consignment of sheep at St. Louis, May 30th, eight double decks containing 2,015 head that averaged 88 pounds and brought $5.70 per 100 pounds. The sheep were good and sold almost straight, as but seventy-five head were thrown out of the shipment and sold at a less price on account of poor condition.

St. Louis Sheep Market.

During the last week in May, at the St. Louis market, the best spring lambs sold from $8.75 to $9.75 per 100 pounds, and were practically all from Illinois and Missouri. Medium-grade lambs sold at $8.00 to $8.65, and fair kinds at $7.00 to $8.00, while the culls went at $5.00 to $6.75. Best clipped lambs brought $8.25 to $8.75, most of which were Westerns fed in Missouri. Fair-grade clipped lambs went at $6.00 to $7.50 per 100 pounds.

The best fat native and Southwest sheep brought $5.30 to $5.40, while the fair kinds sold at $5.00 to $5.25. The number of sheep was rather small. A good string of Texas sheep arrived, 2,015 head, that averaged 88 pounds and sold at $5.70 per 100 pounds. Best thin sheep of good ages sold as stockers at $3.00 to $4.00, fair stockers brought $2.10 to $3.00, and old cull sheep at $1.25 to $2.00 per 100 pounds. Bucks all sold at $4.00 per 100 pounds.

Texas Cattle at St. Louis.

Embry & Fawks, of Aledo, Parker county, Texas, marketed thirty-eight head of cotton-seed-cake-fed Texas steer cattle that averaged 1,230 pounds and sold at $7.90 per 100 pounds. This was on Friday, May 31st, 1912, at the St. Louis National Stock Yards. The price paid was the highest on record at the market for cattle that had been fed no corn. On the same day 257 head of grass steers, 960 pounds average, sold at $6.00 per 100 pounds. Other sales on that day consisted of twenty-six head of bulls and stags, 866 pounds average, at $4.50 per 100 pounds.

Hog Market at St. Louis.

Heavy hogs at the St. Louis National Stock Yards, May 31st, sold at $7.10 to $7.52½ per 100 pounds. The highest price paid was for hogs averaging 278 pounds. One of the loads selling at $7.50 per 100 pounds averaged 307 pounds. A large number of mixed loads of 170 to 230 pounds average sold at $7.20 to $7.45, and those at $7.45 included some nice loads of butcher hogs, averaging from 200 to 215 pounds. Light-weight hogs, 150 to 170 pounds, sold largely at $7.00 to $7.35. Pigs, culls and throw-outs sold from $5.25 to $7.25. Thus far this year, in five months 1,180,000 hogs were sold on the St. Louis market.

The Cattle Situation.

There is certainly a shortage in cattle—two shortages, indeed—one in average weights of the cattle marketed and another in the total number. The cattle offerings are enormous, but the trouble is that there are close upon a hundred million people to be fed. There is an awful scarcity of 1,300 to 1,400-pound cattle. On Thursday, May 30, Chicago only had 3,000 cattle on the market, and yet 250 of them, averaging 1,300 to 1,482 pounds, sold at $9.00 to $9.30 per 100 pounds.

Yearling Beef Cattle.

A drove of Randolph county, Missouri, yearling steers sold at $8.50 per 100 pounds at St. Louis, May 30th, thereby breaking all records so far this year on that class of cattle. They averaged 923 pounds and were marketed by A. L. Bennett, a prominent feeder of that county. They were of splendid quality and were of very good flesh. It was one of the best droves of that class of cattle that have been seen on the market for some time.

Horses Direct From Farmers.

Holland, Nugent & Maxwell Bros., holding horse auctions Mondays and Tuesdays at the National Stock Yards, Ill., desire to communicate with a few more shippers who buy horses direct from farmers. At the St. Louis market every kind of horses that money can buy are handled to good advantage, and mixed car-loads, containing drafters, chunks, work horses and Southern horses, are sold quickly and with less cost to come out of the horse than at any other market. A personal letter to T. H. Holland, National Stock Yards, Ill., stating what you buy and where your shipments are going will be a good introduction to the St. Louis Horse Market.

Branded Cattle at $9.30 at Chicago.

On May 15th a three car-load shipment of Hereford steers sold at Chicago at $9.30 per 100 pounds, the highest price paid there up to that time in about thirty years, excepting for a few fancy Christmas beeves. These steers, which averaged 1,507 pounds, were branded Hereford steers from the feed lots of Lee & Prentis, of Vermillion, S. D.

Western Range Horses.

Owing to the late spring the Western range horse season is estimated to be two weeks late. The first auction sale for the year 1912 under the management of Messrs. Campbell & Reid and Western Sales Stables Company will be held at the St. Louis National Stock Yards on Thursday, June 27th. At this sale there will be 1,200 select horses and mares that will be in good condition, and there may be 2,000 or more, all to be sold without reserve. The horses are very nearly fit to be sold in the domestic horse auction, but need a little finishing and handling. Keep in touch with these sales by writing to J. J. Searcy, sale manager, National Stock Yards, Ill.

Highest in Forty-two Years.

Yearlings of high class are still high, the week's business showing the highest prices of the season, the sale of a bunch of eighty-two head of fancy 780-pound Hereford steers and heifers, Wednesday, May 29th, from the Robert Turnbull feeding at Speer, Ill., at $9.10 per 100 pounds, standing the best price recorded at the Chicago market in forty-two years, at least for cattle of their class.—Chicago Live Stock World.

From New York Herald, May 26th.

"Philip H. Hale, editor of The National Farmer and Stock Grower, in St. Louis, has just published a picture book of 'Live Stock Champions,' which is full of interest to horsemen. It contains 720 indexed portraits of noted animals, among which are scores of thoroughbreds, trotters, Hackneys and draught horses. Schreiber's photographs of Rysdick's Hambletonian, Ethan Allen, George Wilkes and other old-time trotters make the book of lasting value to votaries of harness racing."

The last Elgin butter quotation in May and the first in June was 25 cents.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country will be conducted by

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And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

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NATIONAL STOCK YARDS, ILL.

Crossed Over the River.

N. Kirtley, for nearly twenty years one of Missouri's prominent Hereford breeders, died at his home in Savannah, Mo., May 22d.

On May 24th, at Paducah, Cottle county, Texas, F. P. Sayers, a ranch owner, thirty years old, died at the hands of S. B. Burnett, a neighboring ranchman, who shot him. The tragedy is supposed to have been the result of a difference of long standing.

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Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Keeping Poultry Where Range is Small.

Keeping poultry under the above conditions is an entirely different thing from keeping poultry where there is large range. Without doubt the large range reduces the cost of feeding poultry. On the place with almost no range the profits of poultry keeping are greatly reduced, unless the conditions are such that there is a more profitable market available.

A very great mistake is the keeping of too many fowls on a small place. Crowded conditions result in the appearance of contagious diseases, which frequently cause such losses that the profits disappear.

One poultryman says that the house in which the fowls are kept should be large enough to give ten square feet of space to each fowl. The writer has found this rule a good one to follow. The yard space should be ten times as great as the house space. Even then the ground will be quickly robbed of its verdure by the fowls.

Health must be the first requisite to be looked after. Without health the fowls will prove a delusion and a snare to the one trying to make money out of them.

During the past few years the writer has had occasion to observe the operations of a young man who was going on the principle that fowls can be penned together in great numbers on a small lot and still prove profitable. The said young man paid someone $5.00 for the secret of how to do this. In a given space he had at least ten times as many fowls as the best poultry raiser considers safe. For long winter months he was pouring expensive feed into the fowls and getting few eggs. A little later a disease similar to roup broke out and was killing several every day. At the end of two years the young man had a good fund of experience and little money. At last accounts he had lost so many fowls from disease that was buying more to fill up the gaps.

Therefore the first principle should be to keep only as many fowls as will thrive. The second should be to give those fowls perfectly healthful conditions. The house should be light, dry and well ventilated. The fowls should be particularly well protected from the rains.

Where land is limited, a plot outside of the poultry yard should be used for the growing of rape and other forage plants, and these should be fed to the fowls daily. If the land can be so utilized, a good-sized patch of rape should be allowed to grow plants to a height of a foot and the poultry yard extended to include this patch. It will not only supply a large amount of food but will keep the digestion organs of the fowls in good condition.

Where all grain food has to be purchased this item will be found to be a big one, but often large quantities of scraps will be available, such as those obtained from restaurants and hotels. The writer has noticed with surprise that these by-products are often dumped into holes and buried rather than disposed of to those that could use them for poultry feed.

Why More Turkeys Are Not Raised.

With the high prices which have prevailed for the past few years for turkeys there is general feeling that farmers might find in them a more profitable feature than almost any other branch of the work. Yet it is a fact that a large proportion of the farmers buy the bird for the Thanksgiving or Christmas dinner or substitute the one omnipresent in rural communities—the chicken.

There are several factors entering into the scarcity of turkeys, the most serious of which is the disease called blackhead, from its most prominent symptom, though the seat of trouble is in the liver instead of the head. Thus far the relief is of a preventive rather than a curative nature, and one of the essentials is to quit raising turkeys on infested ground. The result is that Rhode Island, once the greatest turkey-growing state, is practically barred out, while several other states in the East have been temporarily forced into some other work. From the West and South we must now look for a great part of the supply, the disease having not yet reached them, and the wide range offering exceptional facilities for rearing them.

The Bronze variety, the largest and most popular, is a cross between the common black turkey and the Mexican wild turkey, its love of roaming giving ample evidence of the wild blood in its veins. At nesting time it grows shy and suspicious, usually sneaking off by a circuitous route, doubly serpentine if it suspects that it is being followed; and the nest may after infinite patience be located in a neglected fence row many rods from the house. Each egg is carefully buried in leaves when deposited, the leaves being placed over it one at a time with the bill.

In late summer and autumn insects and acorns call the birds long distances from home, and if there are other flocks within a mile they eventually get together, the intermingling ultimately producing a neighborhood quarrel; hence it is that some who once found it profitable have dropped out, resolved never again to raise turkeys "for others to feast upon."—Bessie L. Putnam.

Satisfactory Carbon Fertilizers.

Empire Carbon Works, St. Louis, Mo. Gentlemen:—The results obtained in this vicinity from the use of fertilizers made by the Empire Carbon Works of St. Louis have been most satisfactory. This is especially true as applied to strawberries and tomatoes. 300 pounds to the acre will, on the average, double the yield of strawberries, and 300 to 400 pounds to the acre on old to medium old land will increase the yield of tomatoes 60 to 8 times. This we have proven by leaving test rows and plots. Stable manure is too hot and has too large a percentage of nitrogen for tomatoes. We usually plow and harrow the ground, then check it off for tomatoes two or three weeks before the time to plant. Then put in the hill one pint to one quart of fertilizer and work it into the soil well with a potato fork; then when ready to set the plants, the hills are ready. A still better plan is to do this after having first drilled or sowed fertilizer broadcast and harrowed in. This will require 200 pounds to the acre in addition, but will be a splendid investment. Very truly yours, E.L.Beal, Horticulturist, Republic, Mo., February 13th, 1912. (See advertisement in this issue.)

Raising Belgian Hares.

The Department of Agriculture is constantly in receipt of inquiries in regard to the breeding and care of rabbits, and to meet the demand Secretary Wilson has prepared Farmers' Bulletin No. 496, entitled "Raising Hares and Other Rabbits." In this bulletin, prepared in the Bureau of Biological Survey, it is pointed out that rabbits form an important and esteemed article of food, and that the principles of breeding and care are as well defined as with any domestic animals.

The so-called Belgian hare is a domesticated form of the wild rabbit of Europe, being bred with reference to its value as a food animal, and its flesh is now generally considered better for food than that of the ordinary hutch rabbit. Rabbits may be propagated without costly investment in land and buildings, and possess the further advantage that they contribute another animal to the farm stock that may be killed and prepared for the table at short notice.

As a rule, the same treatment applies to all forms of rabbits, except the lop-eared variety, which requires heated quarters in winter. Care in the selection of stock is the first important consideration upon entering upon the raising of rabbits, and for the rest of the enterprise only observation and judgment are essential. Descriptions of hutches are given and illustrations showing construction will aid the prospective breeder in providing ample quarters. Food and feeding, breeding, marketing and ailments are fully explained.

While not affording large profits, the raising of rabbits in a small way may be made interesting and fairly remunerative, as well as affording an agreeable change in the family diet where ordinary meats are high-priced or difficult to obtain.

To obtain a copy of this Farmers' Bulletin No. 496 address Hon. Secretary of Agriculture, Washington, D. C.

Variety in Cooking Eggs.

At this season of the year, when eggs are inexpensive, we are apt to grow very tired of their frequent appearance on the table. This is due to the fact that for most people there are only two ways of cooking an egg—boiling and frying.

In using some of the following recipes, where cream or white sauce is the dressing, two or three quarts may be made up at one time in cool weather and used as needed.

Eggs a la Goldenrod.

Three "hard-boiled" eggs, one tablespoon butter, one tablespoon flour, one cup milk, one-half teaspoon salt, one-eighth teaspoon pepper, five slices toast, parsley.

Make a thin, white sauce with butter, flour, milk and seasonings. Separate yolks from whites of eggs. Chop whites finely and add them to the sauce. Cut four slices of toast in halves lengthwise. Arrange on platter and pour over the sauce. Force the yolks through a potato ricer or strainer, sprinkling over the top. Garnish with parsley and remaining toast, cut in points.

Scotch Woodcock.

Four "hard-boiled" eggs, three tablespoons butter, one and one-half tablespoons flour, one cup milk, one-fourth teaspoon salt, few grains cayenne, Anchory essence.

Make a thin, white sauce of butter, flour, milk and seasonings; add eggs finely chopped and season with Anchory essence.

Scrambled Eggs With Tomato Sauce.

Six eggs, one and three-fourths cups tomatoes, two teaspoons sugar, four tablespoons butter, one slice onion, one-half teaspoon salt one-eighth teaspoon pepper.

Simmer tomatoes and sugar five minutes; fry butter and onion three minutes; remove onion, and add tomatoes, seasonings and eggs slightly beaten. Cook same as scrambled eggs. Serve with entire wheat bread or brown bread toast.—Margaret H. Haggart, Colorado Agricultural College, Fort Collins, Colo.

Bitter in Defeat.

The late Colonel Wilbur F. Sanders, of Montana, who was once a United States Senator from that commonwealth, mixed a good deal in politics, and one time when he ran for the Governorship was defeated by a widely-known Democrat.

On election night the Democrats of Helena held a jollification meeting, and Sanders went over to see what was going on. He stood in the edge of the crowd, but was soon recognized and called upon for a speech.

"Friends and fellow-citizens," he began. "When I was nominated for the high office of Governor by the Republicans, my opponents and Democratic friends told me they could beat me with a yellow dog."

There were loud cheers.

"And," shouted Sanders, "they did."—Saturday Evening Post.

Sent on Trial.

If you are sick, you can get a full-size one-dollar box of Bodi-Tone on twenty-five days' trial. If it benefits you, you pay $1.00 for same. If it does not help, pay nothing for it. This is the way Bodi-Tone is being offered to the sick in the large announcement on the last page of this paper and the way thousands have already been cured by it.

"It is not the insurrections of ignorance that are dangerous, but the revolts of intelligence."—Lowell.

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Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government. Import duties on various products as now collected amount to over three hundreds of millions of dollars a year, and if not collected that way would have to be collected by direct taxes upon our own productions.

Every farmer in the United States is taxed by his county and by the state, and he pays indirect taxation for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal service the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives the income that is necessary and must be collected for the public service and the farmer has a very moderate degree of what is called protection. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out.

Fiddling Bob's Best Story.

He was President Taft's favorite story-teller. Once the President wanted to get away from his official duties for a few days, and that social soul invited half a dozen Senators to go with him. One was Taylor. He spun one yarn, "and after that," said one of the other Senators who was on the trip, "none of us could get a word in with the President. He spent that entire trip listening to Bob, and he kept him talking the whole time. Laugh? I never knew a man to laugh so much in my life."

His best known story has since been plagiarized and extended to geographical localities unknown to "Bob;" but here is the story as it emerged in pristine beauty from Taylor's repertoire: A mountaineer who had never ridden on a railroad decided to take advantage of a $2.00 excursion rate to Memphis, and saw for the first time a large city. What chiefly interested him was the bars. He had never seen a bar nor a highball; he had been used to drinking "liquor" out of a gourd. After he had visited a number of marvelous places his enthusiasm overcame him, and he addressed the crowd thus: "I can lick any man in the United States."

The crowd laughed good-naturedly. This infuriated the mountaineer. "I can lick any man in Shelby county!" he yelled. This time the crowd sobered and looked at him with hostile eyes. "I can lick any man in Memphis!" he shouted. A short, thick-set man emerged from the crowd and put him out of action with a right-arm swing. When he came to the mountaineer looked around feebly and said: "I reckon that in that last proposition I kivered too much ground."—New York Times.

Australian Wool Trade.

A dispatch from Melbourne states that the Victorian province wool production for the past season amounted to 110,000,000 pounds, as compared with 101,803,000 pounds last season. The average weight of a sheep's fleece was 7.28 pounds, as compared with 6.99 pounds in the preceding year. Exports of wool from July 1, 1911, to April 30, were: From Australia, 1,878,000 bales, an increase of 42,000 bales, as compared with corresponding period of last season; from New Zealand, 430,000 bales, a decrease of 20,000 bales.

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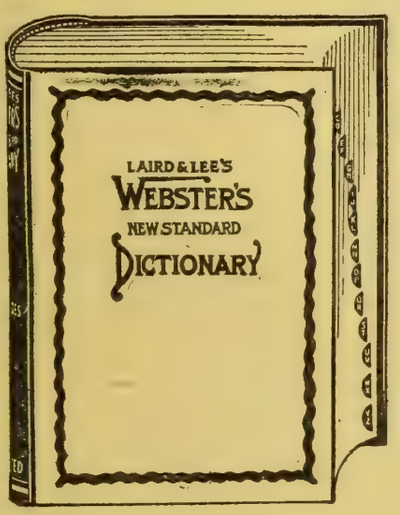

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INTERSTATE SHIPMENT OF LIVE STOCK.

Ready Reference For the Shipper—How He Can Solve the Problem.

[By Dr. C. D. Folse, of the Kansas City Veterinary College.]

For several years the United States Association of Live Stock Sanitary Commissions has attempted to devise a plan for uniformity in the state regulations of shipment of stock interstate. The membership of the United States Association, made up of State Sanitary Boards and State Veterinarians, has been taxed to relieve the inconvenience to the shippers from confusion resulting from the widely differing requirements of the several states. Until the federal government issued a synopsis of all the state laws in pamphlet form, neither the shipper nor the veterinarian was always sure just what form of inspection is necessary for stock to gain entrance to a given state. Unless one carried a library at his elbow, he could not hope to advise definitely upon the matter, and even now with the government pamphlet in circulation, the general shipping public is at sea as to what is expected.

The necessity of control of interstate shipment of stock became evident in investigations of epizootics of contagious diseases, for it was found that such diseases as glanders and tuberculosis were spread by the movement of stock. Each state in its endeavor to protect its live stock interests framed laws to suit its own needs, which resulted in a great variety of statutes in the several states. The Western States placed rigid restrictions upon the ingress of sheep because they wished to rid themselves of the sheep scab; the Northern States discriminated against Southern cattle because of a fear of Texas fever; and the Dairy States looked carefully to dairy cattle with the view of suppressing tuberculosis. Later it became evident that certain inspectors were not above the practice of issuing health certificates to diseased animals, and the several states began to designate what inspectors should be considered competent to issue certificates. It is natural there should be a widely-differing idea of proper inspection reflected in the laws of the different states. As example, Tennessee will accept the certificate of any qualified veterinarian, while Texas requires inspecting veterinarian be endorsed by the State Veterinarian of the state of origin, and Mississippi will recognize only official State or Federal Veterinarians.

In an effort to correct some of these undesirable conditions the United States Association requested the federal government to assume control of all interstate shipments; but the officials of the Bureau of Animal Industry thought it impracticable to do so at this time and suggested some help might be obtained by using government forms in making certificates. The Bureau offered to furnish blanks for the certificates, which certainly made a valuable aid to the state authorities. The chief defects, however, are not yet rectified, and it will be necessary for the stock shippers to give the matter some careful thought if anything definite is accomplished in the future toward simplifying inspection requirements.

Several methods of inspection have been suggested which may relieve the situation of the present dissatisfaction. It has been suggested that all the states require veterinarians making inspection to be vouched for by the federal government, and it is certain that such an arrangement would insure competent men being authorized to make inspections and would make impossible such a situation which is claimed to have existed in Illinois through a political control of the State Live Stock Sanitary Commission. The use of government forms by men endorsed by the federal government and known to be competent to fill in the forms would remove any grounds for question on the part of any state. Such an arrangement can be made if the shipper himself will lend his efforts to the state authorities in presenting the matter to the legislative bodies.

Below is given a synopsis of the regulations of the various states concerning the interstate shipment of stock. These briefly-stated regulations were taken from the pamphlet of the Federal Bureau of Animal Industry and several corrections made to cover changes in state laws since the pamphlet was issued. The synopsis will be of service to the shipper as a reference, for it makes possible ready information concerning the requirements of any state for admission of stock from another state.

Alabama.

Horses and mules.—Health certificate in duplicate, issued by officially qualified veterinarian.

Cattle.—Health certificate, including tuberculin test for animals not intended for immediate slaughter. Calves from tubercular mothers or herds not admitted under any circumstances.

Sheep.—Health certificate.

Hogs.—Health certificate, showing no exposure to disease.

Who may inspect.—Any Federal Veterinarian or any legally-qualified veterinarian endorsed by the State Veterinarian of state of origin.

Arizona.

Horses and mules.—Health certificate, preferably including mallein test.

Cattle.—Health certificate. Tuberculin test for dairy and breeding cattle.

Sheep.—Health certificate. Animals from infected districts dipped for scab.

Hogs.—Health certificate. Two-weeks' detention at destination.

Who may inspect.—Any veterinarian endorsed by state officials of state of origin.

Arkansas.

Horses and mules.—Health certificate.

Cattle.—Health certificate from official veterinarian of state of origin, for dairy or breeding cattle.

Sheep.—Statement showing freedom from infection or exposure to same.

Hogs.—Statement showing freedom from infection or exposure to same.

Who may inspect.—Federal Veterinarian or official veterinarian of state of origin.

California.

Horses and mules.—Health certificate, including mallein test. One copy of certificate and test record with way bill, other mailed to State Veterinarian on day of shipment.

Cattle.—Health certificate. Tuberculin test for breeding and dairy cattle. Certificate and test record must accompany way bill and duplicate go to State Veterinarian on day of shipment. Special rules for Southern cattle.

Sheep.—Health certificate and dip for those from infected localities.

Hogs.—Health certificate.

Who may inspect.—Federal Veterinarians or veterinarians endorsed by live stock sanitary officials of state of origin.

Colorado.

Horses and mules.—No inspection required.

Cattle.—Health certificate. Tuberculin test chart must accompany certificate for dairy and breeding cattle.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Federal Veterinarian; any veterinarian endorsed by State Veterinarian of state of origin.

Connecticut.

Horses and mules.—No inspection.

Cattle.—Health certificate accompanied by tuberculin test chart in which each animal is clearly identified.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Any veterinarian endorsed by live stock sanitary officials of state of origin.

Delaware.

Horses and mules.—No inspection.

Cattle.—Those for dairy or breeding must have health certificate accompanied by tuberculin test chart.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect,—Federal Veterinarian or any veterinarian endorsed by the Live Stock Sanitary Commission of the state of origin.

Florida.

Horses and mules.—No inspection.

Cattle.—No inspection.

Sheep.—No inspection.

Hogs.—No inspection.

Georgia.

Horses and mules.—No inspection.

Cattle.—Health certificate and tuberculin test record for dairy and breeding animals. Show animals may enter for that purpose on special permit from State Veterinarian of Georgia.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Federal Veterinarians or any graduate veterinarian endorsed by state live stock sanitary officials of state of origin.

Idaho.

Horses and mules.—No inspection.

Cattle.—Health certificate with tuberculin test record showing three preliminary temperatures and four after injection.

Sheep.—Bucks dipped after entering state.

Hogs.—No inspection.

Who may inspect.—Federal or official State Veterinarian.

Illinois.

No inspection except for Texas fever in cattle from below the quarantine line, which inspection is made by Illinois officials within that state.

Indiana.

Horses and mules.—No inspection.

Cattle.—Health certificate accompanied by tuberculin test chart, one copy of which must be sent to State Veterinarian of Indiana at time of shipment. Feeding cattle admitted under special permit.

Sheep.—No inspection.

Hogs.—Breeders must have certificate showing freedom from infection and that they have not been in infected territory.

Who may inspect.—Federal Veterinarian or State Veterinarian of state of origin.

Iowa.

Horses and mules.—Health certificate accompanied by mallein test chart.

Cattle.—Health certificate accompanied by tuberculin test chart.

Sheep.—Health certificate.

Hogs.—Health certificate.

Who may inspect.—Federal Veterinarian or any veterinarian endorsed by live stock sanitary officials of state of origin.

Kansas.

Horses and mules.—Health certificate by official veterinarian. When from tick area, certificate must show them to be free of ticks.

Cattle.—Health certificate. Tuberculin test for breeding and dairy cattle. For those for South, certificate must show freedom from fever ticks.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Federal Veterinarian and those commissioned by state of origin.

Kentucky.

Horses and mules.—No inspection.

Cattle.—Health certificate accompanied by tuerculin test record.

Sheep.—Certificate from federal officials showing they were dipped within ten days of date of shipment.

Hogs.—No inspection.

Who may inspect.—Federal Veterinarians or official State Veterinarians.

Louisiana.

Horses and mules.—Health certificate.

Cattle.—Health certificate for breeding and dairy cattle, including tuberculin test record. Copy of each must be mailed by owner to Louisiana Live Stock Sanitary Commission upon arrival of animals at destination. Calves from infected herd or mothers not to be admitted at all.

Sheep.—Health certificate showing inspection was made just before shipment.

Hogs.—Health certificate showing inspection was made just before shipment.

Who may inspect.—Any veterinarian deputized by officials of state of origin.

Maine.

Horses and mules.—Health certificate including mallein test.

Cattle.—Enter on permit of Cattle Commission of Maine. Quarantines thirty days and subjected to tuberculin test by Maine officials.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Any veterinarian deputized by state of origin.

Maryland.

Horses and mules.—No inspection.

Cattle.—Health certificate and for dairy and breeding cattle the tuberculin test in addition.

Sheep.—Health certificate.

Hogs.—Health certificate.

Who may inspect.—Federal or official State Veterinarians of state of origin.

Massachusetts.

Horses and mules.—No inspection.

Cattle.—Health certificate and record of tuberculin test.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Any veterinarian endorsed by sanitary officers of the state of origin.

Michigan.

Horses and mules.—No inspection.

Cattle.—Health certificate for dairy cattle, including tuberculin test.

Sheep.—No inspection.

Hogs.—No inspection.

Who may inspect.—Any competent veterinarian.

Minnesota.

Horses and mules.—If branded, must have health certificate with record of mallein test given within thirty days of date of shipment.

Cattle.—Health certificate and tuberculin test record for dairy and breeding cattle. No certificates accepted from Illinois unless made by Federal Veterinarian.
Sheep.—Health certificate.
Hogs.—Health certificate.
Who may inspect.—Federal Veterinarian, official State Veterinarians or their assistants, excepting those of Illinois.

Mississippi.

Horses and mules.—Health certificate.
Cattle.—Health certificate and tuberculin test for dairy and breeding cattle.
Sheep.—Health certificate.
Hogs.—Health certificate.
Who may inspect.—Federal Veterinarians and official State Veterinarians.

Missouri.

Horses and mules.—No certificate required.
Cattle.—Health certificate, and for dairy and breeding cattle record of the tuberculin test. Pasture cattle and those for slaughter admitted on special permit. Regulations do not apply to show animals.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Federal or official State Veterinarians or any veterinarian endorsed in writing by State Veterinarian of state of origin.

Montana.

Horses and mules.—Health certificate including mallein test record.
Cattle.—Except for immediate slaughter, health certificate including the record of tuberculin test.
Sheep.—Health certificate, and animals must be dipped twice within ten days after arrival in Montana.
Hogs.—Health certificate showing non-exposure to cholera, except where certificate shows immunization by Dorset-Niles method. Show animals must have certificate showing such immunization.
Who may inpect.—Only official State and Federal Veterinarians.

Nebraska.

Horses and mules.—Health certificate.
Cattle.—Health certificate, including tuberculin test for dairy and breeding cattle.
Sheep.—No certificate, if from clean territory. Federal certificate if from infected territory.
Hogs.—Health certificate and animals must be crated unless for immediate slaughter.
Who may inspect.—Federal Veterinarian, any graduate veterinarian endorsed by official State Veterinarian of state of origin.

Nevada.

Horses and mules.—No certificate required.
Cattle.—No certificate required.
Sheep.—Must secure permit from Sheep Commission or its deputies.
Hogs.—No certificate required.
Who may inspect.—Practically no inspection required.

New Hampshire.

Horses and mules.—No certificate required.
Cattle.—Health certificate, including tuberculin test record.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Any qualified veterinarian.

New Jersey.

Horses and mules.—No certificate required.
Cattle.—Health certificate for dairy and breeding cattle, including the tuberculin test record.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect. — Competent veternarians whose certificates are approved in writing by the State Veterinarian of the state of origin.

New Mexico.

Horses and mules.—Health certificate.
Cattle.—Health certificate, and for dairy and breeding cattle a record of tuberculin test.
Sheep.—Health certificate. Bucks dipped at unloading point.
Hogs.—No certificate required.
Who may inspect.—Official veterinarians of state of origin for animals other than sheep. Latter must be inspected by Federal Inspector.

New York.

Horses and mules.—Health certificate.
Cattle. — Health certificate for beef cattle and record of tuberculin test in addition for dairy and breeding cattle.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Federal Inspector or veterinarians endorsed by proper official of state of origin.

North Carolina.

Horses and mules.—Health certificate for brood animals.
Cattle.—Health certificate with record of tuberculin test additional for dairy and brood animals.
Sheep. — Health certificate for brood animals.
Hogs.—Health certificate for brood animals.
Who may inspect.—Federal Inspectors, State Inspectors, or any veterinarian endorsed by State Veterinarian of state of origin.

North Dakota.

Horses and mules.—Health certificate and record of mallein test given within thirty days preceding date of shipment.
Cattle.—Health certificate showing record of tuberculin test given within thirty days of date of shipment.
Sheep.—Health certificate showing freedom from scabies or lip and leg ulceration or exposure to either within thirty days of shipment.
Hogs.—Health certificate showing animals came from clean territory or that they have been immuned against cholera by the Dorset-Niles method. All show animals must be immunized against cholera.
Who may inspect.—Federal, State or Deputy State Veterinarians or any veterinarian endorsed by State Veterinarian of state of origin. Only federal certificates from Illinois.

Ohio.

No inspection required for entry of stock.

Oklahoma.

Horses and mules.—Health certificate showing animals free of ticks.
Cattle.—Health certificate showing record of tuberculin test for dairy and breeding cattle.
Sheep.—No certificate required.
Hogs.—Health certificate, except for immediate slaughter.
Who may inspect.—Official Veterinarian, federal or state, or any registered graduate veterinarian of state of origin.

Oregon.

Horses and mules.—Health certificate, including mallein test for animals to be used on construction work.
Cattle.—Health certificate including tuberculin test, except for strictly range cattle.
Sheep.—Health certificate, if from quarantined state. In all cases State Sheep Inspector must be notified of point of entry, time, origin of shipment, owner's name and address, name of person in charge, and full identification of each animal. If from quarantined state, animals must be dipped after entry.
Hogs.—Health certificate. Must not contact public yard or undisinfected cars or other environment. Show animals must be crated.
Who may inspect.—Official Veterinarian, state or federal, or any veterinarian endorsed in writing by State Veterinarian of state of origin. Sheep can be inspected only by Federal Inspector.

Pennsylvania.

Horses and mules.—No certificate required.
Cattle.—Dairy and breeding cattle must be accompanied by certificate showing temperature chart of tuberculin test. Special permit required for Southern cattle.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Federal Inspectors, official State Veterinarians, or any veterinarian certified to in writing to the State Veterinarian of Pennsylvania at Harrisburg by the State Veterinarian of state of origin.

Rhode Island.

No inspection required except physical inspection by Rhode Island officials after animals have entered.

South Carolina.

Horses and mules.—Health certificate; mallein test, if exposed to glanders.
Cattle—Health certificate; tuberculin test for dairy and brood animals.
Sheep.—Health certificate.
Hogs.—Health certificate.
Who may inspect.—Official Veterinarian, federal or state.

South Dakota.

Horses and mules.—Health certificate, including mallein test.
Cattle.—Health certificate; tuberculin test for dairy and brood animals.
Sheep.—Health certificate.
Hogs.—Health certificate.
Who may inspect.—Only Federal and official State Veterinarians or deputies.

Tennessee.

Horses and mules—Must have proof of freedom from contagious disease.
Cattle.—Health certificate, including tuberculin test.
Sheep.—Health certificate.
Hogs.—Hogs from public stock yards not accepted. No certificate for others.
Who may inspect.—Any qualified veterinarian.

Texas.

Horses and mules.—Health certificate.
Cattle.—Health certificate and record of tuberculin test given within sixty days of date of shipment.
Sheep.—Health certificate.
Hogs. — Breeding, stocking or those for shows must have certificate that they have been immunized against cholera by the Dorset-Niles method.
Who may inspect.—Federal or official veterinarian of state of origin.

Utah.

Horses and mules.—Health certificate; mallein test for stallions and jacks.
Cattle.—Health certificate, including tuberculin test record for breeding or dairy cattle.
Sheep.—Health certificate.
Hogs. — Health certificate; all animals quarantined fifteen days after entry.
Who may inspect.—Federal or official State Veterinarians or those endorsed by the State Veterinarian of the state of origin.

Vermont.

Horses and mules.—No certificate required.
Cattle.—Permit from Vermont Cattle Commission, which makes tuberculin test after entry.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Any veterinarian having endorsement of proper official in state of origin.

Virginia.

Horses and mules.—No certificate required.
Cattle. — Health certificate for dairy and breeding cattle, including record of tuberculin test made within four months of shipment date.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Federal Veterinarians or any veterinarian endorsed by proper official of state of origin.

Washington.

Horses and mules.—Certificate of physical inspection.
Cattle.—Tuberculin test for dairy and breeding cattle; physical inspection for others.
Sheep.—Physical inspection.
Hogs.—Physical inspection.
Who may inspect.—Only Federal Veterinarians or official State Veterinarians or their deputies.

West Virginia.

Horses and mules—Physical inspection.
No inspection required for shipment of stock.

Wisconsin.

Horses and mules.—Health certificate, including mallein test.
Cattle.—Health certificate; and for dairy and brood cattle a record of tuberculin test in addition.
Sheep.—No certificate required.
Hogs.—No certificate required.
Who may inspect.—Graduate veterinarians approved by State Veterinarian of state of origin.

Wyoming.

Horses and mules.—Health certificate; mallein test for stallions and jacks.
Cattle.—Health certificate; and for dairy and breeding cattle, tuberculin test.
Sheep.—Ten-days' notice to Secretary State Board of Sheep Commissioners at Cheyenne, enclosing three cents for each sheep and twenty-five cents for each buck. All sheep are dipped after arrival in the state.
Hogs.—Health certificate. If for shows, must be immunized against cholera by Dorset-Niles method.

Where mallein test and tuberculin test records are required, the charts should be made in duplicate, one copy going to the owner, one accompanying the way bill, and, if required, the third sent to the proper official of the state into which the animals are to be shipped.

By a qualified veterinarian is meant one who is licensed to practice under the laws of his state. Where graduate veterinarian is meant it is so indicated.

The Dorset-Niles method of immunization against hog cholera is what is commonly known as the simultaneous method. By this is understood that anti-hog-cholera serum is administered in conjunction with a small dose of cholera virus.

In nearly all the states cattle, sheep and hogs may be shipped in for immediate slaughter without inspection, though as indicated some issue special permits in such cases. In certain public stock yards, as those at Kansas City, St. Louis and Chicago, where federal government officials are in charge and not likely to permit the spread of infection, the general regulations are not made to apply.

Ropp's Commercial Calculator.

This is a standard book, and a revised, enlarged and improved edition. There are millions in use. **Ropp's Commercial Calculator** is especially valuable to farmers. By its regular use many hard problems become easy. It will prevent mistakes, relieve the mind, save labor, time and money, and do your figuring in the twinkling of an eye. As handy as a watch, always ready and reliable. Anyone who will send 50 cents for one-year's subscription to this paper, The National Farmer and Stock Grower, can select one copy of **Ropp's Commercial Calculator** as a free premium. Address **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Grain Dealer Surprised.

Farmer—Isn't No. 2 Corn worth more than 35c?
Grain Dealer—That is really the market price today, but I will make it 35½c. (Load weighs 2720 lbs.)
Farmer, opening Calculator—Amounts to $17.24; had on 48 bushels and 57 hundredths. (Page 13.)
G. D.—Well, I declare! Whose lightning Calculator is that?
F.—Why, Ropp's of course—the New improved edition. It comes handy indeed, couldn't get along without it.

Draft Horses in Denmark.

The draft horses in this Kingdom are put to work between the ages of two to two and one-half years, but as a rule they begin in the country districts and are only used in the large cities when they are at least five years of age. There are in Denmark at present about 550,000 horses.

The majority of the draft horses belong to what is called the Jutland breed, and are foaled in Jutland, although there are many breeding establishments on other islands comprising the Kingdom. The Jutland breed has been and is being constantly crossed with breeds of other foreign lands, especially Belgium. There is also much crossing with the horses from the south and central parts of Sweden.

The length of the usefulness of the city horse may be said to be from four to five years as a "coacher," five years at an omnibus, six years at a street railway, and from six to nine years on trucking work.

The price at which horses sell is difficult to give. Sound coachers can be obtained for about $170, but the same horse after a few years' work would probably sell for only $100. A good "bus" horse will cost $200, but after service will bring about $75. A car horse represents an outlay of about $190, and when resold after service will bring about $75. Brewery horses, which are usually very heavy, cost about $275 to $300, but when sold after being worked out bring only $50. This low price is explained by the fact that the agricultural sections do not want such heavy beasts and the majority of these animals are slaughtered. An ordinary working horse, fresh, young and sound, can be had for $200; what he will bring when sold is problematical.

The mortality of horses is about two or three per cent. in well-kept stables. Injuries received seem to be the main cause of mortality. Diseases brought on by a bad digestion or disarrangement of the bowels or colds also add to the causes of mortality. The death rate among the loosely-kept animals is about five to six per cent.

The daily allowance of forage is approximately sixteen pounds of oats, five pounds of corn, two pounds of molasses, six pounds of hay and three pounds of straw. No bran of any consequence is fed. For bedding, straw and coarse hay are used as a rule, and no account is taken of what the animal may eat. The teams used by the city are bedded with peat dust. The value of a horse's droppings may be placed at about 25 cents per month.—From Report of Consul General E. D. Winslow at Copenhagen to the United States Department of Commerce and Labor.

Concrete Silo Construction.

The College of Agriculture of the University of Missouri has perfected plans to help farmers build concrete silos. The chief difficulty which confronts the individual farmer who wants to build a concrete silo is the expense of the "forms" used in the construction. If several farmers join in making the forms it is less expensive. It costs still less to rent the forms. The College of Agriculture has made a limited number of these forms for building concrete silos and will rent them to farmers under the following conditions:

1. At least three farmers in a community must apply at one time.
2. The rental charge will be ten dollars each when there are three farmers, nine dollars each for five farmers, and eight dollars each when six or more silos are constructed in one community. The rental must be paid in advance.
3. The College will send a man free to help start the construction of the first silo and will pay the freight on the forms.

If a group of farmers desire to construct their own forms, plans and specifications will be furnished under certain conditions. Under the latter plan the College will send a man when possible to help start the building of the first silo, provided his expenses are paid by the farmers.

Full information regarding this plan of co-operative silo building may be had by writing to the University of Missouri Dairy Department, Columbia, Mo.

Hogs Pay the Bills.

While the hog is a debt payer, it is necessary for the breeder, farmer or feeder to manage so as to make the greatest amount of money at the least cost in the quickest time. To do this there is nothing of more importance than feeding alfalfa. The Illinois Farmers' Institute state that alfalfa is the most important single product of the soil, a product that has been neglected to the detriment of every community.

Alfalfa as a forage plant for general use has no equal. It is easily grown, it is hardy under trying circumstances, and while it is an excellent food for all kinds of stock, and especially the hog, it at the same time through a natural process improves the soil by drawing from the atmosphere nitrogen.

Alfalfa is a gold mine which can be worked most successfully by the use of swine feeding. A gold mine unworked is useless. The farms of the West and East, North and South, contain these gold mines that are unworked.

Alfalfa furnishes the cheapest feed for growth, health and vitality in pigs.

Get busy and open up an alfalfa mine on your farm and work it with hogs.—American Swineherd.

Get All the Crop Profits-Kill Insect Pests-Spraying Merry War Powdered Lye

E. Myers, President, E. Myers Lye Company

And It Will Not Injure Vegetation

I have spent more than 20 years making all manner of tests so that I know what I am talking about when I claim that *Merry War Powdered Lye* makes the most effective, most economical, safest and surest spray mixture you can use in orchard, garden or poultry house.

And my claim is backed by the experience of thousands and thousands of fruit growers and truck farmers everywhere who have used *Merry War Powdered Lye* as a spray mixture to exterminate San Jose Scale, Borers, Potato Bugs and other profit-eating insect pests in orchard or garden—and with wonderful results. Don't wait until your trees and plants are half eaten up with the pests. If you want the best results begin now when you know the first signs are due—and devote all the time you can spare to systematic spraying with *Merry War Powdered Lye.*

Every farmer knows that it is a constant battle for extermination. The trouble with many spray mixtures, like Paris Green, lies in the fact that they cannot be used strong enough and frequently enough to destroy the pests without searing foliage and poisoning and dwarfing the yield. The farmer who sprays with *Merry War Powdered Lye* need have no such fear—it will kill the pests without injuring either foliage or yield. The drippings act as a fertilizer, enriching the soil around the roots, increasing both the size and quality of the yield.

It's up to you to get *all* the profits—don't let insect pests eat the profits when you can exterminate them with *Merry War Powdered Lye*—without injury to plant life.

Here's One Man's Experience

Dear Sirs:- Vale Summit, Md.
I have given Merry War Powdered Lye a thorough test in removing San Jose Scale and have the most beneficial results. My orchard is now in fine, healthy condition as is my rose garden also. **James Barber.**

Cut Out And Save These Directions And Follow Carefully

One can of *Merry War Powdered Lye* to 15 gallons of water makes a most effective mixture for most spraying purposes in orchard or garden. Used frequently during Winter and early Spring months, this solution will prevent or destroy San Jose Scale.

To exterminate Borers, make a solution of one can Merry War Powdered Lye to 10 gallons of water. Apply plentifully with a brush around the mouths of the burrows so that it will trickle down into the burrows.

A potato patch sprayed weekly with *Merry War Powdered Lye* will yield an immense crop. Try it.

Spray as often as necessary to keep down the pests—regular spraying gives best results. Use any kind of spraying device you like.

Unequaled In Poultry House

The most effective wash or spray for nests, roosts and poultry houses is made from three teaspoonfuls of *Merry War Powdered Lye* to one gallon of water—it's death to lice, mites and vermin.

You can use a solution of *one* teaspoonful of *Merry War Powdered Lye* in one gallon of water on bodies of lice infested fowls without injury to skin or plumage.

Which Kind of Crops Do You Want?

My Warning Important—Heed It

If you want the very best results do not make the mistake of thinking that any ordinary commercial lye will produce the results claimed for *Merry War Powdered Lye.* Insist on dealer supplying the genuine—and *accept no substitute.*

Sold By Leading Dealers Everywhere

Merry War Powdered Lye comes in 10c cans, full case of 4 dozen cans for $4.80, at Grocers, Druggists or Feed Dealers Everywhere. If yours can't supply you, write us, giving your dealers' names and we will see that you are supplied, and will also send you free, a valuable booklet on *How Merry War Powdered Lye Adds To The Farmer's Profits.*

E. Myers Lye Co.
Dept. 22
St. Louis, Mo.

Crops Sprayed with Merry War Powdered Lye

Without

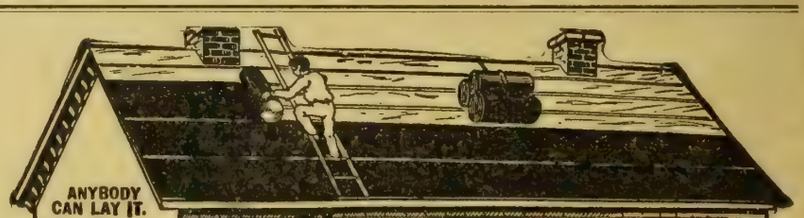
Also Greatest Hog Remedy Ever Known

Light Steers From Texas.

On Monday, May 27th, at the St. Louis National Stock Yards, Mr. R. E. Ward, of Southern Texas, marketed a shipment of fourteen cars of grass steers, 750 pounds average, that sold at $5.50 per 100 pounds, which is $41.25 per head. Asking a cattle buyer what these cattle would have sold for in former years, the answer was: "I have seen many a thousand better cattle sell for 2¼ cents a pound."

Distillery-fed Cattle.

It is very seldom that distillery-fed cattle are sold at St. Louis, but on Monday, May 27th, the Seneca Distillery Company, of Newton county, Southwest Missouri, shipped in some steers, 1,174 pounds average, that sold at $8.35 per 100 pounds. The price then paid was the highest of the year for that class of cattle.



Rubber Roofing

Warranted For Twenty-Five Years.
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.
CENTURY MANUFACTURING COMPANY, Dept. 433, East St. Louis, Ills.

The Advantage of Keeping Accounts.

The farmer is as much a business man as he would be if he were keeping a store or running a mill. Bookkeeping is part of the business of farming, and the bookkeeping should be so well kept up that a man can know at any time just where he stands in the expenses of the year.

The simplest form of bookkeeping is usually desirable. The cash book can be used for both receipts and expenditures. Two perpendicular columns should be used, one to show expenses and the other receipts, both on the same page. This should be a large book.

In addition, the one keeping the accounts should carry a small cash book in the pocket for the purpose of putting down every item as soon as it occurs. In this way only will it be possible to keep the accounts up to date. If a person must carry an expense in mind all day before putting it down it will often be forgotten. This is particularly likely to be the case with the farmer when he goes to town to make purchases. Often his purchases will run into a score of items in a single day. If he has a vest-pocket account book, each item of expense can be jotted down at the time the money is paid out.

Another thing that will greatly assist in keeping accounts straight is to carry a bank account and pay most bills with checks. Most people could carry banking accounts if they thought they could. The banker is always ready to welcome the small account. The check and its stub constitute quite a system in themselves. When the canceled check comes back it is a receipt that cannot be contradicted. The stubs can contain a quite complete statement of the transaction. Then any time, by looking back, the man owning the check book can tell how his various accounts stand. Thus one man, when he makes a partial payment, always puts on the stub a memorandum of the amount still due to be paid in the future. He also makes a record on the back of the stubs of the items in his bank deposits at each date when deposits are made. This is in addition to the deposit statement in the bank book, which shows only the total amount deposited. It will frequently be found desirable to know what checks have been received and deposited, and the record on the back of the corresponding stubs will show this.

Many a man becomes hopelessly entangled in debt because he does not keep an account of everything. Most farmers are given credit at stores in the towns, and it is then very easy for a family, where no accounts are kept, to order a good many things they do not need and thus bring up the expenses of the place to a point that means ruin finally.

One point on which the world needs education is that of family financing. People are brought into the bondage of debt largely through their expenses for luxuries rather than necessities. Our necessities are few; our luxuries are many. A good many people imagine most of their luxuries are necessities. Arithmetic in the family is one of the most necessary forms of education in every nation.

There is no family so small or so limited in its means that the necessity for account keeping does not exist.

Fruit Growers and Empire Fertilizer.

Empire Carbon Works, St. Louis, Mo. Gentlemen: We, the Dongola Fruit Growers' and Shippers' Association, have used the "Horse Shoe" Brands of Fertilizer for the last fourteen years—except one year, and growers took another fertilizer that year, and it did not suit them—and when I go to take orders for fertilizers they ask if it is the "Horse Shoe" Brands, and I have to tell them it is or they do not want it. I think it is the best fertilizer on the market to-day. I have used it myself under corn, cabbage and potatoes, and it gives me good results. I tried it under corn and it made a third more to the acre, and the corn was ripe sooner, and no worms about it. Yours, (Signed) S. R. Rhymer, Secretary and Manager of Dongola Fruit Growers' and Shippers' Association, Dongola, Ill., February 24th, 1912.

Without a Hitch.

"Did her wedding go off without a hitch?"

"It did, indeed—the man she was going to marry didn't show up."—Brooklyn Life.

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912.

Now Ready For Delivery.

True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS,

Winners in Annual Live Stock Contests at State and National Fairs and Expositions.

THIS is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special Inducements

To Paid-in-Advance Subscribers--To Old Friends and Patrons.

We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title.

This is An Extraordinary Offer.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1912.

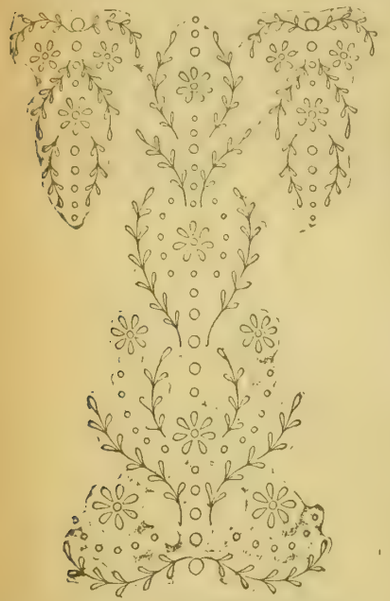
Name.....

Address.....

My occupation is.....

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down, and press over the entire surface of the paper with a hot iron when a perfect outline will result. Please order by embroidery number.



Design For Embroidering Panels.

No. 656.—One panel, twenty inches in depth and nine and one-quarter inches in width, at the lower edge, and two panels, seven and one-quarter inches in depth and four and one-half inches in width at the lower edges, are given. The price of the pattern is 10 cents.

For Yokes and Collars.

No. 653.—Designs for embroidering yokes and collars of infants' and children's dresses. The price of the pattern is 10 cents.

Sprays of Daisies.

No. 652.—Design for embroidering sprays of small daisies. The price of the pattern is 10 cents.

Blouse Embroidery.

No. 657.—Design for embroidering a boy's Russian blouse. Especially adapted to May Manton's Pattern No. 7400. The price of the pattern is 10 cents.

Sprays of Chrysanthemums.

No. 654 consists of designs for embroidering sprays of chrysanthemums. Two sprays of each size are given. The price of the pattern is 10 cents.

Corset Cover Design.

No. 650.—Refined design for embroidering a corset cover. Scallops for neck and sleeve edges and flower sprays for the fronts are given. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Have You a Chronic Illness?

If you have, you will surely be interested in the Bodi-Tone trial offer, which is printed on the last page of this paper. Bodi-Tone, which is now three years old, has made a great record in such cases. The manufacturers believe in it, for they will send you a box to try, no matter how old, hard or obstinate your case may be. If it does not help you, you need not pay for it.

Taking Care of Dress Skirts.

It is no little trouble to shake and brush a woolen dress skirt carefully after each time of wearing, but it is the only way to keep them free from dust and wrinkles, and when a skirt becomes soiled or begins to lose shape, to clean it and follow this with a thorough pressing is to freshen it wonderfully.

Dress skirts will often wrinkle less if folded right side out, and, if possible, where it is not necessary to fold them crosswise. A girl or woman is fortunate if she can have a box a little longer than her skirts, as they can be laid out smooth after each wearing and they will keep their shape twice as long. If you have no box, the skirt should be hung on two hooks by means of a loop on each side. No other garment should be placed on the same hooks, so that the skirt will not be at all crushed.

A good way to mend a small rent in a woolen dress skirt is to wet the end of a cake of common yellow soap, rub over a piece of goods like the skirt, place on the wrong side, and make ti adhere by pressing with a moderately warm iron.

Woolen skirts of any color that are not quite soiled enough to be washed can be cleaned and brightened by putting them to soak in gasoline, and this must be placed out of doors or in an unused room. Put enough gasoline to cover the skirt in a bucket and then place the bucket in a pan of hot water. Remove all spots from the skirt with the warm gasoline, then place in a large bucket and pour the warm gasoline over the skirt, then cover closely and let stand for two or three hours, then rinse in clear gasoline and hang out on the line.

If a skirt is soiled enough to be washed, add half a cupful of gasoline to the suds before putting in the skirt, and it will make it clean easier and help to keep the color bright; and when pressing a skirt, always press one way of the goods, either lengthwise or across, to preserve the shape of the pieces.

If a skirt is still good but faded or rusty-looking, it is well worth recoloring, and a rusty black skirt can easily be recolored a jet black with Diamond dye for wool and will look as nice as new with careful pressing and finishing. An old-style faded blue skirt was ripped apart and colored a rich dark blue, and a white woolen dress skirt that had become yellow from careless washing was colored a dark shade of green, then they were cut by one of the late patterns and carefully made over, and they were as stylish as any of the high-priced garments.

Dress skirts soon look old and untidy, if, when removed, they are carelessly thrown aside or hung on a nail; and to keep skirts fresh, they should never be allowed to become creased; and, if they are always folded carefully, they will always look fresh.—A. M. H.

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ECZEMA

CAN BE CURED. My mild, soothing, guaranteed cure does it and FREE SAMPLE proves it. STOPS THE ITCHING and cures to stay. WRITE NOW—TODAY.

Dr. Cannaday, 730 Park Square, Sedalia, Mo.

TAPE-WORM Expelled alive in 60 minutes with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE. **DR. M. NEY SMITH, Specialist,**

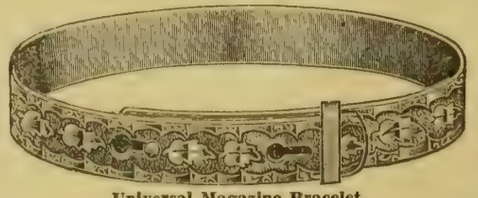
Office, 302 N. 12th St., - ST. LOUIS, MO.

The Boys' Magazine.

A special offer made by the Boys' Magazine, Smethport, Pa., is well worth reading by parents and guardians as well as by boys themselves. Read it at once and act quickly. See page 28.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine.** The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet, postage free, as a subscription premium.** Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



Universal Magazine Bracelet.

MISSOURI CROP REPORT.

The Situation on June 1st, as Furnished By the State Board of Agriculture.

General Statement.

The Missouri crop report is issued to acquaint the public with the facts just as far as it is possible to get them, rather than to paint rosy-hued pictures for advertising purposes. The first aim is to tell the truth and to tell it in such a manner that it may be understood. This policy has not and will not be departed from. To do so would destroy the value of these reports. Furthermore, the truth about Missouri is always good enough.

The end of the month of May finds Missouri farmers much more optimistic than a month ago. Splendid progress has been made with farm work. The weather during the month of May was cool enough to allow men and teams to go the limit, which they seem to have done, judging from the progress reported. One week of cool weather checked corn somewhat, but in some sections apparently aided wheat slightly. Previous to the rains of the 24th and 27th there was a little complaint of lack of moisture over a part of the state, especially in a few counties in the southwest section, while too much moisture retarded work in some of the lowland counties of the southeast. Taken as a whole, however, weather conditions for the month were above the average. Rainfall during the month of May at Columbia was 3.25 inches; May, 1911, showed 1.27 inches.

The Corn Situation.

The per cent. of corn planted is placed at 81, while one month ago it was but 3.5. By sections, planting shows: Northeast, 78; Northwest, 89; Central, 84; Southwest, 83; Southeast, 71. Part planted June 1, 1911, was 91.6; 1910, 80.5; ten-year average, 84. Stand is estimated at 82, varying but slightly in the several sections. Stand last year was 87; 1910, 71.5. Necessary replanting this year is attributed to poor seed and too hard rain following planting. With good seed harder to secure than ever before, the reasonably good stand of corn proves the value of the "test-your-seed-corn" campaign. Many farmers planted two-year-old seed with good results. There is some complaint of poor corn sold by seed houses. Soil condition is 88. Condition of growing crop is 87; 1911 was 85.6; 1910, 67; ten-year average, 79. Indications are for an increase of 3 per cent. in acreage, as compared with last year's crop of 7,554,242 acres.

The Wheat Situation.

Condition is practically the same as one month ago—now, 64.2; then, 63.4. By sections, condition is: Northeast, 51; Northwest, 76; Central, 66; Southwest, 61; Southeast, 67. One year ago condition for state was 85; two years ago, 69; ten-year average, 79.6. Practically one-fourth of the crop—24 per cent.—has been plowed up and more would have been had it not been seeded to timothy or clover. Harvest will be in progress in about four weeks.

The Oats Situation.

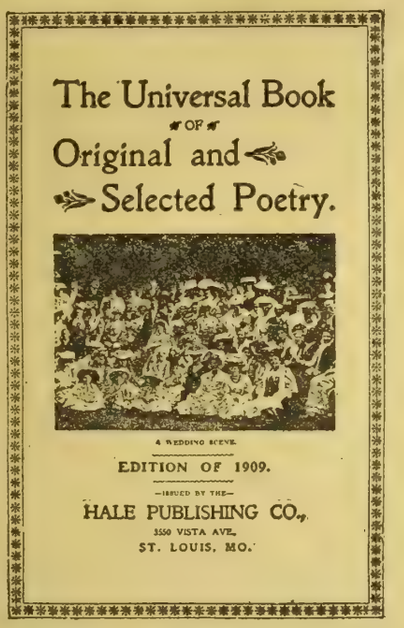
Condition of oats is estimated at 83.4. By sections it is: Northeast, 87; Northwest, 85; Southwest, 80; Central, 85; Southeast, 80. Acreage is 79.4, compared with 1911, when it was 1,143,753 acres, less than half of which was cut and threshed. One year ago, when hot weather had played havoc with oats by June 1, condition was 62; two years ago, 91.2.

Other Crop Conditions.

Clover condition is 79; stand of new crop, 90; timothy, 85, and stand of new, 87. Rye condition is 84; barley (but little grown), 89; alfalfa, 94. Pastures are generally good, being reported at 92 for the state. A preliminary estimate of the tobacco acreage, as compared with last year, places it at 87. Cotton acreage will be short, as compared with 1911 crop. Preliminary figures place it at 70. Overflows have reduced acreage and made planting late. Potato acreage is placed at 92; flax, 82. The outlook for a general fruit crop continues good, being 84 for the state. Berries and small fruit show 73, with a record strawberry crop, hundreds of additional pickers being needed at once to save it. The peach crop is practically a failure, the state estimate being 6 per cent.

Read about the Book of Live Stock Champions on page 23.

The Universal Magazine



and the Universal Poetry Book.

TWO EXCELLENT PUBLICATIONS.

The Universal Poetry Book

CONSISTS of One Hundred Pages, containing three hundred and ninety beautiful, interesting, pathetic, descriptive, humorous and delightful poems. These poems have been selected from the very best of the ancient and modern authors and the occasional pieces which have attracted favorable attention. It is a book to be kept by the bedside to compose one to sleep, a book to carry in the satchel or to read on the train and street car. It is a book for all people at all times. We issued the UNIVERSAL POETRY BOOK for the purpose of using it as a subscription premium in connection with our own new successful paper, the UNIVERSAL MAGAZINE.

THE UNIVERSAL MAGAZINE

is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the UNIVERSAL MAGAZINE is, that it is not loaded down with advertisements. Notwithstanding it is a cheap magazine, the subscription price being 25 cents a year, it is supported by subscriptions alone.

A TEN-CENT PROPOSITION.

Anyone who will send 10 cents to pay for four-months' trial subscription to the UNIVERSAL MAGAZINE can select one copy of the UNIVERSAL POETRY BOOK as a free premium, and we will send it by mail, prepaid, safe delivery in good order guaranteed. Below will be found two subscription blanks for two subscribers.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St.Louis, Mo.:

Gentlemen:---Herewith please find Ten Cents to pay for four-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Universal Book of Original and Selected Poetry.

Name.....

Address.....

My occupation is.....

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Address.....

My occupation is.....

THE SMITH FAMILY DOWN THE ROAD.

The Neighbor Woman Makes Their Acquaintance.

Mrs. Smith lived about a quarter of a mile down the road in a small, unpainted house set in the middle of a barren-looking plot of land. The ugliness was in no way concealed, for there had been no attempt to hide it behind beautiful shade trees and shrubbery, nor to give it a dress of green vines. Mrs.Smith resembled her dwelling place. She was down-at-the-heels, both literally and figuratively, and gave the impression of being bored with life in general and her own life in particular. Her four children were ordinary youngsters, who, in some respects, might have been extraordinary, had they been under the influence of some person who took the pains to study and strive to understand their several individualities. Mrs. Smith looked on them as a necessary adjunct to her married life. There might be better children in the world, there were probably worse. Mr. Smith matched the house and his wife. Slow, easy-going, not much in love with work, he got just enough out of the mortgaged farm to pay the interest on the mortgage and keep together the souls and bodies of the six members of the family. The farm had come to them from Mrs. Smith's father. It was clear then. But it was the first time in his life that Mr. Smith had any security upon which to borrow money and he couldn't resist the temptation. He got five hundred dollars, spent it recklessly, and then settled back into his old rut, feeling that at least he had had his fling.

It was only a pail of strawberries —luscious, dewy fruit, half the size of a small pear—piled into a small crimson mound, that made Mrs. Smith half open her eyes. This was the beginning of her awakening.

The berries came to her from the hands of the neighbor woman, who had lived on the next farm scarcely two years. Mrs. Smith looked at the neighbor woman with her pink-tanned cheeks blooming beneath a stiffly-laundered gingham hat, then she looked at the neat gingham dress and then she asked her to come in and dusted a chair for her to sit upon.

"I thought maybe you'd like some of my berries," said the neighbor woman. "We sold a couple of crates this morning, but I saved these out on purpose for you."

"Land, you didn't raise them yourself?" ejaculated Mrs. Smith.

"We surely did. That's my part of the farming, you see. My husband has the big crops to take care of, but I try these kind of things. I've planted rhubarb and asparagus and this year I'm going to try some new things in my kitchen garden, in the annuals, I mean. Why, that's the fun of having ground of your own. Cabbage and turnips are all right sometimes, but there's no reason in the world why we country women cannot have the best things in the world to put on our table."

"Land, you talk as if it was a pleasure to have to dig around in the country. I hate it!"

"Oh, it's work," admitted the neighbor woman. "I know what a real backache is since I've been raising strawberries, but it's the kind of work that I love. I love to think I'm helping to capture great big chunks of air and sunshine and rain and dew and serving them on our table with cream and sugar."

"Land, that's a new way to talk about plain farming," said Mrs. Smith, who felt drawn to the queer neighbor woman. "Maybe I'd like it some better if I could make a go of anything like that. But I can't. Once when we first came here, I spent a few cents I had saved for a grapevine and some currant bushes that an agent had. They never did nothing. Jim says they was all dried out when I got them. But I never had the heart to try such things again."

The neighbor woman, who was interested in cultivating other things besides delectable edibles, glimpsed a world of discouragement behind the simple statement.

"Oh, but you could succeed just as well as I, if you had the right stock and the ground was properly prepared. My berries are ripening so fast that they are getting beyond me, and I wonder if you could spare your little John and Myrtle to help me pick. They may have one box for every three they pick. They can sell their berries or bring them home to you, just as they choose. Then in the fall we will plant a bed for you and I will help you with my experience. I've made fifteen dollars already and the season is only beginning. Strawberry money is the farm woman's money, you know, Mrs. Smith."

Mrs. Smith's dull blue eyes had been gradually brightening during the neighbor woman's speech. Here was something of hope held out to her and her children. Perhaps she might succeed in raising berries like those of the neighbor woman. Perhaps there might be a little brightness gleaned from this dreary old farm.

That night Mrs. Smith dreamed rosy dreams in which acres of strawberries as big as Winesaps floated before her vision. And the next morning, even before the dew was off the grass, she had sent Myrtle and John scurrying up the road to the neighbor woman's farm. During the day Mrs. Smith forgot to think very much about her own discouraging lot. Many a time she wondered how the two children were getting on at the berry picking, and after several hours she began to watch the road eagerly to see if they were coming. Finally they came in sight, carrying a big pail of berries. They rushed into the house breathless with excitement. They had picked so many berries! And the neighbor woman would take them to market with her own, because they had asked her to. And the neighbor woman's house was so shiny. And she had given them a big plate of cookies and ice-cold milk to eat when they were half through the picking, and she wanted them every day while the berries lasted.

At the end of that berry season each of the little Smiths was ten dollars to the good, and the Smith family had had as many berries to eat as even they could dispose of. Then there was the big strawberry bed of their own which held rosy promise of the future. And, best of all, were the visits of the neighbor woman. Mrs. Smith did not dream that already there had been a change in herself, but the little woman from up the road saw that the dulled expression of the eye was being replaced by one of interest. And she felt that her strawberry season had been indeed a success when she heard Mrs. Smith's remark to her husband that "maybe living in the country wasn't the worst thing in the world, after all, if only you had the knack of thinking up new things to do with the ground."—Janet Thomas Van Osdel.

When Cleaning House.

The days which women hail with delight and which men abhor have arrived. And yet the even the woman who glories most in "upsetting a perfectly clean house just to make it a little cleaner," as one old man, sitting on the front steps, whither he had been driven by the strenuous work going on indoors, described it to me, may be glad to take a hint.

In your cleaning water used in washing windows, mirrors and woodwork, use a little coal oil, about a tablespoonful to a pail of water. This will make the glass easier to clean and will give to it an added shine when polished. It will remove paint and stains from woodwork with very little hard rubbing.

If you wish to clean soiled wall paper without going to the expense of calling a professional cleaner, try one of two ways: Break chunks off a mediumly stale loaf of bread and rub the soiled places with the bread until they disappear; or, procure a big dry sponge and rub it over the soiled places until the spots are eradicated.

If you have oil paintings that are in need of cleaning, take a slice of raw potato and rub it over the painting, then wipe off the juice of the potato with a clean, soft cloth. If it is the frames that need renovating, procure a can of gilt, if the frames are of gold, or of dark stain if they are of oak, and give them a coating.

If you have had trouble with moths in any particular room or closet, get rid of them by burning some gum camphor in the room. After removing from the room any plants or live pets it may contain, burn a piece of the camphor the size of a marble in an iron pan and light a match to it. Keep all the windows and doors closed for about three-quarters of an hour, then throw everything open to let the smoke escape.

If you haven't a moth-proof box in which to put away winter clothing, you can easily make one by lining a good-sized dry goods box with tar paper and then covering that again with newspapers or white muslin. This second lining must be tacked over the tar paper to keep the tar from getting on the clothing.—Jane Thomas Van Osdel.

He Smelled the Cake.

Senator Simmons was talking about a boom.

"I congratulated him on his boom," said the Senator, laughing, "and he appeared astonished that I knew anything about it. But I had a keen nose for booms, even for little ones. I explained that I was like the Newbern urchin.

"A Newbern urchin used to call on a certain old lady every Saturday afternoon and she would give him a piece of cocoanut layer cake. But one Saturday, as she expected company for tea, she decided not to cut the cake, and therefore none was offered to the urchin.

"He said, plaintively, as the time came for him to go:

"'I believe I smell cocoanut layer cake.'

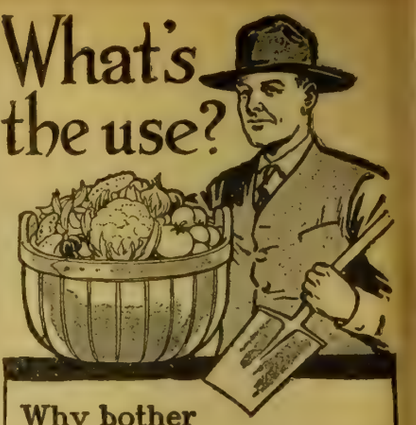
"The old laughed, went to the cupboard and cut him a very tiny slice. When she gave it to him he thanked her and said:

"'But it seems strange that I could smell such a little piece,doesn't it?'"—Washington Star.

Bill's Luck.

First Coster—"Well, pore old Bill's gone."

Second Coster (scornfully)—"Pore, indeed! Luckiest bloke in the market. Couldn't touch nuffink wifout it turned to money. Insured 'is 'ouse—burned in a month. Insured 'isself agin haccidents—broke 'is harm fust week. Joined the Burial Society last Tuesday, and now 'e's 'opped it. Pore old Bill, indeed!"—Punch.



Why bother to raise so many "good things" unless—

—Unless you *save* them. Your wife can "put up" many kinds of fruit. But it isn't so *easy* to "can" vegetables.

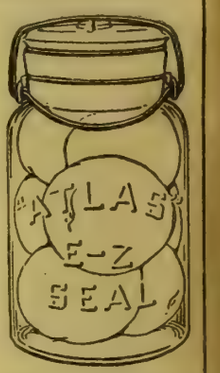
Not—if she *depends* on old-style, narrow-necked, tin-topped, screw-capped jars, that take in only *small* fruit. This year find out the better way to "put up" fruit—and vegetables, too—the

E-Z SEAL JARS

This is the all-glass jar, with the all-glass cap—no metal to taint the fruit—no twisting and turning. No shattering, no splattering. Easy to fill, easy to seal, easy to open and clean.

Don't allow good garden stuff or fruit "to go to waste." You may be sure it will keep—vegetables and fruit will *not* spoil in these air-tight, all-glass sanitary jars.

Free Jar—Free Book



Cut out this coupon, take it to your grocer—he will give you one E-Z Seal Jar—FREE. Be sure and write us for FREE Book of Recipes—it tells many things you should know. Get the Jar from the *grocer*. Get the Book from *us*.

HAZEL-ATLAS GLASS COMPANY
Wheeling, W. Va.

1-Qt. E-Z Seal Jar CG FREE for the Coupon

Please note—in order to secure free jar this *coupon must* be presented to your dealer before Sept. 1st, 1912, with blank spaces properly filled out.

HAZEL-ATLAS GLASS CO.,
Wheeling, W. Va.

This is to certify, That I have this day received one "Atlas" E-Z Seal Jar Free of all cost and without any obligation on my part. This is the first coupon presented by any member of my family.

Name_____

Address_____

TO THE DEALER:—Present this to jobber from whom you recieved E-Z Seal Jars. All coupons must be signed by you and returned before Nov. 1st, 1912.

DEALER'S CERTIFICATE. This is to certify, that I gave away one "Atlas" E-Z Seal Jar to the person whose signature appears above.

Dealer's Name_____

Address_____

Free Magazine Subscription Guide

Subscriptions taken by special authority for American periodicals, magazines, and especially for farm papers. Every possible clubbing arrangement to give the subscriber the benefit of the rock-bottom co-operative rates.

Address, THE EVANS SUBSCRIPTION AGENCY, 3552 Vista Ave., St. Louis, Mo.

Dahlias.

Fads and fashions are to be recognized in the realm of flowers as surely as in that of fashions, and now the dahlia, gladiolus and iris are coming to their own in the estimation of the public. Each has its own special points of favor, but for the person of limited means who wants a continuous display, the dahlia will prove most satisfactory. Its season of bloom is longer than either of the other members of the trio. While the gladiolus is useful for cutting and is unexcelled for faultless coloring and lily-like stateliness, the cut flowers permit of only the spike-like arrangement, and the seedlings require at least two years before reaching blooming size.

The dahlias have long slender stems, and some of them combine in various forms of decoration. The colors are rich, varied and striking. Plants continue to bloom until cut short by frost. Seedlings are easily grown and blossom the first year, though they seldom produce tubers large enough to keep through the winter. Plants raised from seed are not like the parent, though if started from cuttings or root division they are always true to name.

The dahlia is a native of Mexico, growing naturally on sandy soil, and the multitude of varieties now catalogued are all derived from a single, eight-rayed wild variety. This is a remarkable illustration of what cultivation ad careful selection may accomplish. While the family still delight in the warm sunshine, rich, light soil and plenty of moisture are also well suited to their needs, and a light mulch during the hottest months serves to protect from drouth.

Seed germinates very quickly and may be started in a window box, shifting the plants to separate pots when they have attained a size of two or three leaves. Transplant in the ground as soon as danger from frost is over. If started from tubers, the ideal plant is one sprout from a medium-sized tuber. Some leave two sprouts, but more cause a general weakening of growth and overcrowding of foliage with correspondingly few flowers. If permitted to grow tall, the plants will require staking. Another method is to pinch out the top bud and induce branching, the low, bushy form thus acquired needing no support. If it is desired to increase the number of plants, cut off the first shoots before they are so large as to become hollow, making an incision just below a joint after two or three pairs of leaves are developed, removing the lower pair with a knife and placing the cuttings in sand to root. Other sprouts will quickly take their place on the parent tuber.

Specialists class the larger forms in three divisions: Show dahlias, with the petals rolled forward; Decorative, with flat or nearly flat petals; and Cactus dahlias, with petals recurved, though in some popular catalogues this distinction seems not very closely followed. Then there are the small-flowered pompons. Fancy dahlias show variegations in markings or are shaded from dark to lighter shades of a solid color. Some of the variegated varieties may show all combinations of color, from an almost solid line of red or purple to almost white, and thus a fine collection with no two alike be gathered from the same plant.

Give a sunny situation with rich, light soil and plenty of room to grow. Three feet is not too much in every direction. Our grandmothers prided themselves with the mammoth plants grown by the kitchen porch, the secret of success being not so much in dishwater, as was usually supposed, but an abundance of moisture at the roots.

After the frosts have destroyed the tops, choose a drying day for digging the tubers, allowing them to dry enough that little soil adheres. Store in a frost-proof place in dry sand or earth, or they may be kept in paper bags until spring. Start early in boxes, or plant in the open ground when frosts are over.—Bessie L. Putnam.

Where the Candy Danger Lies.

According to recent statistics, the annual output of candy in this country amounts to nearly $100,000,000, or nearly one-sixth as much as all the wheat grown. The old cry of unwholesomeness is becoming more muffled, sweets in moderate quantity being now recognized as a necessary component of food rather than a harmful tickler of the palate. Candy is universally a child's luxury, and the mint is the mild remedy of the adult, which counteracts before they have had time to appear any ill effects that might otherwise follow the elaborate banquet.

Specialists who have made a business of investigating candy in relation to the pure food laws of one of our great commonwealths report that out of 250 samples—in which the cheapest penny specialties figured prominently—only four were found to contain material specifically prohibited by law. We are truly thankful to learn that talc, terra alba, sulphur dioxide, gelatin and glue, so common in the substance or coloring of the cheaper candies a few years ago, are being driven from the trade through legislation.

But we are not beyond the danger line. Though stripped of chemical adulteration, many of the samples are vile with filth. Dirt clings to candies, especially the softer kinds, and is to a certain extent absorbed by them. The cheaper grades, the ones which are most universally indulged in by all classes, are more carelessly handled, consequently very much more objectionable in this respect. If sold by the street vender, his grimy hands are aided by the dust from the street in rendering them unfit for food. If in open cases in the shop, tobacco smoke may mingle with the dust which settles upon them. And if they escape the contaminating touch of the general purchaser, his breathing over them is an added feature of repulsiveness.

Some of these cheap products prove objectionable even when still in the cases of the manufacturer, wormy nuts being among the materials of which they are compounded. Food specialists sound a vigorous note of warning against animal candies, observing that children play with them in the dirt and then eat them. A similar point seems in order against animal cookies, unless the little one is trained to treat them as a pleasing form of food and never as a plaything. The combination of food products and toys is incompatible with the rules of hygiene.

Among the more than 50,000 workers in the candy factories, disease germs are bound to be present. Why not eliminate this danger, together with the attendant dirt and dust, by making your own candy? There are innumerable recipes, some so simple that a child can follow them, so cheap that they eclipse even the cheapest of store candies, yet so good that all enjoy them. Nuts fresh from the shell add variety, and the pleasure of candy making is enjoyed quite as much as that of eating the sweets.

But there is still another advantage to be gained. Only $28,000,000 worth of sugar cane is made, according to official figures, in a year. This with the beet sugar, sorghum and maple products gives a total valuation for the entire product of sweets at less than that of the candy output in the same time. Some one is making some money. And remember that the cheapest as well as the cleanest candy is made directly from sugar or syrup in your own kitchen.—Bessie L. Putnam.

The Memory Garden.

I have just had the happy privilege of walking through the memory garden of a middle-aged lady. It a beautiful place, as must needs be, when so many hands and minds had worked to make it a place of such interest and usefulness.

"That rhubarb along the fence was planted by Sister Anne, who was always such a practical soul," said she. "Nothing better than rhubarb in the spring to take out the winter poisions. They'll enjoy the posies other people plant all the more after they've had a few doses of my rhubarb, for it will make them lose their blue spectacles. And the raspberry vines were started by our own Bennie, when he was a little fellow," went on my hostess. "He was that fond of raspberry jam that he begged to plant some vines, and so he saved his pennies and bought the vines himself and always tended them so long as he was at home. And on my birthday, when he was only a lad of twelve, he planted that grapevine that now covers the whole arbor. It gives me pleasant thoughts to sit out there with my darning or my knitting. And the catsups and the jellies and the wines we make from those grapes have a different flavor than any others in the world, I believe. Imaginative old woman am I? Well, it's a rare pleasure anyway."

"And these two peony bushes were planted the day Daughter Mary was married. She and her husband-to-be, William, came out the morning of the wedding day and she planted a white one and he a red one. You never saw such peonies to bloom, and, early as it is, they are always out on the wedding day, in celebration I tell myself. I never knew of any other peonies to bloom so early, nor so full, nor so long as those. And this little white rose bush was planted by Mary's little girl. She died when she was seven years old. She planted the bush when she was here on her fifth birthday. Those roses never open out full. They just stay little white buds. Can't you see the reason?" The gentle little lady wiped a tear away and then she turned with a smile to a big snowball bush that dropped almost to the ground with its weight of green and white balls. "That's Billy's choice," she said. "Such a boy! He was the greatest lad to snowball you ever saw. He was only eight years old when he set that out after I asked him what he was going to put in my garden to remind me of him. "Blossom snowballs are next best to the real ones, but you'll let me have just a few to snowball with, won't you?" he begged, and many and many a time have I been pelted with the balls from that tree. But Billy always waited until they had lost their first freshness before he picked them and I never told him to, either. Father, that is my husband, set out the mignonette. He said its fragrance made him think of a quiet, beautiful life. Ah, but he was quick to see the beauty in the lives of those about him.

"And here is the row of hollyhocks that my own grandmother planted on my first wedding anniversary when she came to visit us. She used them to make a hedge between the kitchen garden and the back lawn. And over there is the Golden Glow that Susan, a colored girl who worked for me once upon a time, planted for me. It was a color Susan loved. God bless the girl; she served me faithfully for a long while."

There were many others that the dear lady pointed out, and besides the perennials in the flower and vegetable garden there were the fruit trees in the orchard, almost every one with some special memory clinging to it and flavoring the fruit.

I left the old lady in quite an abrupt manner, but, of course, she understood that I must hurry home to start a memory garden of my own. Who would be without one after passing through hers? — Janet Thomas Van Osdel.

BEAUTIFUL APRON PREMIUM.

To further introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings; also a year's subscription to our

popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Used Kendall's With Success.

Mr. G. G. Gilman, writing from Jerico Springs, Mo., under date of December 12th, 1911, address Dr. B. J. Kendall Co., Enosburg Falls, Vermont, saying: "I have been using your wonderful medicine for a long time and find it to be a splendid remedy." See page 16 and write for "A Treatise on the Horse."

During the census year the state of Texas harvested and sold 5,832,000 pounds of pecan nuts, and all the balance of the United States harvested the total of 3,959,000 pounds.

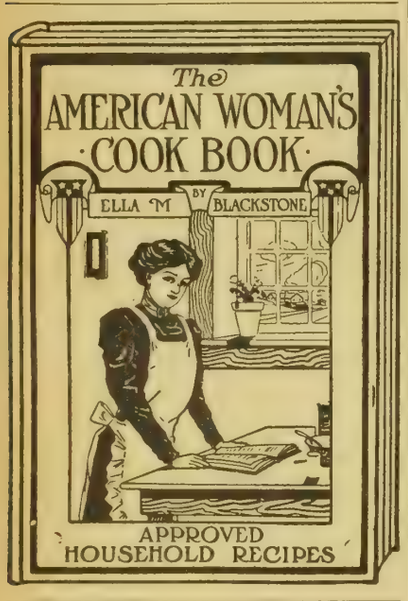
THE BEST COOK BOOK.

The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.

The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.



The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE FARMERS' MARKET.

On May 25th it was reported that probably the largest amount ever received for a car of timothy hay in St. Louis was obtained for a consignment from Idaho, which sold for $637.49. This car was received by Toberman, Mackey & Co., and contained something over twenty-four tons, which was almost double the average car capacity. It sold for $26 per ton. The freight charges were $275.

The first peaches of the season were received at St. Louis on March 25th by P. M. Kiely & Co. They were donated by that firm to the Fruit and Produce Exchange, and were auctioned off on the floor of that organization for the benefit of charity. President John Gazzolo was the first buyer, paying $10 for a four-basket crate. They were redonated, and sold a number of times, and brought a total of $60. George P. Schopp, the last buyer, who paid $7 for the peaches, sent them over to the Butter, Egg and Poultry Exchange, to be sold for charity. Ex-President Fred Heger, of that organization, was the first buyer, paying $10. The peaches were resold a number of times and brought a total of $163 on the Exchange.

The peaches that were the first of the season at St. Louis and arrived on March 25th were "Arp Beauties" and were shipped by Ray Brothers, of Arp, Smith county, Texas. The total proceeds of the sales were divided equally between Father Dunn's Newsboys' Home and the German Protestant Orphans' Home, on the St. Charles Rock Road. The first cantaloupes of the season were also received by P. M. Kiely & Co. from Florida. They were of only fair quality, and sold from $2.50 to $4.00 per crate, as some were too green.

On May 24th the first car-load of melons came on the St. Louis market from Florida, consigned to R. H. Pennington & Co., who sold them to Henschen & Goerner. The car brought $425 on track and contained about 1,000 melons. They were the Tom Watson variety and averaged twenty-five pounds apiece. A week previous the first watermelons came along in a few barrel shipments. They sold for $1.50 apiece. The person who supposed the big hotels and swell cafes absorbed them stands corrected. The negro restaurants which line Market street west of Union Station had them displayed in glass cases alongside chunks of ice.

Cash Grain at St. Louis.

Anyone who keeps a file of this paper on his farm will also be keeping a record of the actual prices paid for cash grain at St. Louis on the last day of each month. Where the word "nominal" appears it is to show that although the price of the grade quoted is all right, there were no sales on that day. This is the market report of May 31st, 1912.

Wheat.—Market slow and easier; offerings were larger, including two-days' receipts; choice soft winter sold at steady prices, but lower grades were easier and prices lower; hard winter was quiet, with little demand; No. 2 red winter wheat, $1.19 to $1.20½; No. 3 red winter wheat, $1.16 to $1.17½; No. 4 red winter wheat, $1.08 to $1.15, nominal; No. 2 hard wheat, $1.13½ to $1.18, nominal; No. 3 hard wheat, $1.11 to $1.16, nominal; No. 4 hard wheat, $1.06 to $1.14.

Corn.—Market weak and from ½c. to 2½c. lower; offerings were two-days' receipts and there was not much demand until after the decline, when most of the offerings were sold; white corn was best sustained in price; No. 2 corn, 79½ to 80c.; No. 3 corn, 78½c.; No. 4 corn, 72½c.; no-grade corn, 65 to 69c.; No. 2 yellow corn, 80 to 81c.; No. 3 yellow corn, 79 to 80c.; No. 4 yellow corn, 74 to 75c.; No. 2 white corn, 87c.; No. 3 white corn, 84¾ to 85½c.; No. 4 white corn, 71 to 76c.

Oats.—On track: White ½ to ¾c. lower; fair demand; mixed lower and dull; No. 2 white, 54¼ to 55c.; standard, 54 to 54½—car 54¾c.; No. 3 white, 53¾ to 54c.; No. 4 white, 52 to 53c., nominal; No. 2 oats, 53c., destination; No. 3 oats, 52c.; No. 4 oats, 51c., nominal.

Flour.—Receipts, 11,410 barrels; shipments, 5,610 barrels. Quote: Soft winter—Patents at $5.30 to $5.85 in wood; straights at $4.80 to $4.90 in jute; extra fancy at $4.55 to $4.65 in jute; fancy at $4.10 to $4.20 in jute; low grades at $3.25 to $3.75 in jute. Hard winter, in jute—Patents, $5.00 to $5.25; straights at $4.75 to $4.90; first clears at $3.80 to $4.05; second clears at $3.40 to $3.65; low grades at $3.00 to $3.25; spring patents at $5.40 to $5.65 in jute. Foregoing for lots from first hands on track or at depot; special brands on orders more.

YOUR BOY'S HAPPINESS

is one of your first considerations. Have you ever thought of the tremendous importance and influence of his **READING MATTER?** There is nothing in this world that will do a boy more harm than cheap, trashy literature.

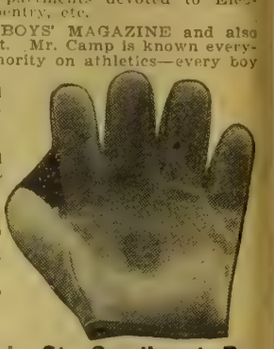
GET THE BOYS' MAGAZINE FOR HIM!

In no other way could you give him more solid pleasure, entertainment and instruction. This splendid magazine is chock full of just the kind of reading **YOU** want **YOUR** boy to have. Clean, inspiring, stories written by such noted boys' authors as Hugh Pendexter, Everett T. Tomlinson, Wm. Heyliger, etc., etc. **PRACTICAL** and **INSTRUCTIVE** departments devoted to Electricity, Mechanics, Photography, Carpentry, etc.

WALTER CAMP writes the editorials for THE BOYS' MAGAZINE and also conducts the Athletic department. Mr. Camp is known everywhere as America's highest authority on athletics—every boy should read his ideas of clean, manly sportsmanship.

THE BOYS' MAGAZINE is beautifully illustrated throughout—each issue has a new, handsome cover in colors.

SPECIAL OFFER! In order to introduce THE BOYS' MAGAZINE to thousands of new readers we will offer to send the magazine for a whole year, together with a copy of our book, "Fifty Ways For Boys To Earn Money," and also this splendid base ball glove, ALL FOR ONLY $1.00. This glove that we give away with a **YEARLY** subscription is a **HIGH-CLASS** one and one that your boy will be proud to own. It is made of finest tan leather, felt padded, **LEATHER LINED,** web thumb and deep pocket. We prepay all transportation charges.



Order to-day. We will refund your money promptly if you are not more than pleased with your investment.

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THE SCOTT F. REDFIELD COMPANY, 1056 Main St., Smethport, Pa.

THE BOYS' MAGAZINE at all news-stands, 10c. a copy.

Names For Twins.

Col. Roosevelt was warmly congratulating a young husband of Oyster Bay on the arrival of twins.

"Yes, they're a great joy to us," the young husband said, biting his lip nervously; "only we don't know what to name them."

"Why," said Col. Roosevelt, with a gay laugh, "there are hosts of good twin names. There's Ann and Another, or Kate and Duplicate, for girl twins; and for boys we have Peter and Repeater, Max and Climax, or even—if the little fellows incline to be boisterous—or even Hugh and Cry." The Colonel did not mention Alpha and Omega.

A Coupon Worth a Fruit Jar.

Our lady friends are invited to understand the advertisement of the Hazel-Atlas Glass Company, of Wheeling, W. Va., on page 26. They manufacture the E-Z Fruit Jar and wish to introduce them into families where fruits and vegetables are canned. These jars are kept for sale by grocers, and if you can find the grocer handling their jars he will furnish you with a free sample that when canning time comes around you will buy their jars because you like them. It will do no harm to write the Hazel-Atlas Glass Company, Wheeling, W. Va., and ask for a free book on fruit jars.

Regain Your Health.

You ought not to wait another day before trying Bodi-Tone, which many of your neighbors have used to the great and lasting improvement of their health. You ought to test it, because you can get it on trial and need not pay a penny unless it greatly benefits you. Read the liberal Bodi-Tone trial offer on the last page of this paper and send for a box.

Always the Same Name.

J. Ogden Armour, apropos of leap year, said at a luncheon at the Auditorium in Chicago:

"A girl can take advantage of leap year without being at all unmaidenly. There are subtle and delicate ways of doing things, and such ways are just as efficacious as brutal, knock-me-down ones.

"There's a girl named Jones, who, having been engaged altogether too long, took advantage of leap year to hurry on her wedding. But she accomplished this delicately. She just signed a letter to her fiance: 'As always, Edith Jones,' and she underscored 'always' and 'Jones' very heavily.

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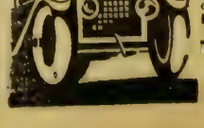

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EVERYDAY ATTIRE.

No. 7408 A.—Plain Blouse or Guimpe. 34 to 44 bust, with square, round or high neck, with three-quarter or long sleeves. For the medium size will be required 1⅞ yards of material 36 inches wide, with 1¾ yards of banding.

No. 7406.—Blouse or Shirt Waist Without Shoulder Seams. 34 to 44 bust. For the medium size will be required 1⅝ yards of material 36 inches wide to make without seam at back; 1⅞ yards 36 inches wide to make with seam at back.

No. 7388.—Semi-Princess Gown. 34 to 42 bust, with high waist line and closing at left of front, with three-quarter or long undersleeves. For the medium size will be required 5 yards of material 36 inches wide. with 1 yard 18 inches wide for chemisette and undersleeves.

No. 7321.—Two-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without pointed extensions on front portion. For the sixteen-year size will be required 2¾ yards of material 36 inches wide.

No. 7153.—Skirt With Deep Tunic Effect. 22 to 30 waist, with high or natural waist line. For the medium size will be required 2½ yards of material 36 inches wide for tunic, 1¾ yards any width for foundation.

PRETTY DRESSES.

No. 7416.—Girl's Empire Dress. Ten to fourteen years. With straight edges, skirt to be tucked or gathered, sleeves in elbow or three-quarter length. For the twelve-year size will be required 2¼ yards of bordered material 30 inches wide, and 3 yards 15 inches wide to make as shown in front view; 3½ yards, 36 inches wide, with ⅝ yard of all-over lace 18 inches wide to make as shown in back view.

No. 7407.—Girl's Dress. Ten to fourteen years. With round or high neck, with elbow or three-quarter sleeves. For the twelve-year size will be required 3¾ yards of material 36 inches wide, with 4 yards of wide lace, 3¼ yards of wide banding, as shown in front view; 5 yards edging, 10 yards insertion, ½ yard 36 inches wide for frill, as shown in back view.

No. 7413.—Empire Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. For the sixteen-year size will be required 2⅛ yards of flouncing 28 inches wide, ¾ yard of plain material 36 inches wide, 1 yard satin 21 inches wide, 2⅛ yards of banding, 3½ yards of flouncing 17 inches wide and ½ yard of tucking 18 inches wide for chemisette.

No. 6986.—Child's One-piece Dress With Bloomers. Two, four and six years. With square or round neck. For the four-year size will be required 2¾ yards of material 36 inches wide, with bloomers, 1½ yards 36 inches wide, without bloomers, 3⅛ yards of banding.

No. 6908.—Child's French Dress. Two, four and six years. With straight skirt. For the four-year size will be required 1⅝ yards of material 36 inches wide, 5¾ yards of banding.

MISCELLANEOUS MODELS.

No. 7414.—Morning Jacket With Peplum. 34 to 44 bust. With short or long sleeves, round or square collar. For the medium size will be required 3 yards of material 36 inches wide, with ⅝ yards 27 inches wide for the banding, and ⅝ yard 27 inches wide for the piping.

No. 7391.—Girl's Apron. Four to eight years. With round or square neck and round or square corners. For the six-year size will be required 1½ yards of material 36 inches wide, with ½ yard 27 inches wide for the trimming.

No. 7421.—Waitress' Apron. One size. To make requires 3¼ yards of material 36 inches wide.

No. 7404.—Infant's Tucked Dress. One size, with dress and sleeves in one. To make will be required 1⅞ yards of material 36 inches wide, with 2 yards of insertion.

No. 7415.—Child's One-piece Beach or Play Suit. Two to six years. With leg portions left loose or drawn up with elastics, with square or round neck. For the four-year size will be required 3⅜ yards of material 36 inches wide, with ¾ yard 27 inches wide for the trimming.

DAINTY UNDERWEAR.

No. 7011.—Combination Corset Cover and Five-gored Petticoat. 34 to 42 bust. For the medium size will be required 3½ yards of material 36 inches wide, 3¼ yards of embroidery for frill, 2½ yards of banding, 3¼ yards of edging, 3¼ yards of beading.

No. 6949.—Plain Princess Slip For Misses and Small Women. Fourteen, sixteen and eighteen years. With high, V-shaped, round or square neck, long, elbow or short sleeves. For the sixteen-year size will be required 4¾ yards of material 36 inches wide.

No. 7064.—Semi-Princess Slip, Empire Style. 34 to 42 bust. Perforated for round or square neck. For the medium size will be required 4¼ yards of material 36 inches wide, with 2¾ yards of embroidery 13 inches wide, or ⅝ yard of material 36 inches wide for flounce, 3¼ yards of edging, 3½ yards of beading.

No. 7398.—Open dart-fitted Drawers. 24 to 34 waist. With straight lower edges. For the medium size will be required 1⅝ yards of material 36 inches wide, with 2¼ yards of edging 4 inches deep, and 1½ yards of insertion, or 1⅞ yards of flouncing 27 inches deep.

No. 7315.—Circular Closed Drawers For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 2½ yards of material 36 inches wide, 6 yards of insertion, 3 yards of edging.

MISSES' AND CHILDREN'S ATTIRE.

No. 7395.—Child's Double-breasted Coat. One, two, four and six years. To be buttoned up closely or rolled over to form revers. With or without cuffs and pockets. For the four-year size will be required 1⅞ yards of material 36 inches wide.

No. 7420.—Child's Coat. Two to six years. With round or straight fronts, with or without shield. For the four-year size will be required 2¼ yards of material 36 inches wide, with 8 yards of braid, ½ yard 27 inches wide for collar, as shown in the back view.

No. 6882.—House Gown For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 4½ yards of material 36 inches wide, ½ yard of silk for bands.

No. 7399.—Girl's Plaited Dress. Six to ten years. With high or low shield, with full-length or three-quarter sleeves. For the eight-year size will be required 3⅜ yards of material 36 inches wide.

No. 7298.—Girl's Dress. Ten to fourteen years. With six-gored skirt, with square or high neck, elbow or long sleeves. For the medium size will be required 4 yards of material 36 inches wide, with 1½ yards of banding to trim as shown in front view, ¾ yard of all-over lace to make as shown in back view.

MODELS FOR THE COOL DAYS.

No. 7405.—Cutaway Coat For Misses and Small Women. Sixteen and eighteen years. For the sixteen-year size will be required 2½ yards of material 36 inches wide.

No. 7100.—Short Coat For Misses and Small Women. Fourteen, sixteen and eighteen years. With collar that can be made round or square at the back. For the sixteen-year size will be required 2½ yards of material 36 inches wide, ⅝ yard 27 inches wide for collar and cuffs.

No. 7408.—Outing Coat or Blazer. 34 to 40 bust. For the medium size will be required 2⅝ yards of material 36 inches wide.

No. 7147.—Six-gored Skirt. 22 to 32 waist. With high or natural waist line. For the medium size will be required 5¼ yards of material 36 inches wide, when material has figure or nap; 4 yards 36 inches wide when material has neither figure nor nap.

No. 7387.—Six-gored Skirt. 22 to 30 waist. With high or natural waist line, with or without box plait effect. For the medium size will be required 5¼ yards of material 36 inches wide when material has figure or nap; 4 yards 36 inches wide when material has neither figure nor nap.

No. 7427.—Five-gored Skirt For Misses and Small Women. Sixteen and eighteen years. With high or natural waist line. For the sixteen-year size will be required 3¼ yards of material 36 inches wide, when material has figure or nap; 2½ yards 36 inches wide when material has neither figure nor nap.

The price of each pattern is 10 cents.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The New Butter Idea.

Cotton-seed crushers are placing an alleged butter product on the market. One of the cotton-seed crushers here said anything that can be eaten on bread and produced from oil is butter, and all should be sold on their merits for what they are. "Fruit butter," such as apple butter; "beef butter," such as butterine or oleo; "cream butter" for the dairy-made article; and "vegetable butter," or seed butter, for the cotton-seed product. The cotton-seed crushers were in dead earnest and will probably be heard from when Congress meets again.

The Boys' Magazine.

A special offer made by the Boys' Magazine, Smethport, Pa., is well worth reading by parents and guardians as well as by boys themselves. Read it at once and act quickly. See page 28.

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Ptomaine Poisoning.

Illness due to the eating of infected foods is very frequent and the account of it is invariably written up as "ptomaine poisoning." The term in this connection is not scientifically correct, as the poisoning from foods may or may not be from ptomaines. Illness from infected foods is far more frequent than is generally supposed. There is little doubt that many indefinite infections and disturbances of the intestinal tract, ordinarily termed errors in diet, are due to the ingestion of decayed or infected foods.

It is often difficult to establish the true cause of food poisoning, though, of course, it is easier when the cases occur in large numbers. When but one or two cases occur in a private family, it is much more difficult to ascertain the true cause, and then only by means of the most painstaking investigation.

The poisonings from tin, leaden and copper receptacles are infrequent and in most cases are found to be due to bacteria. The more important of the food poisonings due to bacteria, often occurring in extensive outbreaks, are the following: Meat poisoning, fish and shell-fish poisoning, and poisoning through cheese, ice cream, puddings, potatoes and canned goods.

The most common form of meat poisoning is that from eating the meat of animals that were diseased at the time of slaughter. In this form of poisoning the bowels are principally affected, with symptoms of vomiting and diarrhoea. It is well to remember in this connection that most of the outbreaks in this kind of meat poisoning have been traced to the meat of calves suffering from navel infection and diarrhoea, or from cows that were slaughtered because they had been infected after calving, or were suffering from some intestinal or udder infection. The germ of enteritis (bacillus enteritidis) is the organism responsible in this kind of poisoning.

Then there is the poisoning due to the eating of putrefied meat. This is usually associated with the bacillus proteus and bacillus coli. In this case we have symptoms of vomiting, headache, dysentery, weakness, convulsions, pains in the back and neck, and great depression.

The third kind of meat poisoning is commonly called "sausage poisoning," and is caused by the bacillus botulinus. In this kind of meat poisoning the symptoms are those referable to the central nervous system, muscular paralysis, double vision, dryness of the mouth and throat, disturbances of the heart action and respiration. There is no fever and consciousness is unimpaired. In the first two forms of meat poisoning the symptoms appear usually in from six to ten hours, while in sausage poisoning the symptoms do not appear for twenty-four hours or longer.—Geo. H. Glover, Colorado Agricultural College, Fort Collins, Colo.

Houseflies and Disease.

The housefly stands convicted as a disseminator of disease and a carrier of contagion. Ever since the investigation of the spread of typhoid fever in the United States military camps during the Spanish War of 1898, the evidence has been accumulating, until to-day there is no escape from the charges against this tantalizing insect. Every far-reaching probe into sanitary problems is liable to disclose conditions hitherto quite unsuspected; and the indictments already brought against the housefly during the past few years charge responsibility for a long category of infections, including cholera and various forms of dysentery, diphtheria, erysipelas, contagious ophthalmia, cerebrospinal meningitis, anthrax and possibly small-pox, in addition to typhoid fever.

Whether all of these charges will stand in the light of scientific investigation remains to be seen. It is important, not so much in justice to the accused insect as because of the hygienic and preventive measures which are dependent thereon, that the questions here raised be authoritatively settled. In the case of typhoid, the evidence appears to be complete.

Dr. Torrey, of the Loomis Laboratory of New York, has attempted to supply facts on this question. He has examined the flies caught in the densely-populated parts of New York City during a number of months. Both the bacteria occurring in the intestine and those from the surface of the insects were investigated. The flies examined in April and early in June were comparatively free from dangerous bacteria. As the summer season advanced, high bacterial counts began to appear and also an abrupt change in the character of the bacteria. The record counts came at the end of the two weeks of excessive heat in July.

Some idea of the number of organisms that a single insect may carry is indicated by the figures 570 to 4,400,000 for the surface contamination, and 16,000 to 28,000,000 for the intestinal bacterial contents. Most of the bacteria found were comparatively harmless. This investigation, however, was carried on in the crowded city, where sewers would naturally carry off all of the most dangerous infective matter. The Journal of the American Medical Association says that the housefly is an "undesirable citizen" in any event, so that the war of extermination already begun against it in many quarters deserves encouragement and support.

The Tactful Ones.

Of all the gifts which the gods bestow upon mankind, there is none more to be desired than the gift of tact. The tactful person may be rich or poor, educated or uneducated, no matter what his social status, he can move gracefully through any society, is beloved by everyone who knows him and has a perfectly glorious time living his own little life.

A now-famous divine tells of an expetience in his early college days. He came from a crude country home where life resolved itself into a day-by-day existence which was maintained by hard wrestling with a stubborn soil. The young man was so poor that he never went out socially at college. The wife of one of the professors, learning of his lonely state, invited him to spend Christmas in her own home. The student joyfully accepted the invitation and it was a wonderful day to him. He went to his little room at night, feeling that he had indeed taken the part of a hero that day. For at the close of the Christmas dinner, a servant appeared bearing a large platter upon which reposed a regular story-book plum pudding. And the pudding was wreathed in blue flames! Here, thought the young man, was a chance to do something repaying his kind hostess for her attention to a poor student. He rushed to the rescue and extinguished the blaze! So absorbed was he in this little act that he did not observe the quick gesture of the hostess to her husband, the children and the servant. When the guest resumed his seat she thanked him most heartily for his quick thoughtfulness. It was some years later that this man attended another dinner at which a flaming pudding was brought in and the episode of his college days returned to him, and he now learned that according to an old custom brandy was poured over the pudding in the kitchen and it was then lighted and borne in while all aflame. And his heart was filled with a new gratitude to the woman who could so tactfully hide his error on that occasion that not a suspicion of it had come to the oversensitive youth.

Another theological student had trouble with the forks and spoons at his first course dinner. He began at the wrong end of his line of spoons, and when he came to the dessert he had nothing but a soup spoon left to eat it with. But looking up he saw that his hostess was evidently in the same predicament. She rang the bell and said to the servant: "Something wrong with the spoons, Parker. Will you attend to them, please?" It was not until long after that the young theologian understood that the use of his hostess' silverware had been wrong on purpose so that she could save him from embarrassment.

It was a man well accustomed to the ways of society who called forth a rare demonstration of tact and sacrifice from another hostess. This woman was using in her table service a set of fragile cups of almost priceless value. Through an awkward movement the man broke one of the cups. He was mortified, for he understood that the cups were something unusual, though he did not know their full value He was so evidently disturbed that the woman thought only of how she could smooth over the accident and put him at ease. "Don't think another thought about it," she exclaimed. "Such ware as this is really too fragile for use, anyway. Why, a mere pressure of my fingers will break the cup. See!" And, picking up the cup, she crushed it in her hand.—Janet Thomas Van Osdel.

Flies! Flies! Flies!

Get rid of them and help make your home and premises sanitary by the liberal use of *Tanglefoot Fly Paper.* There is fully one-third more compound per sheet on *Tanglefoot* than on any other fly paper; hence it lasts longest, catches the most flies and is the **best** and **cheapest** fly paper. If you ask for "fly paper" or "sticky fly paper" you may get a cheap imitation that will soon dry up or glaze over. **Ask for Tanglefoot.**

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TREE TANGLEFOOT, put up in 1, 3, 10 and 20 lb. cans, Will protect your trees from all climbing insects.

Dainty Neckwear.

Pretty neckwear often makes a plainly-dressed woman or girl look well dressed, and the present style of dressing the neck enables one to use to good advantage all pieces of ribbon, silk, lace and linen, and these accessories are as pretty and becoming as the high-priced ready-made articles. Every piece of lace can be used to good advantage, and if it has turned yellow and you want it whitened, place it in strong suds and set it in the sun for several days, or put it in sour buttermilk and let it remain for two or three days.

The best way to dry a short piece of lace is to spread it smoothly over a large window-pane while it is still damp, and when perfectly dry the lace will be crisp and new in appearance.

For starching very light laces or fabrics, dissolved gum Arabic is much better than starch. Get the fine white gum Arabic and dissolve it in hot water, then add as much of this to warm water as you need for the starching.

Laces, ties and collars should never be rubbed in washing, and the best way to clean them is with a small cleaner made like a churn dasher; that is, a small, smooth board with holes bored through and tacked to a short handle, and any girl can make one of these, and they are excellent for cleaning fine white waists and all kinds of sheer fabrics. If you haven't one of these cleaners, use a common wooden potato masher. Put the collar or laces in warm suds and pound gently, but do not pound all in one spot, but round and round until every part of the article or articles has been pounded. Lay aside the pounder and examine the pieces, and if not clean, pound a little longer, and it will not take long to cleanse even the most soiled pieces in this manner.

The crocheted collars and jabots and all kinds of dainty white neck-pieces are made beautifully white by dissolving some borax soap chips in hot water and then stirring enough of this solution in warm, soft water to make a nice lather. Put the pieces in the suds and let them soak for half an hour or longer before cleaning, and it is the Twenty Mule Team Soap Chips that are used for washing all such dainty articles; but if very soiled, it is best to clean them in the following way: Make a suds with the chips, then put in the articles and let simmer slowly on the back of the stove for half an hour, then remove it from the stove and squeeze it well through the suds, then rinse through two or three waters and finally through the thin gum Arabic water for the stiffening. —Aline.

Told the Wrong Party.

"You can't sit up with my daughter after eleven o'clock."

"Would you mind telling her that, sir? I have been trying to get home early for six months."—Life.

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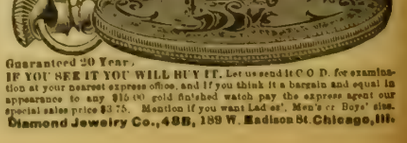

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SELECTED POETRY.

MAY.

She comes a thing of beauty with sweet loveliness a duty,
With the daisies and the cowslips in her hair;
The breath of bloom upon her and the sun's warm kisses on her,
The perfume of her presence everywhere.
The songs of birds, her greeting, all the world with pleasure meeting,
Their melody upon her lips to stay,
Her robes of fresh green sweeping, little wild buds on its creeping,
The fairy, airy, merry month of May.

Oh, her laugh is like a tonic with all happy sounds harmonic,
Her eyes are like the blue of tender skies;
Her hair, like princess olden, hangs about her gleaming golden
And its sheen in little broken tendrils flies;
Her step so lightly presses, that its marks are like caresses,
Which the flowers spring to gain upon her way,
And all things in nature love her, round her slight form loving hover,
The glancing, dancing, maiden month of May.

She's the sprite of birdlike wingtime, she's the darling of the springtime,
She's the fairest month of all within the year.
She's in gay moods ever moving, yet is tender, sweet and loving,
And she brings the breath of Eden very near;
Her fresh youth brings its vigor, its light touch checks age's rigor,
Bloom and song and sunlight make her ever gay,
And the earth she cheers and brightens, nature softens, glories, lightens,
This gladsome, madsome, merry month of May.

—Baltimore American.

THE DEACON'S MASTERPIECE; OR, THE WONDERFUL "ONE-HOSS SHAY."

Have you heard of the wonderful one-hoss shay,
That was built in such a logical way
It ran a hundred years to a day;
And then, of a sudden, it—ah, but stay;
I'll tell you what happened without delay;
Scaring the parson into fits,
Frightening people out of their wits—
Have you ever heard of that, I say?

Seventeen hundred and fifty-five,
Georgius Secundus was then alive—
Snuffy old drone from the German hive.
That was the year when Lisbon-town
Saw the earth open and gulp her down,
And Braddock's army was done so brown,
Left without a scalp to its crown—
It was on the terrible earthquake-day
That the deacon finished the one-hoss shay.
Now, in building of chaises, I tell you what,
There is always somewhere a weakest spot—
In hub, tire, felloe, in spring or thill,
In panel or crossbar, or floor or sill,
In screw-bolt, thoroughbrace, lurking still—
Find it somewhere you must and will,
Above or below, or within or without;
And that's the reason, beyond a doubt,
A chaise breaks down but doesn't wear out.

But the deacon swore (as deacons do,
With an "I dew vum," or an "I tell you")
He would build one shay to beat the taown
'N' the keounty 'n' all the kentry raoun';
It should be so built that it couldn't break daown;
"Fur," said the deacon, "'tis mighty plain
That the weakes' place mus' stan' the strain;
'N' the way t' fix it, uz I maintain,
Is only jest
T' make that place as strong uz the rest."
So the deacon inquired of the village folk
Where he could find the strongest oak,
That couldn't be split, nor bent, nor broke—
That was for spokes, and floor, and sills;
He sent for lancewood to make the thills;
The crossbars were ash from the straightest trees;
The panels of whitewood, that cuts like cheese,
But lasts like iron for things like these;
The hubs of logs from the "Settler's ellum"—
Last of its timber—they couldn't sell 'em;
Never an ax had seen their chips,
And the wedges flew from between their lips.

Their blunt ends frizzled like celery tips;
Step and prop-iron, bolt and screw,
Spring, tire, axle and linchpin, too,
Steel of the finest, bright and blue;
Thoroughbrace, bison-skin, thick and wide,
Boot, top, dasher, from tough old hide
Found in the pit where the tanner died.
That was the way he "put her through."
"There!" said the deacon, "naow she'll dew!"

Do! I tell you, I rather guess
She was a wonder, and nothing less!
Colts grew horses, heads turned gray—
Deacon and deaconess dropped away;
Children and grandchildren—where were they?
But there stood the stout old one-hoss shay
As fresh as on Lisbon-earthquake day!

Eighteen hundred—it came and found
The deacon's masterpiece strong and sound.
Eighteen hundred increased by ten—
"Hahnsum kerridge" they called it then.
Eighteen hundred and twenty came—
Running as usual; much the same.
Thirty and forty at last arrive,
And then came fifty and fifty-five.
Little of all we value here
Wakes on the morn of its hundredth year
Without both feeling and looking queer.
In fact, there's nothing that keeps its youth,
So far as I know, but a tree and truth.
(This is a moral that runs at large;
Take it—You're welcome—No extra charge.)

First of November—the earthquake day—
There are traces of age in the one-hoss shay,
A general flavor of mild decay,
But nothing local, as one may say;
There couldn't be, for the deacon's art
Had made it so like in every part
That there wasn't a chance for one to start,
For the wheels were just as strong as the thills,
And the door was just as strong as the sills,
And the panels just as strong as the floor,
And the whippletree neither less nor more,
And the back crossbar as strong as the fore,
And the spring and axle and hub encore;
And yet, as a whole, it is past a doubt,
In another hour it will be worn out!
First of November, fifty-five!
This morning the parson takes a drive.
Now, small boys, get out of the way!
Here comes the wonderful one-hoss shay,
Drawn by a rat-tailed, ewe-necked bay.
"Huddup!" said the parson. Off went they.

The parson was working his Sunday-text—
Had got to fifthly, and stopped perplexed
At what the—Moses—was coming next.
All at once the horse stood still.
Close by the meet'n-house on the hill—
First a shiver and then a thrill,
Then something decidedly like a spill—
And the parson was sitting upon a rock,
At half-past nine by the meet'n-house clock—
Just the hour of the earthquake shock!
What do you think the parson found
When he got up and stared around?
The poor old chaise in a heap or mound,
As if it had been to the mill and ground!
You see, of course, if you're not a dunce,
How it went to pieces all at once—
All at once, and nothing first—
Just as the bubbles do when they burst.

End of the wonderful one-hoss shay;
Logis is logic—that's all I say.

—Oliver Wendell Holmes.

THE LITTLE MIRACLES.

I hollered for a miracle, and I argued loud an' long;
I put th' cause before 'em in some statements mighty strong;
I said 'twas no use talkin' if miracles was done
In other days, 'twas easy to show me only one!
I walked off mighty proudlike—an' smiled at th' perfume
That sort o' whispered to me from a lilac bush in bloom.

I set an' made 'em listen, when I'd let 'em have their say;
I showed 'em by cold logick we are livin' in to-day.
We went clear back to Jonah, an' Moses an' the rock—
There was no claim that they made I couldn't set an' mock.
Then when a johnny-jump-up laughed at me from th' grass
I saw my twisted sperrit like in a lookin' glass.

I hollered for a miracle, I dared 'em just to show
One marvel like they talked about of long an' long ago;
And then I saw the orchard—last month all dead an' bare,
An' now a sea o' blossoms that sanctify th' air!
Out yonder in th' medder lot th' dandylions blaze;
Th' tendrils o' th' grapevine reaches out a dozen ways.

I hollered for a miracle! And right before my eyes
Is miracles as wonderful as when th' dead arise!
A tree alive with blossoms, a vine that shakes its leaves,
A swallow that can find its nest again below th' eaves!
I hollered for a miracle—there's one been worked with me,
For I was blind, but in a flash 'twas given me to see.

—Chicago Post.

VIOLATING HOSPITALITY.

It was the cat's fault, darn her skin!
It was cold. I let her in
The stall where I was milkin' at.
An' that ends me an' that there cat!
She rubbed ag'in me an' said: "M'yow!"
While I was milkin' of the cow.
An' leaned upon me with her paws—
She knowed that I could squirt her jaws
Plumful of milk if I'd a mind;
An' so I did, just to be kind!

Say! Maybe that cat wasn't pleased!
She purred around and then she squeezed
Between the milk stool an' my leg,
An' every minute she would beg
In such a tone as if it hurt
For me to give her one more squirt!
An' then, because I let her beg,
She rose upon the cow's hind leg—
Me not a noticin' a bit—
An' sharpened up her claws on it!

Yes, that's the reason I'm so sore!
The stable's got a flimsy door,
An' if it hadn't got one I've
No cause to think I'd be alive.
That cow's foot hit me like a maul!
No brickbat never hit no wall
As hard as I did when I hit
That door and smashed it. Then I lit
Kersplash in the cow's drinkin' tub—
All I could say was just "blub, blub!"
Say, when I crawled back that there cat
Was lappin' where the milk spilled at!
An' the cow horned at me! For she
Had a fool notion it was me
That scratched her leg and made her kick.
Cows is such fools they make me sick!
She pasted me plum through the wall
An' never kicked the cat at all!
That cat can m'ew till she's froze—
But she stays out next time. That goes!

—Atlanta Journal.

The Old Oaken Bucket

Filled to the brim with cold, clear purity—no such water nowadays.

Bring back the old days with a glass or bottle of

Coca-Cola

TRADE MARK REGISTERED

It makes one think of everything that's pure and wholesome and delightful. Bright, sparkling, teeming with palate joy—it's your soda fountain old oaken bucket.

Free Our new booklet, telling of Coca-Cola vindication at Chattanooga, for the asking.

Demand the Genuine as made by
THE COCA-COLA CO
ATLANTA, GA.
2-J

Whenever you see an Arrow think of Coca-Cola.

FRIENDS.

I had a friend,
I loaned him ten.
I haven't seen
My friend since then.

Another one
Touched me for five.
I doubt if he
Is still alive.

Went on a note
To help a third.
He may be dead;
I haven't heard.

I guess it's true
That in the end
A feller is
His own best friend.

—Chicago Journal.

THE SLEEPY SONG.

As soon as the fire burns red and low,
And the house upstairs is still,
She sings me a queer little sleepy song
Of sheep that go over the hill.

The good little sheep run quick and soft,
Their colors are gray and white;
They follow their leader nose to tail,
For they must be home by night.

And one slips over, and one comes next,
And one runs after behind;
The gray one's nose at the white one's tail,
The top of the hill they find.

And when they get to the top of the hill
They quietly slip away.
But one runs over and one comes next—
Their colors are white and gray.

And over they go, and over they go,
And over the top of the hill
The good little sheep run quick and soft,
And the house upstairs is still.

And one slips over and one comes next,
The good little, gray little sheep!
I watch how the fire burns red and low,
And she says that I fall asleep.

—Josephine Daskam.

THE OLD COWMAN SPEAKS.

I ain't a very religious man, though my life on the open range
Has given me a streak of reverence—if it hadn't it sure'd be strange—
But it seems to me I'd lift my hat and make some sort of prayer
If I felt the breath of the first chinook sweep over the prairie there.

There ain't a hint of a tricklin' stream in any coulee or draw,
The sting is in the northern winds that lash your face till it's raw;
The time is past for the first chinook—spring's message is overdue—
And the cattle are weakenin' in the hills where the snowy shadders are blue.

The cowmen ain't the complainin' kind—they ain't so much on the whine—
And kickin' because the cards fall wrong ain't never been in their line.
But I could rustle a maverick prayer—though from me it might be in vain—
If I felt the breath of the first chinook steal over the ice-bound plain.

—Denver Republican.

Old Folks

Young or Old

No matter whether you are a man or a woman, twenty years old or seventy, all you need do is send the coupon with your full name and address and it will be sent to you, without a penny from you. *Age is no barrier to health*, and this offer is open to all *Old People*, as well as middle-aged and young men and women. We want to send every elderly person a full-sized one dollar box of Bodi-Tone on twenty-five days trial, the same as we send it to the young and middle-aged, all at our own risk and expense, to prove how Bodi-Tone acts in ailments of the old as well as the young, to prove what it does for persons suffering from bodily weaknesses and ailments, whether from age or otherwise. *This trial offer is open to all men and women*, freely, generously, without any age limit. Thousands of persons, old and young, have sent for Bodi-Tone on trial, without paying a penny, and found it put new flesh on their bones, new vigor in their minds, new vim in their muscles, and new vitality into every vital function, and we want *you* to try it, to see if it will not do as much for you.

All you need do is to say "I Want to Try It" and a dollar box will be handed out to you.

It makes no difference who, where or what you are, Bodi-Tone takes all the risks, and asks no pay if it does not benefit. You don't need to write a long letter, don't need to fill out any tiresome blanks, don't need to send any money or stamps. We don't ask to know your ailment and you need not write a word about it. All troubles originate in the body, and *Bodi-Tone sets the body right*. All you need do is clip out the coupon, which says "I Want to Try Bodi-Tone," fill in your name and address, and we will send Bodi-Tone to you. This is how Bodi-Tone wants to be tried by old and young, this is how it wants to prove its curative powers. We are glad to send it to you without a penny, glad to give you a chance to try it, to learn about this medicine which has brought new health and vigor to so many sick, suffering and feeble persons, old and young, glad to show you how health can be created at all ages with the right medicine, made from the right ingredients. If Bodi-Tone benefits you as it has benefited thousands, pay us a dollar for it. If you are not satisfied, don't pay a penny. We won't ask for pay or dun you, for we leave it all to you. *Clip the coupon and send for it today.*

Bodi-Tone Does Just As Its Name Means

It cures disease by toning all the body, and we want to show you what it will do for *your* body. Bodi-Tone is a small, round tablet, that is taken three times every day. Each box contains seventy-five tablets, enough for twenty-five days' use, and we send you the full box on trial so you can try this great remedy and learn what it is, so you can learn how it works in the body, how it *cures stubborn diseases* by helping nature to tone every organ of the body. Tone is a little word, but it means a great deal, everything in health. When all the organs are doing their part, when each is acting in a perfectly natural way, when all the functions are healthy and performed with natural vigor, when the energy, strength and power of resistance to disease are all at a natural point, then the body is in proper tone. When disease has attacked any part, when lack of vitality is found and felt, the tone of the entire physical body should be raised to the highest possible point, to make all the body help to cure and restore. This is the power which underlies all of Bodi-Tone's great work for the sick, this is the power it offers you to help you get new health and strength, new vigor and new vitality.

Bodi-Tone is not a patent medicine, for its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit.

Natural Curatives To Make Natural Health

When you use Bodi-Tone you know just what you are using, know it is pure and safe and know you are taking the right kind of medicine to provide real help for the body. It contains nothing that your own family doctor will not endorse and say is a good thing. It does not depend on killing pain with cocaine, opium, morphine or other dangerous drugs. It does not excite the body with alcohol, but it tones the body and cures its disorders with remedies nature intended to tone and cure the body when that power was given them. Thus, Iron gives life and energy to the Blood, Sarsaparilla drives out its impurities, Phosphate and Nux Vomica create new nerve energy and force, Lithia aids in the Kidneys and dissolves rheumatic deposits, Gentian does invaluable work for the Stomach and Digestive forces, Chinese Rhubarb and Oregon Grape Root promote vigorous Liver activity, Peruvian Bark raises the tone of the entire system, Golden Seal soothes the inflamed membrane and checks Catarrhal discharges, Cascara gives the Bowels new life in a natural way, and Capsicum makes all more valuable by bettering their quick absorption into the blood. A *remarkable combination that does wonderful work for the body's health.* Each one of its ingredients adds a needed element from nature to the body, for Bodi-Tone is altogether *a natural remedy*. Each has a certain work to do in the body and does it well, in a natural manner. They are used in Bodi-Tone because of this ability. We claim no credit for discovering these valuable ingredients, each of which has a well deserved place in established medical science. We claim only the credit for our successful Bodi-Tone formula, which is our own discovery, for the way in which we have *selected, proportioned and combined these great natural curatives*, and for the health-making work which Bodi-Tone has so well proven its ability to perform in the body. The curative forces which Bodi-Tone so ably uses are the forces which have always existed in nature for the restoration of the body's health. Many are regularly prescribed by good physicians in combination with such drugs as each doctor may favor, for there are wide differences of opinion among doctors of various schools. The *exact combination used in Bodi-Tone* is what gives it the far-reaching and thorough curative and restorative power that makes possible the remarkable cures experienced by Bodi-Tone users, cures which prove the difference between Bodi-Tone and common remedies, cures which have won the gratitude of thousands.

You Need Bodi-Tone To Set Your Body Right

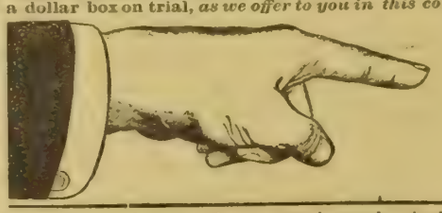
If you are tired of continual doctoring and bad health, if you are wearied of feeling you cannot depend on your body to act right and do its full duty, *you need Bodi-Tone right now*, and this offer gives you a chance to try it without risking a penny. You need it to seek out your weak spots and make them stronger, to stop the leaks which have been draining your vitality, to make your organs capable of giving you the right measure of strength, vigor, energy and full-blooded comfort your body should have. If there is anything wrong in your body, if any organ is act ng in a way which you realize and know is not right, send for Bodi-Tone on this trial offer and give it a chance to set you right. If you do not feel right, eat right, sleep right, weigh right, work right and think right, now and all the time, put Bodi-Tone in command of your body for twenty-five days. Let it marshal your bodily forces, let it line them up and work them into shape, until all are marching along straight, strong and harmoniously, in perfect time, tune and tone, for that is what Bodi-Tone is for and what it is doing for thousands. If the doctor's prescriptions and ordinary medicinal combinations have failed, let this scientific combination of special remedies show and prove what it can do for you. Its greatest triumphs have been among men and women who had chronic ailments, who had used patent medicines and had doctored with their local doctors and out-of-town specialists, all without lasting benefit. It is because of its great work in these cases that all chronic sufferers and persons with obstinate diseases are invited to try a dollar box of Bodi-Tone at our risk.

Why be a Slave To Bad Health?

Why remain in ill-health month after month, why allow your body to make you a slave to ills, humours, distress and discomforts, when it is so easy to procure a trial box of this home treatment which has restored thousands to vigorous health and glorious strength? Why delay another day, when a trial of this proven medicine is yours for the asking? Why keep on suffering, when by filling in your name and address on the trial coupon and mailing it to us, you can get a full twenty-five days treatment of this great remedy which people everywhere are praising and talking about. It just costs a two-cent stamp, and you don't need to pay a single penny for the medicine unless Bodi-Tone benefits you. You have all to win and nothing to lose, no matter what your ailment may be, by thus trying it.

Thousands of Cures

of Rheumatism, Stomach Trouble, Kidney, Liver and Bladder Ailments, Uric Acid Diseases, Female Troubles, Bowel, Blood and Skin Affections, Dropsy, Piles, Catarrh, Anaemia, Sleeplessness, LaGrippe, Pains, General Weakness and Nervous Break-down, have fully proven the power and great remedial value of Bodi-Tone in such disorders. Each one got a dollar box on trial, *as we offer to you in this coupon.*



Its history of success has proven beyond a shadow of doubt how the Bodi-Tone plan of *toning all the body* is a right plan that helps to *cure* these and other disorders, that it is *a real aid to nature*. Many who had for years been in poor health and had tried good doctors and most all of the prominent medicines, have found that *one single box of Bodi-Tone* did more good than *all* other treatments combined. It goes to the root in the body and cures because its work is rational and thorough, the only kind that makes cures permanent. Read the reports, showing how Bodi-Tone makes new health and strength, send for a box on trial at our risk and see if it will not prove the *right thing* for you.

Did More for Him Than Three Specialists.

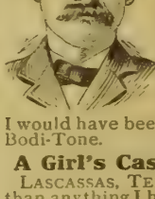
CARTERS, GA.—I have been diseased for the last fifteen years with what the doctors called Catarrh of the Head, or Systemic Catarrh. Some called it one thing and some another. I had pains all through my body, in my Bowels, Stomach and Back, and my Heart would flutter and beat and smother so it appeared that I could not live. I had Indigestion and Constipation, with blind spells. Everything I ate soured on my stomach before I would get through eating. It seemed that I could not stand it much longer. I tried all the doctors in my settlement and three specialists of Atlanta, Ga., and most of the patent medicines and drugs that I heard of, without any relief, until I got Bodi-Tone. By the time I had taken a treatment of Bodi-Tone I could eat anything I wanted, and there was not a pain in my body. Bodi Tone has done more for me than all the doctors could do. I am seventy-five years old. My wife, who is in her seventy-fourth year, has also been greatly benefited by its use. J. F. PETTY.

Free From Pain at Eighty-One Years

GLEN ROSE, TEXAS.—I have been in poor health for thirty years, and at times it seemed I was afflicted with most every trouble flesh is heir to. I had Catarrh of the Head, Asthma, Stomach Trouble, My Liver was bad and Kidneys and Bladder were deranged. At times I would lay in a cold sweat for hours with Bilious Colic. I suffered in this way until a year ago, when I saw the Bodi-Tone trial offer, sent for a box and began to take it. I am now in my eighty-first year, and have been altogether free from pain and any distress since I took the first few boxes. Everybody speaks about how well I have been this year, and all realize the great good Bodi-Tone has been to me. MRS. E. RAMFIELD.

Doctor Said He Had Bright's Disease

DANA, IND.—I doctored for four years for Bowel, Stomach Trouble and Rheumatism and gradually grew worse. One doctor told me at last that I had Bright's Disease and could not be cured; then I went to a specialist at Indianapolis. He doctored me for a long time and finally told me to go to the Springs at Martinsville, Ind. I did so and stayed there for some time, but no cure. I commenced taking Bodi-Tone ten months ago and went to work four days after I commenced its use. I am well now and weigh 210 pounds, for I am a large-boned man. I believe that I would have been under the ground if I had not taken Bodi-Tone. G. M. HILL.



A Girl's Case of Extreme Nervousness

LASCASSAS, TENN.—Bodi-Tone has helped me more than anything I have taken. Since using it I seem like a different girl entirely. So many people say "What have you been doing for yourself, you look so much better!" I couldn't do hardly anything before taking Bodi-Tone. Life was a worry and a dread, now it is worth living. I was so nervous I could hardly sleep at night. My head and back would jerk so we feared I had St. Vitus dance. I had our family Doctor, and I took a lot of medicine. Mother saw the Bodi-Tone advertisement and the offer seemed so fair we could not help having faith in it, so sent for a box. Bodi-Tone has done the work for me as all here know. I shall always praise it. EULA DILLON.

Trial Coupon

Clipped from National Farmer and Stockgrower

Bodi-Tone Company,
Hoyne & North Aves., Chicago.

I have read your offer of a dollar box of Bodi-Tone on 25 days' trial and ask you to send me a box by return mail, postpaid. I will give it a fair trial and will send you $1.00 promptly when I am sure it has benefited me. If it does not help me I will not pay one penny and will owe you nothing. Neither I nor any member of my family have ever used it.

Name_____

Town_____

State_____

St. or R. F. D._____

National FARMER

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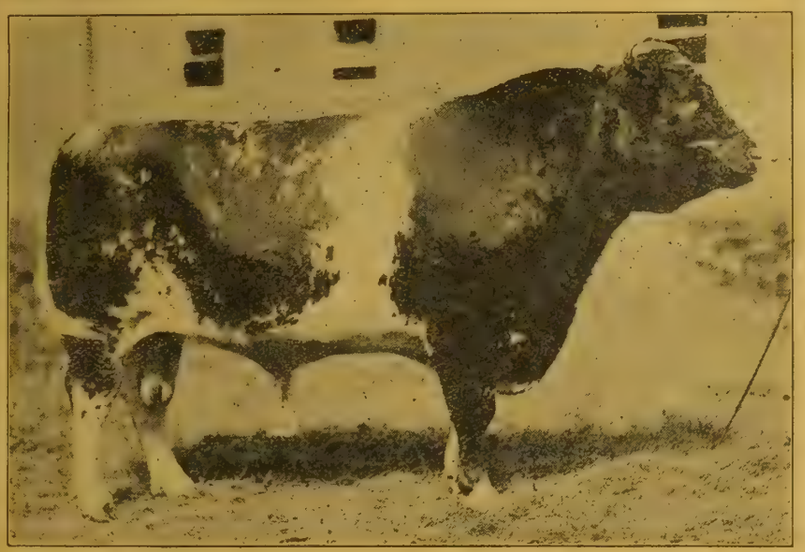

RINGMASTER, 307,891—ILLUSTRIOUS SHORTHORN BULL. Winner of many grand prizes and championships at State, National and International Fairs, including the grand championship at the Chicago International Live Stock Exposition. The picture of RINGMASTER is one of 750 that appear in the Book of Live Stock Champions advertised on page 22.

HAMPSHIRE DOWN LAMBS—TWO OUT OF A PEN OF THREE WINNING SWEEPSTAKES HONORS AT THE KENTUCKY STATE AND OTHER FAIRS. This picture is one of 750 which appear in the Book of Live Stock Champions advertised on page 22.

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5 Cents a Copy. Published Monthly by The Hale Publishing Co. 50 Cents a Year.

and Stock GROWER

Report on Missouri Apple Crop.

Reports from correspondents to the Secretary's office indicate an unusually large apple crop in sight at this time. The per cent. may fall, due to what is known as "the July drop," and there is always the menace of insects and diseases to the unsprayed orchards.

So far this season there has been but slight injury due to insects and diseases. Some correspondents report scab and blight, also damage from curculio and coddling moth, especially in unsprayed orchards. These do not appear, however, to be widespread, as most reports give no insect or disease injury.

The set has been only fair to good. Some varieties, as Ben Davis, Gano and Winesap, set well and will give the best crop. Jonathan and York set poorly in all sections, while most sections report poor set for summer varieties. As an average for the state, estimated by our correspondents, the apple crop now stands at 72 per cent. This seems to be fairly uniform throughout the state. The lowest average is for Northeast Missouri—64 per cent.—while the highest—Northwest Missouri—has 77 per cent.

At this time last year the outlook for an apple crop was placed at 35 to 40 per cent.

The average number of growers reported spraying is 16 per cent. Northwest Missouri leads with the highest number, 20 per cent.; while Central Missouri reports the least, 11 per cent.—W.W.Chenoweth, Sec'y.

GOVERNMENT CROP REPORT.

Basis of June 1st—Also Giving Prices Paid to Farmers.

The June examination by the Department of Agriculture of the condition of all crops and prices therefor is probably the most important of the year. It was the 11th of June when the report was published, as follows:

Crop conditions in general on June 1st averaged for the United States slightly better (0.3 per cent.) than on the same date last year, but moderately lower (1.7 per cent.) than the average June 1st condition of recent years. Crops as a whole are above the average in the North Atlantic States (due mostly to favorable hay prospects), and in the far Western and Northwestern States, being particularly favorable in Oregon; and below average conditions in the Southern States and in the North Central States east of the Mississippi river. In the North Central States west of the Mississippi river conditions are silghtly above the average.

The condition of various crops compared with their average condition (not normal) on June 1st was as follows:

Apples, 110.2; pears, 108.7; peaches, 108.5; pastures, 104.9; alfalfa, 103.7; hay, 103.5; oats, 103.1; spring wheat, 102.1; cantaloupes, 101.8; cabbage, 101.4; watermelons, 101.3; clover hay, 100.6; barley, 100.3; Lima beans, 100.3; onions, 100.1.

Rye, 97.8; cotton, 96.8; sugar beets, 96.0; raspberries, 95.7; hemp, 92.2; winter wheat, 91.8; sugar cane, 90.7; blackberries, 90.2.

The estimates of acreage compared with last year are, for winter wheat, 88.3; spring wheat, 94.2; all wheat, 90.7; oats, 100.2; barley, 90.3; clover, 86.7.

The general or composite condition of all crops combined, by states, is as follows, on the basis of 100 representing average conditions (for most crops the ten-year average):

Maine, 106.2; New Hampshire, 111.7; Vermont, 112.6; Massachusetts, 108.0; Rhode Island, 100.0; Connecticut, 102.4; New York, 104.8; New Jersey, 106.5; Pennsylvania, 104.4; above division, 104.8.

Delaware, 118.8; Maryland, 111.2; Virginia, 110.9; West Virginia, 115.5; North Carolina, 105.5; South Carolina, 103.1; Georgia, 92.1; Florida, 101.6; above division, 94.8.

Ohio, 88.1; Indiana, 85.8; Illinois, 97.5; Michigan, 94.1; Wisconsin, 99.7; above division, 91.1.

Minnesota, 103.8; Iowa, 99.3; Missouri, 95.4; North Dakota, 101.5; South Dakota, 100.9; Nebraska, 96.0; Kansas, 104.0; above division, 100.6.

Kentucky, 92.7; Tennessee, 97.5; Alabama, 92.6; Mississippi, 90.0; Louisiana, 88.0; Texas, 108.5; Oklahoma, 99.6; Arkansas, 91.7; above division, 97.4.

Montana, 101.9; Wyoming, 102.2; Colorada, 104.2; New Mexico, 102.0; Arizona, 111.4; Utah, 102.4; Nevada, 98.4; Idaho, 103.0; Washington, 104.6; Oregon, 108.5; California, 100.8; above division, 103.4.

Prices paid to producers of the United States on June 1st of 1912 and 1911, respectively, were as follows: Corn, 82.5 cents, 55.1 cents; wheat, 102.8 cents, 86.3 cents; oats, 55.3 cents, 34.7 cents; barley, 91.1 cents, 73.8 cents; rye, 88.1 cents, 77.9 cents; buckwheat, 84.8 cents, 70.1 cents; flaxseed, $2.05, $2.25; potatoes, 119.7 cents, 63.3 cents per bushel; hay, $17.54, $13.16 per ton; cotton, 11.0 cents, 14.6 cents; butter, 24.8 cents, 20.3 cents; chickens, 11.1 cents, 11.0 cents per pound; eggs, 16.7 cents, 14.5 cents per dozen. Prices on May 15 of 1912 and 1911, respectively, were: Hogs, $6.79; $5.72; beef cattle, $5.36, $4.59; veal calves, $6.23, $5.68; sheep, $4.74, $4.51; lambs, $6.16, $5.74 per 100 pounds; milch cows, $45.63, $44.54; horses, $144.20, $146.25 each; milk, 22.5 cents, 20.9 cents per gallon; apples, 128.8 cents, 139.6 cents; beans, $2.52, $2.17; sweet potatoes, 118.6 cents; 103.6 cents; onions, $1.77, $1.29; clover seed, $12.53, $8.74; timothy seed, $7.16, $5.24 per bushel; hops, 37.2 cents, 20.9 cents; maple sugar, 11.6 cents; honey, comb, 13.7 cents, 13.6 cents; wool, unwashed, 17.8 cents, 14.7 cents; peanuts, 4.9 cents, 4.8 cents per pound; cabbage, $2.98, $1.38 per 100 pounds; broom corn, $83.34, $81.05; cotton seed, $19.21, $25.46; bran, $30.18, $25.93 per ton.—Nat. C. Murray, Acting Chief of Bureau.

Some Figures on Hogs.

The growing importance of the Southeast as a pork-producing region is shown by an analysis of the latest live stock statistics of the United States. The estimates of the Agricultural Department show a total of 65,410,000 hogs on farms and ranges in the entire country on January 1, 1912, a decrease of 210,000 as compared with January 1, 1911. On January 1, 1912, the number of hogs in the nine Southeastern States traversed by the Southern Railway was 12,542,000, an increase over January 1st, last year, of 887,000.

Figures for each state are as follows: Virginia, 880,000, an increase of 26,000; North Carolina, 1,405,000, an increase of 54,000; South Carolina, 797,000, an increase of 52,000; Georgia, 2,098,000, an increase of 225,000; Florida, 954,000, an increase of 87,000; Alabama, 1,533,000, an increase of 114,000; Mississippi, 1,577,000, an increase of 156,000; Kentucky, 1,724,000, an increase of 98,000; and Tennessee, 1,574,000, an increase of 75,000.

Large as these figures are, they do not measure the full progress of the Southeast as a hog-raising section, for, with the more extended raising of pure-bred hogs, there is a corresponding advance in the average quality and weight of Southern hogs. —Southern Field.

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UNITED STATES FARM ACREAGE.

Comparison by States Showing Number and Average Size of Farms, 1900 and 1910—Rural Population and Total Population at Last Census.

States.	1900. Farms.	1900. Acres.	1910. Farms.	1910. Acres.	1910. Rural Pop.	1910. Total Pop.
ALA.	223,222	92.7	262,901	78.9	1,767,662	2,138,093
ARIZ.	5,809	333.2	9,227	135.1	141,004	204,354
ARK.	178,604	93.1	214,678	81.1	1,371,768	1,574,449
CAL.	72,542	397.4	88,197	316.7	907,810	2,377,549
COLO.	24,700	383.6	46,170	293.1	394,184	799,020
CONN.	26,948	85.8	26,815	81.5	114,917	1,114,756
DEL.	9,687	110.1	10,836	95.9	105,237	202,322
D. C.	269	31.6	217	27.9	1,000	331,069
FLA.	40,814	106.9	50,016	105.6	533,539	752,619
GA.	224,691	117.5	291,027	92.6	2,070,471	2,609,121
IDAHO.	17,471	183.4	30,807	171.5	255,696	325,594
ILL.	264,151	124.2	251,872	129.1	2,161,662	5,638,591
IND.	221,897	97.4	215,485	98.8	1,557,041	2,700,876
IOWA.	228,622	151.2	217,044	156.3	1,544,717	2,224,771
KANS.	173,098	240.7	177,841	244.0	1,107,159	1,690,549
KY.	234,667	93.7	259,185	85.6	1,734,463	2,289,905
LA.	115,969	95.4	120,546	86.6	1,159,872	1,656,388
MAINE.	59,299	106.2	60,016	104.9	360,928	742,371
MD.	46,012	112.4	48,923	103.4	637,154	1,295,346
MASS.	37,715	83.4	36,917	77.9	241,049	3,366,416
MICH.	203,261	86.4	206,960	91.5	1,483,129	2,810,173
MINN.	154,659	169.7	156,137	177.3	1,225,414	2,075,708
MISS.	220,803	82.6	274,382	67.6	1,589,803	1,797,114
MO.	284,886	119.3	277,244	124.8	1,894,518	3,293,335
MONT.	13,370	885.9	26,214	516.7	242,633	376,053
NEBR.	121,525	246.1	129,678	297.8	881,362	1,192,214
NEV.	2,184	1,174.7	2,689	1,009.6	68,508	81,175
N. H.	29,324	123.1	27,053	120.1	175,473	430,572
N. J.	34,650	82.0	33,487	76.9	629,957	2,537,167
N. MEX.	12,311	416.8	35,676	315.9	280,730	327,301
N. Y.	226,720	99.9	215,597	102.2	1,928,120	9,113,614
N. C.	224,637	101.3	253,725	88.4	1,887,813	2,206,287
N. DAK.	45,332	342.9	74,360	382.3	513,820	577,056
OHIO.	276,719	88.5	272,045	88.6	2,101,978	4,767,121
OKLA.	108,000	212.9	190,192	151.7	1,337,000	1,657,155
OREGON.	35,837	281.0	45,502	256.8	365,705	672,765
PA.	224,248	86.4	219,295	84.8	3,034,444	7,665,111
R. I.	5,498	82.9	5,292	83.8	17,956	542,610
S. C.	155,355	90.0	176,434	76.6	1,290,568	1,515,400
S. DAK.	52,622	362.4	77,644	335.1	507,215	583,888
TENN.	224,623	90.6	246,012	81.5	1,743,744	2,184,789
TEXAS.	352,190	357.2	417,770	269.1	2,958,438	3,896,542
UTAH.	19,387	212.4	21,676	156.7	200,417	373,351
VT.	33,104	142.7	32,709	142.6	187,013	355,956
VA.	167,886	118.6	184,018	105.9	1,585,083	2,061,612
WASH.	33,202	256.0	56,192	208.4	536,460	1,141,990
W. VA.	92,874	114.7	96,685	103.7	992,877	1,121,119
WIS.	169,795	117.0	177,127	119.0	1,329,540	2,333,860
WYO.	6,095	1,333.0	10,987	717	102,744	145,965
	5,737,362		6,361,502		49,348,883	91,972,266

Handling Milk Upon the Farm.

During this hot season it seems appropriate to say something concerning the methods of handling milk upon the farm which will put it in best condition for the market and for the home. By market I mean the creamery, the cheese factory, the condensery and the city. I anticipate that many milk producers will wonder why I should want to include in this article a treatment of the milk supply for their own home use, but I consider this important, and will ask them to let the mothers read what I shall have to say on this subject. Cleanliness is the first essential in getting good milk for any use. The loose dirt and hair should always be brushed off from the flanks and udders of the cows and the parts dampened with a wet cloth before milking. This is really a very simple matter, but will keep out about 90 per cent. of the dirt that ordinarily falls into the pail during milking. The covered milk pail will be found a great help in keeping dirt out of milk. Milkers should be required to be clean during milking and milk with dry hands. All the milk vessels must be thoroughly washed and scalded with boiling water.

Next in importance to cleanliness is low temperature. The milk should be cooled as soon as possible after milking to a temperature approximating 50 degrees Fahrenheit. This will materially check the growth of bacteria that have found their way into the milk during milking. Cooling the milk to 46 degrees Fahrenheit will easily keep it sweet for several days, if kept at this temperature. For retail trade it is best to cool the milk as low as possible with uniced water and then finish the cooling with ice water. In order to do this satisfactorily requires special coolers, and these can be had at a very reasonable price. The amount of ice ordinarily required to cool milk to 40 or 45 degrees Fahrenheit can be reduced 50 per cent. by using a force pump to circulate the ice water running back to the ice tnak. The ice should be finely crushed and only enough water kept on it to keep up the circulation. Milk intended for the creamery, cheese factory or condensery can be kept sweet without difficulty if cooled quickly after milking. To set a can of milk in a tank of cold water without any further attention will cool the milk too slowly. The cooling must be hurried by stirring the milk and also the water surrounding the can and further by replacing the water in the tank several times with fresh supplies. Of course, where there is flowing water no attention need to be given to it.

I wish now to say something regarding the handling of the milk in the home of the producer, the milk intended for his own consumption, and what is said here will apply to the consumer in the city. No matter how carefully it is produced, milk always contains many kinds of bacteria. The most common of these are the germs which sour the milk. Putrefactive organisms also are always found; the number of these is dependent upon the degree of cleanliness exercised in the production and handling of the milk. It is these and closely allied organisms which are undoubtedly responsible for a great share of the diarrhoea and dysentery of infants and children fed upon cow's milk. Occasionally milk also contains dangerous pathogenic bacteria, such as cause typhoid fever, diphtheria, scarlet fever, etc., and there is danger from tubercle organisms in all milk coming from cows that have not been shown to be free from tuberculosis by the tuberculin test. With a possibility of tubercle organisms in milk and with the certainty of always having more or less of the putrefactive bacteria present, the only way to render milk perfectly safe for babies and children is to pasteurize it. This consists of a simple process of heating and cooling which destroys the bacteria. The milk is heated to a temperature of about 150 to 160 degrees Fahrenheit, and kept there for about twenty minutes, after which it is immediately cooled to the lowest temperature possible with water. The pasteurizing is best accomplished in a double milk or rice boiler. Such boilers can be obtained from hardware stores for about one dollar.

Milk contains some inactive bacteria (spores) which are not destroyed by the pasteurizing process. To prevent these from becoming active it is necessary to keep pasteurized milk as cold as possible. Much is said about pasteurization, and many producers supplying milk to cities favor the method because it helps to keep milk sweet. Where its only object is to keep milk sweet, however, pasteurization is not likely to afford much protection to consumers. Its real object should be to destroy all actively growing bacteria and especially those of the disease-producing kind. In pasteurizing it is perfectly possible to destroy all of the souring organisms but leave the worst of the disease-producing kinds undestroyed. This is exactly what happens in many cases where milk is carelessly pasteurized on a commercial scale. This state of things is accounted for by the fact that less heat is required to kill the souring germs than is the case with most other kinds present in milk.—William Hardy, Tunnel Hill, Ill.

Centerville, Iowa, Wins Out Over All Competitors.

Our readers will doubtless be interested in the success of Centerville, Iowa, in retaining the factory of the Hercules Mfg. Co., makers of the famous Hercules Stump Pullers. From the most modest possible beginning this firm has rapidly grown to be the largest of its kind in the world. It was quite natural, therefore, that they found it urgently necessary to build a new, modern factory in order to keep up with the demand for their stump pullers. After this step was decided on, a location was the next problem. The citizens of Centerville, realizing what this great industry means to the town, rallied to the support of the company, and in two hours raised the necessary funds, secured a satisfactory site and assured the officers of the Hercules Mfg. Co. that their best future interests were right in Centerville, where they started and where they had grown so rapidly.

The signal victory of Centerville shows what loyal citizens can do. But it goes beyond that and proves the absolute soundness of the Hercules Mfg. Co. The home folks are close to this concern and they know the wonderful field for the sale of Hercules Stump Pullers. They know that nothing equals it for rapidly, safely, effectively clearing land. They know what Hercules machines have done—how they clear an acre of stump land a day—how they pull any size stump in from three to five minutes. They know, too, how confident the manufacturers are of the efficiency of the Hercules Stump Puller because it is absolutely guaranteed for three years against breakage from any cause, flaw or no flaw. Knowing all these things, it is no wonder that the citizens of Centerville joined hands in quickly locating the factory on three trunk lines of that city for the Hercules Mfg. Co.

Any farmer who has stumps on his land ought to get acquainted with the Hercules Mfg. Co., 40 17th street, Centerville, Iowa. Their fine catalogue is well worth sending for and reading carefully. Send for it now—read it evenings. There is no better nor more profitable way to invest a penny postal and a few minutes' time.

Good Business Education.

The Gem City Business College advertised on page 18 is no ordinary establishment. It seems strange that one private institution unaided by government taxation should have given final instruction to 35,000 young men and women, and whenever necessary to do so have found their graduates good positions. But such is the record. Write to D. L. Musselman, President, Lock Box 37, Quincy, Ill., and ask for Catalogue and Year Book.

Too Many in the Party.

A certain knight of Spain, arriving one night at an inn in France, knocked a long time at the gate till he had alarmed the landlord. "Who is there?" said the host, looking out of the window.

"Don Juan Pedro," replied the Spaniard; "Hermandez Rodriguez de Villanova, Count of Malafra, Knight Santiago and Alcantara."

"I am very sorry," replied the landlord, shutting the window, "but I have not rooms enough in my house for all the gentlemen you have mentioned."—Life.

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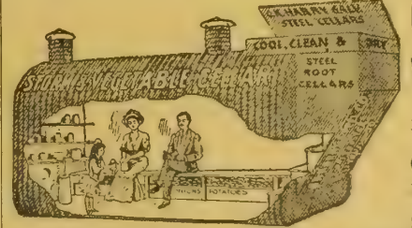

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Cotton area is 34,097,000 acres this year, or 7 per cent. less than last year.

The Corn Market Situation.

On June 9th, at the St. Louis market, No. 2 corn sold at 78½ to 79 cents a bushel; No. 3 corn sold at 77½ to 78 cents; No. 4 corn at 75 cents; an inferior sample grade at 61½ to 71 cents; No. 2 yellow sold at 79½ cents; No. 3 yellow, 75 to 78½ cents; No. 4 yellow, 75 to 76 cents; No. 2 white, 81 and 81½ cents; No. 3 white, 77 to 79 cents; and No. 4 white, 73 to 75 cents a bushel. A load of white cob corn sold at 78 cents a bushel. On April 30th the cash corn sold at 81½ to 82 cents a bushel, and on May 31st cash corn sold at 79½ to 80 cents; therefore the June closing quotations represent a moderate decline since April 30th.

So far as future expectations are concerned, July corn was quoted at 75¼ cents and September 73¼ cents, and December at 63⅜ cents. In those figures there is an indication that the trade expects a large corn crop and the consequent decrease in price after the corn is pretty well gathered.

In this country a normal corn crop is about 2,600,000,000 bushels. The largest corn crop ever known was in 1910 and amounted to 3,125,968,000 bushels. Nine years ago there was a crop of 2,244,17,000 bushels, and it would be considered a very small crop now. The present expectation is that we will have a corn crop above the normal but not up to the largest total.

Improving the Permanent Pasture.

If one walks through some of our old pastures he cannot fail to be impressed with the ease with which they might be improved and be made to feed many more animals than they do.

The first thing in which a good many of our pastures can be improved is in cutting out the bushes that are growing up and reducing the area producing grass. In passing by some New England pastures the writer noticed that the bushes had been allowed to encroach on the pasture sod till, in some cases, a third of the pasture had been rendered useless for stock. Almost always this brush has no value and will have to be taken out finally or it will become a forest of trees that will require a lifetime to reach marketable size. In many cases alders and like worthless growth constituted the main character of the bush growth. Juniper bushes of low spreading habit snatched large areas from use and in turn yielded nothing.

This bush growth comes in without being noticed and spreads little by little and its effect is not noticed, especially when the bushes are in scattered clumps throughout the pasture. The sooner the work is commenced the easier will it be to get rid of the bushes, because the easier will it be to cut off the stems. In the future an annual inspection of the pasture should be made to detect in time the oncoming of the bush seedling, at which time they may be clipped off with a single clip of a scythe or grubbing hoe.

The second important thing to do in the improving of a pasture is to wipe out the open ditches. These ditches are injurious in several ways. They keep a large area out of use. If one will measure an open ditch with sloping sides he will be surprised to find how wide it is. Then when he measures its length there will be another surprise, for some of these ditches are not straight but winding and their length is far greater than the direct length of the land passed through. At every hard rain the edges of these ditches cave in or wash away. Moreover, for a foot or two, along the edge of the drain, the land is too thoroughly drained to be of most use in the dry time of summer.

Tile draining them and covering the tile is the only permanent way of doing away with the nuisance. This will at once get rid of the erosion and increase the available area of the pasture.

The stones that encumber some of our pastures are a perpetual drawback to our pastures, especially in those sections of the country where glacial drift is common. Terminal moraines are frequently given up to pasturage and nothing done to reduce the number of the stones. Yet there is the same general reason for removing stones that there is on the rest of the farm. If a little work is done each year and the stones picked clean from each acre, the work will appear to progress more rapidly than where the work is without system. In picking stones out of a pasture the task is easier than picking stones from arable land, as on the arable land each plowing brings more stones to the surface.

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The pictures on the first page will remind you of the Book of Live Stock Champions. See page 22.

The silo is becoming popular.

The "Eli" King of Balers Horse and Steam Power

A train of followers, but no equals. Proves its superiority wherever it goes. Makes tight shapely bales, not loose bundles, works fast, avoids accidents and endures. Little draft, tremendous power. The machine that makes competitors tremble. Eli catalogue free.
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Plain or Bailey Treads, for Clincher, Quick Detachable or Dunlop Rims (Quick Service), from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Systematic Fertilizing.

Notwithstanding all that is said and done at Agricultural Colleges and Experiment Stations and the valuable information derived from the publication of results of well-directed experiments, the farmer in the end is his own best experimenter and his own farm is the best Experiment Station.

There is no greater opportunity for experimental work in farming than is afforded by the investigation of commercial fertilizers. Starting out by taking the benefit of published results obtained by others, the general farmer can save several years' time by buying and experimenting with the brands which appear to have paid others to use under similar circumstances and for the same crops.

Well-organized fertilizer manufacturers are prepared to deliver certain brands which have been found better than others for wheat, oats or corn, and all other crops, consequently the farmer finds he can start experimenting in a small or large way, as he may see fit, buying much or little fertilizer, as the case may be; but an experiment requires two plots—one that is certainly fertilized and one grown under similar conditions and which is not fertilized. The difference in the value of the crop from each piece of land and the actual difference in the cash result will tell him the story better than anyone can tell it to him who has experimented on another farm or at a State Experiment Station.

The wide diversity of opinion between professors of agriculture upon the subject of fertilizers would alone fill a book. For that reason, if for no other, farmers who wish to be posted have to post themselves in order to be able to appreciate the more difficult work at the Experiment Stations, and exercise their own judgment upon the disputed or undecided points. The work of the farmer can be valuable but simple; the work at the college will be more technical and no less valuable.

No matter how small an experiment may be on the farm, every farmer owes it to himself to do something to increase the productive ability of his soil. In the two states of Missouri and Illinois, besides larger farms, there are 250,000 farms, all less than 100 acres in extent and averaging about 60 acres. These farms cannot be increased in yield profitably except by fertilizing the ground devoted to growing crops. It is up to the farmer to solve that problem by his own experiments. He must do the work under his own observation and he must keep the cash account where the balance is to be shown, and when the first year's experimental work is done, no matter what the result may be, he will find that he has a first-class appetite to start on another.

THE BOOK OF CHAMPIONS.

The Book of Live Stock Champions advertised on page 22 contains the finest collection of pictures of domestic animals ever brought together. There are 750 indexed pictures, and everyone is a true champion, a record maker or by selection in the prize ring. The price per copy is a dollar and the amount pays a two-year subscription to The National Farmer and Stock Grower at the same time.

Snow's Crop Indications.

Snow's Crop Report, one of the agencies employed to inform business men of the general crop indications, makes an estimate that this year's crop will be 648,000,000 bushels of wheat, compared with 664,000,000 bushels harvested last year. Corn acreage increased 1.3 per cent. over last year's harvest; condition, 83.8, against 82.4 last year, and suggests 2,851,000,000 bushels, against 2,630,231,000 bushels last year. Oats condition, 89.5, against 90.7 last month and 67.2 last year. It suggests a crop of 1,138,000,000 bushels, against 817,800,000 bushels last year

The Oats Market Situation.

In our opinion, oats are selling all right, so far as cash deliveries are concerned, but the future quotations are too low.

At St. Louis, on June 30th, cash No. 2 white oats sold at 53½ and 54 cents; standard oats at 53½ cents; No. 3 white at 52½ and 53 cents; No. 4 white at 52 cents; No. 2 oats at 50 and 51 cents; No. 3 oats at 48½ cents; No. 4 oats at 48 cents. These prices are not so bad, but they are neither high nor low.

But the members of the Board of Trade have received information that there will be plenty of oats and consider there is no use buying any in advance at present prices.

Oats for July delivery are quoted at 48⅛ cents; oats for September delivery at 40⅛ cents a bushel; and oats for December delivery at 41 cents.

There may be a very good crop of oats, we are inclined to believe there will be, but two-thirds of the oats are consumed on farms on which they are grown, and the balance don't have to be shipped unless the farmer is satisfied to ship them.

It is all very well for a poor tenant farmer who is deeply in debt for provisions to sell his cotton at the best price he can get, but farmers who raise oats are not so dependent. Farmers who raise oats generally raise something else besides that they can sell while waiting for the conditions to clear up. If farmers simply said: "We have no oats to sell at less than 50 cents a bushel at the railroad station," there would never be any occasion to sell for less. A bushel of oats is only 32 pounds, and yet in considering the weight of the crop people think the bushel of oats is very near the same as a bushel of wheat, that weighs 60 pounds. Oats are worth 50 cents a bushel to feed to cattle at present prices for cattle.

In February, 1911, at St. Louis, cash oats were sold at 30 cents a bushel, but in February, 1912, cash oats sold at 53 cents a bushel and later reached 57 cents. Farmers who do not sell below 50 cents will never have to do so, and all it requires is that each man should act for himself. Those who desire to sell oats cheap should not be prevented.

Russian Egg Export.

Russia exported in 1911 to England 109,000 dozen at 11.1 cents; to Germany, 93,166 dozen at 10.08 cents; to Austria, 66,086 dozen at 9.45 cents; to Denmark 6,500 dozen at 10.4 cents; in all 274,752 dozen.

Testimonial For Empire Fertilizers.

Empire Carbon Works, 421 Locust street, St. Louis Mo.:—Dear Sirs:—In reply to your letter regarding fertilizer, will say that the best example we have is as follows: Three miles from our farm we rented fifty-five acres to two men to put in corn on shares. One man put in corn in due time, and cultivated it in the usual way, but did not fertilize. The other man happened to an accident late in the spring, and, after everyone else was through planting, we were informed that he would not be able to use the land. We sent out four teams and plowed it and planted it. One day we sent out four cultivators and gave it one, and only one, cultivation during the entire season, In planting we put in 150 pounds of "Empire" Fertilizer to the acre; the other man used none. Result—With only the one cultivation we took off nearly twice as much corn as the other. This, we think, tells the whole story. Respectfully, J. R. CRAIG, Bentonville, Ark. (See page 7.)

Two Elegant

Subscription Propositions.

A Political Paper---A Farm Paper---A Poultry Paper---Half-Price Combination.

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Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Republican newspaper in the United States, and is published at St. Louis, Mo.

THE TWICE-A-WEEK ST. LOUIS REPUBLIC

Is a magnificent newspaper, containing all the latest home, foreign and political news. It is unquestionably the best semi-weekly Democratic newspaper in the United States, and is published at St. Louis, Mo.

THE NATIONAL FARMER AND STOCK GROWER

The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

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The best monthly Farm Paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers.

THE AMERICAN POULTRY JOURNAL

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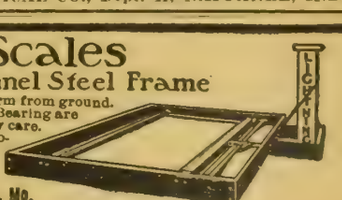
Catarrhal Fever, and all Nose and Throat Diseases. One bottle a guaranteed cure, or your money back. Cures the sick and prevents other horses and colts from taking the disease. Best Kidney and Worm Remedy; safe for mares in foal and all others. $1 bottle holds three 50-cent bottles. Send postal card for free horse booklet. Sold by all druggists, or prepaid from

BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

The Study of Rural Economics.

One of the encouraging signs of the times is the introduction into our agricultural colleges of the study of rural economics. This study has doubtless already been placed on the curriculum of some of our high schools located in rural communities, and it is destined to receive recognition practically everywhere in the agricultural world.

But the study of rural economics needs to be carried onto the farms as well as into the schools. The problem connected with our farm living needs to be considered from the scientific and practical standpoint by the farmers themselves.

We are all of us painfully ignorant of a good many things close at hand. We go on from age to age making the same mistakes, because annually we reach the same point in the circular rut in which we are running.

All the books that are published on rural economics and that are for use in the schools should be on the shelves of the library of the farmer and should be frequently in his hands for study purposes.

The battle to get farm products has been such a fierce one that we have overlooked the necessity of considering the other things connected with our lives. Even after the produce is obtained, it is often largely lost to the farmer by having to be sold at a great disadvantage.

The disposal of farm crops is one of the things with which rural economics has to do. Certainly the producers of food are getting only a very small part of the price the consumers have to pay for the food. There is something wrong when the farmer gets too little for a thing and the consumer has to pay too much for it. The farmer is not going to get out of his predicament by dreaming about it. He must make a thorough study of this problem and form an opinion as to what measures ought to be taken to remedy the evils.

There is the question of the purchase of supplies for the farm and supplies for the family of the farmer. It is one that must receive from the farmers themselves more attention in the future than it has received in the past. It is worth a great deal of study.

There is the great problem of educating the sons and daughters of the farmer. This is a problem that must and will be given the consideration it deserves. Rural education is exceedingly poor at the present time. The educational possibilities for the farmers' sons and daughters do not compare with the possibilities provided for city children. In the country, the whole drift of conditions is to induce the children to leave school when they reach the age of thirteen or fourteen years. They are ashamed to go longer. In the city, the whole drift of the tendency is to induce pupils to continue their schooling till they have passed through high school and into college. The farmers' children should have as good opportunities as the children of the city resident. It is a problem that should receive the best thought of the farmer.

Social life on the farm has received too little attention. Play is now being recognized in the city as one of the greatest forces in the development of the children. It is no longer looked on as something that represents sheer waste of time. What has been done on the farm or in the rural communities to give the boys and girls healthy recreation?

Numerous other problems go to make up the mass of things that must be given consideration before our rural life will be what it should be, and this consideration must be given by the farmers themselves.

Lime on Acid Soils.

Because men did not know that acid soils could be sweetened with lime, much land has lain only partly used for generations. This same ignorance led to the abandonment of the attempt to grow clover and other legumes in many important agricultural areas.

The application of lime to acid soils is a very simple thing, because lime costs little and is exceedingly abundant in the earth.

It is surprising to find that some of the most acid soils are in localities where lime rock is cropping out of the soil. It seems almost the irony of nature that lime stone and forest growth should be found where the soil is too acid to produce much. It is as if nature were mutely saying: "Here, cut down some of these dead trunks, build a fire of them, throw onto the fire some of the lime rock jutting out of the soil and take the resulting lime and scatter over your soil to cure its acidity."

But now the discovery has been made and multitudes of farms have already been improved by the application of lime. There are several counties in a great agricultural state where the farmers said that clover could not be grown. A new farmer, up in scientific knowledge, bought a farm in the midst of that area and put lime on it. Then he sowed clover. The clover made a growth of twenty-two inches the first season by the time it was headed sufficiently to cut. The clover stood a solid mass and was a beautiful sight to behold. Farmers came for miles around to look at it and to see contradicted the assertion that clover could not be grown in that county. The man that did that had applied about a ton of ground lime rock to every acre of land, the lime rock being the natural form required by the soil. The cost for rock and freight was about $2.00 per acre plus the cost of hauling and distributing.

There are two general forms in which lime is used on soils. One of these is in the form of burnt time—the lime of commerce. This is good, but has the objection that it works too quickly and helps to liberate into the soil plant food more rapidly than it can be taken up by the roots of plants. The balance of the plant food often goes off into the drainage water and is thus lost. The ground lime rock liberates the plant food but slowly, or, rather, makes conditions suitable for the liberation of plant food. It is thus liberated only as the plants can utilize it.

The business of grinding lime rock for use on land has increased very greatly, till now ground lime rock is easily obtainable. Even some of the states have put machinery into their state prisons, where lime rock is ground and sold to farmers at near the cost price.

Every farmer that has soil that for some mysterious reason does not grow clover and other legumes should consult his Experiment Station as to treatment. In many cases he will be informed that the state has already made a soil survey of his locality and that his soil contains too much acid and should be treated with lime in some form.

Often putting on the land $2.00 worth of lime per acre will increase the value of the land many times the cost of treatment.

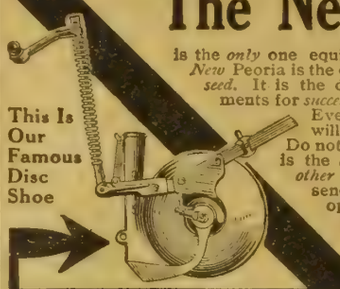
Difference Between Slop and Swill.

"There is a wide difference between slop and swill. Slop is properly a hog's relish, while swill is too frequently nothing more than water polluted with unhealthful refuse. The term swill may embrace a wide variety of feed or drink, ranging from ordinary dishwater to a mixture of milk, table scraps, soapsuds and other kitchen refuse, while slop is a combination of a ground feed or feeds, with water or milk. A supply of wholesome swill in connection with other feeds may be extremely valuable, but in a condition of decay, rancid and mainly filth, it may result in a loss of high-priced animals. Slop, however, may be considered as always in order."—From Coburn's "Swine in America."

The Only Drill With a Perfect Furrow Opener

Here's the drill that will greatly increase *your* crops and profits, just as it has done for hundreds of *other* progressive farmers. It is equipped with our wonderful DISC SHOE FURROW OPENER, the *only* one that combines *every* advantage of the *single disc* for cutting trash and penetrating hard ground, with every advantage of the *shoe*, for forming the furrow and depositing the grain. It's the only furrow opener that *packs* the seed bed after the *disc* has *opened* the furrow. The *shoe* carries the seed to the *bottom* of the *packed furrow*. Every seed counts. Every seed is sown at a proper, *even* depth. So *every stalk* comes up and ripens *evenly* and the grain *grades* up best. The shoe prevents any dirt from falling into the furrow until *after* the seed is deposited.

The New Peoria Drill—



This Is Our Famous Disc Shoe

is the *only* one equipped with this *Disc Shoe Furrow Opener*. So the *New* Peoria is the drill that is sure to *increase* your *crops* and *save* your *seed*. It is the drill that insures *every* seed the three *essential* requirements for *successfully* growing small grain—Heat, Air and Moisture. Even if you have a new drill of some other make, it will pay you well to discard it and buy a New Peoria. Do not think that the wonderful Disc Shoe Furrow Opener is the *only* advantage of the New Peoria Drill. Every *other* part is just as superior. Let us *prove* it. Let us send you a *booklet* and all the *facts* and *figures*, also opinions of *men who know*. Send your name and address on a postal *now*. It's worth money for you to know all the details.

PEORIA DRILL AND SEEDER CO.
2430 North Perry St., Peoria, Illinois

Grand Prize For An Invention.

The Great Western Sugar Company, with general offices at Denver, Colo., and factories at eleven different beet-growing centers, has offered a prize of ten thousand dollars to be awarded for the complete solution of a practical sugar-beet puller and topper that will meet the reasonable and necessary requirements of a committee appointed for the purpose of adjudging the designs and inventions.

General Conditions.

1. The motive power required for different soil and weather conditions must not be excessive; that is, not to exceed four horses per beet row if animal power is used.

2. The device must pull and top all the beets and separate beets and tops and leave beets and tops convenient to load. It is especially understood that the work may be done by two machines, of which one does the topping, the other one the pulling, or vice versa, although a combined machine is preferred. The pulling and topping must be done in a satisfactory manner.

3. The steering and turning of the machine or machines must be easy and practical. The beet puller and topper must be adjustable for rows spaced from sixteen to twenty inches apart.

4. The operation must be such that damage to the beets or tops will be avoided as much as possible.

5. The machines must fulfill the above conditions, regardless of the size of either beets or foliage, and be practical in the varying types of beet lands.

6. The machines must be durable and reasonably simple, and the different parts easily replaced.

7. The selling price of the machine or machines to the public by the local dealer, whether combined or otherwise, shall not exceed $300.00 if the motive power is animal, and shall not exceed $500.00 if self-propelled.

8. The Committee of Judges shall have the right to alter, modify or set aside the above specifications, in their discretion.

Any further information can be had of the Great Western Sugar Company, Denver, Colo.

Not Up to Date.

Visitor—"Is your rival village, Swamptown, an up-to-date town?"

Native—"Naw. They're forty years behind the times. They ain't got a building over there that's nicknamed 'The Monument of Graft,' or 'The Tower of Waste,' or 'The Temple of Folly.' "—Judge's Library.

Little Willie overheard his father speak of a man who was weighed in the balance and found wanting. "Maybe he forgot to drop a penny in the clot," suggested Willie.

SUBSCRIPTION PREMIUM—A POCKET COMPASS.

This is a true 1¾-inch Pocket Compass purchased from a reliable house. It is a fancy, nickel-plated, open-face, watch-shape Compass, with a silvered dial, and it weighs less than one ounce. Every farmer or ranchman should have one in his pocket. Send us One Dollar and we will send you The National Farmer and Stock Grower for one year, and we will also send you this Pocket Compass by mail postpaid. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

A Few Facts About Weeds.

Weeds will be with us always, and when we are not using a piece of ground it had better be covered with weeds than with nothing. We can generally keep out the weeds by covering the land with a better crop, even if it be nothing more than sweet clover, melilotus.

The weeds are most destructive when they are allowed to grow with other crops and choke them out. One of the very worst cases of this choking out the writer ever saw was a great onion field in which the weeds had been allowed to grow unchecked. The field covered many acres of ground, and when the onions came up in the spring the outlook for a good crop of onions was excellent. But in the course of weeks a thick mat of weeds developed around every onion plant. A few weeks more and the weeds overtopped the onions. In the course of time a mowing machine was seen going through the field, which was a notice to the neighbors that the whole onion field had been abandoned on account of the weeds. In that case, the weeds had wiped out the entire season's profit.

We have laws against weeds, but such laws are of little value on account of the impossibility of enforcing them. The real protection against weeds comes from the farm operations themselves. The thorough farmer never worries about weeds. The writer spent some years ago on a farm surrounded by Canada thistles. These thistles lined the roadside that bordered the farm, but they were never given a second thought. The cultural operations were so thorough that thistles never got a start in the cultivated areas or in the grass ground, with the single exception of a little patch that got a start close to one of the buildings and had to be fought every year for several years before the thistles were exterminated. Good farming is an antidote for the weeds.

Many weeds are a blessing in disguise. There is the melilotus or sweet clover. It takes possession of the worst pieces of hard ground and drives in its powerful roots. It is a great collector of air nitrogen and feeds this same nitrogen into the soil through its roots. In a few years, when the soil has been improved by it, and the grass has come in, it disappears. It could be used as an exterminator of other weeds. The seed is now frequently purchased for sowing for various purposes. It may be designated a sod-builder.

It might not be a bad scheme where the roadsides are covered with thistles and other noxious weeds, to sow the seeds of the sweet clover and thus encourage the growth of a beneficial weed rather than permit the growth of injurious weeds.

Canada thistles spread both by seeds and by underground root stalks. When a system of underground root stalks has been found and been filled full of plant-growth material by being allowed to grow for a year or two, the extirpation of the thistles is a very slow process and will often require years to accomplish. The time to attack the thistles is when they appear the first year, coming from the seeds. They then have no reserve to fall back upon, and a man or boy with a hoe can kill a great many of them in a short time. This is the reason that well-cultivated farms near great highways full of Canada thistles will thus be found free from thistles. The cultivation has killed the little thistles coming from the seed and they have never been given time to develop growing root stalks.

Fine Handy-weight Cattle.

Fred Achenbach, of Carrollton, Ill., was on the St. Louis market on June 24th and received $9.30 per 100 pounds for steers of his feeding that weighed 1,210 pounds. They were Aberdeen-Angus cattle, nicely finished, and brought the highest price of the year for handy-weight cattle. The quality was superior, which indicates that they were the beef-cattle type and fed to the market standard.

Large Sale of Range Cattle.

On June 22d, at Fort Worth, Texas, a well-known ranchman, Tom Waggoner, sold to Charles and Hayes McFarland, cattle feeders in Parker county, 8,000 head of three and four-year-old steers at $50 a head. This was said by cattlemen to be the highest price every paid for range cattle in such numbers. The cattle sold are on the Waggoner Wilbarger County Ranch, not far from Electra, a station on the Fort Worth and Denver Railway, in Wichita county.

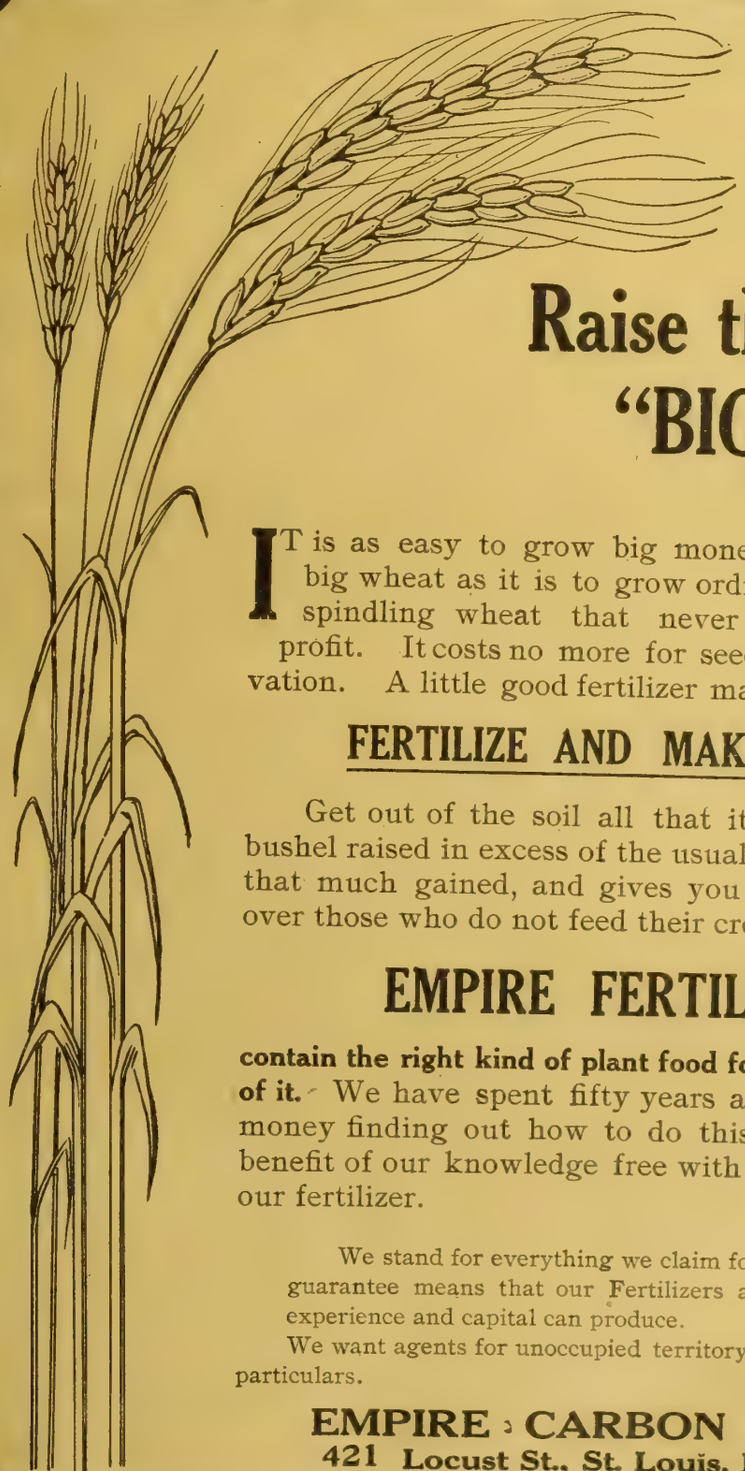
Good Feed Into Meat.

"No animal on the farm is better adapted to turning good feed quickly into marketable meat than the hog, and none can better repay from a market standpoint a discriminating system of feeding. This is particularly true as to first costs, for the hog is by nature planned to utilize the least expensive feeds and will manufacture into toothsome pork much that might otherwise be reckoned of little value, if not waste. In any phase of farm economy the hog is a feature, and his proper feeding has in innumerable instances been the factor that kept a farm's profit on the right side of the ledger."—From Coburn's "Swine in America."

Record-price Cattle.

On Tuesday, June 25th, Mr. E. M. Berry, of Calloway county, Missouri, marketed twenty head of prime 1,488-pound steers which sold to Armour & Co. at the St. Louis National Stock Yards at $9.50 per 100 pounds, the highest price ever paid at the St. Louis market for beef cattle outside of the Christmas beef trade.

Look up our several premiums.



Raise the "BIG" Wheat

IT is as easy to grow big money-making crops of big wheat as it is to grow ordinary crops of small spindling wheat that never pay anybody any profit. It costs no more for seed, planting or cultivation. A little good fertilizer makes the difference.

FERTILIZE AND MAKE MONEY

Get out of the soil all that it can bear. Every bushel raised in excess of the usual production means that much gained, and gives you a great advantage over those who do not feed their crops.

EMPIRE FERTILIZERS

contain the right kind of plant food for wheat, and plenty of it. We have spent fifty years and a great deal of money finding out how to do this, and you get the benefit of our knowledge free with every purchase of our fertilizer.

We stand for everything we claim for our Fertilizers. Our guarantee means that our Fertilizers are the best that skill, experience and capital can produce.

We want agents for unoccupied territory. Write us at once for particulars.

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GOOD BOOKS AND PAPERS.

THE POTATO.—A great book on potatoes has just been issued. Eugene H. Grubb is one of the foremost agriculturists of Colorado. With him the potato has been a great and interesting study at home and abroad. W. S. Guilford is Director of Agriculture, Sacramento Valley Irrigation Company. He makes bushels of money raising potatoes. These two men have obtained information about the potato from every available source and it is now in book form, constituting the most practical, up-to-date and authoritative books ever published. Hon. James Wilson, Secretary of Agriculture, specially recommends this book as containing much valuable matter that ought to be in possession of every farmer in the country. Farmers may not think this book concerns them, but it does. The potato is an essential part of intensive farming, and this book contains just exactly what a farmer desires to know; the origin, history; importance of; how to grow, harvest, market the potato. Think of it! 550 intensely interesting and instructive pages, handsomely bound, on the potato! Issued at $2.00 a copy by Doubleday, Page & Company, Garden City, N. Y.

FERTILIZERS AND CROPS, or the science and practice of crop feeding by Dr. Lucius L. Van Slyke, Chemist of the New York Agricultural Experiment Station. This is a book for farmers who have reached an earnest determination to understand their business. It is one of the grandest books ever issued relating to agriculture. There are four distinct parts: Factors in soil fertility; sources and composition of fertilizers; how to select fertilizing materials, the last being the handling of individual crops. The pages in the book are 5½x7¾ inches, 710 pages, and the price is $2.50 per copy. The binding is elegantly done. There are 1,500 indexed subjects in the book. Send $2.50 to Orange Judd Co., Ashland Building, 315 Fourth Avenue, New York, N. Y.

BEGINNERS' GUIDE TO FRUIT GROWING is the right kind of a book at last. It is a simple statement of the elementary practices of propagation, planting, culture, fertilization, pruning, spraying, etc. It is, therefore, a sort of primer for beginners. The same plain and definite purpose is set forth in all the chapters. It is fully illustrated. It is by Prof. F. A. Waugh, Horticulturist and Landscape Gardener at the Massachusetts Agricultural College. It is bound in cloth, 120 pages, 5x7 inches, and the price is 75 cents per copy. No farmer or fruit grower ought to be without this book. Anyone who will send $1.00 to the Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo., will be credited with two-years' subscription to The National Farmer and Stock Grower and the **BEGINNERS' GUIDE TO FRUIT GROWING** can be selected as a free premium. Otherwise send 75 cents for a copy of the book.

POCKET GUIDE—FAIRS AND EXPOSITIONS.

July 22—NORTH DAKOTA FAIR, Fargo, North Dakota.
Aug. 12—BLUE GRASS FAIR, Lexington, Ky.
Aug. 22—IOWA STATE FAIR, Des Moines, Ia.
Aug. 26—OHIO STATE FAIR, Columbus, O.
Sept. 2—OREGON STATE FAIR, Salem, Ore.
Sept. 2—NEBRASKA STATE FAIR, Lincoln, Neb.
Sept. 2—CONNECTICUT STATE FAIR, Hartford, Conn.
Sept. 2—INDIANA STATE FAIR, Indianapolis, Ind.
Sept. 2—MINNESOTA STATE FAIR, Hamline, Minn.
Sept. 2—WEST VIRGINIA STATE FAIR, Wheeling, W. Va.
Sept. 3—MARYLAND STATE FAIR, Timonium, Md.
Sept. 9—KENTUCKY STATE FAIR, Louisville, Ky.
Sept. 9—KANSAS STATE FAIR, Topeka, Kansas.
Sept. 9—NEW YORK STATE FAIR, Syracuse, N. Y.
Sept. 9—SOUTH DAKOTA STATE FAIR, Huron, S. D.
Sept. 10—WISCONSIN STATE FAIR, Milwaukee, Wis.
Sept. 14—CENTRAL KANSAS FAIR, Hutchinson, Kas.
Sept. 14—CALIFORNIA STATE FAIR, Sacramento, Calif.
Sept. 16—COLORADO STATE FAIR, Pueblo, Colorado.
Sept. 16—TENNESSEE STATE FAIR, Nashville, Tenn.
Sept. 16—MICHIGAN STATE FAIR, Detroit, Michigan.
Sept. 16—INTERSTATE FAIR, Sioux City, Ia.
Sept. 17—VERMONT STATE FAIR, White River Junction.
Sept. 23—WASHINGTON STATE FAIR, North Yakima, Wash.
Sept. 23—MONTANA STATE FAIR, Helena, Montana.
Sept. 23—TRI-STATE FAIR, Memphis, Tenn.
Sept. 23—UNIVERSAL FAIR, St. Louis, Mo.
Sept. 24—OKLAHOMA STATE FAIR, Oklahoma City, Okla.
Sept. 24—WYOMING STATE FAIR, Douglas, Wyoming.
Sept. 28—MISSOURI STATE FAIR, Sedalia, Missouri.
Sept. 30—INTERSTATE FAIR, Trenton, N.J.
Sept. 30—UTAH STATE FAIR, Salt Lake City, Utah.
Sept. 30—INTERSTATE FAIR, Spokane, Washington.
Oct. 3—ALABAMA STATE FAIR, Birmingham, Ala.
Oct. 4—ILLINOIS STATE FAIR, Springfield, Ill.
Oct. 7—INTER-MOUNTAIN FAIR, Boise, Idaho.
Oct. 7—AMERICAN ROYAL SHOW, Kansas City, Mo.
Oct. 7—VIRGINIA STATE FAIR, Richmond, Va.
Oct. 12—TEXAS STATE FAIR, Dallas, Tex.
Oct. 14—IOWA DAIRY SHOW, Waterloo, Iowa.
Oct. 14—NORTH CAROLINA STATE FAIR, Raleigh, N. C.
Oct. 15—GEORGIA STATE FAIR, Macon, Ga.
Oct. 21—MISSISSIPPI STATE FAIR, Jackson, Miss.
Oct. 24—NATIONAL DAIRY SHOW, Chicago, Ill.
Oct. 30—LOUISIANA STATE FAIR, Shreveport, La.
Nov. 4—ARIZONA STATE FAIR, Phoenix, Arizona.
Nov. 30—INTERNATIONAL LIVE STOCK EXPOSITION, Chicago, Ill.

Young Cattle at a Strong Price.

On July 1st, at the St. Louis National Stock Yards, one of the features of the day's trade was the sale of 103 head, 714-pound yearling steers sold at $8.00 per 100 pounds. These cattle were fed and shipped by William Miller, one of Stoddard county, Missouri's, most prominent farmers and cattle men. He told a Reporter representative something of his feeding.

"I bought this string of cattle in the West last October," said Mr. Miller, "At that time they averaged 330 pounds and cost me $20 per head. I put them on a feed of corn and cotton-seed meal and to-day they averaged 714 pounds and brought me $57.12 per head. Turning to the crop situation," continued Mr. Miller, "I must say that in our immediate vicinity things are looking A No. 1. I have my wheat harvested and sold at $1.00 per bushel, and it won't be many days before I get a corn crop."

In regard to the young cattle marketed by Mr. Miller, our readers will remember that it was The National Farmer and Stock Grower that indicated what light, fat, young cattle would bring. We discovered the tendency in that direction five years ago, before anyone else gave thought to the subject.

The National Farmer and Stock Grower ought to be read at a desk with a bundle of postal cards at hand. We usually mention a number of valuable booklets which are well worth having, although free for the asking, and a postal card is very handy to ask for anything that is desired.

The Duty Came Off.

Over one hundred millions of dollars' worth of hides and skins were received duty free by the United States during the commercial year just closed. A few years ago such an importation of hides and skins would have paid fifteen millions of dollars duty to the government. When the duty was taken off hides it was supposed to be done to put down the high cost of living; but it was a mistake. The hides and skins are higher in price than ever and every shoe house in America is forced by the increased price of hides and skins to raise the price of shoes. The United States treasury is fifteen million dollars short in one item and the legislation that placed hides on the "free-from-duty list" was only playing into the hands of the trusts, combinations and "predatory interests" of other countries.

This statement applies just as well to one hundred and twenty million dollars paid by the United States for coffee imported free of duty. The foreign countries have put up the price. The United States is short so much revenue and the people are paying more money for less coffee than before.

The statement that our foreign commerce has made a new and remarkable record will make the cats laugh in such protected countries as Canada, Australia, France, Austria, Germany, and, above all, in Brazil and Argentine, the principal beneficiaries of American lunatic legislation.

The National Farmer and Stock Grower is one of the few farm papers that as a steady policy are in favor of tariff protection to American interests, and we so state in every edition. See page 22.

The High Rate of Interest on Farm Loans.

An American committee is to start for Europe to investigate the co-operative systems of extending loans to farmers upon farm securities; in other words, to find a way to reduce high rates of interest on farm loans and to study other matters of rural co-operative credit.

The initiative of this movement is credited to a meeting of the Southern Commercial Congress held on April 1st of the present year at the Hermitage Hotel, Nashville, Tenn. But it is not the first time the subject has been brought up. The editor of The National Farmer and Stock Grower made an investigation of the rates of interest upon farm loans and found in the East and Central States that farmers were able to borrow all the money they required at commercial rates. Not being in need of money and not having anything to complain of, they were not interested in the subject.

In the West it was entirely different. The farmers could borrow money at less than commercial rates of interest, and commercial rates were pretty high. Land values were low and interest rates at 8 to 12 per cent. were the rule. Any farmer who could borrow money liberally was sure to fail because he could not pay running expenses, support his family, accumulate anything towards paying the principal sum and the interest thereon.

We had petitions signed, asking an investigation of the subject, which were forwarded to the Secretary of Agriculture, Washington, D. C., in the summer of 1905 and duly acknowledged. Since then we have seen some literature on the subject, showing that the Hon. Secretary of Agriculture had done all he could then do under the circumstances. Now, fortunately for us, the postoffice savings banks have been started, and it is possible that much of the money deposited could be put out through organized agricultural banks or trust companies to farmers for the development of their properties. That the subject has been revived is gratifying, because some conditions have changed for the better and many difficulties formerly standing in the way have become inoperative or set aside.

Good Results From Fertilizer.

Empire Carbon Works, 421 Locust street, St. Louis Mo.:—Dear Sirs:—My brother and myself have been experimenting for several years in fertilizing corn on our farms. We find that the use of your 2½—8—1½ gives us a faster even growth, a better stand and pushes our crop ahead so that we can get the crop in first-class condition before harvest. It makes a difference of about fifteen bushels per acre in favor of the fertilized corn. We know that we get better results from your fertilizers than any other we have tried. Yours truly, CHAS. H. CLANCY, Baryties, Mo. (See page 7.)

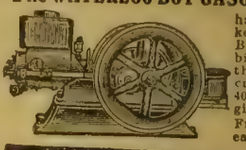
Waterloo Boy

The Power That Pays

This engine is a double bargain—a bargain in quality and a bargain in price.

It has always been the lowest priced high-grade gasoline engine on the market and has now been proven the BEST by defeating all other makes in two world's competitions. Two Regular Stock Engines won the gold medals at the International Expositions, Budapest, Hungary, July 1911, and Turin, Italy, September 1911.

The WATERLOO BOY GASOLINE ENGINE



has been on the market for over 19 years. Built in one of the biggest factories in the world, with a capacity of nearly 40,000 Gasoline Engines a year. Frost proof, starts easy in winter. Parts interchangeable. Free catalog.

5 Year Guarantee

Waterloo Gasoline Engine Co.
228 W. 3rd Ave.
Waterloo, Iowa.

Some splendid subscription clubbing propositions will be found on page 5.

The Boys' Magazine

is unquestionably the finest magazine in the world for boys. Each issue is filled with clean, fascinating stories and instructive articles, all of intense interest to every live boy. Also each issue contains departments devoted to the Boy Scouts of America, Electricity, Mechanics, Photography, Carpentry, Stamps and Coins. A big Athletic Department edited by **WALTER CAMP** is a regular feature. This department is of great value to every boy who wishes to excel in athletic sports.

A new handsome cover in colors each month. Beautifully illustrated throughout.

Special Offer: For only 50c. we will send you THE BOYS' MAGAZINE for six months and a copy of the most practical book you ever read, "Fifty Ways for Boys to Earn Money," and this splendid baseball fielders' glove. This glove is made of finest tan leather, felt padded and LEATHER LINED, web thumb and deep pocket.

Your money will be promptly refunded if you are not more than pleased with your investment. Address THE SCOTT F. REDFIELD CO., 873 Main Street, Smethport, Pa. (The Boys' Magazine at all news-stands, 10c. a copy.)

Free Magazine Subscription Guide

Subscriptions taken by special authority for American periodicals, magazines, and especially for farm papers. Every possible clubbing arrangement to give the subscriber the benefit of the rock-bottom co-operative rates.

Address, THE EVANS SUBSCRIPTION AGENCY, 3552 Vista Ave., St. Louis, Mo.

E. Myers, President, E. Myers Lye Co.

I Can Double Your Pork Profits Merry War Powdered Lye Prevents and Cures Sick Hogs

It is no idle boast, on my part, to say that *Merry War Powdered Lye*—the greatest hog remedy, conditioner and fattener the world has ever known—will double your pork profits.

My own personal experience, for more than 20 years, and the experience of thousands of hog raisers has amply demonstrated the fact that *Merry War Powdered Lye* will kill intestinal worms, positively prevent and cure hog cholera and keep your hogs absolutely immune to all hog diseases.

I invite you to read some of the enthusiastic letters I have received from thousands of farmers and hog raisers all over the United States (and which are published in my *free* literature) who feed *Merry War Powdered Lye* regularly every day with their hog rations—and with wonderful results—proving beyond all shadow of doubt that *Merry War Powdered Lye will do the work—and that nothing else will.*

Convincing Testimony Well Worth Reading

A. W. Davis, Hamlin, Iowa, says; "Merry War Powdered Lye is the stuff to put hogs in a thrifty condition. I will never be without it while I raise hogs."

H. F. Gustoff, Cedar Rapids, Iowa, writes; "Best destroyer of worms in hogs I ever used. It is all right."

Adam Schultz, McLouth, Kans., says: "I have given Merry War Powdered Lye a good trial and it has made a marked improvement in my herd. I consider it the best and cheapest remedy I ever used. I never got the results from any of the so-called hog cholera remedies as I have from Merry War Powdered Lye."

And that's the general testimony of Hog Raisers—and I just want to say to you that the very best way you can insure big, fat profits is to

Feed Merry War Powdered Lye Every Day

—and begin today—for the sooner you begin, the sooner I will be able to prove to your complete satisfaction that *Merry War Powdered Lye* makes good every claim—and 10c will make the test.

Follow These Directions

Mix one tablespoonful *Merry War Powdered Lye* with slop for 10 hogs, or a half can with barrel of swill. Stir well and feed *every day.* If your hogs are on a dry feed ration, mix a half can *Merry War Powdered Lye* to each barrel of drinking water.

Important Warning

Some commercial lye makers are trying to persuade dealers and hog raisers that any lye will do what *Merry War* will for hogs—but it will not, it can't—because no other lye maker knows the secret process that makes *Merry War Powdered Lye* safe to use in hog feed—they don't know the combination in *Merry War Powdered Lye* that produces the fat, healthy hogs. *Merry War* is the only lye which is absolutely safe to feed your hogs and hog raisers who make the mistake of thinking that any lye will do as well as *Merry War Powdered Lye*—fail to obtain results—pay the penalty in loss of hog profits.

At All Leading Dealers

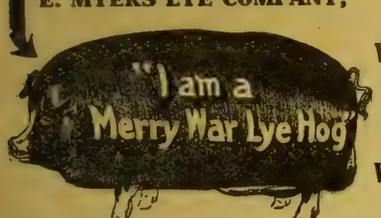
Merry War Powdered Lye is *not only the best* protection against hog losses ever discovered—*but* it is the *least expensive as well.* It comes in 10c cans; full cases of 4 dozen cans for $4.80—at Grocers, Druggists and Feed Dealers. Don't allow yourself to be talked into a substitute for *Merry War Powdered Lye*—because there are no substitutes.

Most dealers handle *Merry War Powdered Lye.* If yours can't supply you, write us, stating dealer's name—we will see that you are supplied and will also send you, free, a valuable booklet on "How to Get the Biggest Profits From Hog Raising."

Kettle Powdered Lye for Soap Making

If you want the best lye, exclusively for Soap-Making, scouring, cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used—but DON'T feed it to your hogs. FEED ONLY MERRY WAR POWDERED LYE TO YOUR HOGS.

E. MYERS LYE COMPANY, Dept. 22 St. Louis, Mo.



Which Kind Do You Want?

CURED SPLINT WITHOUT LEAVING A MARK.

St. Louis, Mo., May 11, 1911.

Dr. B. J. Kendall Co.:

Gentlemen:—Please send me your **Treatise on the Horse.** I have purchased a bottle of your Spavin Cure and cured one splint without leaving a mark. Yours respectfully,

FRED. G. BICHT.

De Laval Cream Separator.

Write to the De Laval Separator Company at the office nearest you and you will soon be in possession of the separator best suited to your means and requirements. Placing a De Laval Cream Separator upon the average dairy farm is like adding several cows to the barn and acres to the farm. See page 11.

New Peoria Drill.

Attention is invited to the New Peoria Drill and it is worth reading about. It is the only one equipped with the disc shoe furrow opener. Read about it on page 6. These so-called little inventions have a wonderful influence towards the saving of seed and the increase of small grain crops. See page 6 and write for booklet to Peoria Drill and Seeder Company, 2430 North Perry street, Peoria, Ill.

Highland Park College.

Read about the splendid business and trade courses at this great college. It is practically nine colleges in one. The card on page 27 gives particulars of the school terms, expenses, etc.

ONLY A MATTER OF PRICE.

Unlimited Supplies of Nitrogen From the Air—Phosphoric Acid From Rocks—Potash From Mines or Sea Weed.

It is now well known that the leguminous plants obtain nitrogen from the air and holding it in their roots, thus insure our farmers an emergency supply of one of the three great plant food essentials; but it is not demonstrated to this time that a supply of nitrogen when obtained through leguminous plants comes any cheaper than nitrogen obtained from the principal source of supply in South America.

People who are interested in agricultural pursuits commenced to calculate how long the world's supply of nitrogen, phosphoric acid and potash would last, and the results of the calculation at first were alarming. It develops later, however, that not only has nature provided plant food for many thousands of years, but has arranged matters admirably in the saving of transportation. Not only can potash be obtained from the German mines; it can also be obtained from immense quantities of sea weed which are in the Pacific ocean, close to our western coast, and, whether we use one supply or the other locally, will finally be only a matter of price. Then, again, phosphate rock, the greatest source of phosphoric acid, another primary plant food, has been discovered lately to an almost unlimited extent, and by subjecting it to acid treatment it becomes at once an available plant food.

Again referring to nitrogen—it is well known that it can be taken from the air more surely by machinery than by leguminous plants. The first demonstration of this kind was at one of the great water power headquarters in Norway, and now we are informed that another demonstration has insured the success of collecting nitrogen from the air in the United States. We were notified what to expect by a circular from the United States Department of Agriculture, but the actual news item comes from the daily press.

It appears that in a twenty-four-hour test undertaken in July, 1912, on the Catawba river, near Charlotte, N. C., free nitrogen was taken from the atmosphere by electric power.

The wresting of this valuable product from its place in nature was effected by means of the high voltage electric current, a method which in late years has already worked many wonders in the world of chemistry.

The Southern Electro-Chemical Company, of New York, organized some time ago to test the process of Dr. Albert Pauling, of Germany, who had previously tested the process in his own country, working in concert with representatives of the Southern Power Company, secured a site and made the necessary arrangements for beginning work on a 4,000-horse-power plant near the Great Falls development of the Southern Power Company.

This plant is now practically completed, and recently it was determined to make a twenty-four-hour test of the plant and ascertain if the process would work satisfactorily, and if the various apparatus and processes were properly provided and adjusted. The result of the tests made were all that had been dreamed of.

The product showed up almost perfect, and everything that had been claimed for it and from the limestone and the atmosphere brought together the full process, the final product came forth, nitric acid and then nitrate of lime.

While the experiment was in progress, trained men, chemists and electricians watched every step in the process and every part of the outfit of the new plant, and valuable notes were secured indicating where improvements or changes might be made to advantage.

The result of the experiment is indeed very gratifying; it was already ascertained that the manufactured nitrate from Northern Europe could hardly be delivered at American ports at prices they could afford to charge and the price the farmers could afford to pay, and this American success may obviate that difficulty. It appears, then, there are sufficient sources of fertilizer supplies and in the end obtaining all plant foods for the improvement of agriculture will only be a matter of price.

Controlling Food Products.

There is a considerable merging of retail meat and grocery companies, just the same as if there was no hereafter. The retailers last reported as "doing it" is the Maurer-Remley Meat and Grocery Company of St. Louis and the Kroger Grocery and Baking Company of Cincinnati. The capital stock of the combined companies, including the water, is stated to be $2,500,000, and they immediately will own 180 stores in St. Louis, Cincinnati and in various parts of Ohio and Kentucky. The intention is to buy the food products cheap and to sell thm dear, concentrating their force on smaller concerns in order to compete them out of business. The state governments should pass laws to prevent the incorporation of retail food stores with larger capital than fifty thousand dollars. The incorporation of retail companies dealing in foods is simply incorporating a trust in the first place and creating a monopoly in the second. All such organizations are against public policy and against what we are told is the law of the state of Missiouri.

Texas has in twice as much cotton as Georgia, the next largest cotton-growing state.

FARM AND RANCH LANDS.

FARM AND RANCH LANDS can be advertised effectively in The National Farmer and Stock Grower in small space at a reasonable price. The best land advertising in a general farm paper is classified and arranged by states. The National Farmer and Stock Grower will obtain for an advertiser more substantial inquiries in a ten-line advertisement than any other farm paper will give for five times the space or money. Send in your advertisement and let us quote you a price. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, corn, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—Near Arkansas City; 1,000 acres, with 350 of it in cultivation. Will be sold with live stock and work stock and crop started. The plantation is on the Mississippi river, at good landing; has on farm new gin, twenty tenant houses; two miles west of county seat, where there is a fine high school. All cultivated land is protected from overflow; also 300 acres rich land not under cultivation. The soil is rich sandy loam; makes plenty of hay and corn; good water; fine pasture for stock; has hay sheds, corn cribs, tool houses, commissary building and nice pecan grove. Price, $16,000; half cash; balance in payments at 6 per cent. interest, if desired. **J. S. Ross & Son,** Arkansas City, Ark.

FLORIDA.—A real bargain in good land. One of the best sections of land just west of Jacksonville. I need some money quick and will sell this fine section for $30.00 per acre. Adjoining sections sold for $60.00 per acre. **Miss N. Ryan,** 2627 Clifton Ave., St. Louis, Mo.

MINNESOTA.—Farms for sale. Send for my list of CHOICE FARMS for sale, the best in the United States, considering location, terms, etc. Ask for my FREE BOOKLET, telling about the country, crops, markets, etc. **Geo. W. Elder,** McGinn Block, Thief River Falls, Minnesota.

MISSISSIPPI.—ALFALFA LAND FOR SALE. In the famous black prairie alfalfa belt of Northeast Mississippi you can buy rich soil from one-fourth to one-third of the price of land in the North. This soil is naturally adapted to the growth of alfalfa and produces three to five tons per acre annually. Read Jos. E. Wing's article in Breeders' Gazette of June 5th, 1912. We invite the closest personal inspection and guarantee every place as represented. For free booklet and price list write **J. Walton Murfee,** Okolona, Miss. Reference: Okolona Banking Co., Okolona, Miss.

MISSISSIPPI.—800 acres of land, in one body, for sale, located 1½ miles from the I. C. Railroad, south of Corinth. Good soil; no rocks; plenty of timber. Price, $10.00 per acre. Fine place for settlement. Every ten acres would make a good truck and poultry farm. Address, **Owner,** care National Farmer and Stock Grower, St. Louis, Mo.

TEXAS.—We have for sale 5,502 acres in the famous Pecos Valley, near Pecos City, Texas. Shallow water belt; inexhaustible supply of water. This land lies in three tracts, but close together; three sets of houses, barns, wells, windmills, tanks, gardens, fruit trees, etc. All fenced and cross fenced. Schools, telephone, auto road. Dark chocolate loam. As fine land as the sun shines on for alfalfa, fruits, grapes and general crops. Ideal for dividing into small farms. Will sell in a body or in sections of 640 acres cheap for one-half cash, balance easy terms. Don't delay, if interested, as this land must be sold at once and is a real bargain. For full particulars address **Robt. H. Rinehart & Co., Box 98, El Paso,** Texas.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago.**

WHITMAN'S HAY PRESS
40 Years Standard of the World

New Model Steel Beauty ALL STEEL

Let us prove that our New Model is the Strongest, Most Durable, Most Economical and Simplest Hay Press in the World—does the best work—has greatest capacity—saves time, labor and trouble—contains exclusive feature found in no other press—with or without self-feed, pull back and hopper condenser—fully guaranteed—we make largest line of Bailers in the world. Write today for big *free* catalog.
WHITMAN AGRICULTURAL CO., 6901 S. Broadway, St. Louis

DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 sent prepaid for $1. HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, **Profitable Dairying,** as a premium. Address,
HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

Holstein-Friesian Records.

At the annual meeting of the Holstein-Friesian Association of America Mr. Malcolm H. Gardner, Superintendent of Advanced Registry, reported the tests of 5,074 cows for seven-day records. In these tests 1,416 full-aged cows averaged: Age, seven years, nineteen days; days from calving, 22; milk, 474.5 pounds; per cent. fat, 3.56; fat, 16.892 pounds. Three hundred fifty senior four-year-olds averaged: Age, four years, nine months, seven days; days from calving, 22; milk, 452.3 pounds; per cent. fat, 3.58; fat, 16.194 pounds. Four hundred junior four-year-olds averaged: Age, four years, two months, thirteen days; days from calving, 21; milk, 442.2 pounds; per cent. fat, 3.61; fat, 15.962 pounds. Four hundred sixty-three senior three-year-olds averaged: Age, three years, nine months, seven days; days from calving, 24; milk, 422.5 pounds; per cent. fat, 3.57; fat, 15.069 pounds. Five hundred twenty-seven junior three-year-olds averaged: Age, three years, two months, twelve days; days from calving, 22; milk, 398.7 pounds; per cent. fat, 3.58; fat, 14.260 pounds. Five hundred eighty-four senior two-year-olds averaged: Age, two years, nine months, six days; days from calving, 27; milk, 350.5 pounds; per cent. fat, 3.51; fat, 12.319 pounds. One thousand three hundred thirty-four two-year-olds averaged: Age, two years, one month, sixteen days; days from calving, 27; milk, 316.3 pounds; per cent. fat, 3.50; fat, 11.668 pounds.

This herd of 5,074 animals, of which over one-half were heifers with first or second calves, produced within a period of seven consecutive days 2,039,479.2 pounds of milk, containing 72,122.516 pounds of butter-fat, thus showing an average of 3.55 per cent. fat. The average production for each animal was 401.9 pounds of milk, containing 14.273 pounds of butter-fat, equivalent to over 57.4 pounds or 27.3 quarts of milk per day, and 16.65 pounds of the best commercial butter per week. It will be seen that there was a decided gain over the preceding year in milk for all of the classes except the junior three and junior two-year, and that all the classes but the junior two-year gained from two to three-tenths of a pound fat. The average milk for the herd was raised 1.1 pounds and the fat over two-tenths of a pound; while the average per cent. fat was raised from 3.51 to 3.55 per cent.

In Favor of the Silo.

By means of the silo the cow feeder is rendered independent of the seasons. He can by its help accumulate enough succulent (juicy) food to last a part of two seasons. Then if a drouth comes, he has nothing to fear.

The silo is a great help on some farms, when the summer dry spell comes. The writer knows of one dairyman that systematically provides for this dry spell. He has several silos and fills them in the fall with enough silage to last for more than a year. Then when the next summer comes around he still has enough old silage left to feed the cows when the pastures are short. The cows never discover that there is a dry spell. As the feed in the pastures grows less succulent, the amount of silage fed each cow is increased and the milk flow is never diminished.

A great feeder of silage tells the writer that old silage is better than new silage, and that it is far better than the green corn stalks and is more digestible. He says that when in the fall of the year he changes from the old silage onto the new silage, there is a considerable letting down of the milk supply. This should encourage farmers to build silos to put up enough silage to have a good supply of old silage on hand whenever there is use for it.

Good, clean silage does not affect the milk except to improve it. One of the farms in Illinois that for many years supplied certified milk to exacting customers in Chicago at fancy prices produced that milk very largely from silage. Rotten silage is always useless or worse, as a feed, but sour silage is good. The souring is only the same as we get in sour-kraut, which is one of the best forms in which cabbage can be used as food for human beings.

Silage is a cheap feed for cows, and to-day, more than ever, it is necessary to provide a cheap feed, if there is to be profit from milk production. The great problem of the day in the feeding of the cow is the production of feed at a reasonable cost. Mill feeds have so enormously advanced in price that they can be fed profitably only under exceptional conditions. It is certain that at the present time much of the mill feed being fed is so fed at a positive loss.

Corn makes the best silage and can be grown for silage over a wide extent of territory. Far north of where it can be grown for the grain it can still be grown for the purpose of silage making. It produces an enormous amount of food to the acre and thus forms the basis of a cheap food.

The increasing price of land is making it difficult to maintain large pieces of land in pasture. Land that sells at $100 per acre is too valuable to be used for pasture, unless the pasture be an exceptional one. An acre of land in corn will produce several times as much feed as an acre of land in pasturage. This is because corn is a kind of grass that grows much larger than any other kind of grass with which we are familiar.

MILCH COWS AND BUTTER PRODUCTION.

Showing Butter Made on Farms and in Creameries—Also Number of Milch Cows on Hand in 1909 and 1912.

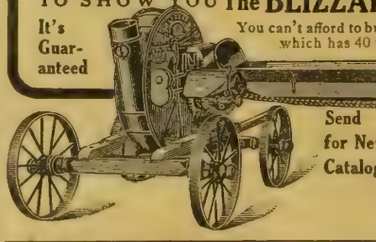
States.	Butter made on Farms. 1909. Pounds.	Butter made in Creameries. 1909 Pounds.	Total Butter. 1909. Pounds.	Milch Cows. 1909. Number.	Milch Cows 1912. Number.
ALA.	29,551,000	138,000	29,689,000	391,536	396,000
ARIZ.	326,000	78,000	404,000	28,862	32,000
ARK.	29,619,000	300,000	29,919,000	425,793	404,000
CAL.	15,302,000	37,283,000	52,585,000	467,332	505,000
COLO.	5,856,000	6,352,000	12,208,000	149,424	167,000
CONN.	3,499,000	1,980,000	5,503,000	122,853	120,000
DEL.	1,563,000	627,000	2,190,000	35,708	37,000
D. C.	6,000	.....	6,000	857	900
FLA.	1,705,000	.....	1,705,000	116,041	123,000
GA.	27,246,000	78,000	27,324,000	405,710	406,000
IDAHO	3,542,000	2,357,000	5,899,000	86,299	94,000
ILL.	46,610,000	24,571,000	71,181,000	1,050,223	1,049,000
IND.	43,182,000	11,712,000	54,894,000	633,591	634,000
IOWA.	38,680,000	88,582,000	127,262,000	1,406,792	1,393,000
KAS.	29,648,000	18,713,000	48,360,000	736,107	698,000
KY.	38,131,000	138,000	38,269,000	409,834	398,000
LA.	6,232,000	143,000	6,375,000	279,097	288,000
MAINE.	13,299,000	2,106,000	15,405,000	156,819	155,000
MD.	8,740,000	1,119,000	9,858,000	167,716	168,000
MASS.	3,365,000	1,888,000	5,253,000	171.936	167,000
MICH.	50,405,000	35,512,000	85,917,000	767,083	806,000
MINN.	36,337,000	88,843,000	125,180,000	1,085,388	1,107,000
MISS.	28,731,000	138,000	28,869,000	429,587	443,000
MO.	42,105,000	10,262,000	52,367,000	856,430	822,000
MONT.	2,821,000	1,308,000	4,128,000	77,527	91,000
NEB.	25,987,000	23,973,000	49,960,000	613,952	613,000
NEV.	404,000	1,040,000	1,444,000	17,084	20,000
N. H.	5,065,000	1,740,000	6,805,000	101,278	97,000
N. J.	3,622,000	769,000	4,391,000	154,418	150,000
N. M.	1,478,000	100,000	1,578,000	51,451	53,000
N. Y.	23,462,000	45,897,000	69,359,000	1,509,594	1,495,000
N. C.	26,060,000	.....	26,060,000	308,914	312,000
N. DAK.	16,414,000	3,684,000	20,098,000	259,173	272,000
OHIO.	63,569,000	17,491,000	81,060,000	905,125	887,000
OKLA.	27,056,000	4,111,000	31,167,000	530,796	504,000
OREGON.	5,668,000	8,473,000	14,141,000	172,550	180,000
PA.	61,158,000	30,484,000	91,642,000	933,640	943,000
R. I.	340,000	24,000	364,000	23,329	23,000
S. C.	12,330,000	.....	12,330,000	180,842	185,000
S. DAK.	13,630,000	9,496,000	23,125,000	369,764	306,000
TENN.	39,828,000	138,000	39,966,000	397,104	385,000
TEXAS.	65,038,000	2,134,000	67,172,000	1,013,867	1,034,000
UTAH.	2,497,000	3,723,000	6,222,000	75,810	83,000
VT.	15,166,000	20,228,000	35,393,000	265,483	268,000
VA.	26,651,000	100,000	26,751,000	356,284	352,000
WASH.	6,752,000	11,303,000	18,054,000	186,233	205,000
W. VA.	18,970,000	61,000	19,031,000	239,539	230,000
WIS.	27,165,000	103,885,000	131,049,000	1,473,505	1,504,000
WYO.	1,192,000	784,000	1,976,000	32,699	35,000

Farmers have been too slow in realizing the great value of silage for the feeding of dairy cows. There should be a good silo on every farm where dairy cows are kept.

During the month of July for milk shipped to New York City the shippers were receiving 12 cents a gallon net, and the receivers were obtaining ten-gallon cans at $1.51.

ASK YOUR DEALER TO SHOW YOU The **BLIZZARD** RAPID RELIABLE **ENSILAGE CUTTER**

It's Guaranteed



You can't afford to buy any ensilage cutter until you have examined the Blizzard which has 40 years of success behind it. Equipped with improved wind elevator, knives that can be adjusted while running. Self-feeding table. Tested by 50% greater strain than is ever called for in actual use. Fully *guaranteed*. Sold ready for use. Only 3 pieces. Write for "Why Silage Pays" and "The Evidence." Sent *free* together with latest catalog of Blizzard cutters.

Send for New Catalog

JOS. DICK MFG. COMPANY
1416 West Tuscarawas St. Canton, Ohio

CASH OR CREDIT

Catalogue FREE.

ONLY $10.00

Cash, balance $5 per month, buys this 3-year-guaranteed buggy. Buggies $29.50 up; Surries $45.00 up; Farm Wagons $40.00 up. We trust honest people located in all parts of the world.

Write For FREE CATALOGUE.

Century Manufacturing Co.,
Dep't 512, East St. Louis, Ill.

BUTTER PRODUCTION IN THE UNITED STATES.

More Than One and a Half Billion Pounds, Valued at Over Four Hundred Million Dollars, in 1909.

Washington, D. C., May 6, 1912.—There were 1,620,766,000 pounds of butter, valued at $405,000,000, produced on farms and in factories in the United States during the census year 1909, according to a statement issued to-day by Director Durand, of the Bureau of the Census, Department of Commerce and Labor. It was prepared under the supervisiion of Le Grand Powers, Chief Statistician, and John Lee Coulter, Expert Special Agent, for agriculture. It gives the totals for the geographic divisions and states, separately, and gives notice that the figures of production on farms are preliminary and subject to change in the final tables.

Of the grand total reported, the quantity produced on farms was 996,001,000 pounds, valued at $225,544,000. Factories produced 624,765,000 pounds, valued at $179,510,000. Butter manufactured by farmers' co-operative creameries is included in the figures for factories.

The largest total quantity, 446,352,000 pounds, valued at $112,201,000, was produced by the West North Central Division. The next largest, 424,102,000 pounds, valued at $108,020,000, was reported by the East North Central Division. These two divisions produced slightly more than half of the total quantity and earned about the same proportion of the total value. Although the first-named division led in total quantity and value, the other area showed a greater quantity of butter from the farms, 230,931,000 pounds, valued at $59,055,000, as compared with 202,801,000 pounds, valued at $45,169,000, reported from the West North Central Division. On the other hand, the latter division had a factory production of 243,552,000 pounds, valued at $67,032,000, as against 193,171,000 pounds, valued at $54,965,000, for the East North Central.

The other divisions, in total quantity and value each, ranked as follows:

Middle Atlantic, 165,399,000 pounds, $46,323,000; East South Central, 136,792,000 pounds, $26,156,000; West South Central, 134,634,000 pounds, $27,710,000; South Atlantic, 125,255,000 pounds, $26,628,000; Pacific, 84,780,000 pounds, $25,703,000; New England, 68,699,000 pounds; $20,231,000; and Mountain, 34,758,000 pounds, $10,078,000.

Among the states, Wisconsin ranked first in total production with 131,049,000 pounds, valued at $36,628,000. It was first also with 103,884,000 pounds, valued at $29,547,000, produced in factories. The difference between the figures given, which is 27,165,000 pounds, valued at $7,081,000, represents Wisconsin's farm production.

In total production, Iowa ranked second, Minnesota third, Pennsylvania fourth, Michigan fifth, Ohio sixth, Illinois seventh, New York eighth, Texas ninth, and Indiana tenth.

Texas, Ohio, Pennsylvania, Michigan, Illinois and Indiana showed a much greater farm production than factory output and ranked in the order written. Minnesota, Iowa and New York, in the order named, ranked after Wisconsin in showing a factory production much larger than credited to their farms.

The Tabular Summary.

Additional details can be drawn from the complete tabular summary which will be found on page 10.

Cowpea Hay For Dairy Cows.

What about the hay crop? Will you have plenty of forage for next winter or will you be forced to fall back on straw or crab grass hay? Cows cannot maintain their milk yields unless fed liberally of the right kinds of feeds. These feeds must contain a relatively large amount of protein. This is furnished most cheaply in forage. It is not found in sufficient quantities for milch cows in timothy, prairie grass, crab grass, sorghum or straw, but is found in cowpea, soy bean, alfalfa or clover hay.

Cowpea hay has about the same feeding value as alfalfa and is some better than clover. Cowpeas can be sown after wheat or oats, and will generally mature enough to cut for hay before frost. As soon as the crop which they are to follow is removed, the stubble land should be double disced and then harrowed to make the best possible seed bed. The seeding can be done with an ordinary grain drill, using the oat cups wide open. This will sow at the rate of four or five pecks to the acre.

It is best to cut the peas for hay when the first pods ripen, shocking them in narrow, high shocks the day after cutting, and allowing to cure in the shock for a couple of weeks. With favorable weather the hay will be ready to bale, stack or mow away at the end of that time. Rains do not harm the hay very much when in the shock.

On average soil sown as indicated above in an average season, cowpea hay makes about a ton per acre. Farmers with dairy cows or any other live stock should sow as much as possible on stubble or any other vacant land. Now is the time to sow is the advice of the Department of Dairy Husbandry, University of Missouri, Columbia, Mo.

The Game We All Must Play.

E. P. Dunne, writing an editorial in the July American Magazine based on the Titanic disaster, says:

"The game we are all playing is a losing game at best. Yet we must play. We cannot get up and leave the table knowing the dice are cogged and the cards marked against us. We must play on, losing our principal stake little by little or in splendid rouleaux, as chance or our disposition may urge, but knowing well that in the end, soon or late, whatever remains of it will be swept from the board. Lucky the man who is tempted to play but the one stake. Happy the man who in Death loses only his life."

How to Avoid Colds.

"People are careless about catching colds, not realizing that one cold predisposes to another and that successive colds injure the mucous membranes of the air passages so that they will never be the same again and their functions will be impaired.

"To avoid colds should always be the object to be sought. This can be achieved by rendering the skin less sensitive to the conditions which produce colds by living in the open air, sleeping in the open air, having equable clothing, and not changing from very thick to very thin clothing without regard to season or temperature; above all, no matter what occurs, by keeping the spirits hopeful and buoyant and being optimistic."—Dr. Grace Peckham Murray, in Harper's Bazaar.

DE LAVAL
CREAM SEPARATORS

Best Time To Buy One

There never was a better, if indeed as good, a time to buy a DE LAVAL Cream Separator than **right now.**

The hot weather is at hand when the use of the cream separator frequently means most as to quantity and quality of product, while cream and butter prices are so very high that waste of quantity or poorness of quality means even more now than ever before.

This is likewise the season when DE LAVAL superiority is greatest over other separators—in capacity, ease of running, sanitary cleanliness and every other way.

Cost need not be a consideration because a DE LAVAL cream separator is not only the best of all farm investments but may be bought either for cash or on such liberal terms as to actually pay for itself.

There never was a better time than right now to buy a cream separator and there can be no possible excuse for any man having use for a separator delaying the purchase of one at this time.

Look up the nearest DE LAVAL agent **at once,** or if you don't know him write us directly.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

[Please mention National Farmer and Stock Grower.]

Public Flattery.

"She had him arrested for kissing her forcibly and he was fined $20."

"Yet, they are good friends now."

"Yes; he announced in open court that it was worth the money."—Washington Herald.

Unanimous Election.

One year, when the youngsters of a certain Illinois village met for the purpose of electing a captain of their base ball team for the coming season, it appeared that there were a number of candidates for the post, with more than the usual wrangling.

Youngster after youngster presented his qualifications for the post; and the matter was still undecided when the son of the owner of the ball field stood up. He was a small,, snub-nosed lad, with a plentiful supply of freckles, but he glanced about him with a dignified air of controlling the situation.

"I'm going to be captain this year," he announced, convincingly, "or else father's old bull is going to be turned into the field."

He was elected unanimously.—June Lippincott's.

Have you a copy of the Book of Live Stock Champions? See page 22.

Rubber Roofing

Warranted For Twenty-Five Years
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla., Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga., Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
TWO-PLY - - - Weighs 45 lbs., 108 Square Feet, $1.30 per roll.
THREE-PLY - Weighs 55 lbs., 108 Square Feet, $1.50 per roll.

TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

Indestructible by Heat, Cold, Sun or Rain.

Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept 511, East St. Louis, Ills.

COW PEAS,

NEW, SOUND STOCK.
WHIPPOORWILLS—Black and Clays
—and BLUE NEW ERAS.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.
TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, SEED CORN.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP and SPINACH, VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

DWARF ESSEX RAPE, $6.50 per 100 Pounds.
CANE SEED, Any Variety, $2.25 per 100 Pounds.

Send For GOLDEN ARROW Seed Catalogue.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

Effective Fertilizer For Corn and Oats

Empire Carbon Works, 421 Locust street, St. Louis, Mo.:—Gentlemen: I used one ton of Empire Brands bought of E. Falkner, part of it with oats. I feel assured that the oat crop where I used fertilizer was doubled. After gathering the oats, the land was sown in cowpeas, which produced a double crop. Part was used on corn, and the corn crop was increased in fully as satisfactory proportion as the cowpeas. I expect to want double the amount next season that I used this year, and feel assured that my experience will aid you in selling several tons next season. W. F. BEDFORD, West Point, Tenn. (See page 7.)

In Use For Forty Years.

The Jos. Dick Manufacturing Company have now been engaged in the manufacture of ensilage cutters for forty years, and during this nearly a half century they have grown to be one of the leaders in this field of manufacture.

The Jos. Dick Manufacturing Company have very properly called their machine the "Blizzard," because it is particularly effective in blowing the ensilage into the highest silos. The improved wind elevator carries fodder any height and in any direction with less power than is usually required. The self-feeding table saves the operator work and time, and the knives are adjustable while running at any speed.

The Jos. Dick Manufacturing Company have not been satisfied with leading the field in manufacture. They have set in to educate the few remaining farmers opposed to ensilage, to the fact that ensilage is valuable to the dairyman and stock breeder. To accomplish this end they have edited and published an interesting and attractive book entitled "Why Silage Pays." They are distributing this booklet free of charge to anyone writing for it.

This booklet explains why so many farmers have found silage of indisputable advantage, and wherein those who oppose silage are in error. It tells of the food value of silage, why it is economical and beneficial, and concludes with letters from practical farmers and scientific men who have found that silage pays. Write at once to Jos. Dick Mfg. Co., 1416 West Tuscarawas street, Canton, Ohio, and ask for copy of booklet "Why Silage Pays."

The Wheat Market Situation.

On June 29th, 1912, the cash wheat transactions included No. 2 red, $1.11 to $1.12 per bushel; No. 3 red at $1.09; and No. 4 at $1.08; No. 2 hard, $1.11 to $1.15; and Turkey was quoted at $1.17½; No. 3 hard wheat was quoted at $1.08 to $1.15. We quote St. Louis cash market because St. Louis is the center of our circulation.

June is the month in which first arrivals of new wheat are noted. On the 17th a load of No. 2 red, weighing 58 pounds to the bushel, arrived at St. Louis and sold at $1.08 per bushel; another load equally as good arrived on the 20th and sold at $1.05½ and came in on a declining market. Both loads were from Oklahoma. Every year the first shipment of wheat attracts as much attention as a new baby in a family, but as receipts increase the novelty wears off.

The month of June is not generally an excitable time in the grain trade. The excitable May option is passed and gone and there is no other general delivery until July 31st, and that is not the option to which any great importance is attached.

The information regarding growing crops has been gathered from day to day and minute to minute, and is always reflected by the long-time quotations. No need for any grain man returning to the market to receive written report. Last evening's closing quotations and this morning's telegrams will set him to work well fortified to judge if the market ought to go up or down.

The May wheat option at Chicago was closed out May 31st at $1.10½ per bushel. The July option was then quoted at $1.10⅛, and by June 29th the July option had declined to $1.08⅝. The September option, quoted at $1.06 on May 31st, was quoted at $1.06⅛ on June 29th, and the December wheat option, quoted at $1.06¼ on May 31st, was quoted at $1.06¾ on June 29th.

Bringing this down to the real expectation of the wheat market on the part of those whose business it is to deal in wheat, that expectation is there will be no reason or occasion for high prices, and that up to the end of the year the range of market values may be above the dollar mark, but not above $1.10. That was the general opinion on June 29th, and the reason there was no market on the 30th is because that day was Sunday.

Articles on the Automobile.

With their usual vigor and unusual knack for doing things R. M. Owen & Company have just issued the summer number of the **Reo Echo.** It is a beautiful 7x10 brochure of forty-eight pages, filled with timely articles on motoring and bright half tones illuminating the scenic gradeurs within the four corners of America. Among the articles contributed by writers of national reputation are "The Growth of the Motor Car," "The Automobile as a Solution to the Farm Problem," "The Ideal Motor Truck and Its Place in the Commercial World To-day," all of which bristle with interest throughout and must needs prove invaluable to the farmer and business man who are seeking the latest and most reliable information on pleasure and commercial motor vehicles. Wit, humor, science and patriotism also come in for their just share in the rare exhibit. A limited number of these handsmoe brochures are being mailed free by R. M. Owen & Company, 1759 Broadway, New York, to readers of The National Farmer and Stock Grower if the request be mailed promptly. Don't fail to send for it and mention this paper.

THE CEMENT WORKERS' HANDBOOK.

THIS book is designed to teach anybody how to work with cement. How to mix mortar of all kinds for all concrete purposes. How to make building blocks. How to build walls, floors, ceilings, walks, posts, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers.

The National Farmer and Stock Grower

IS a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in THE NATIONAL FARMER AND STOCK GROWER. There are thirty-two pages, four columns to the page. It is published monthly.

Anyone who sends in One Dollar to pay in advance a three-year subscription to The National Farmer and Stock Grower can select the CEMENT WORKERS' HANDBOOK as a free premium, or one-year's subscription and the book for Sixty Cents.

ADDRESS,

The National Farmer and Stock Grower,
3550 Vista Ave., ST. LOUIS, MO.

HE HAD USED VISIO.

You will find enclosed $2, for which please send me one bottle of VISIO. I have used it and know it is good and don't want to be without it. J. L. WALKER, Laomi, Ill. See Visio advertisement in this paper.

LABORATORY TESTS ON ABSORBINE,JR.

Our readers are familiar with the veterinary remedy Absorbine, which has been extensively advertised for years, but are you aware of the remarkable efficiency of Absorbine, Jr., the antiseptic liniment for mankind? Exhaustive tests have been made to determine the value of Absorbine, Jr., in killing various germs, and their results have been more than satisfactory, and prove conclusively that Absorbine, Jr., is a germicide of value. Write for copies of these reports and pamphlet "Evidence," telling more about this antiseptic, germicidal liniment. Absorbine, Jr., is part of the household equipment wherever it has been tried, as its efficiency is a positive fact. Price, $1.00 and $2.00 a bottle at druggists or delivered. W. F. Young, P. D. F., 106 Temple Street, Springfield, Mass.

GENERAL FARM NOTES.

During the month of June, 1912, there were 3,213 horses and mules bought upon the St. Louis market that were shipped East; also 2,922 head that were shipped South.

In the month of June the city and county of St. Louis, Mo., received nearly nine inches of rain. The total was 8.8 inches, against 4.76 inches, the average for June.

St. Louis Evaporated Fruit.

At St. Louis, July 1st, evaporated fruits were quoted as follows: Evaporated apples, rings—Fair at 5½ to 6 cents; choice at 6½ cents; and fancy for facers worth more; prime evaporated quarters, 6 to 6½ cents; cores, peelings and chops, 1 to 1½ cents. Sun-dried apples — Prime quarters, 5 cents; fancy worth more; poor to fair, 3 to 4½ cents; rings and irregular cuts less. Peaches—Prime to choice sun-dried halves, 5½ to 6 cents per pound.

The corn cure advertised by Otto Ude is well established in St. Louis. It was originated forty years ago. See page 21.

Voting Population of Cities.

A preliminary statement of the male population twenty-one years of age and over, distributed according to color, nativity and parentage, for each state as a total and for each of the cities of over 25,000 population, as shown by the returns of the thirteenth census, taken as of April, 1910, was issued by Director Durand, of the Bureau of Census, Department of Commerce and Labor. The statistics were prepared under the direction of William C. Hunt, Chief Statistician for Population in the Census Bureau, and are subject to revision.

Distinction is made in the statement between white males of native and foreign birth, respectively, and also for the native white with respect to parentage. Those having both parents native of the United States are classed as of native parentage; those having either both parents born abroad or one parent native and one parent born abroad are classed as of foreign or mixed parentage. Foreign-born white males who have been naturalized are also separately classified.

The potential voting strength of each state and city is expressed by the number of its males twenty-one years of age and over, excluding the foreign-born who have not become naturalized, but by this is not meant the actual number of voters. It represents, rather, the number of males who from the standpoint of age alone are eligible to vote, aside from any qualifications based upon education, length of residence, or considerations of a like nature imposed by the national or state government.

There are in all 229 cities which had in 1910 more than 25,000 inhabitants, with an aggregate population of 28,543,816. These cities together contained in 1910 a total of 9,004,422 males of voting age, or 31.5 per cent. of their combined population. For continental United States as a whole, males of voting age numbered 26,999,151, and constituted 29.4 per cent. of the entire population (91,972,266) in 1910.

Of the whole number of males of voting age in the 229 cities taken together, native whites of native parentage number 2,900,244, or 32.2 per cent.; native whites of foreign or mixed parentage, 2,040,907, or 22.7 per cent.; foreign-born whites, naturalized, 1,557,795, or 17.3 per cent.; foreign-born whites, not naturalized, 1,920,816, or 21.4 per cent.; negroes, 519,444, or 5.8 per cent. The equivalent numbers and percentages for continental United States as a whole are: Native whites of native parentage, 13,211,731, or 48.9 per cent.; native whites of foreign or mixed parentage, 4,498,966, or 16.7 per per cent.; foreign-born whites, naturalized, 3,035,333, or 11.2 per cent.; foreign-born whites, not naturalized, 3,611,273, or 13.4 per cent.; negroes, 2,450,327, or 9.1 per cent.

The 9,004,422 males of voting age in the cities of 25,000 or more inhabitants constitute almost exactly one-third (33.4 per cent.) of the entire number of males of voting age in the United States. In the case, however, of native whites of native parentage the males of voting age in these cities constitute only 22 per cent. of the total for the United States, while for native whites of foreign or mixed parentage the proportion is 45.4 per cent.; for naturalized foreign-born whites 51.3 per cent. and for foreign-born whites not naturalized 53.5 per cent. For negroes the percentage is 21.1.

There are twenty-five principal cities in Massachusetts which together have 646,783 males of voting age, out of a total for the state of 1,021,669. The twenty-one cities in New York together have 1,922,500 males of voting age, out of a total for that state of 2,864,773; and of these 1,433,749 are in New York City alone. Of the other large cities Chicago has 700,590 males of voting age; Philadelphia, 468,873; St.Louis, 221,913; Boston, 208,321; Cleveland, 177,286; Pittsburg, 166,224; and Baltimore, 163,554.

Highest in Forty-two Years.

At Chicago, on Friday, June 21st, W. Ham, shipping from Chamberlain, S. D., marketed through the firm of Clay, Robinson & Co. thirty-two head of mixed Shorthorn and Hereford dehorned steers, averaging 1,553 pounds, which sold on the open market for $9.50 per 100 pounds, the highest price paid for beef cattle in forty-two years.

The Good Old Way.

The Countess of Warwick, advocating votes for women at a dinner in New York, smiled and said:

"The old-fashioned, Victorian idea that only bluff, masculine, coarse things are worth while is dying out. The world realizes to-day that women—and men as sensitive and refined as women—also have their place.

"The old-fashioned preference for the bluff and coarse reminds me of a sea captain. This sea captain caught a sailor one morning cleaning his teeth with a toothbrush. The old man seized the brush, snapped it in two, and tossed the pieces overboard. Then, his eyes flashing fire, he said:

" 'What are ye tryin' to do—corrupt the ship with this here effeminacy? Cleanin' yer teeth with a toothbrush! Why, ye swab, don't ye know that when an honest sailor wants to scrape the tobacker off his grinders he does it like a man with a marlinspike or a link of chain cable dipped in cinders outen the cook's galley?' "—St. Louis Globe-Democrat.

Wooden Teeth.

Japanese dentists have introduced wood as a substitute for porcelain and rhinoceros ivory. The wooden teeth used by the Japanese dentist are remarkable natural in appearance and in the fine bluish color peculiar to the teeth of the Malay race. The teeth are fastened in place by a secret process jealously guarded by its inventor.—Harper's Weekly.

"A Awful Good Dog."

Ben Strickland, Assistant Clerk to the State Bureau of Printing and Binding, said when he lived in Greenfield there lived there also a family composed of a man, his wife and a dog that was claimed by both of them. The family was nomadic, wandering about the country with a decrepit horse in the summer time, and the dog was their constant companion. Finally the dog lived its allotted days and was buried with as much pomp as the man and his wife could command. Next day Strickland saw the woman, and she was bewailing the loss of the dog. As a crumb of comfort Strickland offered:

"Now, dear Martha, you shouldn't feel so bad about that dog. What if it had been Uncle Billy (the husband) instead?"

"That might a been purty bad," responded Aunt Martha, "but, Ben, I tell you, that was a awful good dog."—Indianapolis News.

May Have Been Cook's Cannon.

Much interest has been aroused in Australia by the finding of a cannon, which is supposed to have been jettisoned from Captain Cook's ship, the Endeavor. The relic was found on the Queensland coast.

Fall Fertilizers.

Attention is invited to the advertisement of the German Kali Works on page 2. Potash is now within reach of the farmer in almost any quantity to be applied direct to the land or to mix with fertilizers that do not contain sufficient for self-mixing, etc. Any farmer who will write to the German Kali Works for a copy of a booklet entitled "Fall Fertilizers" will receive something that is worth reading and studying. Address the nearest office mentioned in the advertisement and mention The National Farmer and Stock Grower.

Read about the United States farm acreage on page 2.

Don't Wear a Truss!

Brooks' New Scientific Appliance--Adjustable to Any Size Person--Easy, Comfortable, Affording Instant Relief--Made for Men, Women and Children.

SENT ON TRIAL.

No risk in ordering--Money will be refunded if not satisfied.

After thirty years' experience in curing rupture, I have invented an Appliance which will absolutely hold the rupture and never slip, yet is light, cool and comfortable. It conforms to every movement of the body without chafing or hurting, and costs less than many common trusses. There are no springs or hard, lumpy pads, and yet it holds the rupture safely and firmly without pain or inconvenience. I make it to your measure, and send it to you on a **strict guarantee of satisfaction or money refunded**, and I have put my price so low that anybody, rich or poor, can buy it.

DOUBLE RUPTURE CURED.

Lecompton, Kans.,
R. F. D. No. 2, Feb. 7, 1911.

Mr. Brooks.

Dear Sir:—I drop you these few lines to say I am well pleased with your Appliance, as it has effected a permanent cure in my case. I have been ruptured eighteen years. Am now forty-two and wore a great many trusses before I got your Appliance. The ruptures disappeared after wearing the Appliance a few months. Mr. Brooks, I will do all in my power to recommend your Appliance, not only for your benefit, but to help others who suffer from rupture.

Your True Friend,
W. F. BUCHHEIM.

The above is C. E. Brooks, inventor of the Appliance, who cured himself and who has been curing others for over 30 years. If ruptured, write him today.

"COMPLETELY CURED."

Hebron, Douglas Co., Mo.,
June 12, 1911.

C. E. Brooks.

Dear Sir:—Some time ago I purchased an Appliance from you and am now pleased to inform you I am not wearing it nor will I ever need it again, for to my great surprise, it has completely cured me. I hardly hoped to be cured at all, but the cure was effected in about seven months. Many thanks for the kind way in which you have treated me.

Yours gratefully,
S. B. LITTELL.

I have received thousands of letters like these from grateful patients the world over. This appliance gives **instant relief**, and effects permanent cures when everything else has failed. Remember, I use no salves, no harness, no lies. Fill out the attached coupon and mail today, and I will send you free my illustrated Book on Rupture and its Cure, showing my Appliance, and giving you the names of many people who have tried it and are now permanently and soundly cured. Remember, I send my appliance **on trial** to prove what I say is **true.** You are to be the judge. Send free coupon **now.**

C. E. BROOKS,
59-A State St., Marshall, Mich.

FREE INFORMATION COUPON.

C. E. BROOKS, 59-A State St.,
Marshall, Mich.

Please send me by mail, in plain wrapper, your illustrated book and full information about your Appliance for the cure of rupture.

Name.....

Address.....

.....

A MODERN MILK PLANT.

The Walker-Gordon Farm at Plainsboro, New Jersey, Visited by Farmers and Scientists.

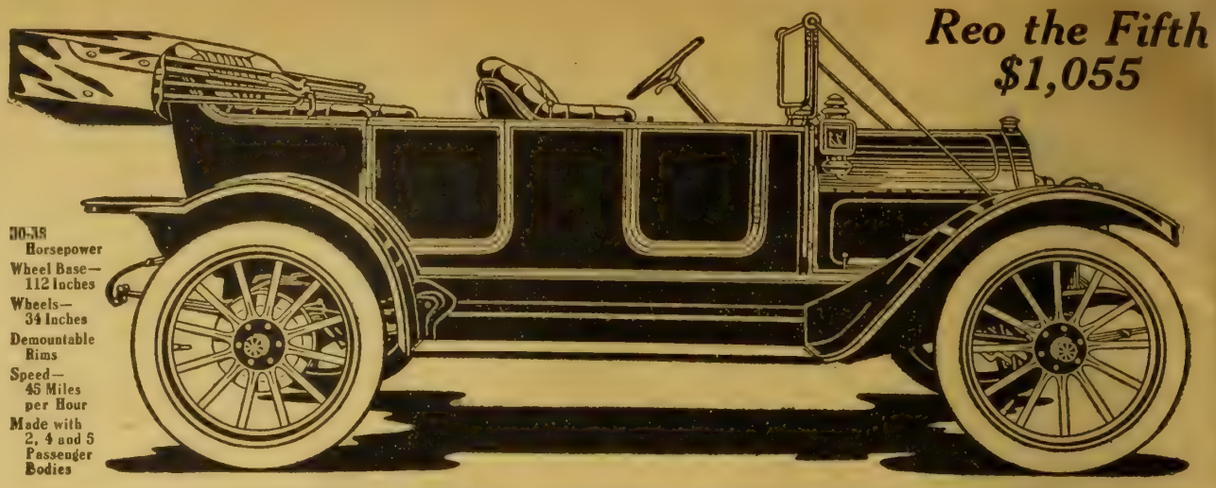
The Walker-Gordon milk farm has been in operation now for about twelve years. It is located at Plainsboro, in Mercer county, New Jersey. The Bureau of Farm Management has been assisting them in systematizing their operations and has also been carrying out other experiments. On Wednesday, May 29th, the farmers of the state were invited to an all-day meeting on their farm. Nearly six hundred people were present and a most profitable day was spent listening to addresses by men of reputation and visiting all parts of the farm. Prof. Billings, of the United States Department, introduced Mr. Jeffers, the manager of the farm. In a brief and modest manner Mr. Jeffers told how the place was started, some of the failures and successes and some of the hopes for the future.

The farm is purely a business proposition. The Walker-Gordon Company, in supplying customers in the large cities with modified milk for babies, realized that to get good, pure milk of a uniform quality, they would have to produce it themselves. Plainsboro was selected because of its good railroad facilities and because it was about half way between Philadelphia and New York and near the largest center of population in the country. Mr. Jeffers told about the gradual growth of the farm from the fifty cows at the beginning to the four hundred kept at present. The most perplexing problem has been to supply milk as nearly free from bacteria and as pure as possible and yet not to allow the cost to be prohibitive. This brought out the necessity of systematic management. They endeavor on their nine hundred acres of tillable land to raise their hay crops on the fields farthest removed from the center of activity. On the fields near the cow farms are grown the soiling crops, silage corn, etc. The hay is stored near where it is grown, thus saving long hauls when the teams are overworked.

A one-man unit system of labor has proved very effective. Every laborer works just ten hours and no more. The cow barn attendants work in two five-hour shifts, beginning at one in the morning and working until six and the same hours in the afternoon. Alfalfa has been grown for several years, but until two years ago never gave entire satisfaction. In the fall of 1910 a large acreage was seeded after the silage corn was removed. This gave such returns in 1911 that a larger area was put down that fall. This summer there are over one hundred and eighty acres of thrifty alfalfa on the farm. Mr. Jeffers says the success depends on a thorough preparation of the seed bed, a liberal use of lime and fertilizers and successful inoculation. He raises potatoes as a money crop not only because they do unusually well in that vicinity but also because they leave the soil in ideal condition for alfalfa seeding. For fertilizer Mr. Jeffers believes in the commercial form for alfalfa. He uses about six hundred pounds per acre of a mixture of one thousand pounds acid phosphate and five hundred pounds muriate of potash. At one time after cutting or early in the spring if the field does not look productive he finds the use of a spring tooth harrow beneficial. After last winter's severe test Mr. Jeffers thinks that seeding or cutting after the middle of September is very apt to be injurious to the following crop. A good growth gives protection to the roots and prevents much heaving during the winter. Inoculation by the means of soil from an old field has given the best results.

Labor-saving devices are found in every department. There is no manure pile on the place. It is conveyed from each barn in carriers and dumped directly into the spreader. Probably much of the prosperity of the farm is due to the high productiveness of the herd. Registered bulls of the best breeding to be obtained are used; Holsteins predominate perhaps, but Guernseys, Jerseys and Ayrshires are used also. A herd of nearly a hundred yearling heifers was out on pasture. These and dry cows are the only animals allowed to graze. The barns, eight in number, all in a row, have small paddocks in the front, where the cows are allowed to exercise for an hour or so every day.

The milk is secured in the most modern method. The cows are clipped closely every two weeks and the inside of the barns whitewashed frequently. Several men keep busy ahead of the milkers. The first man removes the manure and spreads fresh shavings. The second washes the cow's belly, flanks, switch and udder. A third follows and rubs vaseline into every cow's udder.



Top and windshield not included in price. We equip this car with mohair top, side curtains and slip-cover, windshield, gas tank and speedometer—all for $100 extra. Self-starter, if wanted, $20 extra.

The 1912 Sensation

By R. E. Olds, Designer

Five Times Oversold in May

I have built automobiles for 25 years. Reo the Fifth is my 24th model.

I have watched all the ups and downs of Motordom—all the comings and goings, the successes and failures.

But I never saw a demand like that which developed for Reo the Fifth this year. In April and May we could easily have sold five times our factory output.

My Final Car

Month after month I have told you the story, so you know why this call has come.

I built this car as my final creation, as the capsheaf of my career.

In this car I embodied the best I had learned from 25 years of car building.

This car marked my limit. Every detail showed the best I knew.

I analyzed all steel that went into it. I tested the gears in a crushing machine with 50 tons' capacity.

I used Nickel Steel axles—Vanadium Steel connections. I equipped the car with 13 Timken bearings.

To every part I gave big margins of safety. The carburetor I doubly heated for low-grade gasoline.

I Watched It

Then I took personal charge of the building, for I pledged my good faith on this car.

I saw that the parts were ground over and over, until we got utter exactness. I saw that each car got a thousand inspections.

The engines were tested for 48 hours. Each finished car was tested over and over, until it proved utterly perfect.

We did all this with every car, in the midst of the April rush. We do it today, and shall always do it so long as I build this car.

The Center Control

Then we equipped this car with my new center control. All the gear shifting is done by a small, round lever between the two front seats. It is done by moving this lever only three inches in each of four directions.

I got rid of all side levers, so the front doors were clear. Both brakes are operated by foot pedals.

In these ways I made possible the left-side drive.

Now nearly all makers announce for next season the center control and the left-side drive. But none can use my center control. They still use the old time levers.

The Amazing Price

Then we offered this car—the best I can build—for $1,055. And nothing on the market could begin to compete with it.

The car is long, roomy and powerful. The wheels are big. The body is finished in 17 coats. The upholstering is the height of luxury.

The demand for this car will grow and grow as the facts become better known. I believe that each car will sell twenty.

But the price of $1,055 can't last long. The price is too low for profit, and materials are advancing. Before very long advancing costs will compel us to ask something more for this car.

1,000 Dealers

Reo the Fifth is shown by dealers in a thousand towns. If you will write for our catalog, showing the various styles of body, we will tell you where to see the car. Address

R. M. OWEN & CO., General Sales Agents for REO MOTOR CAR CO., Lansing, Mich.

Canadian Factory, St. Catharines, Ont.

(94)

[Please mention National Farmer and Stock Grower.]

This prevents cracking or drying of the skin from the constant washing. It also acts largely as a preventative to udder troubles after calving. An elaborately-equipped creamery and bottling room located near the milk barns and a chemical laboratory complete the equipment.

Several other instructive lectures were given and lunch was served on the large shady lawns in front of Manager Jeffers' house. Dr. J. G. Lipman, Director of the State Experiment Station, received a generous applause from the audence. He gave a very comprehensive outline of the history of milk production in the United States. Prof. Rawl, of the Bureau of Dairy Industry of the United States Department, gave a practical talk on "Economic Milk Production." About three o'clock a shower came up and the farmers dispersed to their homes. Every county of the state was well represented and the intelligence and interest manifested was certainly very pleasing to the entertainers. The sad feature of many such meetings is the fact that the wide-awake, prosperous farmers turn out every time, but the satisfied stay at home, the ones that need the benefits most, are lacking. It is to be hoped that every State College will soon be enabled by an "Extension Work" Department to take modern farm methods and new practices to this kind of men and demonstrate right on their own land the value of business methods in farming. If such a large, successful farm as the Walker-Gordon farm teaches anything it teaches just that—the importance of business principles and business methods in farming. All the scientific knowledge and college training will never take the place of business methods.—A. L. Clark, in New York Produce Review and American Creamery.

Pigs Upon the Skim Milk.

"Where dairies or butter factories are, or where the milch cow is a factor for other purposes than the sale of milk as such, the pig is a most useful and profitable adjunct. Upon the skim milk judiciously used with other and more substantial foods, he thrives, grows and fattens, utilizing a by-product of tremendous volume which without the pig would represent little of available value. It is said that the skim milk from the butter factories of New York alone amounts to nearly a billion pounds in a single year. The use of this skim milk does much to give relief from monotony so common in the hog's feeding, besides adding to the returns from the other or main foods with which it is given, and every hog raiser is glad to have it."—From Coburn's "Swine in America."

The National Implement and Vehicle Show.

Last year the exhibition by the National Implement and Vehicle Manufacturers was remarkably successful, and Peoria, Ill., has been selected as permanent headquarters. This year the show will be held on 136 acres bought for the express purpose of holding this Exposition. This year the show will be open from September 27th and continue to October 5th, inclusive. This show will interest every farmer and it will pay him to travel miles to see it. There is ample show ground for every sort of demonstration.

Frisco Railroad Agriculture.

The Agricultural Department of the Frisco Railroad has established a number of demonstration farms along its right-of-way, and has furnished seed for these farms, together with a full line of instructions for planting and cultivating crops.

A cash prize of $100 will be given by the Frisco for the best conducted of these demonstration farms on the following basis: The greatest gross returns to count fifty points; success with the greatest number of varieties furnished, twenty-five points; and the best written report, twenty-five points.

Besides the demonstration farms the Frisco has established a number of ten-acre crop farms and has furnished seed to plant these farms, as well as a full line of instructions for cultivating the crop.

A cash prize of $100 is offered for the best conducted of these corn farms, provided the instructions of the Commissioner are fully complied with. The prize will be awarded on the following basis: The greatest gross returns, fifty points; best bushel of ears of corn, twenty-five points; best written report, twenty-five points.

The work is in charge of F. S. White, Agricultural and Horticultural Commissioner of the Frisco, who reserves the right to visit the farms from time to time and of giving the managers of same advice and instructions. His headquarters are in St. Louis.

Below is a list of those who are competitors for the premium:

Ardmore, Okla—Mr. Graham is in charge of a demonstration farm.

Ada, Okla.—A. L. Kennedy is in charge of a farm.

Billings, Mo.—Fred Wren, editor of the Billings Times, has charge of about 300 acres of crop for which the Frisco furnished seed. These crops are being grown for seed purposes, the seed to be distributed to farmers next year.

Republic, Mo.—M. L. Howard, Postmaster, has charge of a ten-acre demonstration farm; and B. B. Adams has charge of one of the ten-acre corn farms. Up to this date Mr. Howard's ten-acre farm is second best of all the farms, being excelled only by E. C. Bellamy, of Mammoth Spring, Ark.

Fordland, Mo.—C. C. Sherman has charge of a ten-acre corn farm.

Seymour, Mo.—J. C. Peightel, Secretary of the Commercial Club, has charge of a ten-acre demonstration farm; also of a ten-acre corn farm.

Diggins, Mo.—Dr. M. E. Broaddus has charge of a ten-acre corn farm.

Mansfield, Mo.—Dr. F. H. Riley has charge of a demonstration farm.

Mountain Grove, Mo.—R.F.Baker, Secretary of the Commercial Club, has charge of a demonstration farm; also of a corn farm.

Cabool, Mo.—C. S. Jackson has charge of a corn farm.

Willow Springs, Mo. — Hardin Smith and Mr. Holloway each have charge of a corn farm.

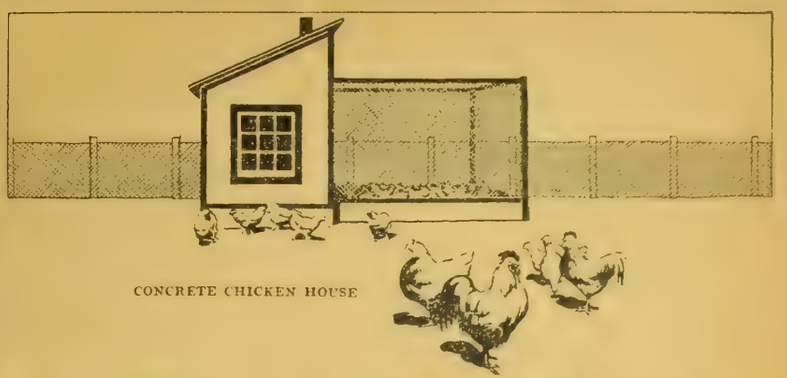
Brandsville, Mo.—G. D. McMahon has charge of a demonstration farm.

West Plains, Mo.—Two ten-acre corn farms, one demonstration farm and about 300 acres planted to seed crop is being conducted under the supervision of the Commercial Club, being directed by M. B. Clarke, Banker.

Marionville, Mo.—E. M. Hendrix is growing a large line of field seeds, such as different varieties of corn, grasses and clovers.

Condition of Foreign Crops.

A cablegram, dated June 22, 1912, from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, giving the following information:



CONCRETE CHICKEN HOUSE

ATLAS PORTLAND CEMENT

"THE STANDARD BY WHICH ALL OTHER MAKES ARE MEASURED"

When your Uncle Sam wants to make a good job of concrete work, he buys Atlas. The brand that was good enough for the Panama Canal—the greatest concrete job in the world—is good enough for you. Cement cannot be too good. There is none as good as Atlas. Farm buildings everywhere, permanent, durable, lasting, made by farmers, with this powerful cement, are witness that the wise farmer buys the best—Atlas—the cheapest in the end. The lasting way to improve your farm is to build with Atlas-made concrete.

Our free book

"Concrete Construction About the Home and on the Farm"

tells you how to build everything that you need. It tells why Atlas Portland Cement is the best cement to use. The success of concrete construction depends largely upon the quality of cement used. Atlas has the quality which makes concrete work successful. Write for this free book today.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT COMPANY, DEPT. 165, 30 BROAD ST., NEW YORK

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

[Please mention National Farmer and Stock Grower.]

The areas of the crops below specified which will probably be harvested this year in each of the countries named, expressed in acres, are as follows:

Wheat.—Hungary (including Croatia and Slavonia), 9,404,000; Italy, 11,738,000; Canada, 9,926,000; Japan, 1,248,000; Algeria, 3,372,000; Tunis, 1,263,000.

Rye.—Belgium, 642,000; Denmark, 682,000; France, 2,998,000: Hungary (not including Croatia and Slavonia), 2,949,000.

Barley.—France, 1,869,000; Hungary (including Croatia and Slavonia), 2,804,000; Canada, 1,429,000; Japan, 3,123,000; Algeria, 3,159,000; Tunis, 1,102,000.

Oats.—France, 9,896,000; Hungary (including Croatia and Slavonia), 2,724,000; Canada, 9,486,00; Algeria, 506,000.

The estimated production of the crops below specified in each of the countries named, expressed in bushels, is as follows:

Wheat.—Spain, 117,374,000; British India, 366,371,000; Japan, 24,453,000.

Rye.—Spain, 27,960,000.

Barley.—Spain, 63,481,000; Japan, 95,587,000; Tunis, 6,146,000.

Oats.—Spain, 25,105,000.

The estimated area planted to corn this year in each of the countries named, expressed in acres, is as follows:

Spain, 1,147,000; France, 732,000; Hungary (including Croatia and Slavonia), 7,188,000; Italy, 4,066,000.

The estimated area planted to rice this year in Japan is 7,317,000 acres.

The condition of the crops below specified, in each of the countries named, compared with an average condition, is as follows:

Wheat.—Belgium, 108; Hungary (including Croatia and Slavonia), 105; Roumania, 133; Canada, 101.

Rye.—Belgium, 107; Denmark, 90; Hungary (including Croatia and Slavonia), 102.

Barley.—Hungary (including Croatia and Slavonia), 100; Japan, 113.

Oats.—Belgium, 105; Denmark, 100; Hungary (including Croatia and Slavonia), 100; Roumania, 120; Canada, 98.

Corn.—Spain, 100; Hungary (including Croatia and Slavonia), 110; Roumania, 120.

Cotton.—Egypt, 100.

Take note of the potash advertisement on page 2.

St. Louis Live Stock Receipts.

At the St. Louis National Stock Yards, during the first six months of the year 1912, the receipts were 363,016 cattle, 1,377,284 hogs, 456,555 sheep and 89,219 horses and mules. During the month of June receipts were 85,778 cattle, 187,440 hogs, 111,597 sheep and 6,970 horses and mules.

Tennessee Lambs at St. Louis.

On July 1st, at the St. Louis National Stock Yards, Wharton Buchanan, a prominent shipper from Tennessee, was on the market with a string of lambs, 1,027 head, that averaged 63 pounds, and brought $7.90 per 100 pounds. This was the top of the local market, and, considering the sheep trade in general, a good, strong price.

St. Louis Horse Trade.

Holland, Nugent & Maxwell Bros. had 350 horses on sale at auction on July 1st at the St. Louis National Stock Yards, and sold all that were fit for work at strong prices. Young, thin, half-broke horses were sold for considerably less. This firm is buying horses five to seven years old, from 950 to 1,100 pounds, good heads, necks and sound. They are to fill a contract for cavalry horses and must have substance and quality. All horsemen handling car-loads of stock and who wish to better their selling facilities will find it to their advantage to communicate with T. H. Holland, of Holland, Nugent & Maxwell Bros.; Postoffice, National Stock Yards, Ill.

St. Louis Mule Trade.

In advising their customers in regard to the trade during the first week in July, Messrs. Holland, Nugent & Maxwell Bros. said: "The mule trade is quiet. Nothing but good miners and good, big mules and pit mules selling to advantage. All other kinds are hard to sell at satisfactory prices." This sounds like a quiet trade, but quiet trade at St. Louis, where 15,000 horses and mules are bought and sold in a month, would look like activity elsewhere.

What Are You Doing to Safeguard Your Lambs?

Already sheep raisers are asking what to do for the little spring lambs which are not thriving as they should and in some instances are dying off. The symptoms generally are droopy heads, dull eyes, gaunt, thin, sickly conditions, colic and scours, indicating bad, wormy infection. The trouble with both lambs and ewes is that they are infested with stomach and intestinal worms, and if preventive measures are not taken by the farmers who are raising sheep this season there will be an unusually heavy loss a little later on when these parasites get in their deadly work.

Now is the time stomach worms begin to breed and they are most prolific breeders. As they develop to maturity they become more destructive, finally reaching the fourth stomach, infecting the lining to which they adhere tenaciously, sucking the blood which sould nourish the animal, thus practically starving it to death. That's why the animal grows thin, scrawny, sickly and finally dies, and this applies to grown sheep as well as to lambs.

So we wish to sound a word of warning to our readers and urge them to take precautionary methods now. It is easier to conquer worms at the start than when they have gained a foothold. We have had good reports regarding the merits of Sal-Vet, a medicated salt, and a specific for not only destroying and dispelling worms, but for aiding digestion and conditioning the animal completely, that we have no hesitancy in recommending our readers to try it, particularly so when manufacturers having such implicit confidence offer to prove its merits on your stock before you pay them a cent. On page 21 you will find their advertisement in this issue, which gives special information with regard to worms in the lambs. Read it and send for a supply. You run no risk; if not satisfied, you are not obliged to pay.

Care of the Suckling Colt.

There will be a difference of from twenty-five to fifty dollars in the selling prices of horses determined by the management they have received when they were colts. The colt that three or four years ago was allowed to follow its dam to town or church, or to drag its weary limbs back and forth after the mare from one end of the corn field to the other from morning till noon and from noon till night has not developed as it should and sells at anywhere from twenty-five to fifty dollars less than it would have brought had it been properly cared for.

We do do not know what the price of horses will be when the sucklings of this year are put upon the market, but whether that be high or low, it will pay to give them christian treatment. They are young, their bones are soft, and while they like to play and have a good time, they are easily tired out, and hence should not be allowed to follow the mare farther than the stable door or barn yard. She will probably fret and worry about her baby for the first day or two, but the farmer can afford to unhitch her at about ten o'clock, give her a drink of water, let her cool off, supply the wants of her baby, and then go back to work.

If the colt is kept in a roomy stall, or, better still, in a paddock, or in a hog pasture well fenced, preferably with some other colt or idle horse to keep it company, it will soon be content to stay at home; in fact, will not know that it can go outside of the enclousre in which it is confined, whatever that may be.

After it is three or four weeks old it will begin to get hungry; but a little fresh grass, if there is a pasture convenient, or a little bran, oats, clover, timothy hay, will stay its stomach until feeding time comes. In fact, the well-bred colt will always pay a good price for anything that is fit for it to eat. Hence no farmer should stint his suckling colts.

Remember, that in the first year, particularly in the first six months, you are laying the foundation, building the frame work, so to speak, on the lines of architecture you laid out while mating the dam. No matter how well bred the colt, it must be developed. The plan of the architect must be carried out, and this can be done only by proper feed, shelter and care.

Teach the colt that you are its master—omnipotent so far as it is concerned—whose will cannot be resisted, and yet though powerful and kind, disposed to be friendly, even generous. All this takes a little time and trouble, but it is time that is well spent and trouble that pays.—Stock Farm, Lexington, Ky.

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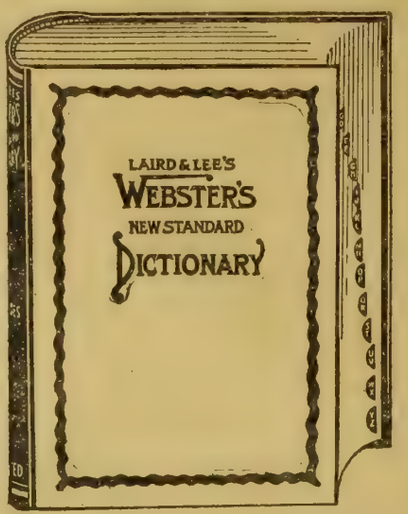

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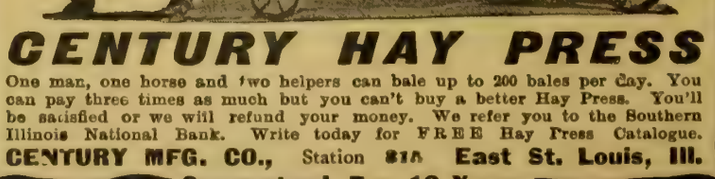

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Please mention Nat. Farmer and Stock Grower.

The top of the St. Louis wool market, July 1st, was 25 and 26 cents for year's growth choice medium; bright medium, 20 to 24 cents; heavy and inferior wools, 15 to 18 cents.

Rules For the Care of Horses.

The Boston Work Horse Parade Association has just issued for distribution among teamsters a series of rules relating to the care of horses in hot weather as follows:

1. Load lightly and drive slowly.
2. Stop in the shade if possible.
3. Water your horse as often as possible. So long as a horse is working, water in moderate quantities will not hurt him. But let him drink only a few swallows if he is going to stand still.
4. When he comes in after work, sponge off the harness marks and sweat, his eyes, his nose and mouth, and the dock. Wash his feet, but not his legs.
5. If the thermometer is seventy-five degrees or higher, wipe him all over with a wet sponge. Use vinegar water if possible. Do not turn the hose on him.
6. Saturday night give a bran mash, cold; and add a tablespoonful of saltpetre.
7. Do not use a horsehat, unless it is a canopy-top hat. The ordinary bell-shaped hat does more harm than good.
8. A sponge on top of the head, or even a cloth, is good if kept wet. If dry, it is worse than nothing.
9. If a horse is overcome by heat, get him into the shade, remove harness and bridle, wash out his mouth, sponge him all over, shower his legs and give him four ounces of aromatic spirits of ammonia, or two ounces of sweet spirits of nitre, in a pint of water, or give him a pint of coffee warm. Cool his head at once, using cold water, or, if necessary, chopped ice, wrapped in a cloth.
10. If the horse is off his feed, try him with two quarts of oats mixed with bran and a little water and add a little salt or sugar. Or give him oatmeal gruel or barley water to drink.
11. Watch your horse. If he stops sweating suddenly, or if he breathes short and quick, or if his ears droop, or if he stands with his legs braced sideways, he is in danger of a heat or sun stroke and needs attention at once.
12. If it is so hot that the horse sweats in the stable at night, tie him outside. Unless he cools off during the night he cannot well stand the next day's heat

Western Range Horses.

At the St. Louis National Stock Yards, on Thursday, June 27th, the first sale of Western range horses for the season of 1912 was held with great success and about 2,000 head

were sold at auction to the highest bidder. The top price was $120 per head for a load of 1,250-pound mares of superior quality and in good condition. Several loads sold at upwards of $100.00 per head, and twenty to thirty loads of mares and geldings sold at $50.00 to $75.00 around. To appreciate these offerings and to understand what is being sold and obtained for the money the best way is to attend the auction. The sales are conducted by Campbell & Reid and Western Sale Stables Company. Keep in touch with these sales by writing to J. J. Searcy, Sale Manager, National Stock Yards, Ill. The July sales will be on Thursday, the 11th, and Thursday, the 25th.

St. Louis Hog Market.

On July 1st, with 5,750 hogs on sale, the St. Louis market sold the best loads, averaging 240 and 280 pounds, at $7.80 per 100 pounds. Fair to good mixed hogs sold at $7.25 to $7.60, and strictly good butcher hogs sold at $7.65 to $7.77½. Best lights, 160 pounds and under, brought $7.00 to$7.50; fair to medium grade lights, 120 pounds and over, brought $6.25 to $6.90; best quality pigs, 110 pounds and under, $6.25 to $6.85; fair to medium pigs, $5.25 to $6.00; and the throw-out, rough hogs, $7.00 to $7.25 per 100 pounds.

The Hay Market.

On the last day in June the first crop of this season's timothy was received at St. Louis. It was choice in quality and sold at $22 per ton on track. On the same day the sales were one car clover-mixd at $15. Timothy—One car No. 2 at $18; one car at $19; one good car at $19.50; one car scant No. 1 at $10; 3 cars at $20.50; two cars No. 1 at $21; one car at $22; one car choice new timothy also at $22. Clover—One car new No. 1 at $12 to arrive. Prairie—One car Arkansas at $12; one car at $13; one car No. 2 at $13.50; two cars scant No. 1 at $15.50; three cars No. 1 at $17. Alfalfa—No. 1 quotable at $14 to $15; choice at $15 to $16.

Every Soldier a Dead Shot.

Every soldier who has been in battle knows that the vast majority of bullets never find their mark. It has been estimated that in the South African war it required more than five thousand bullets to hit one of the enemy.

This is due chiefly to the difficulty which soldiers have in finding their distance range in the heat of battle. However good they may be at target shooting at Bisley, it is a very different thing when they have to fire at an unknown distance at living targets which are answering their shots. The boldest and bravest man is excited, and it is a supreme test of nerves and skill to make that cool calculation which is necessary to judge the distance between himself and the enemy—not an easy thing, however steady a man's pulse may be.

But now there comes an invention which promises to make every soldier a dead shot. The inventor is H. Ommundsen, known as king's prizeman at Bisley.

By the applicatıcn of a simple geometrical law—very simple, like other things, when you happen to know it—he has produced a new rifle sight which does away altogether with the difficulty of finding the range of distance. The soldier simply has to judge the apparent height of the object which he desires to hit, which by experience is known to be absurdly easy, and to shoot, according to a fixed sight, below the object equal to its height.

If he does that he "drops" his man. Naturally, the nearer he is to the object the taller it looks, so that the point at which the rifleman aims varies to exactly the same degree.—London Chronicle.

Premature.

An "Uncle Tom's Cabin" Company was starting to parade in a small New England town, when a big gander from a farm yard near at hand waddled to the middle of the street and began to hiss.

One of the double-in-brass actors turned toward the fowl and angrily exclaimed:

"Don't be so quick to jump at conclusions. Wait till you see the show."—Lippincott's.

Sorghum shipped to the wholesale market at St. Louis is again selling at 40 cents a gallon.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country are being conducted twice each month by

Campbell & Reid and Western Sale Stables Co.,
NATIONAL STOCK YARDS, ILL.,
As usual, during the season of 1912. The Second and Third Sales will be held

Thursday, July 11th, and Thursday, July 25th,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is very good this season, especially for well-bred Mares and Geldings in good condition, and every class is in demand, from yearlings up.

Please address
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GET TOOLS READY FOR HARVEST

Look Over What You Have and Get What New Ones You Need.

These hot, growing days for crops should not be lazy days for the farmer. Right now is a good time to look over the tools you will be using the next few months. Get them into shape for use. See what you are needing in new tools, and then go to town and get them. Within a month you will be mighty busy and not have time to do so. There are not many farmers who put off the important things connected with running a farm. They will buy a reaper in plenty of time, but if they have one they don't always see to it that bolts are tight, gears in perfect condition, wheels oiled or knives sharp. The trifles seem so little that even the best of us are apt to overlook their importance or the expensive delays that a number of trifles can cause. Not long ago I heard the head of a department in a large manufacturing plant say: "Well, I haven't accomplished a thing to-day, and I have been busy every moment." He had been busy he explained, straightening out trifles that had been overlooked by others.

To mention some of these trifles—do you need corn knives, hay knives, hatchet, axe, hammer, tools for repair work, or for new buildings, hay or header forks? Of course, one could easily make the list much longer, but these will suggest others.

A catalogue of good tools is something that ought to be part of the working library of every farmer. One of the handiest that we have seen is the 104-page book of Keen Kutter goods made by the Simmons Hardware Company, Inc., St. Louis and New York. Your hardware dealer can probably supply you, but if he will not, write to the nearest address and one will be sent you.

Probably every reader of this paper is familiar with the famous wedge-shape Keen Kutter trademark. He knows, too, that every tool bearing that label is quality goods, yet reasonable in price. E. C. Simmons, founder of the Simmons Hardware Company, never spoke more truly than when he said: "The recollection of quality remains long after the price is forgotten," nor was a more sapient policy ever adopted for any firm.

Poultry and Farm Paper Club.

Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal**. We have made arrangements whereby we can send **The National Farmer and Stock Grower** and the **American Poultry Journal**, both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

BIG POULTRY SHOW AT MISSOURI STATE FAIR.

Twenty-five Pens of Hens to be Entered in a Great Laying Contest.

For liberal premiums, uniform exhibition coops, high-quality birds, a clean show, good judges, fair and just treatment of all exhibitors, large and interested crowds to see your birds, and for good sales, the Missouri State Fair at Sedalia, Mo., ranks among the very best in the United States. On practically all standard varieties the following liberal premiums are paid: First, $3.00; second, $2.00; third, $1.00. Pens—First, $5.00; second, $3.00; third, $2.00. All birds are entered free, only a coop and feed charge of 25 cents per bird or $1.00 per pen.

One of the big attractions of the Poultry Department of the Fair is going to be the egg-laying contest. These birds will be placed in one of the most prominent places on the Fair Grounds, in the coops formely occupied by the Game Department.

State Fair Egg-laying Contest.

In order to give poultry breeders the opportunity to demonstrate the utility qualities of their flocks as well as the fancy points, this new feature has been added. Thousands of farmers visit the Fair each year. Most of them are interested in good poultry and all are interested in good egg producers. It will also give you an opportunity to do a lot of valuable advertising, and this pen can be used as a sales pen for your flock. Your name and address, and the variety of poultry, and also the record for each day will appear on the pen if you wish it. It will also give the visitors an opportunity to see how fowls are fed for egg production, the use of trap nests and various other useful poultry appliances in actual operation.

The contest will be in charge of T. E. Quisenberry, who has charge of the National Egg-laying Contest at the Experiment Station at Mountain Grove, Mo. Even though you do not win a prize, the advertising feature will be worth many times the cost to you.

1. Each pen must be composed of six females of pure-bred poultry, all of the same variety.

2. Pen fee, $1.00 per pen of females, and one male if you wish it.

3. The fowls will all be fed alike, given the same care and treatment and will be under the exclusive care and direction of the superintendent.

4. Birds intended for this contest must be so specified on your entry, giving the numbers of leg bands of each, and the entry must reach the Secretary of the Fair on or before September 20.

5. Fowls entered in the egg-laying contest will be received and cared for at the Fair Grounds on and after the date of September 25. We advise sending the birds early, so they will be accustomed to their new quarters, the new method of feeding and recover from the effects of shipping.

6. Competition is open to the world. Number of entries limited to twenty-five. If the entries are all filled without it, no party can enter more than one pen of one variety.

7. Cash premiums will be paid as follows: For the pen laying the greatest number of marketable eggs from the date of the opening until the date of closing the Fair: First, $10; second, $8.00; third, $6.00; fourth, $4.00; fifth, $2.00; sixth, $2.00; seventh, $2.00; eighth, $1.00; ninth, $1.00; tenth, $1.00. For the greatest number of marketable eggs laid by one hen or pullet: First prize, $5.00.

8. The Directors of the Fair or the Superintendent has the right to reject any and all pens if they are diseased or for any other good reason.

9. The contest will begin Saturday, September 28, 9:00 a. m., and close Friday, October 4, 5:00 p. m.

It is our purpose to make this exhibit grander and better than ever. Write to the Secretary of the Fair, John T. Stinson, Sedalia, Mo., for a copy of the premium list.

Henry Steinmesch, Director.
T. E. Quisenberry, Superintendent.

Protecting Poultry From Disease.

Disease among poultry is one of the great factors that often tend to make poultry unprofitable. If the damage done by disease be eliminated, often the loss will become a profit. The successful poultry raiser is the one who has learned how to guard his flock against disease. The farmer who is successful in his poultry operations is the one who has also learned what must be done to prevent losses from sickness and disease.

On a visit to the Maine Experiment Station the writer was impressed with the effectiveness of the measures taken to keep the fowls healthy. The Maine Station is one in which a great deal has been done in poultry culture. Large sums of money have been invested there in poultry equipment, and the annual outlay in maintenance is large. The problems worked out are of great value to the poultry interests of the country.

At that Station the first great defense is against the parasitic insects that are found on most farm flocks. So effective are the measures against lice and poultry mites that these two pests are not discoverable. There is this first great gain, that contagious diseases are not transmitted easily from bird to bird, for there is no doubt that these insects act as inoculators and are largely responsible for the rapid spread of diseases that break out in flocks, such diseases as the roup being very rapidly transferred from bird to bird through this inoculation. Lousy flocks will be found much more liable to disease than flocks that are free from parasites.

Nature has provided the digestive organs with germicides of considerable power, and this natural protection will frequently prevent a disease from spreading, if the flocks are free from lice and mites; but if the insects be present, a way is thus made through inoculation by which the germs can get into the system without coming into contact with the germ-destroying factors. We have a parallel illustration of the importance of this in the case of man and the yellow fever. It was found by the experimenters that the germs of yellow fever could be eaten with the food or otherwise be taken into the stomach and were harmless, being unable to overcome the germ-destroying provisions of the digestive system, and it was found that the sole way of spreading the disease was through the inoculation that resulted from the bite of a certain variety of mosquito. So, protecting man against the mosquito protects him against yellow fever, that most terrible scourge of the warm countries.

The second great protection for the flocks must be found in giving the right kind of food, so that the digestive organs will not be too greatly taxed in the performance of their duties. If fed too much grain these organs break down with overwork, or with not being supplied with the elements that keep them healthy.

Therefore, a mixed ration close to nature is best. Green food should, therefore, be supplied at all times of the year, and if it cannot be s applied, then cooked soft food mus be made part of the ration, that th work of grinding and dissolving th food may be reduced to the minimum

But the green food gives bulk an the juices and acids needed for th proper and easy utilization of th food.

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The Southern Field.

It is indeed a pleasure to glance through the beautifully-printed pages of a booklet that is being sent free to all National Farmer and Stock Grower readers who request it by M. V. Richards, Land and Industrial Agent, Southern Railway, Washington, D. C. This booklet is a treatise on stock raising in the Southeast. The introduction says that the stockman should look to Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Tennessee and Kentucky for the most profitable fields for raising horses, mules, cattle, sheep, hogs and poultry in the future. Each class of live stock is discussed under a particular head and beautiful pictures are presented to illustrate what is said. The booklet can be had free by writing to the above address and requesting it.

Good News to Stomach Sufferers.

A Chicago chemist is giving away ten thousand bottles of a remarkable stomach remedy that is accomplishing wonderful results for all stomach, liver and intestinal ailments and gall stones. In many cases one dose has accomplished a cure. The discoverer of this remedy, Geo. H. Mayr, 341 Mayr Bldg., 156 Whiting street, Chicago, Ill., has been so encouraged by the good this remedy has been doing that he is making this most liberal offer to those who are in need of a cure. Write him to-day and he will send you a full $1.00 bottle free.

SALESMEN WANTED

Do you want a good position where you can earn from $1,000 to $5,000 a year and expenses? There are hundreds of such positions now open. No former experience as a Salesman required to get one of them. If you want to enter the world's best paying profession our Free Employment Bureau will assist you to secure a position where you can earn good wages while you are learning Practical Salesmanship. Write today for full particulars; list of good openings and testimonial letters from hundreds of our students for whom we have recently secured good positions paying from $100.00 to $500.00 a month and expenses. Address nearest office, Dept. 163.
National Salesmen's Training Association
Chicago New York Kansas City Seattle New Orleans Toronto

MISSOURI NATIONAL EGG-LAYING CONTEST.

One Pullet Has Laid For Sixty-four Continuous Days—238 Hens Go Broody in Month of May—Hamburgs Win For That Month.

The clucking of broody hens around the yards of the National Egg-laying Contest at Mountain Grove, Mo., during the month of May would lead a stranger to believe that this might be a hatchery or hatching contest instead of a laying contest. Two hundred and thirty-eight hens went broody in May, but in spite of this fact, a total of 11,478 eggs were gathered. This makes a grand total of 52,609 eggs laid to June 1st.

A pen of Hamburgs from Missouri won the Golden Egg Silver Cup for May. The record made by the five highest pens for May was as follows:

Pen No. 33, Hamburgs, 130 eggs; Pen No. 84, Barred Plymouth Rocks, 129 eggs; Pen No. 18, S. C. White Leghorns, 126 eggs; Pen No. 41, S. C. Black Minorcas, 123 eggs; Pen No. 52, White Wyandottes, 122 eggs.

A White Plymouth Rock pullet from Illinois, No. 717, has laid sixty-four eggs in sixty-four continuous days. We have never heard of anything on record that would equal this. Think for a minute what it means for a hen to manufacture the yolk, the white, the shell and all the matter which an egg contains, and lay a well-formed shell and a good-sized egg every day for sixty-four days. She appears healthy and vigorous and we hope she can continue her good record for at least a few more days. In this connection we will say that we are studying the type of these individuals, we are taking photographs of them to be published later, measurements will also be taken, and we are in hopes we can gain some knowledge which will be of interest and benefit to the industry.

The twelve highest individual records made for the first seven months of the contest are as follows:

No. 541, White Orpington, 156 eggs; No. 341, S. C. Red, 155 eggs; No. 572, R. C. Red, 151 eggs; No. 717, White Plymouth Rock, 150 eggs; No. 79, R. C. White Leghorn, 148 eggs; No. 402, Silver Wyandotte, 148 eggs; No. 601, R. C. Red, 148 eggs; No. 545, White Orpington, 145 eggs; No. 372, S. C. Red, 145 eggs; No. 487, White Wyandotte, 144 eggs; No. 488, White Wyandotte, 144 eggs; No. 525, Silver Wyandotte, 144 eggs.

We do not look for many high pen or individual records, nor do we care for anything startling. Actual results obtained from ordinary care and feed is all we desire. We are housing, feeding and caring for these hens just about as any farmer or poultryman can and should care for his flock. We might possibly get higher records if we cared to do so or would feed, handle and house the birds in a way that was not practical for the average man. What we are doing could be done by the average poultryman without much additional cost or labor. These facts will all be published in bulletin form at the close of the year.

The ten highest pen records to date are as follows:

Pen No. 107, R. C. R. I. Reds, 615 eggs; Pen No. 112, S. C. Black Orpingtons, 615 eggs; Pen No. 52, White Wyandottes, 613 eggs; Pen No. 59, Silver Wyandottes, 588 eggs; Pen No. 118, S. C. Buff Orpingtons, 584 eggs; Pen No. 85, Barred Plymouth Rocks, 580 eggs; Pen No. 117, S. C. Buff Orpingtons, 576 eggs; Pen No. 64, Silver Wyandottes, 551 eggs; Pen No. 13, S. C. White Leghorns, 548 eggs; Pen No. 96, S. C. Rhode Island Reds, 539 eggs.

It will be seen from the above that the two leading pens have tied for first place. Many pens which are not included in the above list are now laying a large number of eggs each month and the above pens will have to hustle to keep their lead. This month's 238 broody hens cut down the standing of several pens, and this is going to be quite a factor from now on. Many of the non-setting varieties have broody hens in their pens.

Last month the manager sent out agreements to be signed for the second year of the contest, if those who had birds in this contest desired to continue their pens or send a new one for a second year. We are indeed pleased to say that practically every contestant stated that they were satisfied they had been given a square deal and nearly every one signed up for another year, should it appear desirable to use their birds.

The egg-laying contest commenced last November and will end October 31st, and the report so far accounts for the work up to the end of the seventh month. Unfortunately for The National Farmer and Stock Grower we receive the May report after our June edition is published, and the June report will arrive after our July edition is published; but it is not considered good policy to count chickens before they are hatched, neither is it worth while anticipating the winning pen of an egg-laying contest until the last few months arrive. Our understanding is that there are 130 pens, five hens to the pen, with substitutes to take the place of any that die or become too sick to remain in the pens. The ten leading pens are about on a basis of 200 eggs per hen per year, and the ten leading individuals are chasing along on a basis of 255 eggs per hen per year, which looks pretty good, although we are not facing the best laying periods of the year.

A Lazy Dog Story.

He was a poor, miserable-looking dog, and the stranger's heart was filled with pity. For the dog was howling and it was only too evident that he was suffering pain. So he asked the tired rustic who lounged near by why the dog howled.

"'Im?" asked the rustic. "He's just lazy, that's all."

"But laziness doesn't make a dog howl, surely?" queried the benevolent one.

"Does 'im," said the tired owner. "Only lazy."

"But how," queried the persistent questioner—"how can laziness make him howl?"

"Well, you see," said the rural lounger, "that pore dog is sittin' on some real tough thistles, and he's too lazy to get off, so he just sits there and howls 'cause it hurts so."

A Coupon Worth a Fruit Jar.

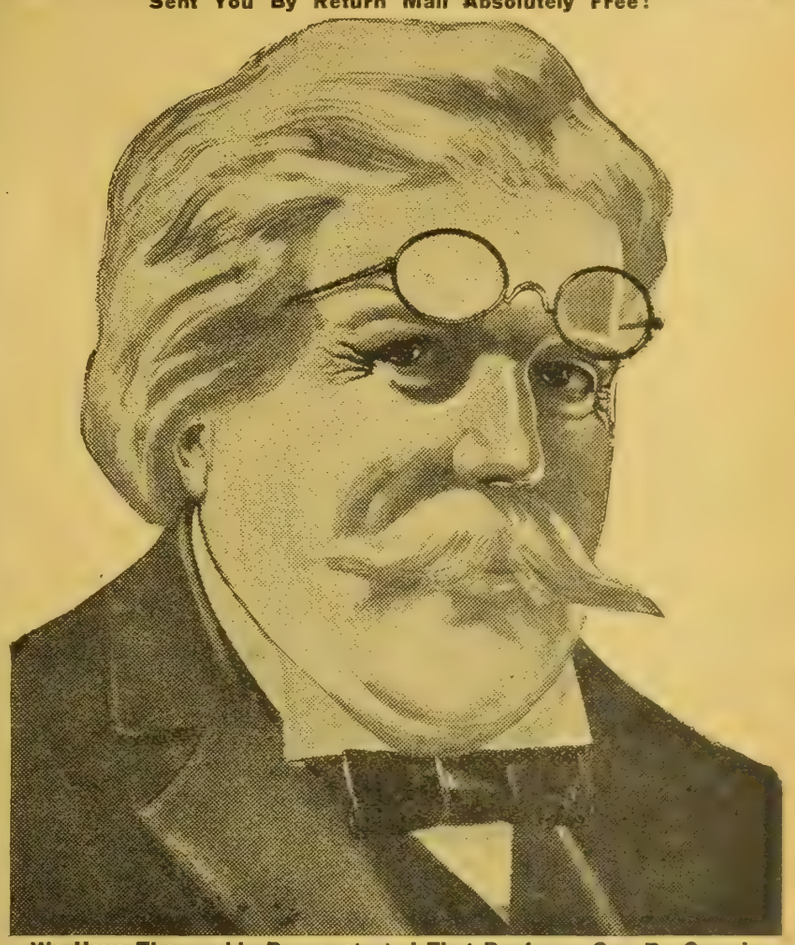
Our lady friends are invited to understand the advertisement of the Hazel-Atlas Glass Company, of Wheeling, W. Va., on page 26. They manufacture the E-Z Fruit Jar and wish to introduce them into families where fruits and vegetables are canned. These jars are kept for sale by grocers, and if you can find the grocer handling their jars he will furnish you with a free sample that when canning time comes around you will buy their jars because you like them. It will do no harm to write the Hazel-Atlas Glass Company, Wheeling, W. Va., and ask for a free book on fruit jars.

Deafness Can Be Cured

The Secrets of the Most Marvelous Discovery for the Positive Cure of Deafness and Head Noises Given FREE.

With This Wonderful, Mysterious Power, People Deaf for Years Hear the Tick of a Watch in a Few Minutes.

Send No Money—Simply Write About Your Case, the Secret Will Be Sent You By Return Mail Absolutely Free!



We Have Thoroughly Demonstrated That Deafness Can Be Cured.

After years of research along the lines of the deeper scientific mysteries of the occult and invisible of Nature-forces, the cause and cure of deafness and head noises has been found and we are enabled by this same mysterious knowledge and power to give to every unfortunate and suffering person the assurance of a treatment that relieves even the most obstinate cases. We say to those who have thrown away their money on cheap apparatus, salves, air pumps, washes, douches, and list of innumerable trash that is offered the public through flaming advertisements, we can almost certainly cure you and cure you to stay cured. We ask no money for our consultation, advice and diagnosis of your case. Our treatment method is one that is so simple it can be used in your own home. You can investigate fully, absolutely free and you pay for it only after you are thoroughly convinced that it will cure you, as it has thousands of others. It makes no difference with this marvelous new method how long you have been deaf, nor what caused your deafness. No matter how many remedies have failed you—no matter how many doctors have pronounced your case hopeless, this new magic method of treatment should prove a beacon light to guide you to a perfect restoration of your hearing.

We prove this to you before you pay a cent for it. Write today and we will send you full information absolutely free, by return mail. Address Dr. L. C. Grains Co., 420 Pulsifer Bldg., Chicago, Ill. Remember, send no money—simply your name and address. You will receive an immediate answer and full information by return mail.

FREE
Information Coupon

DR. L. C. GRAINS COMPANY
420 Pulsifer Bldg., Chicago, Ill.

Please send me without cost or obligation on my part, complete information concerning the new method for the treatment and cure of deafness or head noises. If I wish you to make a diagnosis of my case after hearing from you, you are to do so FREE OF CHARGE.

Name.....

Address.....

Town..... State.....

LIVE STOCK BREEDERS' CARDS.

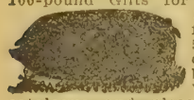
POLAND-CHINA HEADQUARTERS.

We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.

KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S POLAND-CHINAS.

Ten fancy 100-pound males and ten fancy 100-pound Gilts for sale. Also five fancy 200-pound Bred Gilts for sale. Forty fancy 50-pound Pigs marked down so any farmer or breeder can buy them. Write for prices and catalogue and please mention this paper.



WILDER CARPENTER & SONS, Grand View Breeding Farm, Marmaduke, Ark.

HAMPSHIRE HOGS FOR SALE.

Registered Boars or Gilts, $25.00.

N. V. CUSICK, Lock Box 77, Isabel, Ill.

EXTRA GOOD POLAND-CHINAS.

Pedigreed Poland-China Pigs, the best of breeding, big bone, fancy show stuff, $15 to $25. Write your wants to

D. F. BEAUCHAMP, Meredosia, Ill.

Buy my big type. They have a national reputation; also Angus cattle. **J. P. VISSERING, Box 1, - - Alton, Ill.**

TRUMANS' PIONEER STUD FARM,

Ameica's Largest and Oldest.

Importers of

SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

PURE-BRED SHROPSHIRE SHEEP,

Rams and Ewes. We have used Rams from some of the best known flocks of the United States, Canada and England. Our fine imported Ram, now at head of flock, for sale this seasn. Prices right. Write us for full information. **C. J. SMITH & SONS, R. F. D. No. 4, Greenville, Ill.**

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

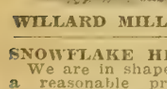
BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

SNOWFLAKE HERD OF O. I. C. HOGS.

We are in shape to furnish No. 1 stock at a reasonable price. Take notice, Brood Sows! Take notice, Brood Sows, two-year-olds! Bred, and registered free, $30 to $50; Gilts, open or bred, and registered free, $15 to $25; young Boars, O. K. for service and registered free, $20; Shoats, four to five months old, with pedigree free, $10; Pigs eight weeks old, any sex, pedigree free, each, $5.00; Pigs, trio, not akin, any sex, $14. Have also for sale Coon Hound Bitch, $15.



JOHN L. BONNAT & SONS, Coulterville, Ill.

FOR SALE OR TRADE.

IMPORTED CLYDESDALE STALLION, Twelve years old,

—and—

BLACK JACK, Four years old.

STEWART BROS., Willow Hill, Ill.

TAMWORTHS The hog that put vigor, prolificacy, size and quality into the chunky lard breeds. I sell more Tamworths than any other two breeders in the United States. Descriptive literature free. **W. WARREN MORTON, Mountain Home Stock Farm, Russellville, Ky.**

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

BREEDERS' ADVERTISING MEDIUM.

In the last eight years every edition of The National Farmer and Stock Grower has been 100,000 copies or more. In the year 1911 the average circulation was 123,829 copies each edition. This is by far the largest circulation in the United States of America, reaching live stock breeders, ranch owners and stock farmers. Small space in this publication is equal to large space in any other. Write for rate for breeders' cards and public sales of pure-bred stock. Send in your copy at the same time. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ENNIS FARM--GOLDEN SUNSET POULTRY

Buff Orpingtons, Rhode Island Reds, White Leghorns, Bourbon Red Turkeys, Buff and Indian Runner Ducks. Free mating list. Also Ennis Farm Quarterly Bulletin, listing for sale Jersey Cows, Heifers and Bulls and Big-boned Spotted Poland-China Hogs. **ALBERT S. ENNIS, 712-21 Central National Bank Bldg., St. Louis, Mo.**

O. I. C. HOGS FOR SALE.

Registered Sows and Pedigreed Pigs.

M. E. WOOD, - Route 1, - McGirk, Mo.

REGISTERED LARGE YORKSHIRES

THE BREAKFAST BACON HOG.

That's the meaning of those long, deep sides—choicest, sweet, tender, fresh pork.

HEALTHY. EARLIEST TO MATURE. PROLIFIC.

Splendid hustlers; relishes all kinds of feed, pasturage and cured forage.

THEY CROSS OUT GREAT ON LARD TYPE.

Write for descriptive booklet.

T. C. KIMBER, Box 1212, St. Louis, Mo.

COLLIE DOGS.—Get a Collie that will be a worker cheap—out of grand working stock. I am long on a bunch of eight-weeks-old females that are beauties; just $5.00 each. **R. FLEMING, Cuba, Kansas.**

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

A Magnificent Atlas.

The L. L. Poates & Co.'s Complete Atlas of the World contains maps of the United States, its forty-eight states, its territories, its other possessions, together with the Canadian provinces, and every other country of the world. This Atlas has many points of superiority. Its plates are new, having been made by the best map engravers in the country, and it is attractive in appearance and compact in form—making it valuable in the home, the library, schools, banks and offices.

The maps are printed in five (5) and six (6) colors, which show special features by separate printings. Railroads are shown in red; mountains, in brown; water, in blue; and political divisions are accurately defined, which enables one to readily locate places of interest. The latest geographical changes, such as every county in the United States to date, political changes in Canadian provinces, French and German boundaries in Africa, as well as the late changes in India and China, are shown on these maps.

This Atlas, in octavo, has 193 pages of maps, alphabetical index of states and countries, besides the states with their counties, and important cities and towns with their populations, according to the 1910 United States Census, and the principal cities of the world. It is bound in cloth at $1.50, and in leather at $2.00, and will be sent prepaid to any point in the United States on receipt of price. L. L. Poates Publishing Company, 22 North William street, New York, N. Y.

The Chinchbug and Its Control.

The chinchbug is busy again this summer in West Central and Central Missouri, collecting its annual dues from the farmers. Now is the time for the farmer to rebel; not a week or two later, but to-day. They have already sapped much of the wheat and rye of that region, and are now on foot, the old ones as well as the pesky "red-coats," moving into the corn fields. If they succeed in reaching the corn fields they will continue to lay waste to these and later give rise to a second regiment of young "red-coats," which in turn will continue to feed and mature by frosts, when they hide in rubbish, corn shocks and deep down in the clumps of grass in meadows, pastures and waste lands. Here they sleep until next spring, when they will reappear in even greater numbers than this year.

Now is the time to act! Throw up barriers in front of their line of march. Plow a strip ten or fifteen feet wide and thoroughly pulverize it to form a fine dust mulch. This serves as an excellent barrier, though it is well to run over this each day with a drag to make sure none cross. A deep furrow in which a log is dragged is also good. In case of rain, run a narrow line of tar or road oil as a barrier and trap them in post holes. By all means keep them from the corn. If they have already got into corn and are clustered on the first few rows, destroy them either by spraying with coal oil emulsion or soak cobs in oil, light them and use as a torch to flash up and down the stalks, thereby burning them. In severe cases it may be necessary to give up a portion of the field and establish a barrier some distance in front of them out in the field. Don't throw up your hands and give over the corn field to them without a struggle. Forget about the chinchbug disease, for it cannot help you unless the weather is favorable, and the spores of the disease are present by the millions in your field already waiting for warm, rainy weather. Then this fall co-operate in carrying out a systematic burning of all fields and waste lands where the bugs are collected for the winter. — Department of Entomology, University of Missouri.

The Best and Cheapest Spraying Mixture.

With so many spraying mixtures on the market, each loudly claiming to be the "best," it is a difficult matter for the average fruit grower to select the one which is best adapted for his particular needs. Many such mixtures really do more harm than good because, while they unquestionably kill the insect pests, they also sear and blight the buds and leaves. No such injurious effects as these are possible when a spraying mixture made of one can of Merry War Powdered Lye to fifteen gallons of water is used. Many of the most successful and practical fruit growers declare this to be the ideal spraying mixture.

It means instantaneous death to every form of insect pests, cannot injure the buds or foliage, no matter how freely it may be used, and has the additional advantage in that the drippings around the roots of the trees enrich the soil. This solution will prevent and destroy San Jose scale. This mixture is equally effective for fruit trees, or for garden vegetables, grapevines, etc. If the solution is made a little stronger, in the proportion of one can of Merry War Powdered Lye to about ten or twelve gallons of water, it makes a most effective exterminator of borers. For this purpose it should be applied plentifully around the mouths of the burrows with a brush, so that it will trickle down into the burrows.

Merry War Lye is manufactured by the E. Myers Lye Company, of St. Louis, who have just issued a most interesting booklet, telling of the many practical uses for Merry War Lye on the farm and in the home. A copy will be sent free to anyone writing the E. Myers Lye Company, Dept. 22, St. Louis, Mo., and asking for a copy of Merry War Lye Booklet.

PAINLESS CORN CURE.

To be applied a few times, when you can easily remove the corn. Sent by mail on receipt of 25 cents.

OTTO UDE, Pharmacist, Grand and Gravois, ST. LOUIS, MO.

Tobacco Habit Banished

DR. ELDER'S TOBACCO BOON BANISHES all forms of Tobacco Habit in 72 to 120 hours. A positive and quick relief. A home treatment easy to take. Hundreds of letters from satisfied patients. We guarantee results in every case or refund money. Send for our **Free Booklet** giving full information. Write today, this hour. **ELDER'S SANITARIUM, Dept. 519, St. Joseph, Mo.**

PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases.

DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

"RANGER" BICYCLES

Have *imported roller chains, sprockets and pedals; New Departure Coaster-Brake and Hubs; Puncture Proof Tires; highest grade equipment* and many advanced features possessed by no other wheels. *Guaranteed 5 years.*

FACTORY PRICES direct to you are less than others ask for cheap wheels. Other reliable models from $12 up. **A few good second-hand machines $3 to $8.**

10 DAYS' FREE TRIAL We ship on approval, *freight prepaid*, anywhere in U. S., *without a cent in advance.* **DO NOT BUY** bicycle or a pair of tires from *anyone* at *any price* until you get our big new catalog and *special prices* and *a marvelous new offer.*

A postal brings everything. *Write it now.*

TIRES Coaster Brake Rear Wheels, lamps, parts, and sundries *half usual prices.*

Rider Agents everywhere are coining money selling our bicycles, tires and sundries. **Write today.**

MEAD CYCLE CO., Dept. M 270, CHICAGO

The Boys' Magazine.

A special offer made by the Boys' Magazine, Smethport, Pa., is well worth reading by parents and guardians as well as by boys themselves. Read it at once and act quickly. See page 8.

The Sheep Market.

The early July market for mutton sheep and lambs was active. Several good loads of fat lambs, averaging 65 to 74 pounds, sold at $7.75 per 100 pounds. Other good lambs sold at $7.00 to $7.60; fair to medium grades went at $6.00 to $7.00; and the culls at $3.00 to $5.00. The favorite price for culls was $4.50 per 100 pounds. Most of the good sheep that sold to the killers brought $4.25 with a few a little higher, but those above $4.25 had had some yearlings in them. Fair grade killing sheep sold at $4.00. Good, thin sheep for stockers brought $2.85 to $3.50; fair grades, $2.00 to $2.75; cull sheep, $1.00 to $2.00; and bucks, $3.00 per 100 pounds.

A Good Lot of Steers.

Clay Bruce, a popular and well-known stockman of Pettis county, Missouri, was on the St. Louis market in charge of five loads of cattle. The consignment included four loads of 1,431-pound steers that sold for $9.00 per 100 pounds, the top of the market.

The Turkish Mohair Supply.

According to a report to the United States Department of Commerce and Labor by the Consul General at Constantinople, the Turkish mohair exports to the United States increased from $390,852, invoiced value in 1910, to $546,880 in the year 1911. In the United States the finest qualities of mohair are chiefly in demand; and the quality in 1911 was not extra, owing to inclement weather, which confined the flocks to their folds, resulting in stained hair. A fair clip of Turkish mohair amounts to about 60,000 bales, against an annual output of 120,000 bales of Cape mohair.

BLOODED STOCK.

John L. Bonnat & Sons, of Coulterville, Ill., in Randolph county, Southern Illinois, raise O. I. C. swine of superior quality and sell them at very reasonable prices, which are stated in the advertisement in our breeders' columns. They are situated at the junction of two railroads and have satisfactory shipping facilities.

Stewart Bros., of Willow Hill, Ill., advertising a pure-bred Clydesdale stallion and a black jack in our breeders' columns, are in Jasper county, Eastern Illinois, upon the junction of two railroads and not far from the Indiana line at Vincennes or Terre Haute. It will pay some of our readers to communicate with them.

At Manilla, Iowa, early in April, C. A. Saunders sold at auction forty-one head of pure-bred Shorthorns at an average of $314.80 per head. It was a very even sale, for the bulls averaged $311.00 and the females $316.15. The top-price bull was a calf, Cumberland's Dictator, which sold to Owens Bros., Homestead, Iowa, for $800; and the highest-priced female was Scottish Cumberland, calved October, 1909, bought by Thos. Stanton, of Wheaton, Ill., for $600.

Top-priced Heifers.

R. R. Hendrix, one of the prominent feeders and shippers of Audrain county, Missouri, had in a consignment of heifers that topped the St. Louis market, July 1st. The lot included forty-eight head, averaging 711 pounds, that sold for $8.10 per 100 pounds. Mr. Hendrix spoke of the feeding of these cattle as follows: "I had these heifers for seven months and put them on full feed the first of March. Their ration included cracked corn and blue grass, with plenty of fresh water."

Easy Way to Drive a Hog.

From long experience I have found the following to be the most satisfactory way to drive a hog, says C. W. Harris, in Farm and Home: Fasten a strap or a rope around one of Mr. Pig's hind legs just above the joint and have the end a yard or two long to admit of holding easily. Then proceed by letting the pig take the lead. When he goes in the right direction, just follow, remembering all the time to hold carefully the end of the rope. When the animal takes a wrong turn, just stop, and he will have to do the same. After one or two experiences of this kind he will readily keep on the right path.

St. Louis Apple Market.

At the time this edition went to press the St. Louis market for new apples was weak. Sound, large, hand-picked fruit well packed in barrels were in quiet demand; inferior fruit dull. First receipts by boat from Calhoun county—quality fine. Illinois in barrels at $2.00 to $2.25 for No. 2 and $3.00 to $3.50 for No. 1, and fancy Transparent at $3.50 to $4.35. Sales: Sixteen barrels fancy Transparent (Calhoun county) at $4.37; seven barrels No. 2 Southern Illinois Transparent at $2.00; three barrels No. 1 do. at $3.50; six barrels No. 2 Redstreak at $2.25; four barrels No. 1 do. at $3.75; two-thirds bushel boxes Illinois at 30 to 40 cents for windfalls to 75 cents to $1.00 for hand-picked; bushel boxes fancy Arkansas Transparent at $1.25 to $1.50; Tennessee hampers Red June, Benoni and Astrakan at 60 to 70 cents; home-grown boxed fruit selling at from 25 to 90 cents, according to quality.

Potatoes and Onions.

Potatoes.—Early July market at St. Louis: Sales loose from farmers' wagons ranging from 65 to 75 cents per bushel, mainly at 70 cents. Demand quiet for Triumphs, but receipts light—quotable at 65 to 70 cents per bushel, delivered, for fancy; small and inferior not wanted. Sales: One car sacked Triumphs at 70 cents, delivered; three loads sacks Triumphs at 60 to 70 cents, delivered.

Onions.—Dull. Home-grown red supplying the trade now, and there is little or no call for Texas onions—latter nearly all showing decay, too. Texas summer crates yellow and white delivered at 25 to 50 cents, according to quality and condition. Home-grown red sold at 40 cents per bushel box loose and at 50 to 57 cents per bushel by weight.

Evaporated Fruit in New York.

Early in July, at New York City, evaporated apples were quiet and unchanged on the spot jobbing trade; quotations range from 3¾ cents to fancy, which are quoted at 9¼ to 10¼ cents; choice, 8 to 9 cents; prime, 7½ to 7¾ cents. Prunes steady, with a small 9½ cents for Californias up to 30-40s, and 6½ to 9½ cents for Oregons. Apricots inactive, but steady in sympathy with the West; choice, 11½ to 12 cents; extra choice, 12 to 12½ cents; fancy, 13 to 14 cents. Peaches quiet and barely steady; choice, 6½ to 6¾ cents; extra choice, 7 to 7½ cents; fancy, 7½ to 9 cents. Raisins quiet but steady; loose muscatels, 5 to 6¾ cents; choice to fancy seeded, 5¾ to 6½ cents; seedless, 5 to 6½ cents; London layers, $1.40 to $1.45.

Watermelons and Cantaloupes.

Just at the opening of July the market at St. Louis for watermelons was not well settled. Included in sales were two loads 20-pound Texas Alabama sweet at 75 cents, and two loads do. at 65 cents per 100 pounds, delivered; and one car 24-pound Texas Alabama sweet sold at 95 cents, delivered. Quote: 24 to 30-pound Georgia Watsons at $1.00 to $1.25 and Texas Alabama sweets at 90 cents to $1.15 per 100 pounds, according to size; and car lots on track at from $175 to $250.

Cantaloupes.—Steady on sound, but lower on soft stock. California standard crates selling at $2.00 in jobbing way, delivered—soft selling at 90 cents to $1.25.

German Officers Angry.

An angry controversy is raging in German military circles about a remarkable entertainment given a few days ago at the "Landwehr officers'" Casino in the Hardenberg strasse. The Kaiser usually attends this entertainment, but this year, owing to the death of the Grand Duke of Luxemburg, he sent his son, Prince Eitel Friedrich.

The chief feature was a "champagne dance." An officer in uniform led in a "lady" and danced with her in a very lively ultra-modern style. The "lady" then disrobed on the stage and turned out to be one of the officers.

Prince Eited Friedrich applauded this entertainment, but some senior officers were highly indignant and complained that the Kaiser's uniform was degraded. They were all the angrier because several privates were present as ticket-takers, doorkeepers, etc., and these, for the first time in their lives, were seen laughing at the antics of their superiors.

S. R. FEIL, President—Registered Pharmacist

No More Losses from Worms!

I'll Feed Your Stock 60 Days Before You Pay

Worms are conquered at last! No more worm-infested, dying lambs and sheep; no more half-starved "boarders"—no more worm losses. I am wiping out the greatest curse of the whole sheep-raising business. I'll rid your flock of worms—prove it or no pay.

PRICES
40 lbs. $2.25, 100 lbs. $5, 200 lbs. $9, 300 lbs. $13.00, 500 lbs. $21.12. No shipment made of less than 40 lbs. Never sold in bulk; only in Trade-Marked Sal-Vet packages.

The Great Worm Destroyer **SAL-VET** The Great Live Stock Conditioner

TRADE MARK
REG. U.S. PAT. OFF.

is a wonderful medicated salt, which I will send you to try 60 days without a penny in advance. Put it where your sheep, lambs, hogs, in fact every animal on your place, can run to it freely and they will doctor themselves. Watch the results—pay if pleased. I take all the risk. Read my offer below.

Here's the Proof:

We keep Sal-Vet before our sheep all the time, both when at pasture and in the barn. The sheep like it, and we can truthfully say that our sheep are free from worms, although we have run sheep in our pastures quite thickly for the past fifteen years. HENRY L. WAINWEIL, Ex-Pres. of Amer. Shropshire Assn., Springfield Center, N. Y.

We find Sal-Vet an invaluable asset to successful sheep farming. Every sheep on our place is in healthy, thrifty condition. GEO. McKERROW & SONS, Pewaukee, Wis.

For their own good, I would recommend Sal-Vet to all sheep men. It will destroy every stomach worm in the flock and keep your sheep and lambs free from them. We have over 1,200 pedigreed Hampshire Downs, and every sheep is absolutely healthy. If our Southern sheep men, or sheep men anywhere, will give Sal-Vet a good, fair trial, they will say the same as I do. "Cannot be without sheep then Sal-Vet." ROBT. S. BLASTOCK, Mgr. Sheep Dept., Walnut Hall Stock Farm, Donerail, Ky.

WARNING!

Like all other good things, Sal-Vet is imitated closely in name. Such imitation is intended to deceive you. Look for the Sal-Vet name and trademark. Take no substitute if you want to be sure of best results at lowest cost. Sal-Vet is the one medicated salt used and endorsed by agricultural colleges and prominent breeders and feeders of live stock.

S. R. Feil, Pres., The S. R. FEIL CO.
Cleveland, Ohio

Send No Money—Just the Coupon

Fill out and mail me the coupon. Tell me how many head of sheep, hogs, horses and cattle you have. I'll send enough Sal-Vet to last all your stock 60 days. You simply pay the freight charge when it arrives and at the end of 60 days report results. If Sal-Vet does not do what I claim, if you are not pleased, I'll cancel the charge—you won't owe me a penny. Costs but one-twelfth of a cent per day for each sheep or hog.

SIDNEY R. FEIL, President THE S. R. FEIL COMPANY
Manufacturing Chemists Dept. NFSG CLEVELAND, OHIO

[86] Ship me enough Sal-Vet to last my stock 60 days. I will report results 60 days, and will then pay for it, if it does what you claim. If it does not, you are to cancel the charge.

NFSG 7-12

Sheep..... Hogs.....
Horses..... Cattle.....
Name.....
P.O..... State.....
Shipping Sta.....

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government. By this policy fully one-half the money required for the support of the national government should be collected at the custom houses besides furnishing the farmer and manuafcturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed upon our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal service the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives part of the income that is necessary for the public service. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and the greatest sufferers.

Plows in Southern England.

The two plow factories of this district turn out about 1,500 plows annually, which are sold all over England. One of the concerns makes large sales of plows and other agricultural machinery to Argentina.

The only foreign country selling plows in this district is the United States. A large number of American plows are shipped into Devon and Cornwall. The American firms send representatives to call on the local buyers and establish agencies. No business of any importance can be secured by correspondence alone.

The plow most in demand in this district is the reversible or one-way plow, turning a furrow to either right or left by reversing. The plow, including handles, is all iron and retails for £9 ($43.80). Manufacturers allow wholesale dealers a profit of 25 to 30 per cent.—This is from the report by United States Consul John J. Stephens, of Plymouth, England, to the United States Bureau of Commerce and Labor.

A Page to Look Up.

Be sure to look up page 22 and read about the magnificent Book of Live Stock Champions, which is just issued from the bindery.

Large clips of wool have been sold at Miles City, Montana, at 19½ and 20 cents a pound.

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912.

Now Ready For Delivery.

True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS,

Winners in Annual Live Stock Contests at State and National Fairs and Expositions.

THIS is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special Inducements

To Paid-in-Advance Subscribers--To Old Friends and Patrons.

We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title.

This is An Extraordinary Offer.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1912.

Name.....

Address.....

My occupation is.....

STOMACH SUFFERERS

Avoid Dangerous Operations.

Free $1.00 Bottle

Don't allow your Stomach Trouble to become so bad that an operation is necessary. Don't permit an operation until you have at least tried this FREE Bottle.

Let Me Send You a of My Wonderful STOMACH REMEDY

and I want everyone suffering from **Stomach, Liver or Intestinal Troubles** and **Gall Stones** to send at once for a **Free Bottle.**

It is a marvelous remedy for

Stomach, Liver and Intestinal Trouble, Gastritis, Indigestion, Dyspepsia, Pressure of Gas Around the Heart, Sour Stomach, Distress after eating, Nervousness, Dizziness, Fainting Spells, Constipation, Congested and Torpid Liver, Yellow Jaundice, Sick Headache, Appendicitis and Gall Stones.

The above ailments are mainly caused by the clogging of the intestinal tract with **mucoid** and **catarrhal accretions,** backing up poisonous fluids into the stomach, and otherwise deranging the digestive system. I want every sufferer of any of these diseases to test this wonderful treatment. **You are not asked to take this treatment for a week or two** before you feel its great benefits—**only one dose is usually required.** I say emphatically it is a positive, permanent remedy and I will prove it to you if you will allow me to, and I again repeat I will send the complete $1.00 treatment to you absolutely **Free** so you can try it in our own home at my expense.

The most eminent specialists declare that a big per cent. of the people who suffer from **Stomach Trouble** are suffering from **Gall Stones.** I firmly believe that this remedy is the only one in the world that will cure this disease. Sufferers of **Stomach** and **Liver troubles** and **Gall Stones** should not hesitate a moment, but send for this **Free** treatment **at once.**

I have watched sick people for years and have reached out my hands to thousands in the great depth of the Valley of Despair and brought them into the light of life and happiness. I want you and each one suffering to know the full joys of living with every part of your system in beautiful accord and in absolute perfect harmony. This is possible if you will take this wonderful remedy. **A FREE BOTTLE** will positively prove it.

Don't Lose Hope

Why suffer with stomach trouble? Why give up hope—and despair of ever being cured? If other treatments have failed and you feel disheartened, don't allow it to discourage you from sending for this **Free** bottle. Don't say to yourself that it will not help you, before you have tried it, as it costs you nothing to take this wonderful remedy and judge for yourself its marvelous powers. You will, like the thousands of others who have been cured, bless the hour and offer fervent thanks for this wonderful remedy that has brought back your health.

Why suffer with those horrid griping pains that cut like a knife? They rob you of all the sweets of happiness. Each morning means another day of torture and agony; each meal is looked forward to with pain. No matter what you eat, you suffer. Life is one continual round of "Don't eat this and don't eat that." You can't sit down to a table spread with necessities of life and know that you are going to enjoy them; that they are going to be turned into rich, red blood and strength which will give you vitality, health and happiness.

Almost every one who takes it declares that they have not felt so well in years **since they have taken the first bottle, and this benefit is an entirely natural one, as the remedy contains no opiate, stimulant or any poisonous or injurious ingredients whatever.** They are able to eat anything they want—even forget they have such a thing as a stomach. No more of the gnawing, aching dull sensations, no more paroxysms of pain, belching of gases, and other symptoms of indigestion that stomach trouble produces.

Don't suffer all this pain; don't dose yourself with every medicine and try every treatment when Mayr's Wonderful Stomach Remedy, which has cured and made thousands and thousands of sufferers happy, is offered to you. Mayr's Wonderful Stomach Remedy is absolutely pure and harmless. It is guaranteed under the Pure Food and Drug Act—Serial No. 25792. This medicine has been successfully taken by children of nine years of age, and by old people of eighty-eight years and will not harm you in any way.

Below we show an exact Photograph—actual size of Poisonous Catarrhal Mucoid and Bile Accretions removed by my remedy. They are the causes of about 99% of all Stomach, Liver and Intestinal Ailments.

A Few Names of People who have taken My Wonderful Stomach Remedy—and who state they have been CURED of various Stomach, Liver and Intestinal Ailments and Gall Stones.

Phil. Strain, Bloomington, Ill.
Alma Loving, Russellville, Miss.
Mrs. Thos Mulvihill, Detroit, Mich.
Mattie Kirkham, Fountain Head, Tenn.
W. G. Riddell, Burlington, Ky., Rd. No. 9.
Mrs. E. P. Cady, Auburn, N. Y.
H. D. Chappell, Agt. Amer. Exp. Co., Scotland, Archer Co., Tex.
W. H. Kingsley, Beulah, Miss.
J. W. Blackburn, Fryatt, Ark.
Henry Oaks, New River, Tenn.
Henry Thomas, Mahrud, Miss.
Mr. M. A. McCann, Norwalk, Ohio.
Ralph Johnson, McComb, Miss.
Mrs. Callie Wells, 1123 Harrison St., Guthrie, Okla.
S. R. Allen, Buckeye, W. Va.
Chas. L. Morse, 8 Pearl St., Middleboro, Mass.
W. P. Cole, Medina, Tenn.
Fred Zwicke, Grand Rapids, Wis.
Estelle McAllister, Ludlow, S. D.
B. A. Dooley, 92 Union St., Clinton, Mass.
Mrs. E. C. Daughtery, Conway, Pa., Beaver Co.
Sarah E. Johnson, 1107 Bell St., Mt. Vernon, Ill.
Mrs. D. Barghduff, 75 Walnut St., Auburn, N. Y.
John Driver, Dunkirk, Ind.
W. D. Barr, 601 Walnut St., Irwin, Pa.
Mr. W. E. Cobb, Wichita Falls, Kans.

Read These Letters

WHAT A PROMINENT PHYSICIAN HAS TO SAY OF MY WONDERFUL STOMACH REMEDY.

Sept. 12th, 1911.

Mr. Geo. H. Mayr, Chicago, Ill.

Dear Sir:—My wife received your letter and treatment a few days ago. She took the medicines as per directions Saturday with wonderful results, as she passed a large quantity of gall stones of various sizes. I will send you a money order herewith for balance of treatment. Have recommended you to several that I know need your treatment. I have practiced medicine 20 years and have used Olive Oil treatments for a long time for my wife, and I can assure you that your combination greatly surprised me. You shall hear from me again soon.

Yours gratefully,
ERNEST VINCENT, M. D.

WHAT A TRAINED NURSE HAS TO SAY.

Aug. 24th, 1911.

Mr. Geo. H. Mayr, Chicago, Ill.

Dear Sir:—To begin with I am a trained nurse and I had two patients that the doctors seemed unable to reach with their medicines and were trying to persuade the patient to submit to the knife. A friend who has tried your Wonderful medicine proposed that I recommend it to my patient, so I did. They agreed to try the medicine if I would try the sample on myself. To please my patients was why I sent for the sample. I know that your medicine is wonderful because it has cured Mrs. Clark Fitzsimmons of Orofino, Idaho and Mrs. Charley Frear of the same place. I am very glad that I was able to recommend your medicine to them.

LINNETTE HAVEL, Trained Nurse,
Box 284, Orofino, Idaho.

CURED AFTER FIVE YEARS SICKNESS.

Mr. George H. Mayr, Chicago, Ill.

I am pleased to inform you that I ordered a full treatment the latter part of March. It cured me after a five years spell of sickness. I ordered a free bottle for a neighbor. Now I must tell you it is through me you are getting so many orders from Willard and Yelton Post Offices. I sojourned through Eastern Colorado and sang your praises and left your address wherever I went. I have not written you at an earlier date as I have just waited to see if I stayed cured before I let you know. Your remedy is surely a wonder. The Doctors told me I had appendicitis and would soon die if I were not operated on, I was lying in bed about all the time with misery most of the time for five years. I took treatment during March, have been busy ever since. It is the only medicine that hit the sore spot.—L. C. MOREHEAD, Willard, Oklahoma.

Doctor Said Cancer of the Stomach

July 22, 1911.

Mr. Geo. H. Mayr, Chicago, Ill.

Dear Sir:—I write you this morning that I took my last drop of medicine yesterday morning and am now free from gall stones. It has made a new man of me. Sleep well, eat what I want and feel fine. No soreness left but I have some large boils. I think it drove them out. The Doctors said I had cancer of the stomach, and nothing would do but to be operated on, but they were mistaken. I have spent lots of money before and only got temporary relief, but I assure you I feel all right now. Passed about 400 gall stones.

Yours truly, WM. CAMPBELL,
Denver, Missouri

More Benefit Than From a $100 Treatment

May 31, 1910.

Mr. Geo. H. Mayr, Chicago, Ill.

I rec'd the treatment you sent and can truthfully say I got more benefit from it than from a hundred dollar treatment I took last winter.

Very Respectfully,
Miss F. A. HARNESS,
1020 Pacific Ave., Bremerton, Wash.

Fill out this FREE coupon now and mail to me. The full $1.00 bottle will be sent you without delay. Send no money—your name and address on the coupon is all—

MAIL IT TODAY—WRITE PLAINLY.

GEO. H. MAYR, MFG. CHEMIST, 341 Mayr Bldg., 156 Whiting St., Chicago. Ill.

Send me absolutely FREE, $1.00 treatment of Mayr's Wonderful Stomach Remedy

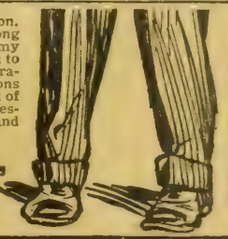
Name.....

Address.....*City*.....

County.....*State*.....*Express Office*.....*341*

My last word to you—Don't permit a dangerous operation. Not until you have tried this **FREE BOTTLE.** I care not how long you have suffered or how severe your case may be, I am confident my wonderful and harmless remedy will entirely and quickly restore you to perfect health without any ill effect. It has saved thousands from operations. It should you. I believe that eighty per cent. of the operations are unnecessary and the knife could be avoided if the proper method of treatment was administered. Quite often sufferers of Stomach and Intestinal ailments or Gall Stones are told they have cancer of the stomach and other rare diseases.

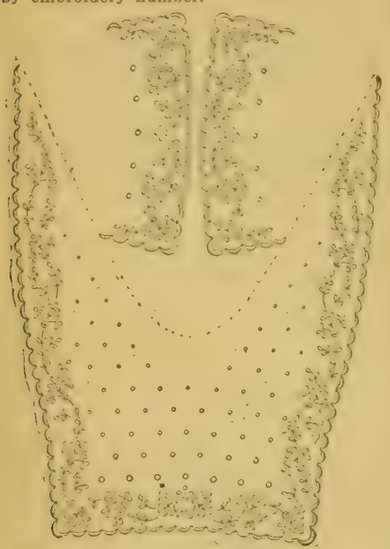
GEO. H. MAYR, Mfg. Chemist,
341 Mayr Bldg., 156 Whiting Street, Chicago, Ill.
References: Mercantile Agencies or State Bank of Chicago, Ill.



You are not asked to take this treatment for a week or two before you feel its great benefits. One dose is all that is necessary to prove its wonderful powers to CURE.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down, and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.



Sailor Collar and Cuffs.

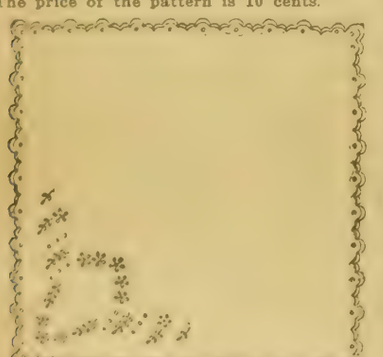
No. 662.—Design for embroidering a sailor collar and rolled-over cuffs, including the outline of collar and cuffs. The price of the pattern is 10 cents.

Infant's Dress Yoke.

No. 661.—Design for embroidering the yoke and panel of an infant's dress. The price of the pattern is 10 cents.

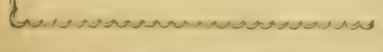
For a Candle Shade.

No. 663.—Design for an embroidered candle shade. Four transfers are given. The price of the pattern is 10 cents.



A Splendid Handkerchief.

No. 664.—Design for an embroidered handkerchief ten inches square. The price of the pattern is 10 cents.



Scalloped Edge Alone.

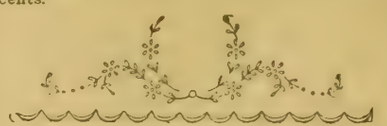
No. 665.—Design for embroidering a scalloped edge. The scallops are three quarters of an inch in width and three-eighths of an inch in length. Four yards and four corners are given. The price of the pattern is 10 cents.

Girl's Summer Hat.

No. 660.—Design for embroidering a girl's hat. Especially adapted to May Manton's Pattern No. 7438. The price of the pattern is 10 cents.

Edging and Dots.

No. 659.—Design for a scalloped edge with dots. The scallops are one and one-quarter inches wide and three-quarters of an inch deep. Four yards and four corners are given. The price of the pattern is 10 cents.



Towel Embroidery.

No. 658.—Design for embroidering a towel fifteen inches in width. The price of the pattern is 10 cents.

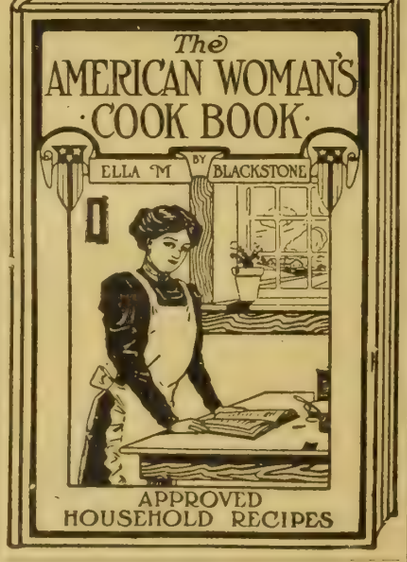
Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE BEST COOK BOOK.

The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.

The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is easy to learn from her when everything having a bearing on the subject is explained so clearly.



The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice creams and ices; also ruled pages for new recipes to be preserved.

The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Queer Bank Note.

The most inconvenient design for a bank note was undoubtedly George Cruickshank's "Bank Note Not to Be Imitated," published in 1818. It was inspired by the sight of several women dangling from the gallows for uttering forged £ notes. The design included a lavish arrangement of fetters and suspended figures, and there was such a demand for copies that Cruikshank had to sit up all night to etch a duplicate plate. He had the satisfaction also of knowing that no man or woman was ever after hanged for the offense, for his plate led to an act that put a stop to the punishment by death for forgery. —London Chronicle.

Rapid Journey For That Age.

Cardinal Wolsey did not live in an age of rapid transit, but he created it for himself. His capacity for rapid travel was a valuable aid in carving out a career. Wolsey is said to have first won royal favor in this way. He was charged with a message from Henry VII. to the Emperor Maximilian in the low countries and left London in the afternoon. He went by boat to Gravesend, by horse to Dover, then by boat again to Calais, and he was with the emperor the following evening and back to the king in just over two days from the time of starting.

Trusses Like These Are A Crime

Our FREE BOOK tells you why Leg-strap "appliances" and Spring trusses like shown above CANNOT help you and how the famous Cluthe Self-Massaging Pad CURES Rupture. **Sent on 60 Days' Trial** to prove its wonderful holding and curing powers. Remember, we will allow you 60 days to test its durability, waterproof qualities, and your absolute relief from leg-straps and springs **or no charge.** 5,000 Public Endorsements of this simple Home Cure sent with the FREE Book which explains all. Just use the coupon or say "Send the Book."

Box 776—CLUTHE COMPANY
125 East 23rd Street, NEW YORK CITY

Name.....

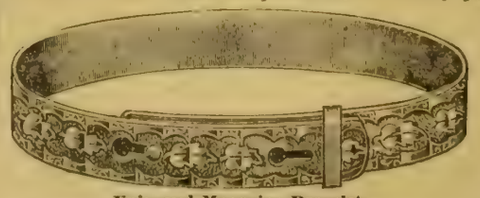
Address.....

Return Mail Brings World's Greatest Rupture Book

In the wholesale market at St. Louis, Western pecans are quoted by the pound at 10 to 10½ cents; Texas at 10½ to 11 cents; peanuts, 3 to 3½ cents per pound.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine.** The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet,** postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



Universal Magazine Bracelet.

The Gas-vapor Gun.

The bulletless gun has at last made its appearance. It is a German invention, and, instead of bullets, it shoots a gas which temporarily blinds and chokes the victim, says the Cleveland Plain Dealer.

The cartridge used contains several ingredients, which, when exploded, combine to form a vapor of a peculiar character. The gun itself differs very little in appearance and mechanism from the ordinary double-action revolver. It holds five cartridges.

The action of the vapor may best be imagined by considering the position of the person shot at. The appearance of the weapon, the report and the flare of the powder combine to convince the victim that he has been shot at with an ordinary firearm. His eyes and mouth open in surprise, and the gases generated by the combination of the chemicals envelop his head completely, penetrating his eyes and affecting his sight.

For several minutes he is practically blind. Simultaneously the mucous membranes of the nose and throat are irritated and the victim sneezes and chokes. For a minute or two the victim finds it almost impossible to breathe.

It is obvious that no indivdual, even if he were as strong as Hercules, would be in a position to put up much of a fight while in such a condition.

The shotless gun is intended principally for the protection of tourists, commercial travelers, doctors, cyclists, automobilists, bank officials, mail carriers, watchmen and policemen. No one wants to kill a criminal unless it is absolutely necessary for one's own preservation, and this invention is intended to make such a course unnecessary.

Pursued by Redskins.

One day while the late Senator Hearst, father of William Randolph Hearst, the publisher, was a young man and yet had his fortune to make, he and a few companions were on a prospecting tour. Along in the afternoon they sighted a band of Indians, and as in those days all Indians were hostile, Mr. Hearst and his friends naturally wanted to get away from there. All the prospectors except the future Senator were mounted on horses. Mr. Hearst was on a retired army mule and soon found himself in the rear.

The Indians were on his trail and things began to look serious when he called out to his rapidly-disappearing companions: "Hold on, boys; there's only a few of them—we needn't be afraid."

Just then the mule scented the approaching Indians and with a wild snort started out with a gait that soon left the horsemen far behind. When Hearst was about a quarter of a mile in advance, he turned in his saddle and yelled at the top of his voice:

"Hurry up, boys; you'll get scalped. There's more than a hundred of them."—Kansas City Journal.

The Apprehension.

"What is your objection to me as a son-in-law?" asked Baron Fucash.

"Well," replied Mr. Cumrox, "I haven't any objection to you as a son-in-law, excep' that I'm afraid you wouldn't be real kind of sociable and considerate in your treatment of us folks as your father and mother-in-law."—Washington Star.

Bright Definition.

A teacher asked a boy the difference between an island and a peninsula. The boy replied: "Take a glass of water and a glass of milk. Catch a fly and put it in the water; it will be an island, because it is entirely surrounded by water. Put it in the milk and it will be a peninsula, because it is nearly surrounded by water."

When Women Talk.

"So she was led to the altar at last?" remarked the girl in blue.

"Led!" repeated the bride's dearest friend. "Led! I fancy you didn't see her. She didn't have to be led. When she started down the aisle you couldn't have driven her off with a regiment of cavalry."

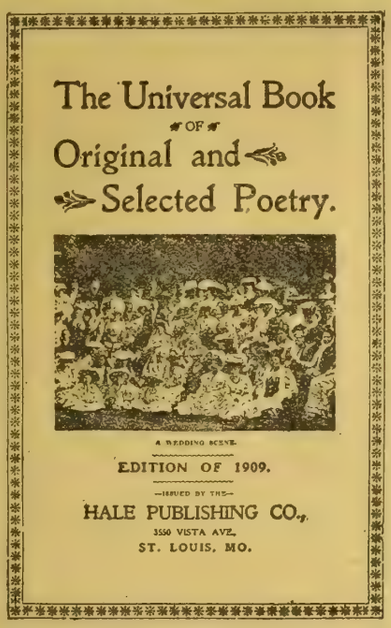
Not Hollering Now.

Church—"What's become of that fellow who started in business and who was continually hollering that he was in business to stay?"

Gotham—"Oh, the sheriff shut him up."

Some land bargains on page 9.

The Universal Magazine



and the Universal Poetry Book.

TWO EXCELLENT PUBLICATIONS.

The Universal Poetry Book

CONSISTS of One Hundred Pages, containing three hundred and ninety beautiful, interesting, pathetic, descriptive, humorous and delightful poems. These poems have been selected from the very best of the ancient and modern authors and the occasional pieces which have attracted favorable attention. It is a book to be kept by the bedside to compose one to sleep, a book to carry in the satchel or to read on the train and street car. It is a book for all people at all times. We issued the UNIVERSAL POETRY BOOK for the purpose of using it as a subscription premium in connection with our own new successful paper, the UNIVERSAL MAGAZINE.

THE UNIVERSAL MAGAZINE

is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the UNIVERSAL MAGAZINE is, that it is not loaded down with advertisements. Notwithstanding it is a cheap magazine, the subscription price being 25 cents a year, it is supported by subscriptions alone.

A TEN-CENT PROPOSITION.

Anyone who will send 10 cents to pay for four-months' trial subscription to the UNIVERSAL MAGAZINE can select one copy of the UNIVERSAL POETRY BOOK as a free premium, and we will send it by mail, prepaid, safe delivery in good order guaranteed. Below will be found two subscription blanks for two subscribers.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St.Louis, Mo.:

Gentlemen:---Herewith please find Ten Cents to pay for four-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Universal Book of Original and Selected Poetry.

Name.....

Address.....

My occupation is.....

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Tomatoes.

There are intelligent people who in all seriousness refuse to allow a tomato to be grown in their gardens, owing to the belief that it breeds cancer. The notion is an absurd one, and the tomato is a wholesome relish, containing medicinal properties claimed to be efficient for indigestion and liver troubles. Its mildly acid flavor is refreshing in hot weather, and the multitude of combinations with other food, either in soups, salads or relishes of various sorts, renders it a great help to the housewife, especially when called upon to prepare a hurry-up meal, while its beautiful appearance adds much, in the fresh state, to the appearance of the table.

Some who will never touch a ripe tomato find the green ones delicious when sliced, rolled in flour or bread crumbs and fried, either with or without an egg dressing. Season with salt and pepper, and they in a measure supply the place of meat or are good in combination with it.

Another excellent way to use the green tomatoes is this: Pare and slice three or four well-grown green tomatoes and one small onion. Cook until soft in just enough water to prevent scorching. Just before ready to serve, add a slice or two of bread broken into small pieces; butter, pepper and salt to taste. We have known some who dated their liking for tomatoes from a trial of this way.

Plain sauce made from ripe tomatoes usually wears well with those fond of the vegetable. Remove the skins, slice and cook for a very few minutes in a little water, and then add salt, a little sugar and serve alone or with bread or macaroni added, and a little butter.

Many complain that they cannot can tomatoes and have them keep if ordinary glass cans are used. Personally, we have had little trouble in this way, but are always careful to use cans that are perfect and new rubbers. Perhaps it is only a notion, but we fancy that the vegetable keeps better when pared than if the skins are removed by scalding. Of course, this means more waste, but with us it means better results. And with a sharp knife one can pare the firm fruit quite close to the skin, while that which is not firm has no place with the canner. Use only fruit that is in good condition. If an apple has a decayed spot, it can be removed; but the way to remove the decayed spot from the tomato is to remove the tomato. It is almost impossible for a part to be infected and not injure the entire fruit.

Slice and cook in just water enough to prevent scorching. As the tomatoes heat through they will soon furnish an abundance of juice of their own. Cook until scalded through. In some instances this occurs while the vegetable is still largely in its original form, or it may go to pieces. Add a little salt if you prefer. Have ready Mason cans and fill them while the tomatoes are still boiling hot. Seal at once. Keep the tomatoes in a cool, dark and dry place. If light comes in, wrap each can in dark-colored paper.

If tin cans are used, two rules must be observed: The inside of each can must be closely examined, for if a bit of tin is missing it means poison; the contents of the can must be entirely removed as soon as the can is opened, for corrosion of the tin commences the moment the outside air enters. If the cans are of good material and well cared for they will last two, three or even more seasons. But there are some frauds on the market, and experience will soon detect the shams. Use the red stick sealing wax, which is more easily managed than the old rosin-beeswax way. If you have the cans with tightly-fitting covers, such as molasses and some other products come in, these may be rendered first-class for canning tomatoes by filling in the space between the can and cover with wax.

If a can is found to be a bit "off" in flavor, discard it. There is too much danger of poison to court any chance of harm. Console yourself with the thought that no sugar is wasted, only the fruit and time, and try again.—Bessie L. Putnam.

Among the Chicks.

Trying to raise a thousand chicks without an incubator is the aim of one young girl of my acquaintance. Of course, this is by no means an impossible feat. But it looks like quite an undertaking to those at all familiar with the machine work. It will require so many hen mothers to do the work, and they will require so much feed, all of which she is obliged to buy, that it is scarcely possible to avoid questioning the wisdom of the plan. However. it is all right to try. If she should fall two or three hundred short, she will still have enough to be able to invest a part of the profits in an incubator next year, and then raise her chicks earlier, in more even lots, and in the shortest possible space of time.

The orchard is a fine place in which to raise young chickens. The shade is agreeable to them in hot days, yet they can wander out into enough sunshine to keep them healthy and still be within easy range of the hen or brooder. Insect life is usually plentiful, and the orchard is the better for the thinning out of winged pests. There is grass in plenty. And the habit acquired of scratching and picking about is a benefit to the trees in more ways than one.

If your chicks are yarded on small range, cut out every dandelion top that comes upon the lawn and see how they will scramble to get the feast. This plan not only tends to grow healthy chicks, but it also solves a weed problem that is in many places quite a serious one.

If the chicks vary materially in size and age, keep the different flocks separate at feeding time. The cannibalistic nature is never so apparent on the farm as in the poultry yard. It sometimes seems as if the larger fowls take delight in trampling down the smaller ones if they cannot eat fast enough to monopolize the food.

Two different breeds of fowls are quite enough for any but the fancier to handle, and to us it seems that one breed is best. In any business, the more you can cut out details the better, and the single breed with a definite aim will most surely bring results.

Sweet milk is excellent for young chicks, and the clabbered milk is equally good for the larger fowls. But beware of foul dishes, for if not kept clean there is danger of their breeding disease among the flock.

The wheel hoe is a most useful tool in the poultry yard. Alternate between two plots of ground, sowing rye or oats for green feed, allowing them access to the one while the other is being renewed. Or by running through a small piece of the yard with the weed-cutting attachment you may slice off a thin layer of earth, giving the chicks nice mellow ground in which to scratch or dust.

As soon as they are able to eat it, wheat makes a fine evening meal for the little chicks as well as for the laying hens. But do not think that screenings at half price makes a cheaper food than the good grain. The outside hull may be a little smaller than that of the well-filled grain, but it is the meat that is lacking. You pay more for an inferior food because so small a proportion is of any value.

Renew the drinking water several times a day. Note how eagerly the flock gather around the fountain, preferring the water even to food. The chicks are just as thirsty as we in warm weather, and the cool drink aids greatly to their comfort. Keep the drinking fountain in the shade, if possible.

A good insect powder is one of the necessities of the poultry yard. If it does not make you want to sneeze, suspect that it is too ancient to be of use. Clean and air the brooders or coops two or three times a week. Sunshine and cleanliness will do much toward keeping them in health. Bran, sand, chaff or sawdust make a good litter for the floor, but be sure that it is dry. Dampness is always dangerous.—Bessie L. Putnam.

In the Pantry.

First, an ounce of prevention is worth a pound of cure, and one can usually rid the pantry of all kinds of insects if common cleanliness is used and a little time expended upon their extermination, and the waste, inconvenience and sickness caused by insect pests in the household exceeds by many times the expense and trouble of their elimination.

It is well to put all small groceries in tin boxes or empty glass jars, as their strength is preserved in addition to keeping out weevils, roaches, mice, etc., for no matter how careful a housekeeper may be in keeping her cupboards and pantry shelves clean, insects of some kind will occasionally make their appearance. The housekeeper can save time and strength by covering the pantry shelves with white or marbled enamel oil cloth neatly tacked in position, as one can take a damp cloth and wipe off the shelves every few days and keep them looking dainty with very little trouble.

Some are not aware of the danger there is in leaving meat, vegetables or fruit in tin cans or tinware over night. Tin cans should be emptied as soon as opened, for the poison generated from allowing them to stand has many times resulted in sickness or death.

Cockroaches, water bugs and so on only stay where they are well fed, and moisture and food must not be supplied if their elimination is hoped for. When they occur in numbers, the damage done by eating is scarcely so great as that done by the spoiling of whatever they come in contact with.

To get rid of ants, take some bits of coarse sponge, sprinkle sugar in the cavities and place them where the ants are most numerous, and when the sponges are full of ants they can be picked up, dropped into hot water and dried, then they can be refilled with sugar for use again. Another discouragement is to saturate small bits of linen with oil of tansy and lay them in the pantry and all places infested by ants.

There is nothing better to keep black ants out of the pantry than a mixture of equal parts of powdered borax and ground red pepper sprinkled where they run and around the edges of the covering of the shelves.

To keep roaches out of the pantry, wash the floor at least once a week with gasoline and water, about equal proportions, letting it run into every crack and crevice, and when perfectly dry sprinkle the boraxe mixture around freely. The odor of the gasoline soon passes off and freedom from insects is assured. Wash the pantry shelves with strong borax water and allow it to dry before using the dry powder, and while borax is harmless to human beings and also to domestic animals, it is dreaded by insects, and to have deadly poisons about one's house is to invite accidents.—M. H.

It is Sanitary, It is all Glass!

There are *four* good things about this fruit jar—the easy seal, the glass cap, the green tint and the big mouth. It takes most fruit *whole*.

It is *all glass*—that's another good thing. The "tin age" is past. No tin about this jar—no metal. Even the *cap* is glass—no twisting—nothing to taint the fruit. This season try

E-Z SEAL JARS

You can preserve all kinds of vegetables as well a fruit, and be sure they will "*keep*" in E-Z Seal Jars. Get our Free Book.

This jar is the housewife's *joy*—easy to fill, easy to close, easy to open and easy to clean. It is air-proof and light-proof—the jar that is *sanitary*.

Free Jar—Free Book

Cut out this coupon, take it to your grocer — he will give you one E-Z Seal Jar — FREE. Be sure and write for FREE Book of Recipes — it tells many things you should know. Get the jar from the *grocer*. Get the Book from *us*.

HAZEL-ATLAS GLASS COMPANY
Wheeling, W. Va.

1-Qt. E-Z Seal Jar CG FREE for the Coupon

Please note—in order to secure free jar this *coupon must* be presented to your dealer before Sept. 1st, 1912, with blank spaces properly filled out.

HAZEL-ATLAS GLASS CO.,
Wheeling, W. Va.

This is to certify, That I have this day received one "Atlas" E-Z Seal Jar Free of all cost and without any obligation on my part. This is the first coupon presented by any member of my family.

Name_____

Address_____

TO THE DEALER:—Present this to jobber from whom you recieved E-Z Seal Jars. All coupons must be signed by you and returned before Nov. 1st, 1912.

DEALER'S CERTIFICATE. This is to certify, that I gave away one "Atlas" E-Z Seal Jar to the person whose signature appears above.

Dealer's Name_____

Address_____

THE SMITH FAMILY DOWN THE ROAD.

A Trip to Town With the Neighbor Woman Brings Another Revelation.

It was on the trip to town with the neighbor woman, one bright September morning, that another inspiration came to Mrs. Smith. Mrs. Smith had shyly asked the neighbor woman whether she could ride to town with her and have her help in selecting a winter coat, to be bought with some of the extra money earned that summer helping with the strawberries.

"First let me take these two crates of eggs to the depot," said the neighbor woman as they neared the town. "I wish to get them off on the next train, so they will get to their destination to-morrow morning. I don't fancy the idea of having my eggs stand around in a hot depot over night if I can help it. Then after they are out of the way we can give all of our time to your shopping."

"What are you sending eggs away for? Can't you trade them?" asked Mrs. Smith.

"I could if I would, but I won't, if I can dispose of them at city prices and get cash for them. If I were to take these to the store I'd get at the rate of thirteen cents a dozen for them and have to take that out in trade, which often I do not care for. I will get eighteen cents a dozen for these. There are twelve dozen in each case, which makes a profit of $1.20 over the amount I would get at the store in trade. It comes to me in a check or a postal money order. In a couple of days I will probably get an order for $4.32. The consumer pays express on the eggs and pays the express for the return of the empty crate."

"Land!" gasped Mrs. Smith. "That's the one thing I can do, get hens to lay, but I've always traded off the eggs and taken whatever the storekeeper wanted to give me for them. And to think there's a way of getting good money for them. But who could I send mine to?"

"I can give you the name of a hotel that I was afraid I might have to disappoint, as I have had so many calls lately. I got my first customers by advertising in a city paper. You can do the same for seventy-five cents, and if your results are anything like mine and you are careful about supplying the best and freshest eggs, you can work up a good, permanent trade."

"If I could get the coat for ten dollars I could send in the advertisement right away, if you'd show me how to write it; but I've only got eleven dollars."

"Yes, and you'll have to order several crates in which to ship them. We'll get this started right away while we are in town, Mrs. Smith, and if you run short of money, I can help you out to the extent of a couple of dollars. I am sure if you follow out this plan you will soon begin to get money for your eggs. There's money for us women on the farm, but we have to do our share to get it out."

Mrs. Smith was so consumed with interest at the prospect of finding a money market for the eggs that she almost forgot about her coat; but after the neighbor woman had attended to the shipment of the two cases of eggs, and Mrs. Smith had ordered three new cases for herself, and with the neighbor woman's help had written and sent the advertisment, the ten dollars left in her usually empty purse reminded Mrs. Smith of the errand that had brought her to town. Before repairing to the coat department of the little village store, let us peep at that advertisement.

> "Eggs fresh from the farm to your table within three days of the receipt of your order, at market prices. Consumer pays express. Twelve or sixteen dozen in case. Address..."

Women readers will desire to stop in the store with Mrs. Smith long enough to see what her selection was, since it was the first outer garment she had bought since her marriage.

This was surely sufficient explanation for the sparkle in Mrs. Smith's eyes and the flush on her cheek, as she looked at one after the other of the garments shown her. Some persons might have thought it a poor assortment, but not so Mrs. Smith. She was bewildered by what seemed to her such grandeur. At last she appealed to the neighbor woman: "Do you think I ought to get black? Almost everything I've been wearing for the last ten years is a worn-out black, and I'd just love that gray, woolly-looking coat. I'd feel like a different woman in it, but I guess all the women of my age get black."

The neighbor woman examined the gray before she answered: "I think nothing could be more practical for a country woman than gray of this color. Black is not a sensible color for us when we have to ride through all sorts of dust and dirt. Besides, this gray exactly suits your style, and, best of all, it has not a lot of cheap braid or trimming on it. Every cent spent on it has gone into the goods. The buttons are a good bone instead of cloth-covered that will wear out the first season you use the coat. And because it is so perfectly plain you will grow to like this coat better as you wear it longer instead of tiring of it as you would of one of these overtrimmed garments."

Within a week Mrs. Smith had her first answer to her advertisement, and in time several others followed. The children took as much interest in the new enterprise as did their mother, and not even the slyest old hen who sought the most out-of-the-way place in which to make her nest succeeded in eluding those bright eyes. The smallest eggs were kept out for home use; the biggest, the freshest went into the cases for the city customers. One day a man wrote: "We are very thankful that we are not buying your eggs by weight, for I think most of them are twice the size of the eggs we have been paying the same price for at the grocery stores here and not strictly fresh at that!" Mrs. Smith was very proud of that letter, for it seemed to her that she had a definite place in the business of the farm, a place that had a money value. And better than anything else was the companionship that had sprung up between herself and the children. She had made them her partners and they received a small per cent. of the proceeds, according to the number of eggs the hens which she had given to them contributed. The mother was giving her children one of the best business educations in the world, though perhaps she did not at the time realize the value it would be to them in their future life.

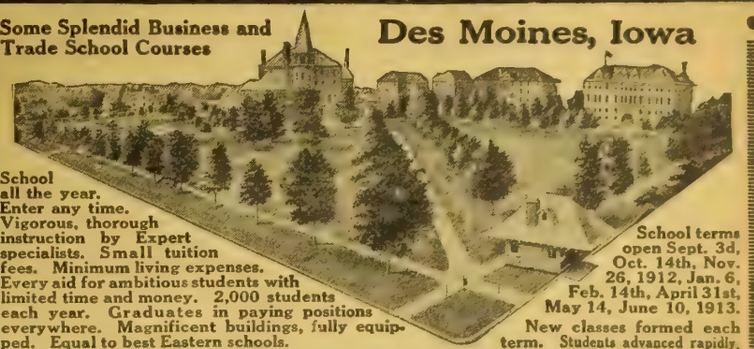
The egg money had brought one great happiness to the Smiths. It was necessary for Mrs. Smith in her new business to keep in touch with the markets, and so a telephone had been installed. Then the family, formerly so isolated, awoke to the fact that they were in touch with the whole world. It was then that Mrs. Smith admitted to her husband that she now found nothing dull about farm life. "If only the days were twice as long and I had twice as many hands to do all I want to do, I'd feel as though I was getting somewhere near done what I want to do," she remarked. "And you are happy now; or anyway you're not discontented?" asked her husband.

"No, I'm not discontented. I'm contented and I'm happy here; yes, I'm happy!"—Janet Thomas Van Osdel.

Highland Park College

Some Splendid Business and Trade School Courses

Des Moines, Iowa



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O. H. LONGWELL, Pres., Highland Park College, DES MOINES, IOWA

Corrected.

A wealthy American girl was attending a social function at a country house in England.

"You American girls have not such healthy complexions as we have," said an English Duchess to the girl. "I always wonder why our noblemen take a fancy to your white faces."

"It isn't our white faces that attracts them," responded the American; "it's our greenbacks."—Judge.

A Mortal Blow.

"What's the matter with your wife? She's all broken up lately."

"She got a terrible jar."

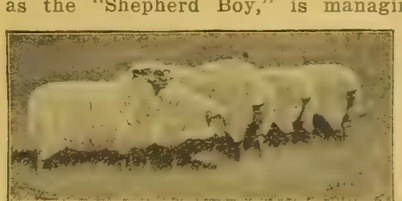
"What has happened?"

"Why, she was assisting at a rummage sale, took off her new hat, and somebody sold it for 35 cents."—Exchange.

The cost of high living is not caused by the price of wheat, which is selling in market considerably less than two cents a pound.

The Shepherds' Journal

IS a splendid monthly paper devoted to the world's sheep husbandry. It is published at Chicago, and W. J. Clarke, known as the "Shepherd Boy," is managing editor. THE NATIONAL FARMER AND STOCK GROWER is the best monthly farm paper in the United States. Useful on any farm, in any state. Good for grain farmers, horse, cattle, hog and sheep raisers, also dairymen and vegetable growers. These two are companion publications, and we are authorized to offer these two great and valuable papers for the price of one. Send us Fifty (50) Cents and we will send you THE SHEPHERDS' JOURNAL and



The National Farmer and Stock Grower

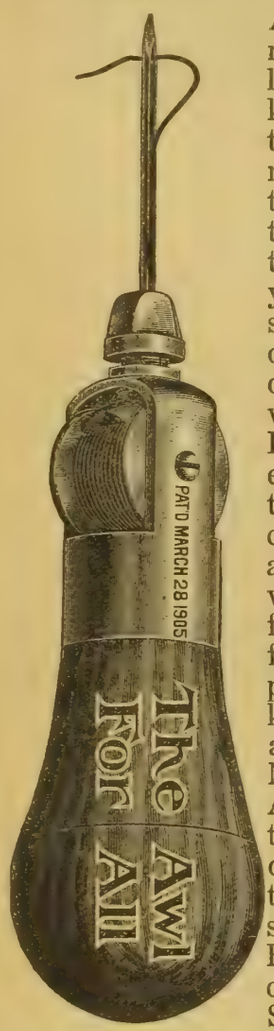
both papers, for one year. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., ST. LOUIS, MO.

MYERS FAMOUS LOCK STITCH SEWING AWL.

The Best Dollar's Worth Ever Offered by a Farm Paper Publisher.

A FARM on which there is not a sewing awl is in difficulties when work is most pressing. It is surprising how useful this little implement is. It is the MYERS FAMOUS LOCK STITCH SEWING AWL. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screwdriver and wrench combined; also a reel of waxed thread with each awl ready for use. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. We are using the Myers Famous Lock Stitch Sewing Awl as a subscription premium with the best monthly farm paper. Anyone who will send One Dollar cash to pay in advance for two-years' subscription to THE NATIONAL FARMER AND STOCK GROWER can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address,



The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

A Compliment For the Bride.

I must relate a striking salutation that the bridal couple received from a Quaker client of mine, a shrewd dry goods merchant. Presented by an usher, he surveyed the bride, whom he had never seen before, and then with the utmost deliberation proceeded to say:

"William, I think the bride has shown more judgment in her choice than thee has."

Fortunately before I could turn to resent this strange salutation he continued as follows:

"Because it takes some penetration to discover the good qualities, but hers can be seen at a glance."—A Retrospect of Forty Years.

A Stickler For Etiquette.

The members of a certain colony of artists in New York tell, with great glee, of a comrade who, though he does pretty well in a financial way, is always "hard up."

One day a collector called upon this artist to try to get him to settle a bill for picture frames.

"I am exceedingly sorry," said the artist, "but I cannot settle this bill at present."

"Very well, sir. When shall I call again?" asked the collector.

"It seems to me," suggested the artist, suavely, "that it would hardly be etiquette for you to call again until I have returned the present call."—Harper's Magazine.

French Submarine Lost.

The submarine is a war vessel which can be operated below the surface of the water for the purpose of destroying larger vessels. It is one of the modern instruments of war, but it is a dangerous occupation for sailors engaged in it in times of peace, and many losses have been reported. On June 8th, 1912, Cherbourg, France, suffered a fourth disaster of this character when the Vendemiaire was crushed down by the battleship Saint Louis and disappeared in 150 feet of water. The submarine was undoubtedly ripped apart by the steel prow of the battleship and all hope was abandoned of saving the crew.

An official statement issued by the Minister of Marine fixed the number of men aboard as twenty-three, including the Commander, Lieutenant Prioul, and Ensign Audic. Although a Board of Inquiry was immediately appointed, it is said that no blame attaches to the Saint Louis, as the Vendemiaire came to the surface directly under the battleship's bow. The other submarines previously lost by France were the Lutin, the Farfodet and Pluviose.

The official report of the disaster made by Rear Admiral Marolles, commanding the squadron, says the warships were maneuvering in fair weather when the upper parts of the submarine suddenly emerged from the water dead ahead of the Saint Louis. There was no time to change the course, and after the shock bubbles rose to the surface for ten minutes, then bits of wooden wreckage and the submarine's bridge.

A buoy was anchored at the place where the accident occurred, and, after waiting an hour, the squadron steamed to Cherbourg, leaving behind a cruiser and a destroyer.

Later the strong current dragged off the buoy and it was not possible to locate the precise place of the collision, although oil on the water and the cruiser's reckonings fixed it approximately. In the opinion of Admiral Marolles salvage of the Vendemiaire will be impossible.

The battleship was steaming along quietly when the Vendemiaire appeared right under the bows of the warship. There was no time to avoid a collision, and the next moment the stem of the St. Louis struck the submarine with terrific force, driving the latter below the surface. The engines of the warship had been quickly reversed, but when she was brought to a stop the submarine had disappeared and only a threshing of waters showed where the under-the-surface fighter had gone down.

The Vendemiaire was commanded by Lieutenant Prioul, a young ensign, and a crew of twenty-two men. She was launched on July 7, 1910, and was the ninth vessel of the Pluviose type added to the French navy. She was 167 feet in length, with a beam of sixteen feet.

This latest loss to the French navy has caused great distress not only throughout the service, but among the public generally which has been made so frequently to mourn naval disasters. No other navy has been so unfortunate in the matter of submarines. The Pluviose was run down by a channel steamer and lost with her crew of twenty-seven men on May 26, 1910.

His Dream Came True.

"Have you ever had a dream that came true?"

"Yes. I had one only a few nights ago that came true. I dreamed that I was going to receive a telegram which I would be afraid to show my wife."

"And you got it? Was it from another woman?"

"Yes."

"Say, old man, I never spposed you would be guilty—"

"Wait! It was from my mother, who notified me that she was coming to visit us for two or three weeks."

St. Louis feather market quotes 63 cents a pound for prime white live goose feathers; 44 cents for prime grey; 36 to 38 cents for old white; other lots, 15 to 30 cents.

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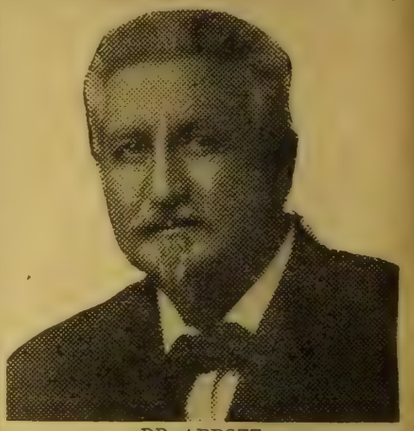
For Rheumatism, Bladder Diseases, Kidney Trouble, Catarrh and Other Uric Acid Ailments

SIMPLY FILL OUT THE COUPON

I will send anyone who suffers from a Uric Acid disease like rheumatism, kidney or blader trouble, catarrh and similar afflictions my ten day treatment absolutely free, with full directions for use, so that a good, thorough test can be made of my



DR. ABBOTT.

method of cure without cost. This 10-day free treatment is free in every sense of the word, and yet it is not a small sample, proof or test treatment. It is not sent you to be paid for later when cured, nor are you to take a part of it and pay for the rest. It is just as stated, my 10-day treatment free, and any sufferer can get it by simply writing me for it. All I want to know is that you have a disease for which this treatment is effective, and so that I can decide that please fill out the coupon ad send it to me. My address is Dr. G. B. Abbott, 1090 Austen Building, Chicago, Ill.

After 32 years of striving I believe I have a perfected treatment for these diseases, but the best way to prove it to the public is to send them a generous supply of it free. This I am doing by giving away Ten-day free treatments. The remedies contained in this free treatment are vouched for and it can be relied upon that there are no objectionable ingredients. Thousands of people have been helped and cured by this treatment, and pages of indorsements could be given, but as nothing after all is so convincing as personal experience, every sufferer from a Uric Acid disease is invited to write me for my ten day free treatment for himself or herself. I will send it to you with full directions promptly on receipt of the coupon properly filled out, or a personal letter giving some of your chief symptoms. All charges will be paid by me.

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I ask you to send the coupon or a personal letter today.

Answer these questions and mail the coupon to me and receive

My 10-Day Treatment Free

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Have you pain in the back?.....

Have you Rheumatism?.....

Do you get up nights to urinate?.....

Are you constipated?.....

Where is the most pain?.....

.....Have you Catarrh?.....

Your age?.....Married or single?.....

Name.....

Address.....

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This is the best pattern service, and we re very much pleased to obtain it for our lends and patrons. Each pattern is new nd original. In this edition we present for onsideration very seasonable patterns abso- utely up-to-date, with directions for rdering.

PRACTICAL MODELS.

No. 7454.—Norfolk Coat. 34 to 40 bust. or the medium size will be required 3 ards of material 36 inches wide.

No. 7439.—Blouse or Shirt Waist. 34 to bust. With box-plait, stock collar and ng sleeves with rolled-over or straight uffs, or opened neck, hemmed edges and bow sleeves. For the medium size will be equired 2⅝ yards of material 36 inches ide.

No. 6632.—Sailor Suit, For Misses and mall Women. Fourteen, sixteen and ghteen years. With or without applied oke on blouse, with long or three-quarter eeves. For the sixteen-year size will be equired 1½ yards of material 27 inches ide, ⅝ yard 27 inches wide for shield. ¾ yards of wide, 4½ yards of narrow anding.

No. 7462.—Three-piece Skirt With Tunic ffect. 22 to 30 waist. With high or atural waist line. For the medium size ill be required 3¾ yards of material 36 nches wide, with ¾ yard 27 inches wide or the lower portion.

No. 7445.—Three-piece Skirt in Tunic tyle. 22 to 32 waist. With high or nat- ral waist line. For the medium size will e required 2⅝ yards of material 36 inches ide for the upper portion, ¾ yard 36 nches wide for the lower portion.

The price of each pattern is 10 cents.

MODELS FOR THE COUNTRY AND THE SEASIDE.

No. 7015.—Bathing Suit. 34 to 44 bust. With V-shaped neck and sailor collar or igh neck and round collar, with or with- ut bloomers. For the medium size will e required 6¼ yards of material 36 inches ide, with bloomers, 4¼ yards without bloomers, ¾ yard 27 inches wide for sailor collar and sleeve bands.

No. 7424.—Girl's Bathing Suit. Four to twelve years. With kimono sleeves, with or without separate skirt. For the six-year size will be required 3 yards of material 36 inches wide, with 1 yard for the trim- ming.

No. 7401.—Bathing Suit. 34 to 44 bust. With separate bloomers. For the medium size will be required 4 yards of material 36 inches wide for blouse and skirt, 2 yards 36 inches wide for bloomers, ¾ yard 27 inches wide for trimming.

No. 7422.—Sun Bonnet, Women's, Misses' and Children's. To make will be required 1 yard of material 27 inches wide, for any size.

No. 7449.—Child's Sun Bonnet. Six months or one year, two or four years. with crown that can be buttoned or sewed to the brim, with square or round corners. For the smaller size will be required ¾ yard of material 36 inches wide.

The price of each pattern is 10 cents.

DAINTY AFTERNOON MODELS.

No. 7453.—Coatee or Overblouse. 34 to 42 bust. For the medium size will be required 2¾ yards of material 36 inches wide, with 2½ yards of applique.

No. 7459.—Blouse or Shirt Waist, For Misses and Small Women. Fourteen, six- teen and eighteen years. For the medium size will be required 2½ yards of material 36 inches wide.

No. 7448.—Semi-Princess Gown. 34 to 44 bust. With four-gored skirt, with back gore that can be laid in box-plaits or gath- ered, with square or high neck, with or without cuffs. For the medium size will be required 5¼ yards of material 36 inches wide, with ½ yard 27 inches wide for collar and cuffs.

No. 7440.—A Three-piece Skirt in Envelope Style. 22 to 32 waist. With high or nat- ural waist line. For the medium size will be required 3¾ yards of material 36 inches wide.

No. 7452.—Five-gored Skirt. 22 to 34 waist. With high or natural waist line. For the medium size will be required 3¾ yards of material 36 inches wide, when there is figure or nap; 2¾ yards 44 inches wide, when there is neither figure nor nap; ¾ yard 27 inches inches wide for the panel.

The price of each pattern is 10 cents.

LADIES', MISSES' AND CHILDREN'S ATTIRE.

No. 7311.—Fancy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. For the sixteen-year size will be required 1 yard of material 36 inches wide for blouse, 1 yard 36 inches wide for overwaist, ⅝ yard of all-over lace 18 inches wide, 2 yards of lace for frills.

No. 7432.—Overblouse or Coatee. 34 to 42 bust. With or without revers, with postillion that can be made shorter or in pointed or round outline. For the medium size will be required 1⅝ yards of material 36 inches wide, with ¾ yard 27 inches wide for trimming.

No. 7464.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. With round or high neck, elbow or long sleeves. For the sixteen-year size will be required 4¼ yards of material 36 inches wide, with 1¼ yards of lace to finish as shown in front view, ½ yard 18 inches wide for yoke and collar.

No. 7446.—Girl's Gymnasium Suit. Eight to twelve years. With blouse that can be worn loose or drawn up at the waist line. With short or long sleeves. For the ten- year size will be required 4¾ yards of ma- terial 36 inches wide, with 6 yards of braid.

No. 7439.—Blouse or Shirt Waist. 34 to 44 bust. With box-plait, stock collar and long sleeves, with rolled-over or straight cuffs, or with open neck, hemmed edges and elbow sleeves. For the medium size will be required 2⅝ yards of material 36 inches wide.

No. 7439.—Two-flounce Skirt. 22 to 30 waist. With high or natural waist line, with or without five-gored foundation. For the medium size will be required 5 yards of material 36 inches wide, or 4⅝ yards of

bordered material 29 inches wide, with 1½ yards of plain material 36 inches wide for the foundation.

The price of each pattern is 10 cents.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

BEAUTIFUL APRON PREMIUM.

To further introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroid- ered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and

strings; also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Crop on Shares.

Senator Vardaman, so the story goes, once rented a plot of several acres to one of his black neighbors. The land was to be planted in corn, and the Senator, then ex-Governor, was to receive one-fourth. The corn was duly harvested, but the Senator did not receive his fourth. Meeting the negro one day he said:

"Look here, Sam, have you har- vested your corn?"

"Yes, sah, boss, long 'go."

"Well, wasn't I to get a fourth?"

"Yas, sah, boss, dat's de truf, but dar warn't no fo'th. Dar was jes' three loads, and dey was mine."—Judge.

Honey quotations at St. Louis: Bright amber in barrels at 7 cents per pound and in cans at 7½ cents per pound; dark in barrels at 6 cents.

HOW TO GROW HAIR

A SIMPLE, SAFE AND RELIABLE WAY THAT PRODUCES SURPRISING RESULTS.

NEW DRUG CRYSTOLIS CAUSES BIG STIR AMONG HAIR SPECIALISTS.

$1,000 REWARD If They Fail.

Cut Out Free Coupon Below and Mail Today.

Those who have become prematurely gray or who are troubled with scalp or hair dis- eases, such as falling hair, dandruff, bald- ness, itching scalp, etc., know full well the humiliation that they cause. There is no need, however, of such condition. These troubles can be quickly overcome by Crys- tolis, the new drug recently discovered at the Creslo Laboratories.

Why Wear Puffs, Pompadours, Rats and Braids of Filthy Chinese Hair, When Crystolis Grows New Hair in 30 Days?

Since its discovery, a little over a year ago, Crystolis has been found to contain marvelous properties for producing a new growth of hair. In subjecting it to various tests in the worst cases of baldness, dandruff, itching scalp, etc., the results obtained by the experimenting chemists were considered almost miraculous.

In every case it was found that where there were any hair roots left it would pro- duce a new and luxuriant growth of hair in from four to six weeks' time.

Gray or faded hair was often restored to its natural color in from 10 to 14 days' time. In minor cases of scalp and hair dis- eases, such as dandruff, falling hair, itching scalp, etc., it was found that these unnat- ural conditions were corrected and often completely cured by two or three applica- tions.

The discovery of Crystolis will, without doubt, put an end to the troublesome scalp and hair diseases that are becoming so common with the American people. Women who have been forced into wearing false hair will greatly welcome this marvelous product, as, aside from its many other vir- tues, it adds a beautiful gloss and luster to the old hair. Besides, it contains no oil and has a tendency to make the hair light and fluffy.

The managers of the Creslo Laboratories have such strong faith in Crystolis, we have been authorized to make the following re- markable offer: They will forfeit $1,000 in gold if they fail to prove that Crystolis actually grows hair. They will forfeit $1,000 in gold if any one can prove they were not the first discoverers of Crystolis. They will forfeit $1,000 in gold if it can be proven that it contains any oil, dye or coloring matter of any kind. They will forfeit $1,000 in gold if every testimonial and sworn state- ment which they publish is not absolutely genuine.

Arrangements have been made with the Laboratories to furnish free information in regard to this new process to all readers of The National Farmer and Stock Grower. Merely cut out and send in the coupon below, and you will receive particulars of this marvelous new product by return mail.

Baldness, Dandruff, Itching Scalp, Etc.

FREE CRYSTOLIS COUPON.

Cut out this coupon today and mail to Creslo Laboratories, 786-G Street, Bing- hamton, N. Y., for free information regarding Crystolis, the new discovery for growing hair.

CYCLONE CELLARS OF CONCRETE

Afford Safety and Are Otherwise Useful.

While destructive cyclones cannot be prevented, nevertheless the excessive loss of human life can be. The means is simple, inexpensive and within the reach of everyone who can obtain sand and gravel or crushed rock. Perfect protection is afforded by an outdoor cellar of concrete with a curved roof built along the lines of the well-known "dug-out" or "cave." Such a cellar is also valuable as a storage place for fruit, vegetables, milk and butter.

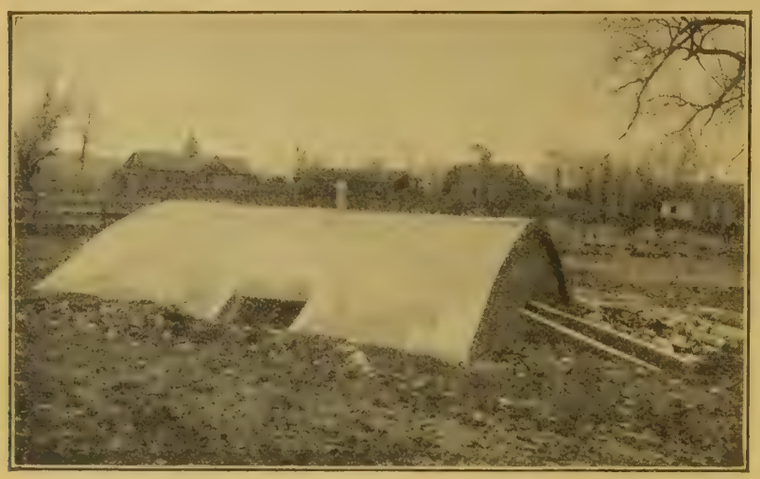

Fig. 1.

Building the Walls and Floor.

The most popular size for the average farm is a cellar 10 by 14 feet, inside measurements, with a self-supporting arched roof 5 feet above the floor at the sides and 7 feet 8 inches in the center. All of the sidewalls are 8 inches thick, therefore dig the hole 11 feet 4 inches by 15 feet 4 inches to the depth desired, usually 5 feet. At one end cut out the earth to a width of 4 feet 4 inches and slope it upward for seven concrete steps with a rise of 8 inches and a tread of 10 inches and for a thickness of 4 inches of concrete back of the steps proper. Arrange for an 18-inch landing at the bottom of the stair.

Make the sidewall forms of 1-inch siding on 2 by 4-inch uprights spaced 2 feet. As the concrete floor will be 4 inches thick, set up the forms on 4-inch concrete bricks. Above ground level use outside forms similar to the inside. To curve the end wall forms, lay them out with a 6-foot string in the same way as described below for arch rings. At the entrance end, to provide for a doorway, set between the forms a frame of 2 by 8-inch stuff 3 by 7 feet in the clear. Mix the concrete 1 part Portland cement to 4 parts bank-run gravel, or 1 part cement to 2 parts sand to 4 parts crushed rock. A sack of cement equals 1 cubic foot. With the forms in place, lay the 4-inch floor the same as a sidewalk, but without joints. Fill the wall forms in 8-inch layers with mushy wet concrete, and, 6 inches from the top of the sidewalls and 1 inch from the outside, place two ⅜-inch steel rods the full length of the cellar. In the concrete two inches above the door-frame, lay three four-foot lengths of ⅜-inch rods. Roughen the top of the walls so as to insure a good bond with the roof. Build the stairway with a 4-inch thickness of concrete behind the steps proper. Each step has a tread of 10 inches and a rise of 8 inches. The sidewalls of the cellar hatchway extend above the door opening of the cellar proper, so that outside sloping doors may be added. In the top of the hatchway walls, while the concrete is soft, bolts are set heads down for holding the wooden sill to which the strap hinges are later attached.

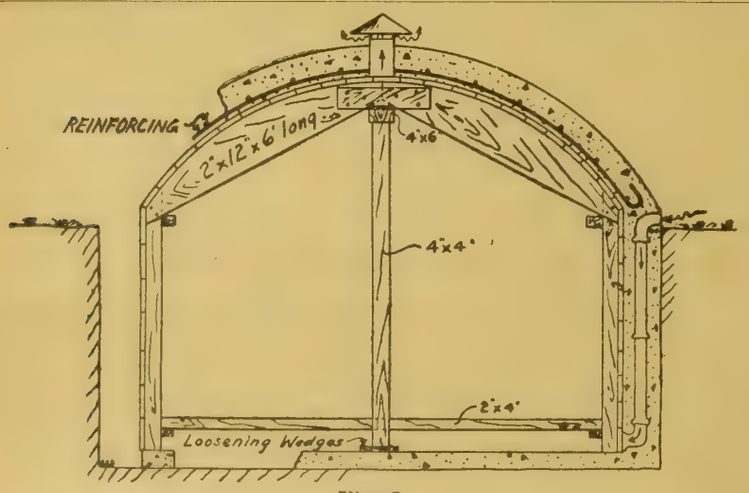

Fig. 2.

The Self-supporting Roof.

When the sidewalls are one week old, begin on the roof. To give the roof a rise of 2 feet 8 inches, arch rings are needed. For laying out the rings, choose a floor or a bit of level ground. To one end of a strong string fasten a pencil and tie the other end to a nail driven firmly in the floor with exactly 5 feet 11 inches of string between the pencil point and nail. Mark out half a circle. Across the circle lay a board exactly 10 feet long so that its ends just touch the mark. The part of the circle above the board represents the arched inside of the roof. Place boards for the arch rings over the mark on the floor and nail them together. Mark the curve upon them and cut them to the mark. Brace the arch well as shown in the drawing. Spacing the rings two feet apart, six will be needed. Fasten them securely in place to 2 by 6-inch liners spiked to the sidewall forms. Cover the rings tightly with 1-inch sheathing.

With the roof form ready, place the reinforcement upon it. Use ⅜-inch rods 14 feet long. Space them 6 inches apart crosswise and 12 inches the long way of the cellar. Wire the rods together where they cross. The roof must be 5 inches thick. Carefully work exactly 1 inch of concrete between the rods and the sheathing. Tamp the concrete until the liquid cement flushes to the top and then finish the surface smooth by means of a wooden float and steel trowel. Do not stop for anything until the roof is finished. In two or three weeks the concrete roof will be strong enough to support itself; then the forms may be removed.

Ventilation is necessary for most cellars. While building the wall make one or more air-shafts (similar to a chimney flue) of 3-inch tile, by imbedding them in the concrete wall, with an opening inside at floor level and another outside well above the ground line. By this arrangement fresh air is admitted. Place a tile chimney in the concrete roof and cover it with a galvanized iron hood for removing the foul air. If built late in the fall, protect the fresh concrete from freezing by covering it with clean straw or with old carpet so suspended as to leave a dead air-space between the concrete and the covering.

Below is given a list of the materials required. The prices are higher than in most localities. If good screened pit gravel is used, no sand will be needed.

Bill of Materials.*

Crushed rock, 13 cubic yards, at $1.10	$14.30
Sand, 6½ cubic yards, at $1.00	6.50
Portland cement, 22 barrels, at $2.50	55.00
Rods, 40 pieces, ⅜ inch by 14 feet, 206 pounds, at $0.02¼	4.65
Total	$80.45

* Consult local dealer for prices.

The cellar shown in the photograph is 18 by 18 feet by 8 feet deep. It is located on an apple farm. The owner finds it a profitable investment, as he has his own storage and keeps his apples until the market is no longer glutted with "wind-falls" and "seconds."

The Scale on the Farm.

The scale is just as important on the farm as in the grocery store. How would the grocer succeed who in selling sugar should put in a few scoopfuls and say: "I guess that's about right," or in selling nails should drop a few handfuls in the bag and say: "I guess that's about it?" The farmer who guesses at how much he is feeding his cows or hogs, who guesses at how much milk or gains he is getting is doing just the same kind of business as the merchant who should guess instead of weigh.

The cows and the pigs, etc., are the farmer's customers. They take his feed and roughage. Now the farmer needs to know what he gets in return in the way of pounds of milk, butter-fat, pork, etc. No successful business was ever built on guessing—farming is no exception.

This brings to mind a case. A boy who was learning how to test milk at school, tested his father's herd. He also weighed the milk from each cow morning and evening and kept a record of it. He also kept a record of the feed given the cows. After awhile the fourteen-year-old informed his pa that Brindle didn't give enough butter-fat to pay for her feed. Pa looked at him kind of funny. The idea of his boy telling him that! Yet he did not attempt to contradict the boy: He knew the boy had been weighing and figuring. The boy also informed him Spot was paying a splendid profit and Rosy was not paying for her feed, and so on. What was to be done? The boy's information was taken and acted on. At the end of the year the herd had been reduced from twenty-one to fourteen cows by selling the poorest and buying some more good ones. The fourteen gave more profit than the twenty-one. That was what a fourteen-year-old boy could do by weighing and keeping accounts. The time the boy spent in doing that weighing and figuring, only a few minutes a day, brought more profit than the day-after-day of work put in by his father. And these few minutes of work a day made it possible for that farmer to increase his returns year after year.

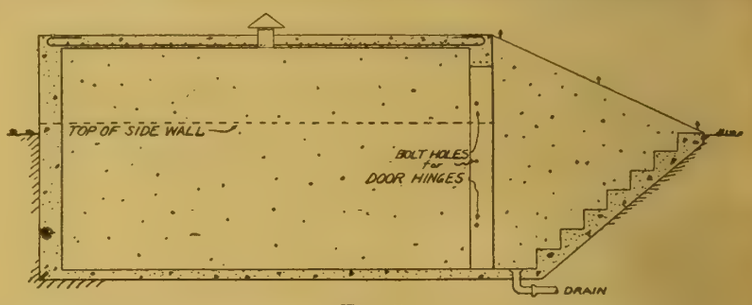

Fig. 3.

If one is feeding pigs, the only way to know what is going on is to weigh the pigs from time to time and to weigh the feed. The horses should be weighed that their condition may be the more accurately known. The load of grain or hay that goes to town should be weighed. But there is no need of enumerating further.

The scale is necessary on the farm—just as necessary as in the grocery store or the coal yard.—Prof. W. C. Palmer, North Dakota Agricultural College.

Our Subscription Department.

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SELECTED POETRY.

BAY BILLY.

You may talk of horses of renown, what
Goldsmith Maid has done.
How Dexter cut the seconds down, and
Fellowcraft's great run—
Would you hear about a horse that once a
mighty battle won?

'Twas the last fight at Fredericksburg—
perhaps the day you reck—
Our boys—the Twenty-second Maine—held
Early's men in check,
Just where Wade Hampton boomed away,
the fight went neck and neck.

All day we held the weaker wing, and held
it with a will;
Five several stubborn times we charged the
battery on the hill,
And five times beaten back, re-formed and
kept our column still.

At last from out the center fight spurred up
a General's aid;
"That battery must silenced be!" he cried
as past he sped.
Our Colonel simply touched his cap, and
then with measured tread,

To lead the crouching line once more the
grand old fellow came,
No wounded man but raised his head and
strove to gasp his name,
And those who could not speak nor stir
"God blessed!" him just the same.

For he was all the world to us, that hero
gray and grim,
Right well he knew that fearful slope we'd
climb with none but him,
Though while his white head led the way
we'd charge hell's portals in.

This time we were not half-way up, when,
midst the storm of shell,
Our leader, with his sword upraised, be-
neath our colors fell,
And as we bore him back, the foe set up a
joyous yell.

Our hearts went with him—back we swept,
and when the bugle said:
"Up charge!" again no man was there but
hung his dogged head.
"We've no one left to lead us now," the
sullen soldiers said.

Just then before the laggard line the Colo-
nel's horse we spied,
"Bay Billy," with his trappings on, his
nostrils swelling wide,
As tho' still on his gallant back the master
sat astride.

Right royally he took the place that was of
old his wont,
And with a neigh that seemed to say
above the battle's brunt:
"How can the Twenty-second charge if I
am not in front?"

Like statues rooted there we stood and
gazed a little space,
Above that floating mane we missed the
old familiar face;
But we saw "Bay Billy's" eye of fire and
it gave us heart of grace.

No bugle call could rouse us all as that
brave sight had done;
Down all the battered line we felt a light-
ning impulse run.
Up! up! the hill we followed Bill and
captured every gun!

And when upon the conquered night died
out the battle's hum,
Vainly 'mid living and the dead we sought
our leader dumb;
It seemed as if a specter steed to win that
day had come.

And then once more with banners gay the
troops stood on parade,
Trimly upon the furrowed field stretched
out the long brigade,
And bravely amid the ranks were closed
the gaps the fight had made.

Not half the Twenty-second's men formed
that torn field upon,
For Corp'ral Dick, who yesternoon stood
six brave fellows on.
Now touched my elbows in the ranks, for
all between were gone.

Ah! who forgets that dreary hour, when,
as with misty eyes,
To call the old familiar names the solemn
Sergeant tries;
One feels the thumping of the heart as no
prompt voice replies.

And as, in falt'ring tones and slow the
last few names were said,
Across the field some missing horse toiled
up with weary tread,
It caught the Sergeant's eye, and quick
"Bay Billy's" name he read.

Yes, there the old bay hero stood, all safe
from battle's harms,
And ere an order could be heard or the
bugle's quick alarms,
Down all the front, from end to end, the
troops presented arms!

Not all the shoulder-straps on earth could
still our mighty cheer,
And ever from that famous day, when
rang our roll-call clear,
"Bay Billy's" name was read, and then the
whole line answered: "Here!"
—Poet Unknown.

WHEN PHYLLIS DRIVES.

When Phyllis drives her motor car,
And down the street we set the pace,
There's not a monarch, earl or king
With whom I would exchange my place.
I long to take her hand in mine,
And tell her of the love I feel;
But, no, her thoughts are far from me,
And both her hands are on the wheel.

Her talk is all of chains and gears,
Of sprockets, rims and springs;
Of non-skid tires and inner-tubes,
Of carburetors and such things,
And when I'd take her hand in mine,
And tell her of the love I feel,
She says: "You really must look out,
And keep your hands, please, off the
wheel."

It surely is a cruel fate
To love a girl who knows so much,
Who holds the wheel, likewise your heart,
Beneath her lightst finger-touch;
For when you'd take her hand in yours,
And tell her of the love you feel,
She says: "You really must take care,
And keep your hands, please, off the
wheel."

Some day I hope a tire will burst,
Blow out, or come right off the car,
And that beside the road we'll stop,
Out in the country—very far,
And then I'll take her hand in mine,
And tell her of the love I feel,
When we are sitting there quite still,
And both her hands are off the wheel.
—E. Marriner, in Harper's Magazine.

MIRTH UNENDING.

Oh, wherefore should a mortal sigh
And vow that life is full of care?
Each moment that goes swiftly by
Is sure to bring a laugh somewhere;
And the supply is ever new
And louder grows the note of cheer;
The clothes that Fashion brings to view
Are getting funnier every year.

These hats and shoes and all the rest
Of the attire that meets our gaze
We'll greet with wild, hilarious zest
As now we jest of other days.
The present price tag may exert
A certain influence severe;
But look ahead for laughs alert;
Our clothes get funnier every year.
—Washington Star.

AS TO YOU.

Did you give him a lift? He's a brother of
Man
And bearing about all the burden he can.
Did you give him a smile? He was down-
cast and blue.
And the smile would have helped him to
battle it through.
Did you give him your hand? He was the
slipping-down hill
And the world, so I fancied, was using him
ill.
Did you give him a word? Did you show
him the road.
Or did you just let him go on with his load?

Did you help him along? He's a sinner
like you.
But the grasp of your hand might have
carried him through.
Did you bid him good cheer? Just a word
and a smile
Were what he most needed that last weary
mile.
Do you know what he bore in that burden
of cares
That's in every man's load and that sym-
pathy shares?
Did you try to find out what he needed
from you,
Or did you just leave him to battle it
through?

Do you know what it means to be losing
the fight
When a lift just in time might set every-
thing right?
Do you know what it means—just the clasp
of a hand
When a man's borne about all a man ought
to stand?
Did you ask what it was—why the quiver-
ing lip
And the glistening tears down the pale
cheek that slip?
Where you brother of his when the time
came to be?
Did you offer to help him, or didn't you
see?

Don't you know it's the part of a brother
of Man
To find what the grief is and help when
you can?
Did you stop when he asked you to give
him a lift,
Or were you so busy you left him to shift?
Oh, I know what you mean—what you say
may be true—
But the test of your manhood is What Did
You Do?
Did you reach out a hand? Did you find
him the road,
Or did you just let him go by with his
load?
—J. W. Foley, in New York Times.

OLD CATTLE MAN SOLILOQUIZES.

He rode by us this mornin', and he looked
jest like a knight,
With his silver traps a-shinin' in the
streaks of rosy light;
His pack horse trailed behind him, with a
bed upon its back,
And he made a purty picture as he passed
our homestead shack;
And we knowed that summer 'd hit us—
knowed it past the slightest doubt—
'Cause the calves were bein' gathered, and
the roundup call was out.

The wagon top is shinin' in some distant
lonely draw;
The cook is yellin': "Grub pile!"—you can
hear the gang hurrah

Here's
The Road to Comfort

A vanished thirst—a cool body and a refreshed one; the sure way—the *only* way is via a glass or bottle of

Coca-Cola

Ideally delicious—pure as purity—crisp and sparkling as frost.

Free Our new booklet, telling of Coca-Cola vindication at Chattanooga, for the asking.

Demand the Genuine as made by
THE COCA-COLA CO.
ATLANTA, GA.
1-J

Whenever you see an Arrow think of Coca-Cola.

As they leave the brandin' fire and gallop
for the feed,
While the snow-white foam is drippin'
from the mouth of every steed.
I'd like to throw in with 'em, but Father
Time, it seems,
Has put me in the discard—I can only live
in dreams.

I can only dream of stretches where the
cactus and the sage
Crown the rollin' hills of glory—neither
time nor creepin' age
Can dim the youthful pictures that come
up before my eyes,
When the first glad hint of June-time puts
a new blue in the skies,
And a top-hand, young and knightly, passes
by my cabin door
On his way to join his comrades where the
roundup's on once more.
—Denver Republican.

OLD MAIDS.

The silly rabble ridicule
And foolishly upraid
The sweetest creature in the world—
The much-abused Old Maid.

Most everybody jibes and jeers—
Has something hard to say,
As if these ladies elderly
Had done a crime some way.

What have they done—the dear old
things—
That men should hate them so?
Nothing, except they dare to live
And wave—without a beau!

When models ask that they should take
The toilsome place of wife,
And give their independence up
In slavery for life—

They have the common sense and pluck
To boldly answer No,
And that is the reason why
Old maids are hated so.

And still they are the primmest,
The nicest and the cutest,
And everything about them
Is the cutest and the sweetest.

Then honor to the dear Old Maids!
Though lonely be their lives;
Perhaps to God they're just as dear
As many wedded wives.

And, girls, unless your sweethearts be
Industrious, honest, staid,
I hope that each of you will be
The oldest sort of Maid.
—Champ Clark.

SHE'S CHANGED.

Though Dorothy's put up her hair
That late was hanging down her back,
She still is young and she is fair—
She not a single charm doth lack;
But now there's distance in her eye
And introspection in her smile,
I look at Dorothy and sigh
And then I muse a little while.

Here was a careless, happy child,
Who romped and laughed so frank and
free;
She ran, she climbed in pleasure wild—
She'd even come caressing me!
Her wind-blown curls then swept her
cheeks
Where tan—ah, that's the proper wear!
Would show in long vacation weeks,
Now Dorothy's put up her hair!

That is a sign to one and all
That Dorothy's a woman grown.
On her sweet youth I vainly call
And, sitting here, I now make moan.
I'm pushed aside—I'm old, forsooth!
My leaping heart's not old, I swear,
But now will come some conquering youth
Since Dorothy's put up her hair!
—Chicago News.

The Battle of Alamance.

At the Battle of Alamance, North Carolina, fought May 16, 1771, was shed the first blood of the great struggle which was to result in the establishment of American independence.

All honor to Lexington, where the "embattled farmers" fired the shots that were "heard around the world," but let it not be forgotten that other farmers, almost four years before the day of Lexington, opened the fight of which Lexington was only the continuation.

Says John Fiske, in his American Revolution: "The barbarous condition on the frontier, where these scenes occurred (the Battle of Alamance, etc.), and the fact that the militia of the lower counties voluntarily assisted the Governor in his campaign against the Regulators, deprived these events of much of the influence they might otherwise have had upon the country; so that it is not the Cape Fear but the Concord River that ordinarily occurs to us when we think of the first blood shed in the Revolutionary War."

The principles for which the North Carolina farmers fought at Alamance were identical with those for which Massachusetts farmers fought at Lexington. Of the Massachusetts patriots nineteen were killed and wounded, while of the Carolina patriots over two hundred lay killed or crippled upon the field, and six, later on, died upon the scaffold; yet, while all the world has heard of Lexington, not one person in a thousand knows anything to speak of about Alamance.

William Tryon, the Royal Governor of North Carolina, was so mean that they called him the "Wolf." In the name of his royal master, and for the furtherance of his own greedy instincts, Tryon oppressed the people of his province to the point where they were obliged to do one of two things—resist him or become slaves. They resolved to resist, and formed themselves into an organization known as "Regulators," a body of as pure patriots as ever shouldered a gun.

Having protested time and again against the unlawful taxation under which they groaned, the finally quit groaning, raised the cry of freedom and rose in arms against Tryon and King George.

To the number of two or three thousand the Regulators, only partly armed and without organization, met the forces of the Royal Governor at Alamance.

"Lay down your arms or I will fire!" shouted the British Commander. "Fire and be damned!" shouted back the leader of the Regulators. At once the battle opened, and, of course, the Regulators were defeated and dispersed. But Oly Tryon received the lesson he had so long needed, that while Americans could be shot down on the battlefield they could not be made tamely to submit to the high-handed oppression of King George and his creatures.

Monuments are good things; and why not build one of the finest design and most enduring material to mark the spot where the Regulators began the fight that was to end in the creation of the United States of America?—Rev. Thos. B. Gregory.

Heroic Measures.

Tom—"That Miss Biggies is the poorest conversationalist I ever met."

His Hostess—"Is that so?"

Tom—"Yes. The only thing she said to me the whole evening was 'No,' and I had to propose to her to get her to say that."—Boston Transcript.

LET US MAKE YOU FAT

50-CENT BOX FREE!

We Will Prove at Our Own Expense That It Is No Longer Necessary to Be Thin, Scrawny and Undeveloped

"Gee! Look at that pair of skinny scarecrows! Why don't they try Sargol?"

This is a generous offer to every thin man or woman reader of this paper. We positively guarantee to increase your weight to your own satisfaction or no pay. Think this over—think what it means. At our own risk, we offer to put 10, 15, yes, 30 pounds of good, solid "stay there" flesh on your bones to fill out hollows in cheeks, neck or bust, to get rid of that "peaked" look, to rejuvenate and revitalize your whole body until it tingles with vibrant energy; to do this without drastic diet "tonics," severe physical culture, "stunts," detention from business or any irksome requirements—if we fail it costs you nothing.

We particularly wish to hear from the excessively thin, those who know the humiliation and embarrassment which only skinny people have to suffer in silence. We want to send a free 50-cent package of our new discovery to the people who are called "slats" and "bean poles," to bony women, whose clothes never look "anyhow," no matter how expensively dressed, to the skinny men who fail to gain social or business recognition on account of their starved appearance. We care not whether you have been thin from birth, whether you have lost flesh through sickness, how many flesh builders you have experimented with. We take the risk and assume it cheerfully. If we can not put pounds and pounds of healthy flesh on your frame we don't want your money.

How can we do this? We will tell you. Science has discovered a remarkable concentrated treatment which increases cell growth, the very substance of which our bodies are made—a treatment that makes indigestion and other stomach troubles disappear as if by magic and makes an old dyspeptic or a sufferer from weak nerves or lack of vitality feel like a 2-year-old. This new treatment which has proved a boon to every thin person, is called **Sargol.** Don't forget the name **"S-A-R-G-O-L."** Nothing like it has ever been produced before. It is a revelation to women who have never been able to appear stylish in anything they wore because of their thinness. It is a godsend to every man who is under weight or is lacking in nerve force or energy.

What Sargol Has Done for Others

When we mail you the Free 50-cent package of Sargol, we will send you copies of letters received from grateful patrons, reporting actual gains in solid healthy permanent flesh, of from ten to over thirty pounds.

We give here a few interesting figures from reports which are being received daily:

REV. GEORGE W. DAVIS says:

"I have made a faithful trial of the Sargol treatment and must say it has brought to me new life and vigor. I have gained twenty pounds and now weigh 179 pounds, and what is better, I have gained the days of my boyhood. It has been the turning point of my life. My health is now fine. I don't have to take any medicine at all and never want to again."

MRS. A. I. RODENHEISER writes:

"I have gained immensely since I took Sargol, for I only weighed about 106 pounds when I began using it and now I weigh 130 pounds, so really this means 24 pounds. I feel stronger and am looking better than ever before, and now I carry rosy cheeks, which is something I could never say before.

"My old friends who have been used to seeing me with a thin, long face, say that I am looking better than they have ever seen me before, and father and mother are so well pleased to think I have got to look so well and weigh so heavy for me."

C. E. Croumer gained	**15**	**pounds in**	**30**	**days.**
Thomas Davis	"	**10**	"	"	**16**	"
Leonore Patten	"	**16**	"	"	**30**	"
Mrs. Seim	"	**13**	"	"	**20**	"
Mrs. A. Arnott	"	**10**	"	"	**40**	"
F. A. Myrick	"	**20**	"	"	**30**	"
Philip Drapeau	"	**9**	"	"	**30**	"
Mrs. S. E. Murray	"	**30**	"	"	**40**	"
Mary Bland	"	**18**	"	"	**40**	"
W. W. Allis	"	**36**	"	"	**50**	"
Wm. Carmichael	"	**5**	"	"	**10**	"
Arthur Stewart	"	**5**	"	"	**12**	"
Mrs. C. Craig	"	**13**	"	"	**30**	"
Mrs. N. Galliger	"	**18**	"	"	**35**	"

Send to-day for our free 50-cent package and let us prove that

Sargol Should Do the Same for You

This treatment increases the red corpuscles in the blood, strengthens the nerves and puts the digestive tract into such shape that your food is assimilated and turned into good, solid, healthy flesh instead of passing through the system undigested and unassimilated. It is a thorough scientific principle, this Sargol, and builds up the thin, weak and debilitated without any nauseous dosing. In many conditions it is better than cod liver oil and certainly is much pleasanter to take.

Send for the 50-cent box to-day. Convince us by your prompt acceptance of this offer that you are writing in good faith and really desire to gain in weight. The 50-cent package which we will send you free will be an eye-opener to you. We send it that you may see the simple, harmless nature of our new discovery, how easy it is to take, how you gain flesh privately without knowledge of friends or family until you astonish them by the prompt and unmistakable results.

We could not publish this offer if we were not prepared to live up to it. It is only the astounding results of our new method of treatment that make such an offer and such a guarantee possible on our part. So cut out the coupon to-day and mail it at once to The Sargol Company, 786-U Herald Bldg., Binghamton, N. Y., and please inclose 10c. with your letter to help pay distribution expenses. Take our word, you'll never regret it.

Free Sargol Coupon

This certificate, with ten cents to help pay postage and distribution expenses, entitles the holder to one 50-cent package of Sargol, the Flesh Builder. The Sargol Co., 786-U Herald Bldg., Binghamton, N. Y.

Pin This Coupon to Your Letter.

National FARMER

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A Pair of Pure-bred Percheron mares raised upon an Illinois farm.

Address to Patrons and Friends.

During the months of August and September many thousands of subscriptions to The National Farmer and Stock Grower expire, and during these months we make every effort to obtain renewals. This year we are able to offer a subscription premium which we are proud to send to our patrons and which they are all delighted to receive. We refer to the Book of Live Stock Champions, which is fully advertised in this issue on page 22. Every picture in the book is excellent. There are seven hundred and fifty pictures, with record, owner and interesting features and history. It is beautifully bound in blue silk cloth. We are receiving compliments upon the splendid work, and, what is still better, our friends who receive the book are in turn recommending it to their friends. We specially solicit renewal of subscriptions. If you are not inclined to take the Book of Live Stock Champions, "The American Government" is another book well worth owning. The Cement Workers' Handbook, advertised on page 12, is also one of our favorites. In any event, we will appreciate all our friends and patrons can do for us in the way of subscriptions, especially in the month of August.

Special Recommendation.

The deep-tilling machines advertised by the Gale Manufacturing Company represent a great advance in agricultural methods. A careful reading of the advt. on page 5 is well worth the time it will require.

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and Stock GROWER

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all foreign manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government. By this policy fully one-half the money required for the support of the national government should be collected at the custom houses besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed upon our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. By collecting these customs duties the United States government receives part of the income that is necessary for the public service. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The nonproducing, so-called consumers in cities will be the first to find it out and the greatest sufferers.

Farmers' Institute Workers.

The next annual meeting of the American Association of Farmers' Institute Workers will be held at Atlanta, Georgia, November 11 to 13, 1912. At the same place and beginning November 13 will be held the annual meeting of the Association of American Agricultural Colleges and Experiment Stations.

Notice is sent out thus early in order that Farmers' Institute Workers, in arranging their work, may have in mind the date of this meeting, and so arrange that it may be possible for all who are interested to attend.

The call is signed by John Hamilton, Farmers' Institute Specialist, from office of Experiment Stations, Department of Agriculture, Washington, D. C.

Exposition of Horticulture, 1913.

The Hon. Secretary of Agriculture has received through the Secretary of State official notification from the Imperial Embassy of Russia at Washington, D. C., that under the patronage of His Majesty, the Emperor of Russia, an International Exposition of Horticulture will be held at St. Petersburg during the spring of the year 1913. The Exposition will comprise the following sections:

1. Floriculture.
2. Decorative horticulture—(A), Greenhouse; (B), Outdoor.
3. Pomology.
4. Fresh fruits and those kept naturally during the winter.
5. Vegetables and market-garden plants.
6. Preservation and use of fruits and vegetables.
7. Grains.
8. Apiculture and agriculture.
9. House plants.
10. Scientific section.
11. School section.
12. Tools, instruments and apparatus.
13. Floral art.
14. Commercial section.

The organization of the Exposition is in charge of an Executive Committee under the direction of A. de Jaczewski, Vice-President of the Imperial Society of Horticulture of Russia, President; and M. K. Borowski, General Secretary of the Society, Secretary.

Requests for registration should be addressed to the Executive Committee, care of the Bureau of the Imperial Society of Horticulture of Russia, Quai de la Cour, 32, St. Petersburg, Russia, on or before February 1, 1913, by Russian exhibitors, and not later than January 1, 1913, by foreign exhibitors.

Provisional and foreign exhibitors who cannot themselves or by their representatives be present to receive their exhibits should send them prepaid to the Bureau of the Imperial Society of Horticulture. Exhibits not prepaid will not be accepted and the society will not assume any responsibility therefor. The committee will receive exhibits sent prepaid by railway or steamship and will put them in position at the expense of the exhibitor.

Corn Crop and Exports.

The largest exports of corn go out at the ports of New York and Baltimore. Our exports of corn are not large. In the year ending June, 1911, we exported 58,429,541 bushels out of a crop of 3,125,713,000 bushels harvested in the year 1910. We also exported 39,402,218 bushels of corn in 1912 out of a crop of 2,531,488,000 bushels in 1911. It will be seen from this that the export influence on the corn trade is a small item. The figures show that our own market is in control of the corn product. If corn was plentiful and cheaper, the exports naturally would be larger. Exports of corn meal are practically nominal.

The three greatest wheat-growing countries are the United States, Russia and India.

Wheat correctly fertilized. Good crops.

Stop this Loss

Unfertilized. Wheat abandoned, planted in corn.

FROM one-quarter to one-half of the wheat acreage has been abandoned in five states that produced about one-third of the winter wheat in the United States.

This means *a loss of about seven million dollars for seed alone* and several times this for preparing the ground and sowing. As usual, we can blame the weather—but can anything be done to prevent such losses?

A well-fed plant, like a well-fed animal, can better resist unfavorable surroundings. Look about you and see if wheat which was *well* and *correctly fertilized* did not come through the winter much better than that which was unfertilized.

POTASH

Good fertilization means enough fertilizer of the *right kind.* With a good rotation three hundred to four hundred pounds per acre is enough, provided a reasonably high grade formula such as 2-8-6 or 0-10-6 is used. The low grade 1-7-1, 2-8-2 or 0-10-2 formulas are out of date and out of balance, and the plant food in them costs too much per unit. Urge your dealer to carry high grade formulas, or if he is stocked up with low grade stuff get him to buy some potash salts with which to bring up the *potash content* to a *high grade.* One bag of muriate of potash added to a ton of fertilizer will do it.

If you prefer real bone or Bone Meal in place of acid phosphate try a mixture of 1700 pounds of either with three hundred pounds of muriate of potash. You will find that *Potash Pays.*

These high potash mixtures produce better wheat and clover, heavy grain and stiff straw.

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Agriculture a Beautiful Study.

There is no more beautiful study in the world than the study of agriculture. It has in it the beauty of color and the beauty of growing things. It is the study of many forms of life. There is no study in the world that has so much to do with the myriad forms of life as has agriculture.

He who studies the flowers finds a world of beauty, and that beauty exerts an influence on his own soul. But the study of flowers is also the study of productiveness and the study of how to provide for our needs. Thus beauty is linked with use.

If we study the value and use of flowers we are led to the study of the bee and of other fertilizing insects. These have a beauty of their own—the beauty of orderly arrangement and of exquisite use.

Also we must study the insects that prey on the flowers and on the foliage and wood that make the flowers possible, and these insects have in themselves the beauty of wonderful arrangement.

When the peach tree is in bloom and the wild crab is covering the landscape with its blossoms, we find a form of beauty that charms us but which has its purpose. One purpose is to kindle delight and ecstasy in the heart of man. So it is that the painters delight to paint the fruit trees in blossom and the wheat fields when they are yellowing in the autumn haze.

Beauty is one of the most powerful things in the world, but few can fathom its power. Under right conditions it can make our farm boys and girls fall in love with agriculture. If they do not, it is because the other conditions of farm life are not right.

One can little appreciate the beauty of agriculture if a living is not being made or if the members of the family must work fifteen hours a day to make that living. Here is where the great problem lies. Only under proper living conditions can we avail ourselves of the beauties that are found in agriculture.

All of our farm animals are so beautiful that they are often the subjects sought by painters. Many a farmer does not appreciate those beauties because of the hard life he is living. Yet by co-operation it is possible to so lighten the toil on the farm that all may be able to obtain the advantages of the beauty that is found in agricultural study.

Green things growing have a beauty of such exquisite force that when spring comes even the city man longs for a hoe and a garden.

We must foster the study of agriculture and show forth its side of beauty as well as its useful phases. There is something more about it than the accumulating of dollars and cents.

Art long ago embraced agriculture, and in some of our finest homes in the great cities we find expensive pictures of wheat fields with yellowing grain, of horses drawing the plow, of flocks of sheep grazing on the hillside, of herds of cows with deep udders coming home at evening time, and of innumerable phases of farm life.

What art has recognized and what science has proclaimed should be more fully recognized by the farmers themselves.

Argentina's Beef Supply.

The increasing demands from foreign countries for Argentina beef bid fair to leave that country without cattle sufficient to supply needs there. The President of the nation has instructed the Minister of Agriculture to investigate the matter and make such recommendations as the situation may warrant. Various societies interested in the cattle industry have also taken the matter under advisement, so serious has the situation shown itself. Reports received from many of the investigators substantiate the statement that the annual slaughter of cattle by packing companies far exceeds the increase in the herds for the same period. Legislation looking to the limiting of the number of cattle slaughtered to the number represented by the yearly increase is proposed as the sole solution.—Live Stock Report.

Missouri Lambs on the Market.

Prof. D. H. Doane, head of the Farm Management, Department of the University of Missouri at Columbia, was at the St. Louis National Stock Yards recently with two loads of lambs, fed and marketed by private parties under his direct supervision. One lot consisted of sixty-three head raised and fed by T. E. Atkins, of McBane, Mo. These lambs came from ewes bought in the West last September at a cost of $3.55 per head. The ewes were served by a native pure-bred Hampshire ram and the lambs began to come from February on. They were given only 15 cents' worth of grain to the head, consisting of oats, bran and corn. The rest of their feed consisted merely of pasturage. The lambs were sold by Clay, Robinson & Co. at $7.85 per 100 pounds, topping the early market there by 10 cents per 100 pounds. They averaged 69 pounds and returned Mr. Atkins $5.20 per head. The ewes sheared 8½ pounds of wool each, which sold at 20½ cents per pound. Mr. Atkins realized a gross profit of $3.40 on his original investment per ewe, a gain of 95 per cent.

In addition to the profit through the sale of wool and lambs, amounting to 95 per cent., he still has his ewes on hand.

The other lot of lambs whose handling was supervised by Mr. Doane were fed by F. H. Russell, of Columbia, Mo. There were ninety head in this shipment, and they were sold by Clay, Robinson & Co. at $7.85 per 100 pounds, averaging 70 pounds. They returned $5.01 per head.

These lambs were also raised from ewes bought in the West last fall at the same figure as Mr. Atkins'. The ewes sheared 8½ pounds of wool this past spring, which brought 19 cents per pound. The lambs had been fed no grain whatever, but the last three weeks they had access to a patch of rape, on which they flourished and gained rapidly. Mr. Russell figures that to date his ewes have returned him a net profit of $2.42 per head, and he still has his ewes to earn him more money.

The entire lot of lambs had been castrated and docked. They presented a nice, uniform appearance. Examples like these show what farmers can accomplish in handling sheep in a commercial way and through conducting the business along scientific, practical lines. Mr. Doane has achieved notable success so far in the line of work he is conducting. He is now putting men in separate counties throughout Missouri so as to further increase the usefulness of the department.

The University of Missouri also had a lot of experimentally-fed lambs on the aforesaid market the same day, in charge of Howard Hackedorn, who presides over the Sheep Department at the University. All lambs in the shipment were raised from Western ewes. It is significant that lambs sired by pure-bred native rams brought $7.50 per 100 pounds, while lambs sired by ordinary range rams sold at only $5.00 per 100 pounds. This speaks volumes for the efficacy of the native pure-bred ram.

The American Breeders' Association will meet at Columbia, S. C., January 24th, 25th and 27th, 1913, in connection with the Fifth National Corn Exposition. The Corn Exposition has assigned a booth to the American Breeders' Association for its exhibits and headquarters during the Exposition. In this booth will be exhibits and literature relating to the subjects of plant breeding, animal breeding and eugenics. The President of the American Breeders' Association is Hon. James Wilson, Secretary of Agriculture. The Secretary is Prof. W. M. Hays, the Assistant Secretary of Agriculture. Prof. Hays is taking a great deal of interest in the preparation of the programme.

There will be a round-up by the Mississippi Live Stock and Dairy Associations at the Agricultural College, Miss., during the first week in September, from the 2d to 6th, inclusive. A very interesting programme is arranged by Dr. E. M. Ranck, Secretary, whose address is Agricultural College, Miss.

The exhibition by the National Implement and Vehicle Manufacturers was remarkably successful last year, and Peoria, Ill., has been selected as permanent headquarters. This year the show will be held on 136 acres bought for the express purpose of holding this Exposition. This year the show will be open from September 27th and continue to October 5th, inclusive. The National Implement and Vehicle Show will interest every farmer and it will pay him to travel miles to see it. There is ample show ground for every sort of demonstration.

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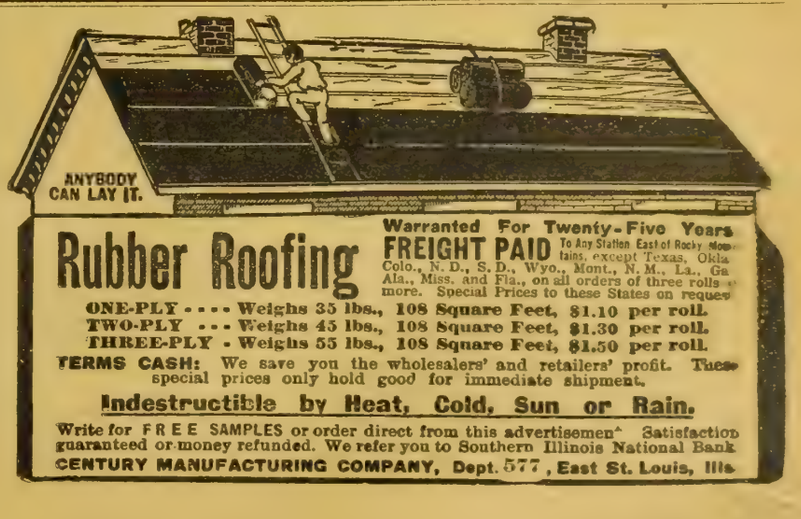
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NEW PROCESS MFG. CO., SALINA, KANSAS.

The Wheat Market Situation.

The wheat market fell down with a crash. The decline is easily shown by cash wheat selling at St. Louis at $1.11 to $1.12 on the last day of June and at $1.01 to $1.03 on the last day of July. On the last day of July, cash wheat was worth $1.01 to $1.03 per bushel at St. Louis, $1.00 to $1.03 at Chicago, and 98 to 99 cents at Kansas City.

The July option for wheat closed out at 92½ cents, against 87½ cents a year ago, $1.05½ two years ago, and $1.06 three years ago.

The first shipment of new Missouri wheat, four cars, arrived in St. Louis Thursday, July 11, and was sold on the Merchants' Exchange. They graded No. 2 red. One car weighed 61½ pounds per bushel and sold for $1.10½. The second weighed 60½ pounds and brought $1.10. The third weighed 59 pounds and went at $1.10. The lowest-price bid was $1.08 for the fourth car, which weighed 59 pounds per bushel.

On July 12th the first sacked wheat of the new crop arrived at St. Louis. It came from New Madrid, Mo., graded as No. 3, and brought $1.02 a bushel.

On July 29th the St. Louis market received 626,542 bushels of wheat, the largest arrivals in the history of St. Louis. The largest previous record was that of Saturday, August 9, 1902, when 587,835 bushels were received. The receipts on July 29th break the record by 38,707 bushels. By rail 511 cars were received and by river 6,152 sacks, each containing 2½ bushels. Of the arrivals by rail 406 cars were consigned to St. Louis merchants and 105 were billed through. Last year on the same day the receipts were 148,033 bushels, and in 1910, on the same day, the receipts were 269,614 bushels.

Coming back to the market prices, the September option is the next to arrive at maturity. On March 30th the September option was quoted at 95⅞ cents, was advanced to $1.08¾ by April 30th, was quoted at $1.06 by May 31st, at $1.06⅛ by June 29th, and 93½ cents on July 31st. The explanation of a reduction of 13 cents in one month can only be explained by expectation of a large world's crop or anticipation of bad business conditions, or both. The December option was quoted at $1.06¾ on June 30th, and at 95⅜ cents on July 31st, a clean decline of 11⅜ cents.

We have thus given the drift of the wheat trade, not as it ought to be, but as it was and is.

On the last day of July the C. H. Albers Commission Company received one of the largest cars of wheat that ever came into the St. Louis market. It contained 2,180 bushels. A car of 1,800 bushels is considered a heavy load. The car weighed 131,600 pounds, and was soft winter wheat from Missouri.

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IT contains a separate Railroad Map of each state and territory; maps of each of our insular possessions, and of every other portion of the globe, printed in colors from new plates. In the maps of our states and territories, and of the provinces of Canada, Railroads are named, and stations are shown, in a very complete manner. These, and all other details, are brought down to as recent date as in any of the more expensive Atlases.

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We are using HAMMOND'S HANDY ATLAS OF THE WORLD as a subscription premium with the best monthly farm paper in the United States.

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is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in THE NATIONAL FARMER AND STOCK GROWER. There are thirty-two pages, four columns to the page. It is published monthly.

Send us One Dollar ($1.00) and we will send you one copy of HAMMOND'S HANDY ATLAS OF THE WORLD and we will also send you THE NATIONAL FARMER AND STOCK GROWER regularly for two years. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Oats Market Situation.

The farmer who sells oats at present quotations ought to be worse off than the editor of The National Farmer and Stock Grower, who becomes poor in June, poorer in July and dead broke in August. A farmer who is not dead broke can be excused for selling oats, but no other can, because it is only a way to break the market, that would recover if let alone.

If the oats market does recover, it will be because farmers keep the oats off the market. If we had authority to prevent farmers from selling oats at less than 50 cents a bushel we would never allow a bushel of oats to be sold at less than the price stated.

On June 30th cash oats were sold at 50 to 53½ cents a bushel at St. Louis, and on July 31st the range was 35½ to 38 cents, a decline of 15 cents in the price of a bushel that only weighs 32 pounds. There has been no great run of oats and no great reason for the decline, but markets are not run on reason, and there is little use hunting for the cause. Holding back oats is not like holding cotton; the farmer can feed the oats to stock, but he cannot feed the cotton.

At Chicago, on July 31st, cash oats sold at a great difference in prices. No. 2 white, old crop, 54 to 55 cents; No. 2 white, new crop, 46 cents; standard, old crop, 51 to 53 cents; new crop (greater shrinkage), 39 to 43 cents; No. 3 white, old crop, 47 to 53 cents; new crop, 39½ cents; No. 4 white, 47 cents.

In regard to future deliveries, the September option at Chicago was quoted at 40⅛ cents on June 30th and 33 cents on July 31st. The December option, quoted at 41 cents on June 30th, had declined to 34¼ cents on July 31st. The May option for 1913 was quoted at 36¾ cents.

We desire to say that the price of oats cannot stand still, and farmers ought to have patience and bide their time for a better market.

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The Hay Press with record of 3 bales per minute. Platform permits setting any stationery engine on same truck with press. Can furnish with or without engine. Has friction safety clutch—automatic block placer—condenser feed. Also complete line Horse Power and Motor Balers.
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The Magic in Deep-Tilled Farms!

Here are some facts about deep tilling and the money-profit to farmers who do it. Also the facts about the SPALDING DEEP-TILLING MACHINE, which TILLS, PULVERIZES and MIXES the soil, all in one operation, leaving a perfect, deep, garden-like seedbed over the entire farm. Every farm that produces its maximum profits must, finally, come to this careful, easy way of deep tilling.

Ordinary Seedbed

Spalding Machines at Work

Spalding Seedbed

Note the illustration above. It shows the rear view of the Spalding Deep-Tilling Machine. The seedbed to its right, with the high stand of corn, is the seedbed the Spalding makes. The one to the left is the kind of seedbed that most farmers are apt to make now. **Note the difference in crops.** We have hundreds of letters from Spalding users giving actual figures to bear out what this picture tells—not only corn figures—all kinds of crops. These farmers have plowed one field the old way and another, alongside, with the Spalding Machine, just to make an actual comparison. The results they obtained are surprising. Every up-to-date farmer should know what they are. **The Spalding Machine on a thousand farms is causing some almost miraculous increases. Learn what it can do for you. Among the thousands of Spalding owners there are farmers who own just such farms as yours. Their experiences with the Spalding are exactly the same as yours will be.** Write for the name of an owner near you who will show you his Spalding in operation. Get his experiences first hand.

Why Users Laugh at Drought

Hundreds of users in drought sections say: "If we'd had that machine last year we'd have had a crop now." That's because the deep seedbed stores the winter rains, like a sponge, while the rains on the shallow-plowed land run off. It's because this pulverized, well-mixed soil liberates the utmost of the needed plant food for the long, healthy roots which can grow **to their full** in deep seedbeds.

Using a Spalding is like spading the whole farm, just as you spade your garden, taking even less time to do it than plowing and harrowing takes now.

The machine's operation is simple. But the results in the yields are like magic. One disk cuts a furrow four inches deep. Another disk follows, cutting the same furrow from eight to twelve inches deeper, the soil being mixed and pulverized all in the one operation.

No other machine or plow does anything like it. You ought to know all about it and about the profits to farmers who deep-till every year with the Spalding.

Read over the letters from users. Then write for our book on deep tilling called "The Bulletin"—also the Spalding Catalog. Cut out this ad as a memo to send for them.

Spalding Dept. H-8, Gale Manufacturing Co., Albion, Michigan

Cleveland, O., February 9, 1911.

Gentlemen: About three years ago I bought for Good Hold Farm, in Mentor, two of these plows. Last fall I bought the third. That is perhaps the best opinion that I could give in regard to this plow. If it had not been satisfactory, of course I would not have bought the third plow. As a cultivator it is correct in principle. It will cut up the hardest kind of soil. It lifts the soil up in the same manner that it is lifted up by a spade—lets the air come through it and drops it back again in a loose condition. It does not create soil, but it will cultivate it as deep as it is ever practicable.

My experience is that by under-draining and the use of the Spalding plow and disks, which work on the same principle as the plow, and by proper selection of seeds and fertilization of the soil, we have increased the products of the land on Good Hold Farm threefold. Yours truly,

L. E. HOLDEN.

Live Oak, Fla., August 18, 1911.

Gentlemen: I am in receipt of yours of the 14th, and replying thereto will say I would like to have the machine shipped as early as you can do so. In my opinion your double disk plow is the finest instrument for breaking land and turning under heavy vegetation that has yet been made. I note a wonderful difference in corn grown on land this year, broken with your tilling machine, as compared to land broken with the ordinary two-horse plow. I believe it will make at least ten bushels of corn per acre more. Please let the shipment come forward at once. Yours truly,

W. J. HILLMAN.

Monmouth, Ill., April 27, 1912.

Gale Manufacturing Company,
Albion, Mich.

Dear Sir: In reference to your inquiry as to my experience with the Spalding Deep Tilling Machine, I wish to say that we bought the machine in 1910. In the fall of that year I plowed a field of about seventy acres, forty acres with a gang plow to the ordinary depth and thirty acres with the Spalding Deep Tilling Machine to an average depth of fifteen inches, cutting a furrow of about twelve inches in width. At this width and depth I considered it of very light draft, considering the amount of ground we were turning and the fact that we were only using four ordinary-sized horses.

In the spring of 1911 this field was put in corn, all was tended the same, cultivated the same number of times, and no difference made as regards cultivation, except that the ground plowed with the Tiller was much easier to get into condition for seeding, due to the manner in which the machine pulverizes the soil.

The yield of corn per acre was as follows:
Ground plowed with Gang Plow, ordinary depth, 24 bushels.
Ground plowed with Spalding Machine, 15 inches, 61 bushels.

I will admit that the above results sound unreasonable, and have had a hard time realizing that it was so, but wish to say that the above results were not gained through guesswork, but by actual weight.

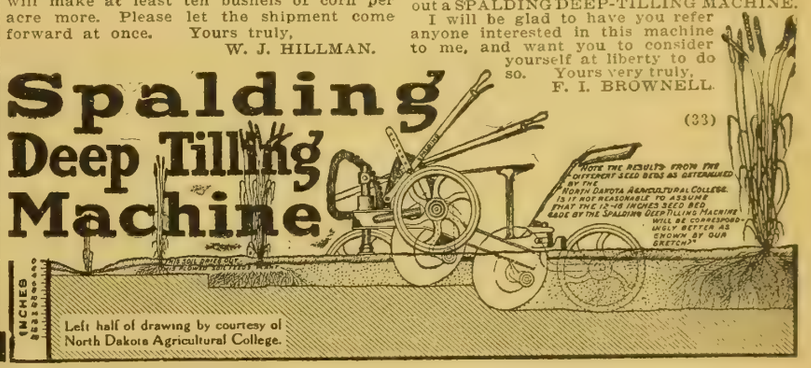
When the machine was first brought to my attention I hesitated about buying on account of the price, thinking it too high, but the above experience proves to me that it is without doubt the cheapest implement on the farm, and especially so, because the first cost is the only cost, as there have been no repairs.

With the experience, together with the results I have obtained, it is impossible for me to understand how any farmer can be without a SPALDING DEEP-TILLING MACHINE.

I will be glad to have you refer anyone interested in this machine to me, and want you to consider yourself at liberty to do so. Yours very truly,

F. I. BROWNELL.

(33)



The Corn Market Situation.

Cash corn, No. 2 grade, was worth 72½ to 73 cents a bushel at Omaha, 77 cents at Kansas City, 74½ cents at Chicago, and 75½ to 76½ cents at St. Louis. This was on July 31st, and from June 30th the price had declined about three cents a bushel.

Our intention in writing about the grain market is to enable our friends and patrons to be able to keep the records before them by keeping a file of the paper. If a farmer knows what corn is selling for in market, the next information he needs is the rate per hundred pounds to market, and then he should learn the grade of his corn. With No. 2 grade selling at 75½ to 76½ cents, No. 3 was selling at 74½ cents; No. 4 at 73 to 74½ cents, and no-grade corn was selling at 72 cents a bushel. Of course, market information is most necessary when the farmer is selling his own corn, but it is well for him to keep the run of the market at least once a month, even if he never sells a bushel of corn on the market.

Turning to the market for future delivery, generally called the speculative market, we find that July corn, quoted at 75¼ cents on June 30th at Chicago, was closed out on July 31st at 71¾ cents, a decline of 3½ cents in one month.

The September option, next in order, was quoted at 73¼ cents on June 30th and declined to 66¾ cents by the close on July 31st, and the December option, quoted at 63⅜ cents on June 30th, was reduced to 57¼ cents by July 31st. Closing quotations for 1912 corn options follow:

	May.	July.	Sept.	Dec.
Jan. 31	67⅞	67⅝	....	....
Feb. 29	69⅜	69½	....	....
March 30	74⅞	74¾	73⅞	....
April 30	80¼	78¾	76¾	....
May 31	80	75	72¾	62⅞
June 30		75¼	73¼	63⅜
July 31		71¾	66¾	57¼

It will be seen from these figures that considerable changes take place between the end of one month and the end of another.

In our June edition we anticipated the decline and said that the trade expected a large crop and naturally reduced prices, but the last word has not yet been said as to what corn will sell for after the actual crop is ascertained.

Cash Grain at St. Louis.

The following were official quotations for cash grain at St. Louis, July 31st, 1912:

No. 2 red wheat, $1.01 to $1.03; No. 3 red, 98c. to $1.01½; No. 4 red, 92 to 98c.; No. 2 hard, 93½ to 96c.

No. 2 corn, 75½ to 76½c.; No. 3 corn, 74½c., nominal; No. 4 corn, 73 to 74¼c.; no grade, 72c.; No. 2 yellow, 76 to 76½c.; No. 3 yellow, 76c.; No. 4 yellow, 74½c., nominal; No. 2 white, 82c., nominal; No. 3 white, 78 to 79c.; No. 4 white, 74c.

No. 2 oats, 35½ to 38c.; No. 3 oats, 34 to 37½c.; No. 4 oats, 34c.; No. 2 white, 41½ to 42c.; standard, 40c.; No. 3 white, 38½ to 40c.; No. 4 white, 37c., nominal; No. 2 rye, 77c.

Kansas City Live Stock.

The receipts of cattle at Kansas City on August 1st, 1912, were 5,000 head, including 1,800 Southerns; market steady; Southerns weak; dressed-beef and export steers, $8.20 to $9.75; fair to good, $6.00 to $8.15; Western steers, $5.30 to $8.90; stockers and feeders, $4.50 to $7.40; Southern stockers and feeders, $4.50 to $7.40; Southern steers, $4.90 to $6.50; Southern cows, $3.50 to $5.50; native cows, $3.20 to $6.75; native heifers, $5.00 to $8.50; bulls, $4.00 to $4.90; calves, $5.00 to $8.75. Hogs—Receipts, 3,500 head; market 5 to 10 cents higher; bulk of sales, $7.95 to $8.15; heavy, $7.80 to $7.90; packers and butchers, $7.95 to $8.15; lights, $7.95 to $8.15; pigs, $5.75 to $7.00. Sheep—Receipts, 3,500 head; market 10 to 15 cents lower; lambs, $6.00 to $7.40; yearlings, $4.25 to $4.75; wethers, $4.00 to $4.50; ewes, $3.50 to $4.00; stockers and feeders, $2.50 to $4.60—all quotations are at the price stated per 100 pounds.

Melons to the Front.

A solid train of fifty-five cars of watermelons left Chickasha, Okla., for market, August 2d. Each car contained over 1,000 melons. None weighed less than thirty pounds and many weighed sixty pounds each. The farmers in the melon-growing district agreed to load forty cars of melons a day for ten days. Chickasha is in Grady county, where the live stock valuation alone amounts to $3,040,483,000.

A dairyman was arrested near St. Louis recently for pouring milk into unwashed bottles.

CORN HARVESTER

All steel, will last a lifetime. Only weighs 175 lbs. Either 1 or 2 men. One horse cuts 2 rows. Sold direct at wholesale prices. Every machine warranted. We also make the Jayhawk Stacker and Sweep Rakes. Prices very low. Write to-day for free circular—it will pay you.
F. Wyatt Mfg. Co., 140 N. 5th St., Salina, Kan.

Start Your Library.

Every man and boy should own a library. It is easy to obtain a nice lot of books. A splendid book to begin with is "The American Government," by Frederick J. Haskin, which is a valuable book for any American between the age of nine and ninety years.

No other book explains so clearly what our government consists of. The articles upon the Presidency, the Senate, the House of Representatives are alone sufficient to place the book on the top shelf of the home libraries and in the 386 pages there are thirty distinct articles, each one of them complete with information concerning a government department.

"The American Government" clears the mind of many doubts and answers many questions. A Congressman serving his first term needs such a book before he goes to Washington, and Mr. Haskin has produced a book of which 175,000 copies were sold the first year.

We will recommend other books, but "The American Government" is a first-class book for No. 1 in a farm library. We have adopted "The American Government," handsome cloth-bound edition, as a subscription premium in connection with The National Farmer and Stock Grower. Anyone who will send One Dollar for two-years' subscription to The National Farmer and Stock Grower can select a copy of "The American Government" as a subscription premium, and we will send it postpaid, safe delivery and satisfaction guaranteed.

Government Competition in Business.

A groceryman who pays taxes for the support of the government would not like the idea of having the government use the tax money in order to start a grocery store upon the opposite corner.

A creamery company that is started with personal funds for the purpose of doing a legitimate business does not like the idea of having to compete in the purchase of butter-fat on the one hand and the sale of butter on the other, the competitor being a public institution, capitalized and conducted with money derived from taxes.

The farmer who is keeping a stallion for public service as a part of his means of support does not like the idea of being competed out of his stud fees by a stallion bought with tax money and offered for service in unfair competition by state institutions.

The publisher of a newspaper who is employing people at current wages, who buys his own stock on which to print his paper and who has to pay for everything done for him; who must buy and sell on the open market; he does not like to find that tax money in various ways is used for the purpose of conducting business in opposition to his own.

The seed breeder, grower and improver, who is engaged in a business enterprise which is beneficial to the farming community does not like to have his business demoralized by a free distribution of seeds paid for by the government out of tax funds which were not collected for any such purpose.

We are of the opinion that it is absolutely wrong for the government to engage in any form of business in competition with the citizen except in the matter of munitions of war for the defense of the country. The postoffice is the only government monopoly established by law, and the only excuse for it is the equality of service for an equal amount of postage, regardless of cost or distance, which is required of the postoffice department.

We are in perfect sympathy with all people whose interests suffer through unfair competition on the part of city, county, state or federal government, and there is only one way for parties at interest to do in such matters, and that is, do as the labor union officials do under such circumstances, which is to assert that they will not stand for it and demand that it be stopped.

Articles on the Automobile.

With their usual vigor and unusual knack for doing things R. M. Owen & Company have just issued the summer number of the **Reo Echo.** It is a beautiful 7x10 brochure of forty-eight pages, filled with timely articles on motoring and bright half tones illuminating the scenic grandeurs within the four corners of America. Among the articles contributed by writers of national reputation are "The Growth of the Motor Car," "The Automobile as a Solution to the Farm Problem," "The Ideal Motor Truck and Its Place in the Commercial World To-day," all of which bristle with interest throughout and must needs prove invaluable to the farmer and business man who are seeking the latest and most reliable information on pleasure and commercial motor vehicles. Wit, humor, science and patriotism also come in for their just share in the rare exhibit. A limited number of these handsome brochures are being mailed free by R. M. Owen & Company, 1759 Broadway, New York, to readers of The National Farmer and Stock Grower if the request be mailed promptly. Don't fail to send for it and mention this paper.

OATS AND SOY BEANS.

A Mississippi Experience at the Delta Station.

In November of 1910 the Station planted eleven acres of fairly well surface-drained loam land in oats, using two and a half bushels of seed per acre. A good stand was secured and they went through the winter in fine shape, ripening the last of May, just in time to escape the effects of a six-weeks' drouth. The weather was ideal for harvesting and the yield was a most satisfactory one. Being in need of the oats for feeding purposes and not having a thrashing machine at that time, we failed to get a record of the yield on the whole eleven acres, but we measured off one acre of what we considered to be a fair average of the field and saved the grain until we purchased a thrashing machine in August. From the acre we thrashed ninety bushels of very fine, heavy oats.

As soon as the oats were off these eleven acres, we broke the land shallow and on June 29th planted soy beans in rows thirty inches apart, using one and a half pecks of seed per acre. The beans were given two cultivations, going once to a middle with a "Planet Junior" cultivator each time. All but one acre of the beans were cut for hay when the pods began to turn yellow and yielded an average of 5,200 pounds of cured hay per acre. One acre was left until the beans ripened to get the record of bean yield per acre. After losing a good per cent. of the beans from shattering, we thrashed 22½ bushels from the acre.

When planting soy beans to be thrashed for seed, it is well to plant where the land is fenced, or where hogs can run on the land for a few days after the bean crop is removed, to pick up the shattered beans, otherwise considerable loss will be sustained.

As a crop for following a grain crop in this section, there are few things that will equal the soy bean. As a hay crop it is fine. When cut at the proper stage and when properly cured, the hay is equal in feeding value to that of alfalfa, and when planted on good land under good conditions will yield an average of two tons per acre. As a bean crop it is also fine. So long as there is a demand for soy-bean seed at $1.50 and up per bushel, it is an excellent crop to grow for seed. As a grazing crop for hogs, there is none better. The green foliage is as rich in protein as red clover and the bean has a higher protein content than oil meal. In fact, we know of no plant having a more useful range of possibilities than does the soy bean.

The Station recommends that crops of fall oats followed by soy beans be given more consideration when planting crop systems for the Delta cotton plantations. Since the boll weevil is a reality with us, it is possible for us to harvest our cotton crops in time to follow with fall oats, which would have been impossible heretofore. Oats do better following cotton than following corn and peas, as they are not so apt to lodge.

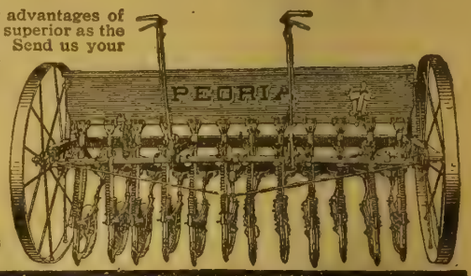
The Only Drill That Sows Grain in Any Kind of Soil—at a Proper, Even Depth

Think what it would mean to you to have *every* seed count and to have *every* stalk come up *evenly* and at the *same time*. You can easily accomplish this—with The New Peoria Drill equipped with our famous Disc Shoe Furrow Opener.

It combines every advantage of the single disc for cutting trash and penetrating hard ground, with every advantage of the shoe for forming a furrow and depositing the seed. The Disc Shoe Furrow Opener is the *only* one that sows every seed at an *exact, even depth*, in a *packed furrow*. No seed touches the disc and no dirt falls back into the furrow until *after* the seed is deposited. No practical, progressive farmer can fail to see the many money-making and money-saving advantages of this wonderful Disc Shoe Furrow Opener—found *only* on

The New Peoria Drill

There are also many other advantages of this drill, each one just as superior as the Disc Shoe Furrow Opener. Send us your name and address on a postal now for catalogue and all details of construction. Let us prove to you that it will pay you to discard even a new drill in order to buy and use the New Peoria. Will you spend a penny for a postal *now* to get all the facts? Address,



Peoria Drill & Seeder Co.

2430 North Perry St., Peoria, Illinois

The 1911 crop of wheat was 543,063,000 bushels, and out of the crop the exports were 28,667,757 bushels of wheat and 10,982,047 barrels of flour.

There is no famine in these figures. Farmers who could supply all home demands for wheat and realize but 87.4 cents for a sixty-pound bushel of wheat, leaving approximately 10 per cent. of the crop for export, are as near up to date as they have need to be in their own interest, and, so far as wheat is concerned, there is no cost that represents high prices.

Curious to Learn.

In Georgia they tell of a prisoner who had been convicted a dozen times of stealing, who, when placed at the bar for his latest offense, displayed a singular curiosity.

"Your Honor," said he, "I should like to have my case postponed for a week. My lawyer is sick."

"But," said the magistrate, "you were caught with your hand in this gentleman's pocket. What can your counsel say in your defense?"

"Exactly so, Your Honor; that is what I am curious to know."—The Green Bag.

The Exports of Wheat.

Although we are rapidly approaching the time when the grain crops will have to be materially increased to satisfactorily feed our own population, we have not yet reached that point. During the past three years the Department of Agriculture estimated the farm value of wheat at 98.6 cents in 1909, 88.3 cents in 1910, and 87.4 cents in 1911. These are very modest figures from the standpoint of the farmer. Wheat was exported in considerable quantities over and above the amount required to feed the people.

The 1909 crop of wheat was 673,653,000 bushels, and out of the crop the exports amounted to 44,-353,994 bushels and 8,992,420 barrels of flour.

The 1910 crop of wheat was 561,-051,000 bushels, and out of the crop the exports amounted to 23,441,354 bushels of wheat and 10,095,988 barrels of flour.

SUBSCRIPTION PREMIUM — A POCKET COMPASS.

This is a true 1¾-inch Pocket Compass purchased from a reliable house. It is a fancy, nickel-plated, open-face, watch-shape Compass, with a silvered dial, and it weighs less than one ounce. Every farmer or ranchman should have one in his pocket. Send us One Dollar and we will send you The National Farmer and Stock Grower for one year, and we will also send you this Pocket Compass by mail postpaid. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

THE MARKET FOR ALFALFA.

Being an Extract From an Address Before the National Hay Dealers' Association at Kansas City.

So far back as any of us can remember, timothy and clover were regarded as the staple hays, and without rivals. But for young animals, especially the one thing desired above all others is protein; the element that makes bone and muscle and blood rather than fat, and the Wisconsin Experiment Station, one of the most dependable, says an acre of alfalfa will yield three times as much protein as an acre of clover, nine times as much as an acre of timothy, and twelve times as much as an acre of brome grass.

Silage is rated high as a winter feed on account of its succulence, but experienced feeders who know alfalfa hay insist that cut at the right stage of maturity, properly cured and stored, it falls little short of serving all the purposes of good silage.

Largely a stranger to Kansas City fifteen years ago, alfalfa is to-day the most important hay handled in this greatest of all hay markets, and is shipped from here to every state, and every city of consequence east of the Missouri river. One of your dealers relates that in 1892 or 1893 a carload was shipped to him, but nobody knew what it was and nobody wanted it. Finally, he was able to unload the car by distributing its contents in small wagon-loads to jobbers who were not to pay for the stuff unless they could sell it.

This hay had its first official recognition on the Kansas City market in 1908, with quotations of $6.00 to $6.50 per ton, or about the same as those on prairie hay, but with little demand. Only now and then was a load received, and not infrequently it was absent from the market for days at a time. In the middle of December, 1898, its high price was $7.50 per ton, or more by 25 cents than choice timothy, and more by 50 cents than either choice clover or clover mixed. The public, rapidly learning its high feeding value, was willing to pay more, and it was not long available at $7.50. In December, 1900, "choice" reached the $10 mark, and since has sold above that, all the way to $26 or more, as was done the past spring.

Less than ten years ago no grades for it had been adopted at Kansas City. "Alfalfa" was alfalfa and there was little definite distinction between qualities, although in earlier days there had been a range of about $3.00 per ton between the high and low prices. The business in it soon developed to such proportions, however, that it became necessary to establish a uniform method of grading, and toward the close of 1903 the hay was classified and sold as "Choice," "No. 1," "No. 2," and "No. 3," and in February, 1912, the grade of "Fancy" was added.

Rye in Wisconsin.

The pedigree rye crop on the University farm at the College of Agriculture of the University of Wisconsin, just harvested, promises the largest yield ever obtained on the Station's large fields. The Agronomy Department estimates that it will yield between thirty and thirty-five bushels per acre. It stood about five feet high, did not lodge, and the heads were well filled with heavy, plump grain.

Wisconsin is now the leading rye state in the Union, having produced over 6,035,000 bushels in 1911, against 5,840,000 bushels in Michigan, 4,448,000 bushels in Minnesota, and 4,304,000 bushels in Pennsylvania. The increase in Wisconsin is largely due to the breeding up of rye by careful selection of the best grain for planting. This year's crop on the big fields of the University farm is about double the average for the state last year, and those who are growing the pedigree rye usually obtain five to ten bushels per acre more than the average for the state.

Why Do Plants and Trees Perish?

It has been estimated many times that not over one-half of the plants, vines and trees sent out by nurserymen to farm and village homes each season ever live to come into full bearing. I doubt if this statement is accurate, but many trees do perish in the hands of the planter. The main causes of the loss of these plants, vines and trees are as follows:

The branches are not cut back at planting or soon after, as they should be, leaving simply short stubs of branches four to six inches long. This pruning is necessary for vines and shrubs, especially roses.

The ends of the roots are not cut off with a sharp knife so as to induce fresh root growth.

The trees are planted too deep or not deep enough.

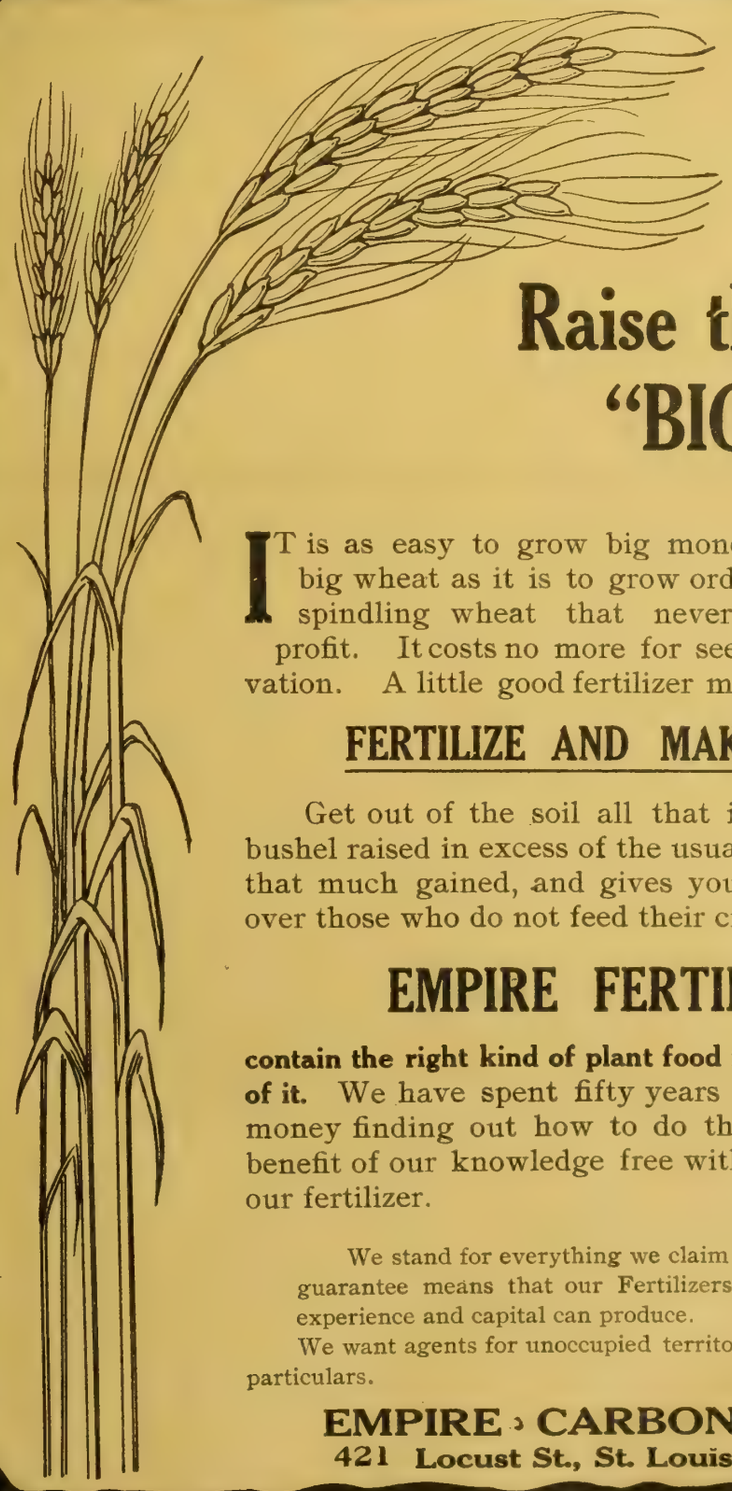
The soil is not compacted firmly over the roots. After the firm packing of the soil over the roots, the last shovelful of earth should be left loose on the surface as a mulch and a forkful of strawy manure should be thrown around the tree, plant or shrub.

Often the tree or vine after being planted is forgotten, whereas it should be visited frequently and given cultivation and should be watched for injurious insects.

Sometimes farmers will turn the cattle into a field planted with vines, shrubs or trees. Cattle are sure to destroy the trees.

Many times the plants or shrubs are left exposed to the sun in a wagon for many hours while planting is going on.

Properly planted and cared for, not one vine, shrub or tree in a hundred should perish.—Green's Fruit Grower.



Raise the "BIG" Wheat

IT is as easy to grow big money-making crops of big wheat as it is to grow ordinary crops of small spindling wheat that never pay anybody any profit. It costs no more for seed, planting or cultivation. A little good fertilizer makes the difference.

FERTILIZE AND MAKE MONEY

Get out of the soil all that it can bear. Every bushel raised in excess of the usual production means that much gained, and gives you a great advantage over those who do not feed their crops.

EMPIRE FERTILIZERS

contain the right kind of plant food for wheat, and plenty of it. We have spent fifty years and a great deal of money finding out how to do this, and you get the benefit of our knowledge free with every purchase of our fertilizer.

We stand for everything we claim for our Fertilizers. Our guarantee means that our Fertilizers are the best that skill, experience and capital can produce.

We want agents for unoccupied territory. Write us at once for particulars.

EMPIRE CARBON WORKS
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Improvement in Ranch Cattle.

On July 31st it was reported that the Capital Syndicate of Texas, known as the X. I. T. Ranch, had sold a herd of Aberdeen-Angus cattle, 27,000 strong, to J.M.Shelton, of Shamrock, Texas, and to D. C. and S. L. Trigg, of Panhandle, Texas. The price was stated at $1,100,000, carrying with it a lease on 600,000 acres of pasture land.

The transaction so far stated is interesting of itself on account of its magnitude, and one would naturally ask where so many Aberdeen-Angus cattle came from? The answer to that question is, that they were graded up from some very ordinary Texas cattle which furnished the very beginning of the Capital Syndicate herd. Messrs. Taylor, Babcock & Farwell acquired three million acres of land for constructing the Texas Capitol Building. That was about twenty-seven years ago, and to stock the ranch there were not enough good and suitable cattle for sale in Texas. Herds were bought all over the state and finally the ranch was stocked with cattle that were neither uniform or well bred. The improvement began from that time and in the herd to-day every animal looks equal to the pure-bred bulls that commenced the improvement. Messrs. Shelton and Trigg are veteran ranchmen of Texas, were on the ground before the Capitol Syndicate was started and they knew the cattle they bought equally well with the cattle they themselves have raised and owned.

Automobile Road Contest.

In the first automobile road contest ever held for farmers and ranchmen exclusively, fourteen of the twenty-six starters finished with perfect scores and divided the cash prizes. The tour was held under the auspices of the Farm and Ranch, a rural publication, at Dallas, Texas. W. H. Camp, of San Gabriel, who drove a Reo, was awarded the Holland trophy by lot, as fourteen starters finished with perfect scores. The Reo Car winning this contest is advertised on page 15.

Beef Cattle at $10.10.

Since this edition went to press on August 5th, at the Chicago market a load of Missouri-raised beef steers, fed to perfection by A. W. Bragg, of Tuscola, Ill., was sold at $10.10 per 100 pounds and averaged 1,500 pounds; another and lighter load sold at $10.05 per 100 pounds. These prices break all records for beef steers sold on the open market. On the same day many good steers sold at $9.50 to $9.80, with the medium to good largely at $8.50 to $9.25; not many cattle were common enough to sell below $7.50; receipts were 23,000 head.

August 22d is the date set for the meeting of the American Apple Growers' Congress at the Planters' Hotel, St. Louis, Mo.

U. S. CROP REPORT, 1912.

Satisfying Statement in Regard to Possible Yield of Crops.

Probably the Most Valuable Report That is Issued For General Information by the United States Department of Agriculture in July.

Bumper crops of spring wheat, corn, oats, potatoes, flax and tobacco are promised. While winter wheat falls far below the last two years, the spring wheat crop is estimated at 271,000,000 bushels, or 81,000,000 bushels more than last year. The total indicated winter and spring wheat is 629,000,000 bushels, as compared with 621,000,000 bushels in 1911 and 635,000,000 bushels in 1910.

The following table shows the indicated yield of 1912, compared with the figures for 1911:

Crops.	1912.	1911.
Winter wheat.	Bushels. 358,000,000	Bushels. 430,656,000
Spring wheat.	271,000,000	190,682,000
Corn.	2,811,000,000	2,681,258,000
Oats.	1,139,000,000	922,298,000
Potatoes.	352,000,000	292,737,000
Flax.	28,000,000	19,370,000
Rice.	25,000,000	22,934,000
	Pounds.	Pounds.
Tobacco.	1,009,000,000	905,109,000

Corn now promises a harvest of 2,811,000,000 bushels, or 280,000,000 bushels more than last year, and oats will be the largest crop ever raised — 1,139,000,000 bushels — if there are no setbacks. Last year the oats crop was 922,000,000 bushels.

Barley conditions suggest a crop of 194,000,000 bushels, and rye 37,000,000 bushels, both excellent yields. The outlook for hay is much better than a year ago. The conditions of the crop on July 1 was 85.2, against 64.9 on July 1, 1911. The flax crop of the Northwest will be about 27,000,000 bushels, or 8,000,000 bushels more than a year ago.

Climatic conditions the last month were favorable on the whole,although some sections suffered from drouth, the condition of spring wheat in the Northwest dropping from 95.8 on June 1 to 89.3. The decline was due to hot weather and lack of rain, but late in the month there was general precipitation, resulting in an almost complete recovery in crop conditions.

Cool weather during June, with an abundance of rain, did wonders in improving the winter-wheat outlook, while retarding somewhat the seasonable growth of corn and delaying the ripening of oats. In the section east of the Mississippi the wheat outlook is decidedly poor, but prospects are for big crops of corn and oats.

Government Report in Detail.

The government report gives the indicated yield per acre and the total production of the country's principal crops, as follows:

Winter Wheat.—Condition, 73.3 per cent. of a normal, compared with 76.8 per cent. on July 1 last year and 80.2 per cent., the average normal condition for the past ten years on July 1. Indicated yield per acre, 13.9 bushels, compared with 14.8 last year and 15.5 the average for the past five years. Estimated total production, 358,000,000 bushels, compared with 430,656,000 last year, 434,142,000 in 1910, and 418,000,000 in 1909, as returned by the Census Bureau.

Spring wheat.—Condition, 89.3 per cent. of a normal, compared with 73.8 per cent. on July 1 last year, and 85.6 per cent., the average normal condition for the past ten years on July 1. Indicated yield per acre, 14.1 bushels, compared with 9.4 last year, and 13.4, the average for the past five years. Estimated total production, 271,000,000 bushels, compared with 190,682,000 last year, 200,979,000 in 1910 and 265,000,000 in 1909, as returned by the Census Bureau.

Wheat on farms.—The amount of wheat remaining on farms, July 1, is estimated at about 23,876,000 bushels, as compared with 34,071,000 on July 1 last year and 35,929,000 bushels on July 1, 1910.

Corn.—The area planted to corn this year is estimated at 108,110,000 acres, compared with 105,825,000 last year and 104,035,000 in 1910. Condition, 81.5 per cent. of a normal, compared with 80.1 per cent. on July 1 last year and 84.6 per cent., the ten-year average condition on July 1. Indicated yield per acre, 26 bushels, compared with 23.9 last year and 27.1 the average for the past five years. Estimated total production, 2,811,000,000 bushels, compared with 2,681,258,000 last year and 2,886,260,000 in 1910.

Oats.—Condition, 89.2 per cent. of a normal, compared with 68.8 per cent. on July 1 last year, and 84.8 per cent., the average normal condition on July 1 for the past ten years. Indicated yield per acre, 30.1 bushels, compared with 24.4 last year and 28.4, the average for the past five years. Estimated total production, 1,139,000,000 bushels, compared with 922,298,000 bushels last year and 1,186,341,000 bushels in 1910.

Barley Below the Average.

Barley.—Condition, 88.3 per cent. of a normal, compared with 72.1 per cent. last year, and 86 per cent., the average normal condition for the past ten years on July 1. Indicated yield per acre, 16 bushels, compared with 21 last year and 24.8, the average for the past five years. Estimated total production not given.

Rye.—Condition, 88.2 per cent. of a normal, compared with 85 per cent. of a normal on July 1 last year, and 89.9 per cent., the average normal condition on July 1 for the past ten years on July 1. Indicated yield per acre, 16 bushels, compared with 15.6 last year, and 16.3, the average for the past five years.

White potatoes.—The area planted to white potatoes this year is estimated at about 3,869,000 acres, compared with 3,619,000 last year, and 3,720,000 in 1910. Condition, 88.9 per cent. of a normal, compared with 76 per cent. on July 1 last year, and 89.3 per cent., the average normal condition on July 1 for the past ten years. Indicated yield per acre, 95.5 bushels, compared with 80.9 last year, and 96.8, the average for the past five years. Estimated total production,352,000,000 bushels, compared with 292,737,000 bushels last year and 349,032,000 bushels in 1910.

Tobacco.—The area planted to tobacco this year is estimated at about 1,194,200 acres, compared with 1,013,000 acres last year, and 1,366,000 acres in 1910. Condition, 87.7 per cent. of a normal, compared with 72.6 per cent. on July 1 last year, and 84.6 per cent., the average normal condition on July 1 for the past ten years. Indicated yield per acre, 884.9 pounds, compared with 893.7 pounds last year and 828.0 pounds, the average for the past five years. Estimated total production, 1,009,000,000 pounds, compared with 905,109,000 pounds last year, and 1,103,415,000 pounds in 1910.

Flax.—The area planted to flax this year is estimated to be about 2,992,000 acres, compared with 2,757,000 acres last year, and 2,467,000 acres in 1910. Condition, 88.9 per cent. of a normal, compared with 80.9 per cent. on July 1 last year, and 87 per cent., the average for the last nine years on July 1. Indicated yield per acre, 9.4 bushels, compared with 8.7 bushels, the average for the past five years. Estimated production, 28,000,000 bushels, compared with 19,370,000 bushels last year, and 12,718,000 bushels in 1910.

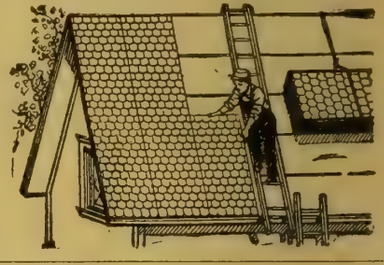
Rice Yield About Normal.

Rice.—The area sown to rice this year is estimated at about 710,100 acres, compared with 696,000 acres last year, and 723,000 acres in 1910. Condition, 86.3 per cent. of a normal, compared with 87.7 per cent. on July 1 last year, and 88.1 per cent., the average normal condition for the past ten years. Indicated yield per acre, 31.7 bushels, compared with 32.9 bushels last year, and 32.4 bushels, the average for the past five years. Estimated total production, 25,000,000 bushels, compared with 22,934,000 bushels last year, and 24,510,000 bushels in 1910.

Hay.—Condition, 85.2 per cent. of a normal, compared with 64.9 per cent. on July 1 last year, and 81.4 per cent., the average condition for the past four years on July 1. Indicated yield per acre, 1.4 tons, compared wtih 1.10 tons last year, and 1.41 tons, the average for the past five years.

Steel Shingles For Farmers.

In almost every instance the farmers who have purchased Edwards Steel Shingles have applied the roofing to their farm buildings themselves, a hammer and nails being all they required to complete the work. The steel sheets were sent to them, freight prepaid, in sizes twenty-four inches wide by from five to twelve feet long, and ready for use upon delivery. In every case the cluster shingles have proved themselves fire-proof, lightning-proof and weather-proof.



A valuable book containing interesting statistics on roofing has just been issued by the company. While the edition lasts it will be sent free to those who write for it. Just send your address to the Edwards Manufacturing Company, Lock street, Cincinnati, Ohio, and ask for the roofing booklet. It will be mailed free and you will find it to be interesting.

Used Automobile Bargains.

	Cost.	Price.
White Steamer, 20 h.-p.	$3600	$ 250
Ford, 2-pass., top and lamps.	650	275
Mitchell, "G," 3-pass.	1300	400
Maxwell, 2-cyl., 5-pass.	900	400
Stoddard Dayton, 5-pass.	2000	500
Mitchell, K," 1909, equipped.	1700	500
Ford, "T," town-car.	900	500
Mitchell, "K," 1909, roadster, foredoor.	1700	600
Mitchell, "I," 5-pass., equipped.	2200	600
Mitchell, "K," 5-pass.	1700	650
Maxwell, 1910, 4-pass., equipped.	1400	700
Marmon, 1909, 7-pass., equipped.	2750	750
Great Western, "40," 1910, 5-pass.	1600	800
Sterling, 5-pass., equipped.	1300	800
Mitchell, "T," 5-pass., foredoor.	1600	875
E. M. F., 1912, 5-pass., foredoor.	1200	900
Mitchell, "T," 5-pass., foredoor.	1500	950
Mitchell, "S," 7-pass.	2300	1200
Matheson, 7-pass.	6000	1200
Overland, 5-pass., 40 h.-p.	1850	1100

Terms:—Part cash; balance notes. To secure these bargains, call on us and examine these cars.

WEBER IMPLEMENT AND AUTO CO.,
1900 Locust Street, St. Louis, Mo.

ROPP'S COMMERCIAL CALCULATOR is an institution that was prepared for farmers' use. The edition we offer is the latest. It is a standard book. There are millions in use. They are in use because they are especially valuable By the regular use of ROPP'S COMMERCIAL CALCULATOR many hard problems become easy. It will prevent mistakes, relieve the mind, save labor, time and money and do your figuring in the twinkling of an eye. As handy as a watch, always ready and reliable. THE NATIONAL FARMER AND STOCK GROWER is a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers. There are thirty-two pages, four columns to the page. Issued monthly.

The Grain Dealer Surprised.

OUR PROPOSITION:—Anyone who will send 50 cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select one copy of ROPP'S COMMERCIAL CALCULATOR as a free premium, sent by mail, postage paid. Address,
THE HALE PUBLISHING CO., 3550 Vista Ave, St. Louis, Mo.

Government Bulb Farm.

Comparatively few know of the interesting experiments that are being carried on at the bulb garden near the town of Bellingham, Washington, under the direction of the Secretary of Agriculture.

For years the United States has been sending to Holland and European countries many thousands of dollars annually for hyacinth, tulip, narcissus and crocus bulbs. The purchase of these bulbs had constantly increased until the past year, when over a million dollars' worth were imported.

In 1908 the Secretary of Agriculture decided to establish on the Pacific Coast a garden for the culture and propagation of Holland bulbs, and a point on the Puget Sound, near the town of Bellingham, was selected as having a suitable soil and climate for this work. A tract of ten acres was leased through the Bellingham Board of Trade and the necessary buildings erected and turned over to the Department of Agriculture for the purpose of demonstrating whether or not the Holland bulbs could be grown sucessfully at that point.

The Department commenced work at once and the same year planted over 170,000 bulbs. From that time the work has gone on increasing until the present year, when over 869,000 bulbs were planted. The increase in the number of bulbs raised has been very gratifying, each bulb yielding the maximum number of young ones, which have proven equal, if not superior, to the results obtained in Holland.

It is believed that bulbs can be grown on the Pacific Coast, and of a quality that will compare favorably with and in many ways surpass the imported article, the cost of production and marketing being now the chief obstacles.

An effort is being made to overcome the differences between the high price of labor in America and the cheap labor of Europe by inventing appliances to lessen the hand labor required in bulb production, and the substitution of horse power for many of the operations performed entirely by hand in Europe has reduced the cost of production considerably. In this way it is hoped that growers in the United States will be able to compete successfully with the European bulb growers.

A serious drawback to the production of Holland bulbs on the coast is the heavy expense of freight shipments across the continent; but when shipment can be made by water, as will be the case after the completion of the Panama Canal, it should be possible to deliver such bulbs at the port of New York almost as cheaply as they can be brought from Europe. Furthermore, the demand for such bulbs for planting on the Pacific Coast is rapidly increasing.

These experiments are solely for the purpose of showing prospective bulb growers what can be done in growing these bulbs in the United States. The gardens are always open to the public, and when the bulbs are in bloom thousands avail themselves of the opportunity to visit the gardens and enjoy the flowers. At that time it is a veritable little Holland. Thousands upon thousands of hyacinths, tulips and narcissus in all colors and nearly all in flower at once can be seen.

Careful records are being kept and much valuable information is being collected in connection with the bulb experiments which will, eventually, be at the disposal of anyone who may wish to take up bulb growing.

Last year a very interesting experiment was made on the trial grounds of the Department of Agriculture at Washington, where a test was made of the bulbs that had been grown at Bellingham in comparison with those grown in Holland. Fifty bulbs of the same varieties of tulips were planted side by side and given the same treatment. Those from Bellingham opened their flowers from seven to ten days earlier than the Holland-grown bulbs, were of better quality in size of flower and in color and were remarkable for the almost total absence of disease, while the imported bulbs showed a larger number of diseased plants and many of them failed to produce a flower.

As the demand for such flower roots is increasing rapidly and bids fair to double in value within a few years, it offers a promising field for the investment of American capital and the establismment of a new and profitable industry on the Pacific Coast which will keep home the large amount of money now being sent abroad annually for bulbs.

FOR FERTILIZATION.

The Common Sense of the Subject—A Few Pertinent Paragraphs.

Every pound of butter, live stock, grain, vegetables or milk that is sold off of the farm, removes just that much plant food from the soil.

When you sell more plant food from the soil than you put back in, there is but one result—a run-down farm.

That is just what finally happens to every farmer who does not use complete fertilizers; the length of time it takes him to reach the point depending entirely upon how rich the original soil was.

It is just like a bank account. If you take out more than you put in, you finally have nothing left.

Using up all of your manure, rotating crops, turning under clover, etc., are all good, but after doing all those things, you are still way short of what you took out.

All of the cotton, meat, grain and their products that are exported, take away just that much plant food, that never gets back into our soil.

Everything that we wear comes from the ground, never to be returned. Is it any wonder that the ground grows poorer and poorer where fertilizers are not used?

The three elements of plant food that are lacking are: Nitrogen, phosphoric acid and potash.

Nitrogen is the scarcest of all. Every bit of bone and offal from slaughter houses, meat markets, restaurants, etc., is now carefully saved, the grease extracted and the residue prepared to put back into the soil.

What is more natural or practical than to take this residue which left the farm in the shape of live stock and put it back in the ground properly mixed wth potash and available phosphoric acid in the proportion that a hundred years of experience has taught best?

Bone is the ideal source of supply of phosphoric acid, but unfortunately the supply is limited.

Large deposits of phosphate rock are found in this country, however, which will last for many years to come. This rock in its raw state, either alone or mixed with manure, is no more fit for plant food than is sole leather for human food. When properly treated, it is readily available as a plant food.

There is an unlimited supply of potash to be mined in Germany.

Fertilizers are no experiment. Georgia uses over 1,000,000 tons per annum; North Carolina, 631,000; Pennsylvania, 290,000; Ohio, 146,000; Indiana, 151,000; and the tonnage increases from 20 to 40 per cent. every year.

This enormous business has been built up on the merits of the goods alone, and in the face of prejudice and obstructionists.

If Illinois, Wisconsin, Minnesota and the Dakotas are to hold their position in the agricultural world, they must use enormous quantities of complete fertilizers.

The Eastern States are fast going ahead of the West in yields of farm products, and the so-called worn-out farms are fast becoming wealth producers by the use of fertilizers.

There is no theory about this. It's just hard facts, that have been demonstrated, and your own good common sense will tell you that it's right.—From a booklet entitled "The Soil Builders," issued by Darling & Co., Chicago, Ill.

FARM AND RANCH LANDS.

FARM AND RANCH LANDS can be advertised effectively in The National Farmer and Stock Grower in small space at a reasonable price. The best land advertising in a general farm paper is classified and arranged by states. The National Farmer and Stock Grower will obtain for an advertiser more substantial inquiries in a ten-line advertisement than any other farm paper will give for five times the space or money. Send in your advertisement and let us quote you a price. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, corn, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—Near Arkansas City; 1,000 acres, with 350 of it in cultivation. Will be sold with live stock and work stock and crop started. The plantation is on the Mississippi river, at good landing; has on farm new gin, twenty tenant houses; two miles west of county seat, where there is a fine high school. All cultivated land is protected from overflow; also 300 acres rich land not under cultivation. The soil is rich sandy loam; makes plenty of hay and corn; good water; fine pasture for stock; has hay sheds, corn cribs, tool houses, commissary building and nice pecan grove. Price, $16,000; half cash; balance in payments at 6 per cent. interest, if desired. **J. S. Ross & Son,** Arkansas City, Ark.

FLORIDA.—A real bargain in good land. One of the best sections of land just west of Jacksonville. I need some money quick and will sell this fine section for $30.00 per acre. Adjoining sections sold for $60.00 per acre. **Miss N. Ryan,** 2627 Clifton Ave., St. Louis, Mo.

MINNESOTA.—Farms for sale. Send for my list of CHOICE FARMS for sale, the best in the United States, considering location, terms, etc. Ask for my FREE BOOKLET, telling about the country, crops, markets, etc. **Geo. W. Elder,** McGinn Block, Thief River Falls, Minnesota.

MISSISSIPPI.—800 acres of land, in one body, for sale, located 1½ miles from the I. C. Railroad, south of Corinth. Good soil; no rocks; plenty of timber. Price, $10.00 per acre. Fine place for settlement. Every ten acres would make a good truck and poultry farm. Address, **Owner,** care National Farmer and Stock Grower, St. Louis, Mo.

TEXAS.—We have for sale 5,502 acres in the famous Pecos Valley, near Pecos City, Texas. Shallow water belt; inexhaustible supply of water. This land lies in three tracts, but close together; three sets of houses, barns, wells, windmills, tanks, gardens, fruit trees, etc. All fenced and cross fenced. Schools, telephone, auto road. Dark chocolate loam. As fine land as the sun shines on for alfalfa, fruits, grapes and general crops. Ideal for dividing into small farms. Will sell in a body or in sections of 640 acres cheap for one-half cash, balance easy terms. Don't delay, if interested, as this land must be sold at once and is a real bargain. For full particulars address **Robt. H. Rinehart & Co., Box 98. El Paso, Texas.**

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association. 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND. 7910 Adams Express Building, Chicago.**

Splendid Prospects OF Bumper Grain Crops IN Western Canada

160 ACRE FARMS IN WESTERN CANADA FREE

Latest reports from the fields of Manitoba, Saskatchewan and Alberta are to the effect that Wheat, Oats, Barley and Flax give promise of an abundant yield. Rains have been sufficient and all grains have advanced rapidly. There are now

16 Million Acres Under Crop

Railroads are built and building in all settled portions. The opportune time for getting some of this generous producing land is now. Excursions on all lines of Canadian Railways to inspect the lands. Apply for Settler's Certificate to the undersigned Canadian Government Agent:

CANADIAN GOVERNMENT AGENT,
125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
412 Merchants Loan and Trust Building, Chicago, Ill.

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40 Years the Standard

The Finest in the World
Strongest, Most Durable, Most Economical and Simplest Hay Press made—best work—greatest capacity—saves time, labor, trouble—exclusive features not in others. Fully guaranteed. Hand, Horse, Belt and Gasoline Engine Presses—also largest line of Bailers—write for free catalog.
Whitman Agricultural Co., 6901 S. Broadway, St. Louis

DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. **Lasts all season.** Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. **Sold by dealers, or 6 sent prepaid for $1. HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.**

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, **Profitable Dairying,** as a premium. Address,
HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

The Creamery Motor Truck.

The use of the auto truck in creamery work is shown by record of work done by a five-ton capacity worm-driven motor truck owned by the Towar's Wayne County Creamery of Detroit, Mich. The item was published originally in the Elgin Dairy Report:

"The routes taken by this truck every day and the loads carried do not vary materially, and because of this condition it is possible to show just what the truck does, how many wagons it has replaced and the daily mileage which is kept down, owing to the numerous stops made. Two shifts of men are employed to operate the truck, owing to the long hours the vehicle is in service.

"The truck leaves the garage at 3 a. m., and does not return until 12 midnight, making twenty-one hours' service daily through the week and twelve hours on Sunday. It leaves the Towar factory every morning with a load of wholesale bottled milk and cream, which it distributes to the grocery stores and factory dining rooms on the east side of Detroit. It takes from 3 a. m. to 1 p. m. to peddle this load and make collections, etc. The truck, of course, brings back empty bottles and crates which weigh about three tons. It formerly took three teams and one single wagon to do this work.

"On the truck's return to the plant at 1 o'clock it makes two trips to the railroad station for milk, loaded with five tons each trip. The second driver takes the truck at this time, 2 o'clock. The truck now makes a trip to the north end branch, a distance of four miles, with a full load of bottled goods to be delivered the following day by wagons stationed at this branch. On the return trip it has a full load of empty bottles weighing four tons. The truck then makes another trip to this branch with the same load. Upon its return at about 6 o'clock the crew has its lunch. Two trips to the railroad depots for supplies follow lunch, then one trip to the east side branch, a round-trip of ten miles. Upon its return from the east side there is usually another trip to the railroad station.

"The afternoon and evening loads are all five-ton loads with an overload of one-half ton occasionally. Mr. Towar estimates that it would take five large teams to handle this afternoon and evening work, while now it is done with two men on the motor truck. The morning load consists of the following:

Case Milk.

	Cases.	Pounds.
648 quarts milk.....	54	3,186
1,800 pints milk.....	90	4,950
100 half pints cream..	5	205
40 pints cream.....	2	110
60 quarts buttermilk.	5	295

Bulk Milk.

5 cans milk..10 gals. each..		550
6 cans milk.. 5 gals. each..		324
5 cans milk.. 3 gals. each..		145
10 cans milk.. 2 gals. each..		100
5 cans cream. 2 gals. each..		100
Total load.....		10,075

"Ninety-five ten-gallon cans of milk is a load for a depot hauling, a total of 10,450 pounds. The daily mileage of this truck is between fifty and sixty miles."

Illinois Butter Test.

At the June scoring test for Illinois creamery buttermakers there were thirty-six tubs presented for scoring and twenty-five of them were from creameries receiving cream separated by farm cream separators only.

The average score on the butter exhibited was 91.2. The highest score, received by F. J. Weddige, of Big Rock, Kane county, was 94½; the lowest score 86.5.

The highest moisture content was 15.39 per cent.; the lowest, 11.21 per cent.; and the average, 13.41 per cent. The highest salt content was 4.6 per cent.; the lowest, 1.21 per cent.; the average, 2.37 per cent.

The showing is considered very creditable. Two-thirds of the creameries represented were located in Northern and Middle Illinois.

More Silos Needed.

All over that part of the country where dairy cows are kept and fed more silos are needed. The silo is now no innovation. It has been in use so long in the United States and Canada that there is only one side to the question of profitableness.

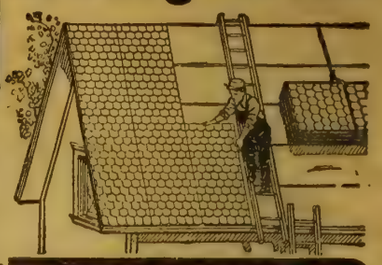
Every Experiment Station in the North has its silo, if it has a herd of dairy cows. The Station managers long ago ceased to debate the question of whether or not they should build silos The only question now is, what kind of a silo to build.

The silo makes it possible to feed the cows on succulent feed the year around. In milk production this is a matter of supreme importance. A good supply of succulent feed keeps up the milk supply to its greatest possible limit.

Every man that has handled dairy cows knows how seriously a summer drouth affects the milk supply. Dry pastures and dry hay cannot give a large flow of milk, even when there is a liberal feeding of mill feeds, and mill feeds are now too expensive to be used in large quantities.

Even when mill feeds are liberally used, they do not offset the effect of dry pastures and dry hay, because the stomach of the cow is not adapted to taking large quantities of concentrated foods, such as ground grain of any kind. Also there is a waste in feeding such food, as much of it goes through the digestive tract of the cow in an undigested state.

Roof That Building With STEEL Shingles!



Don't even **think** of putting costly **wood-shingles** or commonplace **composition roofing** on your buildings till you've investigated the famous Edwards "Reo" Steel Shingles, now used on 100,000 houses and barns. "Reo" Steel Shingles are not only easier to put on but they **last 5 times as long as any other roof.** YET THEY DON'T COST A PENNY MORE! "Reo" Steel shingles require **no painting; won't rot, won't rust, won't leak, won't burn.** Guaranteed against lightning by our $10,000 Guarantee Bond.

Edwards "REO" STEEL Shingles

are ready to nail right onto sheathing or old roof. Your hands and a hammer only tools needed. They come in large sheets 24 inches wide, 5 feet to 12 feet long. Genuine Open-Hearth Steel, made absolutely rust-proof by world-famous Edwards "Tightcote" Process (explained in catalog). Our patent Interlocking Device covers nails and makes perfect joint, unaffected by heat or cold. "Reo" Steel Shingles make the finest looking, most durable roof in the world, **bar none**—a roof that NEVER NEEDS REPAIRS. **Sold** at lowest prices, **direct** from factory, all freight prepaid. Don't buy roofing material till you know more about these "Reo" Steel Shingles. Write for new, big, free Catalog 857, and Lowest Prices. Send dimensions of building and let us quote you price delivered to your railroad station.

THE EDWARDS MFG. CO., 807-857 **Lock St., CINCINNATI, OHIO**
(80) Largest Makers of Sheet Steel Building Material in the World

But silage made out of corn stalks is just the right kind of food and is taken into stomachs particularly prepared to digest it So it is that we cannot judge a food by its chemical analysis, but rather by the amount of food that is digested. That being so, the argument is all on the side of silage.

In the great corn belt the easiest plant to grow is corn, and an acre of land properly farmed will yield several tons of corn silage when reduced to a state of feed. A little ground will thus produce a larger amount of digestible food in the form of silage than in any other way.

Every summer the cities experience a shortage in the milk supply. This shortage would not exist if silos were common everywhere. The prejudice against silage-made milk should not be allowed to hold a place as affecting the situation. Silage milk is as good milk as can be made. Some of the finest dairies in the country use silage as a feed in the production of milk that sells at twelve cents per quart and above.

All of the Experiment Stations have made tests that show the fine quality of milk produced from silage. Not that the feed affects the richness of the milk, but it gives a high quality of milk because it contains all the nutrients required for the production of good milk, when the silage is balanced with some feed rich in protein.

There is nothing that will affect more advantageously the feeding of our dairy cows than an increase in the number of silos.

A Very Successful Prescription.

The combination of remedies used in the manufacture of Bodi-Tone is proving a wonderfully successful prescription for old, chronic ailments. The makers of Bodi-Tone publish this prescription broadcast, so all may read and judge it for themselves. Bodi-Tone contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Read the trial offer on the last page. No one need pay a penny for Bodi-Tone until they have tried it.

Have you a copy of the Book of Live Stock Champions? See advertisement on page 22.

Send for New Catalog Illustrated.

Reliable BLIZZARD Ensilage Cutter Always Works Right

You can cut any dry or green feed most economically, shred corn to best advantage, if you own the **Blizzard.** Designed to stand hard service without a bit of strain or pull and built in fewest parts—simple, easy running, with self-feed table and knives **adjustable while running.**

Note Self-Feed Table

Mounted or Unmounted

We Guarantee It Fully

Improved Wind Elevator carries fodder any height, any direction. Every machine tested separately before shipping. A demonstrated success for 38 years. Shipped ready to put up. Let us send you free book, "Why Silage Pays." Write today.

JOS. DICK MFG. CO.
1416 W. Tuscarawas St. Canton, Ohio

CASH OR CREDIT

Catalogue FREE.

ONLY $10.00

Cash, balance $5 per month, buys this 3-year-guaranteed buggy. Buggies $29.50 up; Surries $45.00 up; Farm Wagons $40.00 up. We trust honest people located in all parts of the world.

Write For FREE CATALOGUE.

Century Manufacturing Co.,
Dep't 578, East St. Louis, Ill.

Combination For a Dollar.

In getting ready for the fall subscription campaign we have made a splendid arrangement whereby four first-class monthly publications can be obtained one year for a dollar. It is a co-operative clubbing arrangement, which includes The National Farmer and Stock Grower, the American Swineherd, the Shepherds' Jorunal and the American Poultry Journal. These are first-class publications, and for one dollar the farmer will receive four good papers forty-eight times a year. We hope to sell this grand combination many thousand times during the year.

Paper Bottles For Milk.

The glass milk bottle is not an unmixed blessing for several well-known reasons and experiments are being made to find a satisfactory commercial substitute that will be found containing the milk and cream in proper condition several hours after being delivered at the back door of the family mansion, apartments or flats.

The Ontario Agricultural College at Guelph, Ont., has done something towards that investigation and the following is the report thereon:

"The ordinary glass bottle commonly used for delivering milk in towns and cities has many good features, but has some objectionable ones, among which may be mentioned: They are easily broken, easily lost, are a heavy load to carry, and if not properly washed and sterilized may be the means of spreading contagious disease. A substitute for glass, as a milk container, has recently been placed on the market in the form of a 'mono-service' paper bottle, sterilized and coated on the inside with paraffine wax.

During the season of 1911 a number of tests were made in the Dairy Department of the College, comparing these single service paper bottles with a glass bottle for holding milk. The main points observed were with reference to the effect upon flavor, acidity and general good qualities of the milk at the end of twenty-four and forty-eight hours. The milk was first pasteurized at a temperature of 165 to 170 degrees Fahrenheit, then cooled to about 58 degrees, when the milk was placed in the various packages and allowed to stand in a room where the temperature averaged 56 degrees Fahrenhiet.

There was little difference in the milk of the various containers as to temperature or acidity, but some of the paper packages imparted a package flavor to the milk after standing in them for about twenty-four hours. One or two of the mono-service bottles gave good results and compared quite favorably with the milk in glass bottles. If these packages can be put on the market at a reasonable price, we see no reason why they may not displace the ordinary glass bottle as a container for retail milk and cream. So far as we know, this package is not made in Canada at present.

The advantages of the mono-service milk bottle over the glass bottle are: It is lighter, as a quart-size paper bottle weighs a little over one ounce, whereas the quart glass bottle weighs one pound, or is sixteen times heavier; there is no danger of spreading contagious disease, as the bottles are used once and destroyed; there is no loss to the milk dealer by customers failing to return the bottles, which loss is a heavy item of expense in the milk business, and if it can be reduced ought to result in cheaper milk to the customer.

So far as we can see, the single service milk bottle ought to prove a great help in solving some of the many perplexing problems of the town and city milk trade. The matter is of sufficient importance to warrant a thorough investigation of the possibilities of replacing the present glass bottle with something more nearly an ideal package. We have tried to interest both Canadian and American manufacturers in placing these bottles on the Canadian market at a reasonable price, and feel confident that this will soon be accomplished."

The Book of Live Stock Champions.

We specially request all our readers to study the advertisement of the Book of Live Stock Champions which appears on page 22. This is our own favorite publication. It contains a magnificent array of illustrations such as was never before brought together. There are 352 pages in all, 750 different illustrations, and there is a complete index. The book contains one to five champions to the page, and the record of each is given with name and address of owner in nearly every instance. This book would sell in limited numbers at $5.00 a copy, but our purpose is to place one on every stock farm in the United States, therefore we issue the Book of Live Stock Champions at practically a nominal price of $1.00 a copy to our own subscribers. Read the advertisement; it is well worth reading, and the book is certainly a credit to any farming establishment in the United States.

Effective Fertilizer For Corn and Oats

Empire Carbon Works, 421 Locust street, St. Louis, Mo.:—Gentlemen: I used one ton of Empire Brands bought of E. Falkner, part of it with oats. I feel assured that the oat crop where I used fertilizer was doubled. After gathering the oats, the land was sown in cowpeas, which produced a double crop. Part was used on corn, and the corn crop was increased in fully as satisfactory proportion as the cowpeas. I expect to want double the amount next season that I used this year, and feel assured that my experience will aid you in selling several tons next season. W. F. BEDFORD, West Point, Tenn. (See page 7.)

DAIRY AND CREAMERY.

According to reports, Indianapolis consumes four gallons of ice cream per inhabitant, which puts that city at the top of the ice-cream consuming centers. Increased consumption, however, has not decreased the price. In 1880 the price was $1.00 per gallon, In 1912 the price is 60 cents.

A creamery has been established by Swift & Co. at their South St. Paul packing plant. Milk will be gathered from the farms of the vicinity and arrangements are being made for shipping from near-by towns. The special milk train service maintained on the Chicago Great Western Road will be utilized.

A concoction sold as butter and discovered at Clinton and Bolivar, Mo., by State Inspectors, was made up of beef fat, cotton-seed oil, a small amount of butter, some cream churned together and then colored. The mixture contained 38 per cent. of moisture. A warrant has been issued for the manipulator.

Oats Crop and Exports.

We have often said that farmers control the oats market, for the reason that they use the bulk of the crop on the farms, and should use it all, unless they can obtain at least 50 cents a bushel for oats in market.

Our crop of oats in the year 1909 was 1,007,129,000 bushels. The exports from the crop consisted of 1,634,292 bushels of oats and 15,422,799 pounds of oatmeal.

Our crop of oats for 1910 was 1,186,341,000 bushels of oats, and the exports out of the crop were 1,982,121 bushels of oats and 32,342,706 pounds of oatmeal.

Our crop of oats in the year 1911 was 922,208,000 bushels, and the export from the crop consisted of 2,133,777 bushels of oats and 8,948,823 pounds of oatmeal.

In trading, every little helps, therefore these exports cut a figure in the transactions on the Board of Trade. Although the transactions are comparatively small, there is sufficient of them to help to steady a declining market.

Fall Fertilizers.

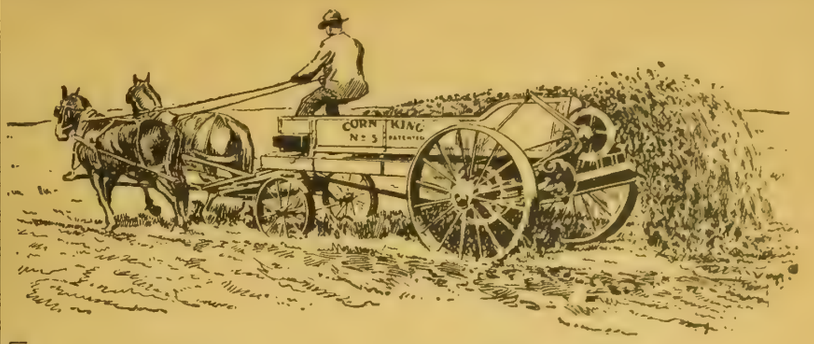
Attention is invited to the advertisement of the German Kali Works on page 2. Potash is now within reach of the farmer in almost any quantity to be applied direct to the land or to mix with fertilizers that do not contain sufficient for self-mixing, etc. Any farmer who will write to the German Kali Works for a copy of a booklet entitled "Fall Fertilizers" will receive something that is worth reading and studying. Address the nearest office mentioned in the advertisement and say you saw it in The National Farmer and Stock Grower.

Our Subscription Department.

Our readers are invited to send in their subscriptions to all publications they desire to receive on their farms during the year. We can help the transaction financially by our co-operative clubbing arrangements. See pages 23 and 24.

What Alfalfa Has Done.

"In Kansas and Nebraska, the states having given it the largest recognition, alfalfa-growing has been the handmaiden of prosperity and is the dependable promoter of progress. From obscurity this legume has steadily risen here to the foremost place among forage plants, and has already quadrupled our output of tame hay."—From speech of Hon. F. D. Coburn, at the National Hay Dealers' Convention.



What Is Soil Fertility? How Does It Interest You?

WHAT is soil fertility? Why is its lack considered so serious a matter? Why is it that authorities on better farming agree in considering it one of the most important questions requiring solution by farmers today?

The answer is found in the small average yield of farms in this country as compared with those of other countries where correct fertilizing is practiced, and in the rapidly decreasing quantity of available new land. There are two things that every farmer can do, both of which will make his farm more productive. One is to practice a proper rotation of crops; the other to buy and use an

I H C Manure Spreader Kemp 20th Century, Corn King, Cloverleaf

Every farm can be benefited by the use of an I H C manure spreader. It will distribute the manure in an even coat, light or heavy, as may be required. Manure spread in this manner does the most good to the soil at about half the expense and much less than half the work of hand spreading.

An I H C manure spreader is a scientific machine, built to accomplish a definite purpose in the most economical manner. It is constructed according to a well-thought-out plan, which insures the best work in the field with the least strain on machine or horses. To take one example of the thoroughness in detail, all I H C spreaders are so constructed that a reach is unnecessary. This construction allows the spreader to be managed handily in small feed lots, backed up to barn doors opening into narrow yards, or turned completely in its own length. Yet the absence of a reach in no way interferes with the strength or field efficiency of the machines.

See the I H C local dealer or write for catalogues and information.

International Harvester Company of America
(Incorporated)
Chicago U S A

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I H C Service Bureau, Harvester Building, Chicago, U S A

[Please mention National Farmer and Stock Grower.]

COW PEAS,

NEW, SOUND STOCK.
WHIPPOORWILLS—Black and Clays
—and BLUE NEW ERAS.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, SEED CORN.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP and SPINACH, VEGETABLE and FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

DWARF ESSEX RAPE, $6.50 per 100 Pounds.

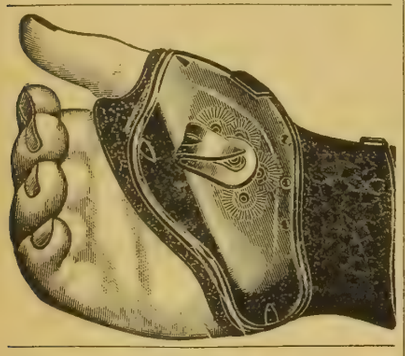
CANE SEED, Any Variety, $2.25 per 100 Pounds.

Send For GOLDEN ARROW Seed Catalogue.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The strap passes through the leather tongue and the first ring and over the hand to the opposite ring and



back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Free Magazine and Paper

Subscription Guide

Subscriptions taken by special authority for American periodicals, magazines, and especially for farm papers. Every possible clubbing arrangement to give the subscriber the benefit of the rock-bottom, co-operative rates. Write for Subscription Guide.

Address, THE HALE PUBLISHING COMPANY, 3550 Vista Ave., St. Louis, Mo.

St. Louis Fruit Market.

The prices quoted here represent the sales of country shipments upon the wholesale market of St. Louis, usually in car lots, and the prices paid during the first days of August.

Apples are beginning to arrive by boat. Hand-picked Welthy at $2.00 to $2.75; Benoni at $1.50 to $2.25; Strawberry at $2.25 to $3.00; Maidenblush at $2.25 to $2.75; Wolf River at $2.00 to $3.00; and other varieties in proportion; No. 2 inferior fruit at $1.50 to $1.75; home-grown boxed fruit selling at from 20 to 75c., as in quality. Sales: Twelve barrels Strawberry Welthy and green at $2.10; ten barrels Welthy at $2.50; forty-five barrels do. at $2.25 to $2.75; sixteen Wolf River at $3.00, and six No. 2 do. at $1.75; fourteen Welthy at $2.25; six do. at $2.35; thirty-five do at $2.56.

Crab apples quotable at $2.50 per barrel, and 25 to 30c. per half-bushel basket for choice.

Peaches.—Offerings continue large (although Texas receipts are falling off) and there has been a good deal of overripe and damaged stock sold at low prices—partly rejected cars for account of railroads on basis of 50 to 60c. for bushel baskets, and 25 to 30c. for flat crates. Reported sales: Three cars Arkansas bushel baskets Elbertas (bad order) for charges; one car Texas bushel baskets do. at 50c., delivered; one car Texas part Climax baskets at 33c., and part bushel baskets at 80c., delivered; one car Texas bushel baskets at $1.00, delivered; one car do. at $1.05 on track; one car extra fancy do. at $1.20, delivered; two cars Cummer crates Arkansas Elbertas at 75c., delivered; one car bushel baskets do. at 75 to 85c., delivered; one car do. (overripe) at 60 to 90c., delivered.

Pears.—Alabama Keifer and sand pears dull at 25 to 30c. per hamper; home-grown and near-by half-bushel baskets sugar pears quotable at 30 to 35c.

Plums.—Home-grown and near-by Wild-goose slow sale at 25 to 30c. per half-bushel basket; Damsons in larger receipts and dull at 40 to 50c. per half-bushel baskets—and some selling by weight at 2c. per pound; Yellow Egg quotable at 35c. per half-bushel basket.

Watermelons.—Large-sized choice Watsons in fair demand, but market dull and prices low on dinks. Quote car lots on track at from $85 to $155, according to size and loading of cars, and in wagon-loads delivered at 40 to 65c. per 100 pounds. Sales on track: One car Kolb Gem (27,000) pounds) at $85, East Side track; one car 25-pound Texas Alabama sweet at $125; one car 25-pound do. at $135; one car do. (heavily loaded) at $145; one car 24-pound do. at $130; one car 30-pound Texas Watson (slightly sunburnt) at $155; one car 23-pound Arkansas Watson (26,000 pounds) at $140.

Cantaloupes. — Market dragging. Arkansas standard crates sold at $2.00, delivered; car Arkansas unwrapped—Standards at $1.00; pony crates at 60c., to flat crates at 50c., delivered; part car Arkansas standards at $1.00 to $1.10, delivered; Missouri baskets at 20c., delivered, and Southern Illinois (Poag) baskets at 25 to 35c. Express receipts: Arkansas standard crates range from 50c. to $1.00—soft and damaged not worth charges.

Grapes. — Home-grown Moore's Early plentiful and slow at 30 to 35c. per 20-pound basket. Consigned lots in 4-basket crates do. at 30 to 35c.

Cherries.—Slow. Quote Michigan 16-quart cases at $1.50 to $1.75.

Blackberries.—Receipts lighter and quality poor. Quote home-grown at 75c. to $1.00 per 3-gallon tray.

Currants. — Slow. Quote Eastern 32-quart cases at $1.75 to $2.00.

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

Get our Thresher Tank for water.

O. K. HARRY STEEL CO., 2353 Papin St., St.Louis,Mo.

St. Louis Feather Quotations.

Prime white live goose, 63c.; prime gray do., 47c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck—White, 41c.; dark, 30c. Chicken — Prime dry-picked body, 3c.—wet, damp and quill mixed, 2c.

The By-Laws of the Elgin Board of Trade are to be be revised. The Elgin Board of Trade is the most wonderful example of the "tail wagging the dog."

THE CEMENT WORKERS' HANDBOOK.

THIS book is designed to teach anybody how to work with cement. How to mix mortar of all kinds for all concrete purposes. How to make building blocks. How to build walls, floors, ceilings, walks, posts, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers.

The National Farmer and Stock Grower

IS a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in THE NATIONAL FARMER AND STOCK GROWER. There are thirty-two pages, four columns to the page. It is published monthly.

Anyone who sends in One Dollar to pay in advance a three-year subscription to The National Farmer and Stock Grower can select the CEMENT WORKERS' HANDBOOK as a free premium, or one-year's subscription and the book for Sixty Cents.

ADDRESS,

The National Farmer and Stock Grower,
3550 Vista Ave., ST. LOUIS, MO.

Green Feed Given to Cows Will Insure Larger Profits.

Now that the summer is well advanced, the cows should be fed green stuff from the fields so that they will not dry off and become strippers, unless they have been bred to freshen in the fall. Many cows calved this spring, and to permit these animals to become strippers means to lose a real profit.

Hot weather and flies worry the cows a great deal, but they do not cut down the milk supply like dry, scanty pasture. To live comfortably and yield a fair mess of milk, the cow living on pasture must eat about 100 pounds of grass a day. Does the average person ever stop and think about the amount of work which the animal must do to find and eat 100 pounds of grass? It must be remembered that a cow's mouth is not as wide as a lawn mower, and that many, many bites must be taken in one day to secure enough food, even when on good pasture. If anyone doubts this analysis of the problem, let him go out into the pasture some day and cut 100 pounds of grass with a pair of shears.

As a matter of fact, the cow, when she has satisfied her own hunger, will oftentimes lie down in the pasture and forget all about the grass which she should have eaten to make her keeping profitable. To obtain a profit the cow must eat much more feed than is needed for her own personal needs. She will not produce liberal quantities of milk unless she is fed liberally. She will eat a liberal amount of feed only when she can get it by expending a minimum amount of energy.

In a test made by the writer which lasted three years and concerned a herd of sixty dairy cows, it was conclusively shown that cows on short pasture, even though well fed at the barn, become dry sooner than the cows which ate a similar amount of feed, but which were not compelled to run about while they were securing it. The cows which were fed put the energy into the milk pail, which the others exercised in running about.

The summer silo is the best means of bridging over this dry spell. If the farmer with cows does not have a summer silo, however, he should feed green feed to them. Corn, or peas and oats, make an admirable green feed.—R. M. Washburn, Dairy Division of Minnesota College of Agriculture.

Fattening Poultry.

The method used by most of the large establishments engaged in fattening poultry in this country is to feed the chickens in crates from troughs, according to information collected by the United States Department of Agriculture. From six to ten birds are placed in each division of the battery or feeding coop, depending on the size of the birds and the ideas of the feeder. Two or three chickens do better in a division together than when only one bird is placed in each compartment, and the cost of equipment and labor per bird varies inversely with the number of birds in each division. Another method which is used to a considerable extent on a small scale in this country is pen fattening. This method is adapted for use on the farm where the farmer does not care to go to the trouble of crate fattening, or where the price received for well-fed birds does not warrant the extra labor and feed cost of the crate method.

Most "milk-fed" chickens are fed for fourteen days, but results indicate that a more profitable gain can be secured in a shorter feeding period, provided the same price per pound can be obtained for the finished product. Practically all of the special feeding in this country involves the use of milk, thus producing "milk-fed" chickens. Milk, while the least expensive, seems to be the most essential constituent of the ration, and when a feeder cannot get milk in some form he generally does not attempt to fatten poultry commercially. Fresh buttermilk, condensed buttermilk and skim milk are preferred in this relative order. The feed is mixed to the consistency of thick cream, or so that it will drip from the tip of a wooden spoon. Rations of 50 per cent. corn meal, 40 per cent. low-grade wheat flour and 10 per cent. fine shorts; or of 58 per cent. corn meal, 36 per cent. oat flour and 6 per cent. tallow, by weight, give very good results, producing gains which cost from 6.45 cents to 7.74 cents per pound. Low-grade wheat flour is a more economical feed than oat flour at the present prices of grain.

The results of extensive fattening tests conducted in the Middle West, showing the methods of feeding and the costs of gains, are given in Bulletin 140 of the Bureau of Animal Industry, United States Department of Agriculture.

Vegetable Market at St. Louis.

At the opening of the month of August vegetables were being sold to wholesale dealers at St. Louis as follows:

Potatoes.—Early Ohio sales loose from farmers' wagons ranging from 55 to 60c. per bushel. Lot of twenty-five sacks sold on levee at 60c.

Onions. — Home-grown red sold loose at 55c. per bushel by weight. North Missouri Red Globe in sacks quotable at 57c., and choice yellow and pale red at 45 to 50c. per bushel; heated and damaged less.

Beets.—Quote home-grown at 25c. per bushel box loose.

Butter beans.—Quote home-grown at $1.25 to $1.50 per 3-gallon tray loose.

Cabbage.—Sale: One car bulk Northern at $9.00 per ton, delivered: home-grown sells at 45c. per 100 pounds by weight and at 15 to 20c. per box, and quotable on orders at $1.10 per crate.

Carrots.—Home-grown at 25 to 35c. per dozen bunches.

Celery.—Michigan (Kalamazoo) at 10 to 20c. per dozen, and square and flat boxes (two to two and one-half dozen) at 40 to 60c. per box for choice—heated less.

Cucumbers.—Home-grown selling loose from 15 to 30c. per bushel; Dill pickles and salt pickles, 60 to 75c., and small vinegar pickles at $1.00 to $1.25 per bushel loose.

Egg plant.—Home-grown at 50 to 65c. per bushel loose; New Orleans hampers at 50 to 60c.

Green corn.—Home-grown at from 3 to 8c. per dozen; top for Evergreen.

Gumbo.—Home-grown selling at 35 to 40c. per peck basket; consigned lots not wanted.

Lettuce.—Quote express receipts: New York hampers at $1.00 to $1.25 (heated less); Chicago cases at 65 to 75c., and Buffalo cases at $1.00; home-grown sold at 15 to 25c. per bushel box loose.

Peppers.—Home-grown steady at 50 to 75c. per bushel box loose; consignments not wanted.

Squash.—Home-grown dull at 10c. per bushel loose.

String beans.—Home-grown sell at from 40c. for poor to 60 to 75c. for choice round green per bushel loose.

Sweet potatoes.—Alabama Jerseys dull and nominal at $1.50 per hamper, delivered—not moving, in fact; home-grown (new) Bermuda in fair supply and quiet, selling at 75 to 85c. per half-bushel basket loose.

Tomatoes.—Choice ripe in pretty good demand, but half-ripe very dull and lower, shipping demand having abated. Sales from farmers' wagons at 30 to 35c. per bushel loose for choice ripe and 20c. for half-ripe.

Turnips.—Home-grown at 25c. per bushel box loose.

A Positive Cure for Worms.

A horse that is infested with worms can never do well. Worms cause a derangement of the whole system. The symptoms are a ravenous appetite, rough hair, rubbing of the tail, nervousness, irregular bowels, gauntness, etc.

FRAZIER'S DISTEMPER CURE

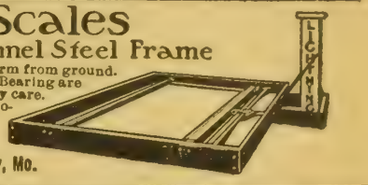
Removes worms in three to six days. One bottle a guaranteed CURE. If not satisfactory, your druggist will refund your money. Booklet free. $1 bottle holds three 50c. bottles.

BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

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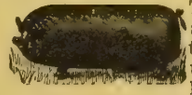
Subscription Proposition.

Co-operative Clubbing Arrangement.

Four Great Papers . . For One Year . . . . . For Only One Dollar.

FOUR STERLING, UP-TO-DATE SPECIAL FARM PAPERS.

THE NATIONAL FARMER AND STOCK GROWER—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



THE AMERICAN SWINEHERD—issued monthly—a leader in its class. The hog paper, the pig paper, the brood-sow paper and strictly first-class in teaching how to top the market by producing top hogs.

THE SHEPHERDS' JOURNAL is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

THE AMERICAN POULTRY JOURNAL—the oldest, best and most elegant poultry journal issued in the United States. Great on breeding points, and splendid articles on raising, feeding and shipping poultry. THE AMERICAN POULTRY JOURNAL is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of Poultry Husbandry and retain the peculiar quality of being good instructors. You gain something every time you read THE AMERICAN POULTRY JOURNAL.

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Hominy Feed For Fattening Hogs.

The high price of corn in recent years has caused many farmers in the vicinity of hominy mills to resort to the use of hominy feed for fattening hogs.

The Purdue University Experiment Station, being requested to do so, took up the subject of pig feeding with hominy chop and investigated it, and we are cutting out the details and reaching the result.

What the Feed is.

Hominy feed or chop consists of the bran coating, germ and part of the starch portions of the corn kernel secured as a by-product in the manufacture of hominy. The average of forty-four analyses made by the State Chemist's Department of this Station in 1910-11 showed the following analysis: Water, 9.0 per cent.; protein, 10.4 per cent.; fat, 8.2 per cent.; nitrogen free extract, 66.1 per cent.; fibre, 3.3 per cent.; and ash, 2.5 per cent. The price of the feed varied from $20.50 to $30 per ton. The average of eighty-six analyses in Henry's "Feeds and Feeding" shows the following composition for corn: Water, 10.6 per cent.; protein, 10.3 per cent.; fat, 5.0 per cent.; nitrogen free extract, 70.4 per cent.; fibre, 2.2 per cent.; and ash, 1.5 per cent.

The Composition of Corn.

It will be noted that the compositions of hominy feed and corn are practically the same. For this reason the former must be considered as a substitute for rather than as a supplement to corn. It should not be used like shorts, tankage, milk, etc., as a supplement to corn, but rather used to take the place of corn in the ration. It therefore requires for best results that it be supplemented with such feeds as shorts, tankage, milk, etc. It should be used only when the price and convenience of securing it make it a cheaper source of starch and fat than corn.

Seven Experiments.

They were pig experiments. Four lots of hominy-fed pigs received twenty parts hominy feed to one part tankage, and each 100 pounds of gain cost $4.81. The corn-meal lots received twenty parts corn meal and one part tankage and cost $4.31 for each 100 pounds of gain.

In three experiments the pigs were fed hominy feed two parts and one part shorts. The cost for 100 pounds of gain was $6.31. Three other lots were fed two parts corn meal and one part shorts and cost $6.05 per 100 pounds of gain.

The Summary.

The cost of producing 100 pounds of gain was the same with hominy feed at $20 per ton and corn at 45 cents per bushel. With hominy feed at $26 per ton, corn would have to be worth approximately 60 cents per bushel before it would be economical to replace it with hominy feed. With hominy feed at $30 per ton corn is worth, on a comparative basis, more than 65 cents per bushel. Any of our patrons who are sufficiently interested to go deeper into the subject may obtain a copy of Bulletin No. 158 by addressing the Director Agricultural Experiment Station, Purdue University, Lafayette, Ind.

ALFALFA MANAGEMENT.

From a Nebraska Standpoint, Where They Know How to Raise It.

The Nebraska Experiment Station has just issued Bulletin No. 130, entitled "Alfalfa Management." This gives a summary of the methods used by the most successful farmers in various parts of the state in securing a stand and in handling a crop of alfalfa. The discussion relates to the eastern as well as to the western sections.

It has been the purpose in writing this bulletin to put the material in such a form that the farmer can readily find a discussion of the phase in which he is particularly interested. The first division treats of the kind of soil best adapted to the growth of the plant, with suggestions for treating soil which does not give satisfactory results. This is followed by a discussion of the seed bed. The method of its preparation and the importance of manure receive a prominent place.

The farmers are advised to purchase their seed from the North or from the dry lands of the Northwest, rather than from the South. It is also recommended that no seed be used which has not been tested for purity and for germination by the government seed laboratory located at Lincoln. This test will be made free.

A discussion of the amount of seed per acre and of the various methods of seeding will help the man who is in doubt in reference to this point. Broadcasting is compared with drilling, both with a disk drill and a press drill. Warnings are given to farmers who use either method, and suggestions for greater success.

There is a comparison made of spring seeding, early summer seeding, late summer seeding, and fall seeding, from which conclusions are drawn. The late summer seeding is recommended for sections of the state where there is plenty of moisture to give the plants a good start at that season of the year.

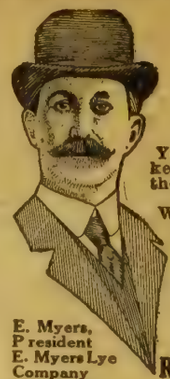
The important subject of disking the alfalfa is discussed quite thoroughly. The conclusions are based upon reports which have been received from a large number of farmers who have practiced disking their fields to increase the yield. The results do not seem to warrant the practice unless the field is to be plowed up in a year or two after it is disked.

Directions are given for thickening the stand on fields where there are not a sufficient number of plants. It is stated that this can be successfully done in many instances. Recommendations are made to alfalfa seed growers, and the bulletin closes with a brief description of methods of caring for the hay and of pasturing the alfalfa field.

This bulletin may be had free of cost upon application to the Nebraska Agricultural Experiment Station, Lincoln, E. A. Burnett, Director.

Coburn's Herd Boar.

"Whenever possible, the breeder ought to inspect personally the animal he selects as a herd boar; but when unable to do this and he has no competent representative, he should endeavor to make the best selection possible by mail by detailing his needs and the deficiencies of his sows. Ordering by mail should be considered a last resort, to be done only when the purchaser cannot buy near home, or for other good reasons is unable to give personal attention to the selection. When that is the case the purchase should be made from a breeder known to be reputable and the needs of the buyer and the price he figures on paying should be definitely stated in the letter as the attitude of one who expects the best possible for his outlay. All men who have had much to do with the selling of pure-bred boars are familiar with the buyer who insists that 'you must get him down as low as you can; he must be cheap, as I have written to a number of other breeders.' A man of this stamp is likely to want a boar of almost impossible make-up for a very small sum. He is less likely to do well in his purchase than the man who will frankly state the type of boar he needs and the amount of money he can afford or intends to invest. The chances are, too, that the latter procedure will bring much the better treatment." — From Coburn's "Swine in America."



E. Myers, President E. Myers Lye Company

I Will Prove To You That Merry War Powdered Lye Will Cure Sick Hogs

You, and every other Hog Raiser, know that if hogs can only be kept on their feet and on their feed and free from worms and cholera, there'll be no cause to worry about your hog profits.

When I, personally, say to you, Mr. Hog Raiser, that MERRY WAR POWDERED LYE will do this and more, that it is the greatest Hog Remedy, Conditioner and Fattener, the world has ever known—I want you to take my word for it until you have had time to prove it for yourself—I know exactly whereof I speak because 20 years with MERRY WAR POWDERED LYE and a close study of Hog Conditions has made me competent to advise you.

Hundreds of Hog Raisers have written telling how glad they are that I told them that MERRY WAR POWDERED LYE would kill worms, hog cholera and put pigs in prime condition quickly for highest market prices.

Read What Adam Schultz, a McLouth, Kansas Hog Raiser, Writes

This is but one out of the big daily mail and it's mighty interesting reading for up-to-date Hog Raisers.

"Before I began feeding MERRY WAR POWDERED LYE my hogs did not eat as they should. Some of them would not eat at all, but after I had fed MERRY WAR POWDERED LYE about 8 or 10 days, I could see a marked improvement in my drove and they now look slick and thrifty. I consider MERRY WAR POWDERED LYE the best remedy I have ever used—and the cheapest. I have spent a good deal of money at times but I never got the results from any of the so-called Hog Cholera and Worm Cure Remedies as I have from MERRY WAR POWDERED LYE." And that's the general testimony of Hog Raisers—and I just want to say to you that the very best way you can insure big, fat pork profits is to

Feed Merry War Powdered Lye Daily

—and feed it just as regularly as you do their daily ration—you will find it a profit-earning investment—it not only prevents hog losses from Cholera, Worms, etc., but turns your golden grain into more golden dollars quicker than anything you know and costs so little, 10c a can.

Heed My Warning

It's mighty important that you don't make any mistake—because some makers of ordinary commercial lye try to persuade dealers and hog raisers that their product is just as good as Merry War Powdered Lye as a hog remedy. Don't you be led astray by such talk—no other lye maker knows the secret process that makes Merry War Powdered Lye safe to use in hog feed—they don't know the combination in Merry War Powdered Lye that does the work.

Follow these Directions

Mix one tablespoonful Merry War Powdered Lye with slop for 10 hogs or a half can with barrel of swill. Stir well and feed EVERYDAY, night and morning; If your hogs are on dry feed ration, mix half can Merry War Powdered Lye to each barrel drinking water.

At All Leading Dealers

Most dealers handle Merry War Powdered Lye. If yours can't supply you, write us, stating your dealers' names, and we will see that you are supplied, and will also send you, free, a valuable booklet on, "HOW TO GET THE BIGGEST PROFITS FROM HOG RAISING." Merry War Powdered Lye comes in 10c cans; full case of 4 dozen for $4.80, at Grocers', Druggists', Feed Dealers' there are no substitutes.

Kettle Powdered Lye For Soap Making

If you want the best lye, exclusively for Soap-Making, scouring cleaning, disinfecting, etc., use my famous Kettle Powdered Lye—it makes the best soap you ever used —But Don't Feed It To Your Hogs. Feed Only Merry War Powdered Lye To Your Hogs.

E. MYERS LYE COMPANY, Dept. 22 ST. LOUIS, MO.

Barley Production and Exports.

During the twelve months ending June 30, 1912, a total of 1,458,378 bushels of barley were exported, against 9,233,956 bushels exported in the year previous. Most of the barley exported is from San Francisco. The United States' crop of barley in 1910 was 173,832,100 bushels, and in 1911 the crop was 160,240,000 bushels. In the year 1911 the California crop was 40,600,000 bushels; Minnesota, 28,025,000 bushels; Wisconsin, 20,910,000 bushels; North Dakota, 20,475,000 bushels; and Iowa, 10,950,000 bushels. Idaho, Washington and Oregon combined produced 16,420,000 bushels, and it required twenty five states to produce the remaining 22,860,000 bushels of the crop. The average crop of barley in the United States was twenty-one bushels per acre. The average farm value of barley in 1911 was a fraction under 87 cents a bushel.

St. Louis Apple Statistics.

During the year 1911 St. Louis received 411,808 barrels of apples. Of the total, 189,245 barrels arrived by rail and 222,563 barrels arrived by river. St. Louis also received 104,995 boxes of apples in the year 1911 and only 2,062 boxes of them arrived by river. The largest month's receipts were 164,410 barrels and 39,195 boxes in the month of October. St. Louis apple receipts were 248,555 barrels and 135.685 boxes in the year 1910, and 317,664 barrels and 70,532 boxes in 1909. As far back as 1906 St. Louis received 509,066 barrels and 42,831 boxes of apples. A feature of the St. Louis trade in the year 1911 was the fact that 104,995 boxes were received and 227,905 boxes were shipped out, which indicates repacking some of the apples at St. Louis. Of the 411,808 barrels received, 203,740 barrels were shipped out, leaving 208,068 barrels for home consumption and reshipment in boxes.

At the annual Agricultural Exposition in Bohemia the firm of Knotek & Co., of Jicin, Bohemia,, exhibited an auto reaper and binder, the machine being driven by an automobile having the power located in a similar position.

What Disastrous Winters Teach.

Last winter was, in parts of the Middle West, the most disastrous winter in thirty-five years. A nurseryman said to the writer: "Three-fourths of our perennial plants are killed."

Every once in a while a winter of this kind comes along and blasts the hopes of the fruit raiser and the hopes of the grower of ornamental plants.

The chief lesson should be to discard the varieties of plants that perish in such winters. It is a waste of time to grow plants that will do well for a number of years but die with the blast of such a winter as the last.

In some parts the winter was destructive on the peach trees, even the seedlings perishing. One man who had a number of peach trees that bore heavily last year lost them all except one, and that tree escaped entirely, with not a root or a twig injured in the least, so far as one can tell. Such a tree should be one to propagate from. The scions from it could be grafted on seedlings grown from its own pits. All of these trees were equally exposed to the rigors of the winter, and the one that escaped all injury must have extra hardiness. All of these peach trees were seedlings. The lesson should be to use that tree for propagation.

To the surprise of the writer, some of the Americana plums were killed, varieties, too, that originated far north of where the writer lives. As these Americanas are developed from our native wild plums, there seems no good reason why they should not have been able to stand the cold.

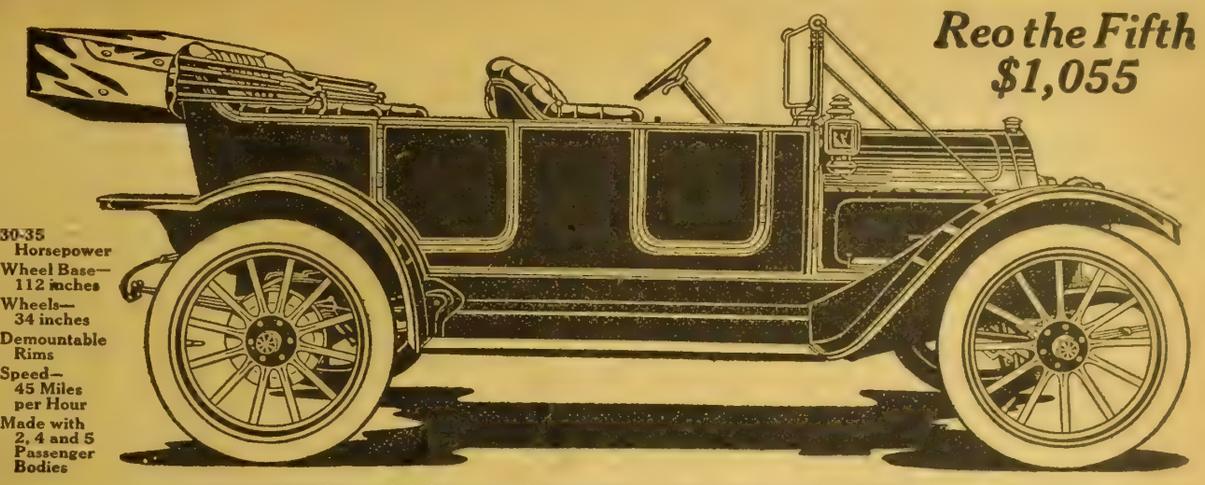
Some of the writer's fruit trees, pear and apple, had been protected by a layer of coal ashes six inches thick. The trees are very vigorous this summer and perhaps would have done well anyway. But there is a strong suspicion that the layer of coal ashes was an added protection against the unusual cold.

A man asked the writer why it is that his plum trees that seemed to be root-frozen leaved out in the spring and then died. The writer explained that a tree does not leave out from the material in its roots but from the material stored in the parts above the ground. This man said he could not understand how it was, if the roots were frozen, the sap could come up in the spring enough to start the leaves. He was told that this idea of the going down of the sap into the roots in winter is an old fallacy. The sap does not leave the wood in which it lies, except in response to the laws of evaporation and sap circulation. Sap remains in the exposed wood all winter, and that is why we get "sun-scald" in some trees exposed to a bright sun on winter days. The temporary warming up of the sap and its subsequent freezing causes the rupture of the cells of the bark.

If we take to heart the lesson of the past winter we will cease to grow a good many of the plants we have been trying to grow of late years. This will be in the end a good, for we have still a good many varieties of plants that came through the winter all right.

Effect of County Roads.

Bulletin No. 15, issued by the State Board of Agriculture, Columbia, Mo., is by Curtis Hill, Engineer, and W. C. Davison, Deputy. It is finely illustrated, showing bad roads and good roads, with appropriate articles for the encouragement of road improvement. One special article entitled "Wagon Roads a Transportation System," is specially interesting. The reason we do not go deeper in this subject in this edition is because we desire each of our readers to write and obtain a copy of the bulletin, which is a pamphlet of sixty pages.



Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank and speedometer—all for $100 extra. Self-starter, if wanted, $20 extra.

The Center Control

By R. E. Olds, Designer

Nearly every builder of high grade cars is designing a center control.

In another year, cars with side levers which block a front door will be so out-of-date as to hardly be salable.

Bear this in mind in selecting a car. The side lever car is now a back number, as every maker knows.

Left Side Drive

In some cars the side levers are merely moved to the center. That idea won't do. Men want to get rid of the reaching. They want the front of the car to be clear.

In Reo the Fifth there is only one lever, and that is placed close to the seat. All the gear shifting is done by moving this lever only three inches in each of four directions.

There are no brake levers, for both the brakes are operated by foot pedals.

This arrangement permits of the left side drive, as in electric cars. The driver sits close to the cars which he passes. He is on the up side of the road. In making any turn which crosses a road he is sitting where he can look back.

That is the greatest reason for the center control—to permit of the left side drive. Every car is coming to it as fast as models can be changed. The side levers and the right side drive are going out at once.

This Year's Sensation

Reo the Fifth, with the center control, has been this year's sensation. Our spring output was five times oversold.

In all the 25 years I have spent in this industry, I have never seen such a popular car.

It is this amazing demand which has driven makers to the immediate adoption of center control.

But That Isn't All

There are other reasons beside center control for this car's immense popularity.

It is the final result of my 25 years spent in car building. In every detail it marks the best I know.

The cars are built under my supervision. And I insist on absolute perfection.

The steel is twice analyzed, before and after treating.

The gears are tested in a crushing machine of 50 tons' capacity.

Parts are ground over and over to get utter exactness. The parts in each car pass a thousand inspections.

Engines are put through five severe tests—48 hours in all.

Finished cars are tested over and over.

There are in this car 15 roller bearings. Ball bearings are nowhere used, save in the clutch and fan.

The bodies are finished in 17 coats. The seats are luxurious. The tonneau is roomy.

With a lifetime's reputation at stake on this car, men know I am mighty careful.

Then the Price of $1,055

And the underprice has been another sensation. We fixed the initial price at $1,055, which is $200 below any car in its class.

The price of this car must soon be advanced, because of advancing materials. It is much too low. But the price remains at $1,055 while our present materials last.

Reo the Fifth is sold by dealers in a thousand towns. Write for our catalog, showing all styles of bodies, and we will tell you where to see it. Address

R. M. OWEN & CO., General Sales Agents for REO MOTOR CAR CO., Lansing, Mich.

Canadian Factory, St. Catharines, Ont.

(98)

[Please mention National Farmer and Stock Grower.]

Unfair Minister.

"Why did you and that young minister quarrel?" asked the friend.

"He was nice enough in many ways, but he was so horribly jealous and unfair," said the fair damsel to whom the young divine had been paying serious attention.

"Jealous, perhaps — and naturally," smiles the friend. "But unfair?"

"Yes. Every time I would make an engagement for a moonlight walk or an afternoon stroll with some other man he would pray for rain."—Chicago Post.

Cattle in Argentina.

According to the report of United States Vice-Consul General at Buenos Ayres, an official estimate places the number of cattle in Argentina at the end of 1910 at 28,827,900, an increase of 1,000,000 over the estimated number in 1909.

On page 6 there is an interesting article entitled "Start Your Library."

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screwdriver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The St. Louis Mule Trade.

In the Holland, Nugent & Maxwell Bros.' circular, dated National Stock Yards, Ill., July 31st, 1912, they stated: "There was more demand for mules this week than there has been. There were a number of buyers from the South for cotton mules and sugar mules. The supply of mules on the market is very small. The dealers have very few in their stables at present and it looks as if we could sell some big mules, good miners and sugar mules and cotton mules with quality to good advantage. This does not mean extravagant prices, but for a little more than buyers on the market will pay until they are obliged to."

Western Range Horses.

At the St. Louis National Stock Yards, on Thursday, July 25th, the third sale of Western range horses by Campbell & Reid and Western Sale Stables Company for the season of 1912 was held with great success and about 1,600 head were sold at auction to the highest bidder and about 200 head were sold on private terms. The offerings were not specially good, and the market was active, especially from Southern sources. The regularity and reliability of these sales and the large number offered at each sale afford buyers an opportunity to come in and look over the market. A load of mares may sell at $40 and another load at $85, and it requires a horseman looking on to thoroughly note the differences in quality, age, condition, appearance, etc. The sales in August will be on the 8th and 22d, and the first sale in September on the 5th. All who wish to be kept posted in regard to these sales should come in and report to J. J. Searcy, Sale Manager, National Stock Yards, Ill.

The Hog Market and Prices.

The closing day of each month is a good day to keep a record of prices of farm products. Those who keep a file of The National Farmer and Stock Grower are able to turn back year after year and find the record. On July 31st, 1912, at St. Louis, with good hogs on sale, the highest price paid was $8.40 per 100 pounds for fine butcher hogs, weighing 205 and 207 pounds. Heavier hogs of the better class, 225 to 310 pounds, sold at $8.10 to $8.35, and some coarser grades at $7.50 to $8.00. Light hogs sold at all prices, from $8.00 to $8.40 a load, averaging 185 pounds, reaching the top of the market. Packers purchased the mixed hogs largely at $8.00 to $8.25 per 100 pounds. Best pigs and lights went at $7.75 to $8.15; fair to medium offerings at $7.00 to $7.75; and the common ones at $5.75 to $6.75 per 100 pounds. Rough heavy hogs were thrown out and sold at $7.50 to $7.75 per 100 pounds as a rule.

Record-price cattle.

On July 31st, at the St. Louis National Stock Yards, sixteen head of 1,539-pound beef steers were sold at the record price of $9.75 per 100 pounds. The cattle were sent into market by Dobbins Bros., extensive shippers from Saline county, Missouri. How these cattle were brought to market excellence is thus described by Mr. Dobbins: "These cattle were native Missouri stock and were raised in Howard county. They were Angus, Shorthorns and Herefords mixed. We put them on feed last October and gradually increased their ration until by January 1 they were on full feed. We gave them ground corn, cotton-seed meal and alfalfa meal with molasses. They gained nicely and the price they brought here on the market to-day testifies as to their condition. This is the highest price we have ever received for beef cattle, though we have been feeding many years. It is needless to say that we are greatly pleased with the result of our shipment."

St. Louis Hay Sales.

The following represent a few of the hay sales early in August upon the St. Louis market. Sales on the St. Louis side of the river were: New timothy—Two cars No. 2 at $12; two cars do. at $13; two cars do. at $13.50; on car scant No. 1 at $14; one car No. 1 at $15; on car do. at $15.50; one car do. at $16. Old timothy—Part car at $17; part car at $18; one car scant No. 1 at $22.50; one good car do. at $24. Prairie—Arkansas—One car at $8.50. Western—Part car hot at $8.00; three cars and part car No. 2 at $9.00; one car do. at $9.50; eleven cars No. 1 at $10; two cars do. at $10.50; two cars do. at $14; one car good do. at $11.50, delivered; one car choice Kansas at $12.50. Alfalfa—Part car at $14; one car choice at $16.50. On the East Side: New timothy—One car No. 3 at $10; two cars do. at $11; one car No. 2 at $12, delivered to St. Louis; one car do. at $13; one car No. 1 at $14; one car do. at $14.50; one car do. at $15, delivered to St. Louis; one car do. at $15 do.; one car do. at $16; one car good do. at $16.50, delivered to St. Louis; old—Two cars clover-mixed at $20. Timothy—One car scant No. 1 at $22.50. Last sale of wheat straw, $7.50 per ton.

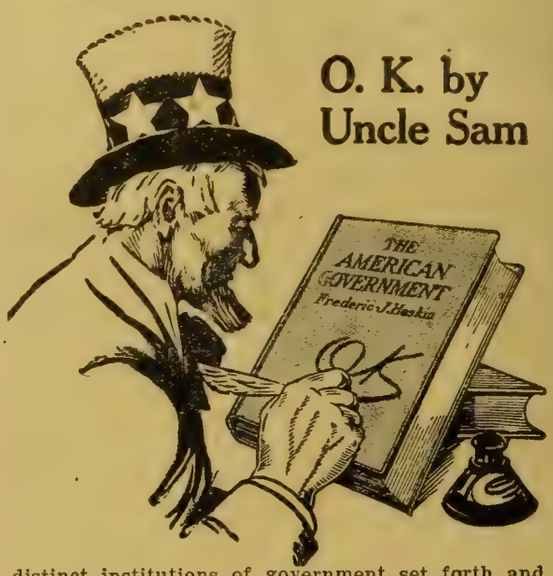
Misrepresented Beef Prices.

The daily press of the United States is making people believe that beef cattle in the market are generally selling on the hoof at nearly ten cents a pound. They do not mention the cows at $3.25 to $6.50, or the hundreds and thousands of steers at $5.00 to $7.50 per 100 pounds. Undoubtedly cattle are high compared with former prices, but the ordinary newspaper sensational items are usually 50 per cent. misrepresentation, and go a long way towards making satisfied people discontented.

THE AMERICAN GOVERNMENT

BY FREDERICK J. HASKIN.

A Book That Shows Uncle Sam At Work.



APPROACH his book with a desire for information about any feature of your government and you lay it down feeling as if you had read a thrilling tale. Read it with the idea of being entertained and you shortly find yourself in possession of a mass of information, the thought of which would have staggered you, had you been compelled to dig it out for yourself. There are thirty distinct institutions of government set forth and explained. You are a partner in the firm of Uncle Sam & Co. It is this partnership with Uncle Sam which you hold by virtue of your American citizenship. Frederick J. Haskin explains the government of which you are a partner.

Mr. Haskin doesn't merely tell you that it costs a billion dollars a year to keep Uncle Sam & Co. going, but he traces clearly how it is obtained and how it comes back to you.

The list of your benefits as a stockholder in Uncle Sam & Co. would fill this newspaper if printed in full. Get yourself posted by owning a copy of this book. There are 386 pages, 5x8 inches, specially illustrated.

We have adopted the book "THE AMERICAN GOVERNMENT" as a premium for the best monthly farm paper in the United States.

The National Farmer and Stock Grower

IS a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations apear in THE NATIONAL FARMER AND STOCK GROWER. There are thirty-two pages, four columns to the page. It is published monthly.

OUR SUBSCRIPTION PROPOSITION.

Send us One Dollar ($1.00) and we will send you one copy of "THE AMERICAN GOVERNMENT," and we will also send you THE NATIONAL FARMER AND STOCK GROWER regularly for two years. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

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will reduce inflamed, swollen Joints, Bruises, Soft Bunches. Cure Bolls, Poll Evil, Quitor, Fistula or any unhealthy sore quickly; pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. $2 per bottle, delivered. Book 7 E free. ABSORBINE, JR., liniment for mankind. Reduces Painful, Swollen Veins, Goitre, Wens, Strains, Bruises, stops Pain and Inflammation. Price $1.00 per bottle at dealers or delivered. Will tell you more if you write. Manufactured only by

W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

KENDALL'S SPAVIN CURE

The old reliable remedy for curb, splint, bony growths, ringbone, spavin or other lameness. 35 years of remarkable results. $1 a bottle, 6 for $5. At all drug stores. Ask for Free Book, "Treatise on the Horse."
Dr. B. J. Kendall Co., Enosburg Falls, Vt.

11

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with full information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Contains 192 pages and 69 illustrations. Write us for a free copy.

FLEMING BROS., Chemists
218 Union Stock Yards, Chicago, Ill.

Stover HIGH GRADE *Gasoline Engines*
From 1 to 60 h. p. Circulars & prices on application. Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.
Please mention Nat. Farmer and Stock Grower.

Sale of Texas-fed Cattle.

On July 29th, at the St. Louis National Stock Yards, S. M. Cowan, of Archer City, Texas, marketed a five-car string of 1,263-pound Texas cake-fed steers at $7.90 per 100 pounds. This is the highest price ever paid in the month of July for a string of Texas steers of the size. The July record for all markets is $8.00, but only one-car shipments reached this price, and $7.90 for a five-car string is a record even greater than the top-notch price.

Mules in New York City.

A pair of gray mules, standing sixteen hands high and weighing upward of 3,000 pounds, attracted a lot of attention among visitors to the Bull's Head district last week. They were the toppers of a select shipment from Missouri to the Fiss, Doerr & Carroll Horse Company, and it was the consensus of opinion among experts that they were from high-grade Percheron mares. Mr. Carroll says that such a pair of mules is worth about as much as the best pair of draught horses in the market, and can do more work than any draughters of their weight and inches. The record price for mules in Twenty-fourth street is $1,000 a pair, this price having been paid last winter for an extra large, well-matched pair now at work on the Westchester estate of Alfred H. Smith, General Manager of the New York Central Railroad Company, and one of the Directors of Durland's Riding Academy.—New York Herald, July 21st, 1912.

Visiting the East.

Mr. T. H. Holland, of the firm of Holland, Nugent & Maxwell Bros., horse and mule commission salesmen at the St. Louis National Stock Yards, is taking a short holiday for the purpose of recreation and incidentally to enlarge the business connections of the firm if it is possible to do so. He started for the East and will pay a visit to most of the great horse-selling establishments at Washington, Baltimore, Philadelphia, Newark, New York and Boston.

Mr. T. H. Holland has been a leading operator in the Western markets for twenty years. Three years ago he concluded the market that could attract and assemble the largest number of horses and mules was St. Louis, and the market capable of suiting the largest number of buyers with horse supplies was also St. Louis. Having reached the conclusion that St. Louis was the center in which horses could be assembled, sold and distributed at the least cost in money to come out of the price of the horse, he decided St. Louis would have to be his market.

At a horse and mule center like St. Louis, where capable, energetic, enterprising, reliable men are the rule, they are proud to recognize Tim H. Holland as one of the foremost of their number and highly representative of the great market where he presides over the horse auction on Monday and Tuesday of each week.

Early-matured Beef.

How light cattle can weigh and yet be acceptable to the butchers for slaughtering purposes is placed in evidence by a bunch of very choice yearling steers that were sold by Clay, Robinson & Co. on July 16th for $8.80 per 100 pounds, the highest price ever paid upon the Denver market for general beef-cattle consignments. They were taken right from the cows, as calves, last December, and put on alfalfa and corn. When weaned they averaged 473 pounds, and when sold averaged 873 pounds. On May 7th they were turned on grass and had grass and corn until shipped. They were sold on July 16th. Mr. M. M. Maxwell, of Boulder, Colo., was at the market with the shipment. It was as good an example of baby beef as one can see on the market.

Oklahoma Steers at St. Louis.

As indicating the market for Oklahoma cattle at St. Louis on July 31st, Naylor & Edwards Bros., regular shippers from Oklahoma, marketed a string of forty cars of cake-fed cattle at top prices. The shipment included 210 steers which averaged 1,108 pounds, and sold for $7.50 per 100 pounds. This price is close to the record for Oklahoma beeves and a record for a string of this size.

Texas Grass-cattle Record.

From Pearsall, Frio county, Texas, on the 31st of July, 1912, Meyer Halff and Chas. Schreiner had sold on the St. Louis market twelve carloads of grass steers. The consignment included 207 head 1,075-pound cattle at $6.50 per 100 pounds; a small string of coarse cattle at $5.35 per 100 pounds, and two cars, forty-six head, 1,118-pound top-notch grass steers at $7.25 per 100 pounds, said figure being the record price for grass Texas cattle.

St. Louis Sheep Trade.

On the last day of July, at the St. Louis National Stock Yards, 11,000 sheep were on sale.

The best lambs offered went at $7.00 to $7.15 per 100 pounds, but there were plenty of good lambs that sold at $6.50 to $6.90 per 100 pounds, and medium grades at $6.00 to $6.50 per 100 pounds, while fair offerings that were not fat went at $5.50 to $6.00 per 100 pounds, and the culls at $3.00 to $4.75 per 100 pounds. Buyers sorted the lambs pretty deep, so that there were a good many culls on sale.

The best ewes brought $4.25 to $4.50 per 100 pounds, while the mutton sheep sold largely at $4.10 per 100 pounds, with a few at $4.00 per 100 pounds, but the top was $4.25 per 100 pounds, while the day before most of them went at $4.25 per 100 pounds. Stockers were a little slow also and the best went at $2.50 to $3.25; fair, $2.00 to $2.50; old cull, thin sheep, $1.00 to $1.85; and the bucks, $3.00—all quotations being at the price stated per 100 pounds.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country are being conducted twice each month by

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And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is very good this season, especially for well-bred Mares and Geldings in good condition, and every class is in demand, from yearlings up.

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EGG-LAYING CONTEST.

The Second in Missouri—To Start Next November, When First Contest is Over.

(Letter from the Manager.)

So much interest has been manifested in the first egg-laying contest, and so many things are being discovered as a result, that a second one will begin November 15th for another year's test. Missourians are given the first opportunity to enter their birds and what pens are left will be filled by outsiders.

Practically everyone who now has a pen entered has expressed a desire to have a pen entered for the second year if their birds are desirable. The second year will differ from the first in the fact that each contestant must send ten females instead of five, as this year. All must be pullets or yearling hens. All must be standard-bred poultry of good quality and score not less than 90 points. We will not have two pens of Black Orpingtons and eighteen pens of S. C. White Leghorns, as this year. Each variety will have the same representation; that is, if there are five pens of Barred Plymouth Rocks this year there must be five pens of S. C. Reds also, and the same is true of all other varieties entered. This gives all varieties a more equal chance and is fairer for all and a better test from every standpoint.

It seems that the best breeders of this country, fanciers, farmers and other breeders of poultry should avail themselves of this contest. No one need feel any uneasiness about poor results or a bad showing, or feel any delicacy about having their flocks tested, for the breeder's name will not appear on the pen, be published or made known unless he requests it. The pens will all be known by number and states, unless the breeder desires his name on the pen. It is worth hundreds of dollars to any breeder to know how his pen compares with others of the same variety and with different breeds when housed, fed and cared for under the same conditions, and it will be worth thousands of dollars to the winning pens in this contest if their good qualities are proven and properly advertised.

The best breeders in Missouri should not hesitate to enter a pen in this contest. It is up to them to see that their variety is properly represented. The leading hen in this contest at the present time is bred from winners in two good shows. It is up to our best breeders and our best-advertisel strains to demonstrate their good laying qualities as well as their fancy and show points. We believe they can do it. The day has come or is close at hand when people are not going to buy a Leghorn, a Plymouth Rock, a Red, or an Orpington, simply because it is a Leghorn, a Plymouth Rock, a Wyandotte, a Red or an Orpington, but they desire to know their powers of productiveness as well, and rightly so. I believe that the best breeders of this country can demonstrate the fact that their flocks can do both win and lay, and the best show bird in America is not too good to have a place in the next Missouri National Egg-laying Contest at Mountain Grove, Mo.

Several hundred dollars in cash and special prizes will be offered. We are getting dozens of requests from other states and foreign countries to enter pens in this next contest, but if we can fill it up with farmers' and poultrymen's poultry from Missouri we much prefer to do it, but we must know at once what we can depend upon; so if you are thinking of making an entry, you had better write to-day for further information. Only a limited number of pens of each variety will be accepted. The first who apply will be the first accepted. The entry fee is $5.00 for Missouri pens and $10.00 for out-of-the-state pens. Last year several entered pens, houses and yards were reserved for them, and at the last minute, when too late to get other birds, they notified us that they had changed their minds and would not send. We are at great expense for the contest, offer large prizes and charge a small entry fee to know that you are acting in good faith.

Write to T. E. Quisenberry, Mountain Grove, Mo., for full particulars concerning this egg-laying contest.

The Problem of Marketing Poultry.

The question of marketing poultry is something larger than the question of fitting poultry for market. The consumers of poultry products pay a very high price for them, but only a small fraction of this price gets into the pocket of the farmer that produced the poultry.

In the sale of poultry on the great markets there are all kinds of combinations. Some of the commission firms have wheels within wheels. Some members of the firm will form a sub-company, which buys the best products and resells them at a higher price.

Some men in the sub-companies have a large acquaintance and have mutual friends that play into their hands. Poultry that comes in is bought readily at a low market figure and is resold at a figure several times above the current quotations.

The writer one day saw one of these men making up a pen of Brown Leghorns. He went to one crate and got out a couple of Brown Leghorn hens, paying for them about nine cents a pound. The hens came to about forty cents each. He repeated this at some other commission stalls and soon had a breeding pen of four females and a male. Then he put them in a nice new crate and set up a sign over them, which read: "Pen of Brown Leghorns, Pure Bred, $10.00." The pen consisted of four females and a male with no known breeding but all looking like pure-breds.

The man bought them at forty cents each and wanted $2.00 apiece for them. Of course, the farmers that had sent in the birds got about forty cents each for them. From this had to be deducted the commission. Is it any wonder that some of our farmers do not find it profitable to raise poultry?

Any farmer that ships his fowls to unknown firms may or may not get what the birds bring, less commission. He has to take the word of the commission man for it. Commission men are no more honest than other men, and the fact that there is no way of finding out what prices they get naturally makes them bold in any scheme they undertake. It is therefore very easy for a commission man to sell a lot of poultry for a little above the market price and return just the market price. Resorting poultry to get larger prices is quite common, and no doubt the commission man justifies himself in putting an extra profit into his own pocket by saying to himself that if he had not re-sorted the fowls he would have had to sell at the market price.

By co-operation among farmers the selling of fowls can be put on a better basis, and in no other way. We are very slow in forming such associations, which exist all over several European countries. In Denmark egg-selling and poultry-selling associations have been doing a great business for twenty years or more. They are now part of the agricultural machinery of the nation.

Such an association is able to have its own means of disposing of its products. Then all the price obtained goes into the pockets of the farmers and an army of leeches does not fatten in the dark on the profits that should but do not reach the pocket of the man that produced the materials sold.

The Hen No. 717.

In issuing the report of the eighth month of the egg-laying contest at Mountain Grove, Mo., Mr. T. E. Quisenberry, the Director, gave a list of the ten highest individual records thus far, the individual eight-months' records ranging from 161 to 179 eggs per hen.

Mr. Quisenberry said: "The White Plymouth Rock hen No. 717, while she is two years old, has laid more eggs than any pullet entered in the contest, though, as a rule, pullets have done best. This hen has perhaps laid more eggs without missing a day than any hen on record to date. She laid 82 eggs in 82 consecutive days, or laid an egg every day for nearly three months. After laying the 82 eggs, she missed one day, a proof that it is possible to have both utility qualities and fancy or standard-bred points combined in the same flock and in the same hen. This hen is bred from a male and female which were both winners in good shows. This hen herself shows her good breeding. It is all tommy-rot to say that scrubs and cross-breeds can outlay standard-bred poultry. We are in hopes the farmers and poultry breeders of this country will endeavor to combine both these qualities in the same flock as we find it in this hen."

It appears, however, that it requires team work to make a pen record. In the list of the first fifteen pens with records of 605 to 708 eggs for the eight months the White Plymouth Rock pen does not appear, although the other four pens were in the contest. Let us hope, for the sake of Hen No. 717, that her companions will make a showing during the next four months.

Oldest Egg of All.

Not so long ago a party of explorers, members of the Archaeological Society of Mayence, found, during their excavations in the ancient Moguntiacum, a hen's egg which was estimated to have been buried for something like nineteen centuries. Moguntiacum was built by Drusus, the son of the Roman Emperor, Augustus, in the year 14 B. C., says Harper's Weekly. Upon the side of the ancient Roman castrum or encampment near the city the excavations in question brought to light many interesting relics, including some water cisterns of Roman make. It was in one of these, which was located twenty feet below the ground, that a damaged Roman clay pot was found containing the shell of a broken egg and also a whole egg that had been kept from being smashed by a shred of the damaged pot which covered it. The ancient egg was turned over to the municipal museum.—Salt Lake City Republican.

Poultry House Construction.

There isn't even a nail missing in the description of the three poultry houses given in a bulletin, No. 132, "Farm Poultry Houses," just issued by the Iowa Agricultural Experiment Station at Ames.

Every detail and every step of construction is made clear by photographs showing the exterior and interior alike, and by builder's drawings showing the method of construction throughout, and by bills of materials that include every item needed.

Three types of houses are described, two movable and one stationary. The "A"-shaped movable house may be built at a cost of $39.00. The "Iowa Colony House," used first at the Iowa poultry farm at the Station, costs about $58.00. The stationary house is larger than either and may be built for about $173.00 or $180.00, depending on whether lumber and concrete or hollow tile and concrete are used.

The Iowa Agricultural Experiment Station will send these bulletins on request.

Sent on Trial.

If you are sick, you can get a full-size one-dollar box of Bodi-Tone on twenty-five days' trial. If it benefits you, you pay $1.00 for same. If it does not help, pay nothing for it. This is the way Bodi-Tone is being offered to the sick in the large announcement on the last page of this paper and the way thousands have already been cured by it.

The Leading Pen.

The International Egg-laying Contest held at Storrs, Conn., has now passed the performance of thirty-eight weeks. There are 100 pens in the contest and the leader is a pen of five White Leghorns owned by F. G. Yost, of Sayre, Pa., with a record of 818 eggs.

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Two first-class papers can be had for the price of one. **The National Farmer and Stock Grower** is one, and the **American Poultry Journal** is the other. There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is the **American Poultry Journal.** We have made arrangements whereby we can send **The National Farmer and Stock Grower and the American Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that is good now, but this advertisement may not appear again. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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BACK TO LIFE.

A Strange Way to Get Rid of An Objectionable Wife.

If the reader can conceive what his emotions would be upon meeting face to face in a crowded street a man whose funeral he had attended seven years before, he will then be able to realize how I felt when I came suddenly upon Milton Ross in a far Western city.

I stopped abruptly, rooted to the pavement, as it were, with the shock.

"Why, Milton," I cried, holding forth my hand.

There was not a sign of recognition in his face; indeed, there was that very faint curl of the lip, hardly a sneer, which is often seen when a person is saluted by mistake. But it is impossible that I could make any mistake about this man. Years before I had met him almost daily in our Eastern home, and frequently transacted business with him—knew him, as the saying goes, as well as though he had been my brother. And what if I had attended his funeral, seven years before? Here he stood in his own person, the same as when I last saw him in life, bearing not a trace of age or change.

"Your surely know me, Milton," I said. "I am John Tanner."

This time there was a very decided sneer, and it was in his speech.

"I don't doubt your acquaintance is a very desirable one, Mr. Tanner, to those who are honored with it, but I have the misfortune not to be one of that number. Please stand aside, sir."

I obeyed in dumb amazement and he walked on. Every word and motion gave me increased assurance that there was no mistake. Not only was his voice that of Milton Ross, but the manner and substance of his speech had that half-sarcastic dash for which he had been noted. I watched him as he strode off through the crowd, and there was his peculiar gait that I could have sworn to anywhere, a weakness in the right hip causing the step of that foot to be shorter than the step of the left.

My business in this town was finished and I was on my way to the railroad station when this meeting occurred. My resolution was at once taken to wait for another train. Nature had given me an investigating disposition; I was not the person to see dead men walking about without calling them to an account for the eccentricity of the proceeding. So I followed my quondam friend down the street, keeping him easily in sight. Once I stopped a gentleman who had the air of being a resident of the place, begged his pardon, and, indicating the object of my pursuit, asked him if he could tell me that man's name. He could, certainly—that was Stanley Robbins, the merchant.

"Live here?"

"Oh, yes."

"How long?"

My informant reflected an instant and said the time was rather more than six years.

I continued the pursuit. It led me into a large dry goods establishment, over the handsome front of which was displayed in great gilt letters the name of Robbins. Walking straight back to the office, I found the proprietor alone. His fair forehead contracted into a frown as he saw me, and then did a thing which seemed to me very significant. He closed the office door.

"Sir, you are laboring under a very curious delusion," he said.

"Sir, I am not! You were long a resident of S—, in the state of—. You were buried there many years ago. How you got out of your grave and got so much life into you, I don't know, and I have the curiosity to find out. How was it?"

The man certainly had amazing self-possession. I had adopted a tone and manner of good assurance, hoping to throw him off his guard; but he overmatched me. His face wore an easy smile, a combination of amusement and irritation, while he replied promptly to my accusation.

"My dear sir, please remember that I am a business man, and have not the time for any sensational nonsense. You look like a person in possession of his senses, and I am willing to believe that it is your zeal that has led you into annoying me about an accidental resemblance. If you have no other business here, I must wish you good morning."

How provoking he was, to be sure! But I was not to be thrown off the scent by any such device. I put my card down on the desk before him.

"Mr. Ross," I said, "there is my name; it is well enough known to you without the card. I shall leave this town by the five o'clock train; in the meantime shall be at the G— House. You'd better call there and explain the resurrection to me!"

He flipped away the card and took down the ledger. My hand was on the door knob when he swung his stool around and faced me.

"You don't—that is—you won't think it necessary to telegraph or write to S— before I see you again?"

Confession spoke in his words.

"Milton," I said, "this masquerading has gone far enough with us. You see I can't be deceived. Speak out like a man and explain yourself."

I saw a rapid change in his face as he opened the door himself and called out:

"Mr. Perkins, I shall be particularly engaged for an hour. I must not be disturbed."

He led the way to his private office, locked the door and asked me to sit down. Then he stood before me and said, in a defiant voice, which was plainly assumed:

"You are right, Mr. Tanner—I am Milton Ross. What then?"

"Nothing in particular, only it strikes me that perhaps you have missed your vocation. You seem to be doing a prosperous dry goods business here; but from the manner in which you've faced me down for the last half hour I should say you would make a capital actor."

His cool bravado vanished in an instant; the strain had been too great, and his break-down was complete. He dropped helplessly in a chair and looked pitifully at me.

"For the last half hour, John," he said, "I've been suffering the torments of the damned. You are the first person from S— or anywhere else who has come across me since I disappeared. I have been schooling myself for years to play the part that I have been trying to play on you, and you have seen my failure. John, you used to be my friend; now, what will you do? Have me arrested? Give me up to the law?"

"Mr. Ross, this masquerading out of the grave, where you properly belong, is a mere matter of curiosity to me. I'm not aware that you've committed any crime—unless it is punishable for a dead man to pretend to be alive."

"For heaven's sake, John, do not jest with me now! What will my Mrs. Ross say if you betray me?"

I looked at him curiously.

"I should judge you hadn't heard lately from S—"

"I have never heard from there; I did not dare to name the place or make an inquiry."

"Then you will be interested to know that she died three years ago."

The man jumped to his feet and paced the room like a crazy person, and actually shed tears of joy at the announcement.

"May she be happier in Heaven than she ever was with me on earth!" he said, when his excitement had calmed somewhat. "Three years ago, do you say? It is not two years since I met here the only woman that I ever loved. The love and disappointment of twenty years ago came back too powerfully to be resigned. Rash as it was, wrong as I believed it, I married her. And now you tell me I had a perfect right to do so."

"So it appears. But you haven't told me yet how you came to life."

"I'll do it. First, though, how did things, my affairs, go on at S—, after—after—"

"You mean after your death? Very probably indeed. Your funeral was a particularly fine one, very well attended and your old pastor preached an excellent discourse. I think that on my return I'll have to look up some of the newspaper obituaries and send them to you; they would be interesting reading. As for your business affairs, you probably don't need to have me tell you that they were found in excellent shape. Your estate was valued at $30,000, if I remember rightly; with but little debt. To tell the truth, your wife didn't seem to take your loss very much to heart; and"—

"I see," said Ross, with a broad smile. "She found consolation elsewhere."

"She married in barely a year after your funeral."

"Well, all right; but curiosity leads me to ask who the happy man was."

"You couldn't guess."

"Of course not."

"It was Squire Braden."

"What! That insignificant little wiffet! Well, what won't a woman do?"

The tension and stress under which Milton Ross had suffered were now gone, and he was able to join in the laugh that his last remark provoked. Then he proceeded to give me a brief account of the cause and manner of his disappearance from S—. With the disguise that is here given to the names of persons and places, the whole episode is committed to print as illustrating a phase of our social life, which, if unpleasant to contemplate, is none the less an existing fact.

Milton Ross, as we knew him in S—, was a prosperous and popular man of business, and fortunate in all the relations of life.

Years of wedlock had brought him no children, but it was never suspected that the pair did not enjoy an average share of marital felicity. The secret truth, decorously veiled from the world in the skillful American fashion, was, that these two, whom God was supposed to have joined together, bore the yoke of matrimony as an insupportable burden.

A strange combination of circumstances presented to the husband the opportunity of releasing himself from his hateful bonds at the price of the sacrifice of property, name and life-long associations. He promptly seized it. Being in New York on a brief business visit, he had occasion to be absent from his hotel over night. The paper of the next morning brought to him in Brooklyn an account of the destruction of this house by fire. Several guests had lost their lives; one of the bodies recognized had not been positively identified, and probably could not be, from its condition; but it was thought to be that of a Mr. Ross, of S—. For twenty-four hours thereafter that individual secluded himself and awaited events. The press of the next morning stated that the body had been sent to S—, as unquestionably that of its unfortunate citizen. Confident that he had left no clew in or about the metropolis by which the truth could be known, Ross accepted the fate assigned him and became practically dead and buried to his real life.

Neither my interest in this drama of real life, nor its own unities would have been satisfied without my introduction to the present Mrs. Robbins, and I did not hesitate to accept Milton's invitation to dine with him. He took me to a beauiful home and introduced me to a charming woman. I am pointing no morals nor drawing any lesson, yet truth compels me to say that there was positive wedded happiness, if the thing ever existed. But I wonder what the lady thought when I inadvertently called her husband Mr. Ross?

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For a Late Crop.

Rev. John D. Craft was conducting a series of meetings in a rural neighborhood of Southwest Virginia. One night he was trying to bring the necessity of early embracing a religious hope to bear upon his congregation. Said he: "We'll just illustrate: You begin in February or March to prepare your ground for planting your spring crop. You plant in April to be on time. Suppose you neglect this work. May will be late, but perhaps will answer. Let the work go undone till June; then what will you do? 'Too late, too late!' will be the cry."

"Just now it is in buckwheat," called out an old farmer from a rear seat.

The preacher sat down.—Mack's National Monthly.

At the Agricultural Exhibition in Bohemia the International Harvester Company exhibited and sold a forty-horse-power gasoline traction plow, which attracted much favorable attention.

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Rain-making With Dynamite.

A controversy over rain-making between Mr. C. W. Post, of Battle Creek, Mich., on the one hand and Willis Moore, Chief of the United States Weather Bureau, on the other, will probably be settled some time in the future for the benefit of farmers in general. Mr. Post claims that bombarding the heavens with dynamite on the night of July 22d did produce almost half an inch of rain at Battle Creek, Mich., and Mr. Moore states that just as much rain would have fallen had the bombardment not taken place. The rain-makers require sixty degrees of humidity in the air before they confidently start the battle for rain. We believe the original rain-makers used gunpowder to produce the concussion, but now they use dynamite. It may be in the future that getting rain hereafter in periods of drouth will simply be a matter of cost of dynamite when the amount of humidity in the air indicates a fair possibility of success. In the meantime, the usual dry-farming methods should be persevered in.

THE NEW ST. LOUIS FAIR

To be Open the Week of September 23d to 28th, 1912.

Every effort is being made by the management of the New St. Louis Fair to revive the old St. Louis Fair in all its glory. The programme includes pageants, aviation meets, stock show, horse show, poultry show, sportsmen's show, harness meet, horse racing, auto racing, motorcycle racing and novelty racing.

Business men of St. Louis are actively engaged in lending encouragement to the enterprise and have undertaken to sell 100,000 tickets for "Big Thursday," September 26th, at 50 cents each. The President of the organiation is C. F. Blanke; Vice-President, Geo. W. Maxwell; Secretary, Thos. W. Garland; Treasurer, Julius Kessler. The General Manager is Joseph A. Murphy, and the office of the company is at 1023 Chestnut street, St. Louis. The Fair Grounds are admirably located on the St. Charles Rock Road, just outside the city limits, and reached by good roads for vehicles, automobiles and several lines of street cars. The farmers and stockmen who have kindly feelings for the old St. Louis Fair should remember to come in and assist the new enterprise. It does not conflict with the Missouri State Fair at Sedalia, which is a week later, September 28th to October 4th, or the Illinois State Fair, which is two weeks later, commencing October 4th and ending October 12th.

BLOODED STOCK NOTES.

Secretary J. M. Wade, of the American Shropshire Registry Association at Lafayette, Ind., urges the organization of State Associations of Breeders of Shropshire Sheep to be rounded out at the State Fairs. How it can be done and the reasons therefor are set forth in a circular available to those who write the Secretary for a copy.

Mr. Howard Chandler, of Chariton, Iowa, specialist in importing and raising pure-bred Shropshire sheep, has a card in the breeders' columns. We have a dozen testimonials in our hands of satisfied customers who have purchased Shropshire bucks of Mr. Chandler and who are very much pleased with their purchases.

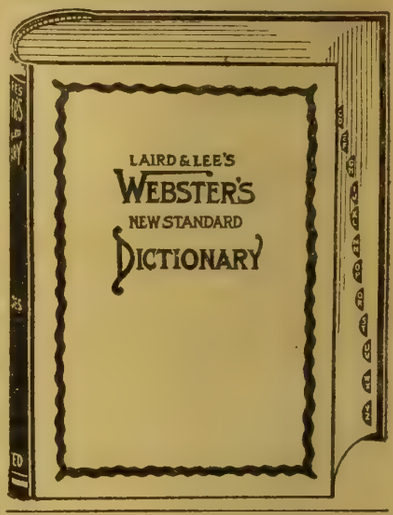
Volume 60 of the American Poland-China Record is to hand. The book contains records of boars from 174,951, to 175,985, and sows from 418,204 to 429,798, a total of 16,632 magnificent Poland-Chinas, the record giving name and number, sex, breeder, owner, sire, dam and ancestry in each instance. The book is generally subscribed for by members, and non-members who are interested in obtaining a copy can address Mr. W. M. McFadden, Secretary, Union Stock Yards, Chicago, Ill.

Working Time For Farmers.

It is generally stated, and upon good authority, that during the month of July general farmers throughout the Central West and Southwest have worked as they never worked before. The watchword was "Make hay while the sun shines."

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplements of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.



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GOAT RAISING.

Profitableness of the Industry and Hope For the Future.

This article emanates from the Bureau of Commerce and Labor. It appears that money has been sent out of the country, amounting to $25,000,000 a year, to purchase goat skins for use in this country; at the same time the price of goat skins has never been any inducement in raising common goats. Even as this is written, goat skins are quoted at St. Louis at 20 to 35 cents each and kid at 5 to 15 cents. That refers to skins from common goats.

The Department of Commerce and Labor arrives at the conclusion that much of the waste lands in the United States could be utilized for raising goats. The arguments are based upon the report of the United States Consul at Vera Cruz, Mexico. In the report he says:

"Goats are raised in every state of the Republic of Mexico. The industry is largely confined to the central table lands * * * * though the animals thrive everywhere and can be raised at a good profit over a wider range of territory than that on which cattle may be successfully raised. * * * * The dry plains of Nuevo Leon, with scant growth of brush, are able to support large flocks of goats, though these same plains will not produce corn, cane or grass, unless water is supplied for irrigation. * * * * The extent of territory which could be given to the raising of goats, without in any way interfering with agriculture, is very large. Vera Cruz has tens of thousands of acres of land so steep and rugged that it cannot be farmed profitably, but these rugged mountain sides furnish ideal feeding grounds for goats. * * * * The value of the goat depends upon three things: Meat, tallow and the skin. * * * * The matter of fresh meat in farming districts of the hot country is greatly simplified by the breeding of goats. In small, isolated communities it is risky to slaughter an ox or cow, as the flesh is liable to spoil before it is consumed. The small carcass of a goat makes it entirely practicable to kill frequently without risk or loss. In the state of Tobasco the inhabitants are never at a loss for fresh meat on plantations where goats are raised and where formerly meat was almost unknown. * * * * The flesh alone would make it a profitable industry, for the carcass of each animal will bring from $1.00 to $1.50. Fats of all kinds are high-priced in all parts of the country. * * * * At two years a fat goat will yield six to ten pounds of clear tallow, which will be worth from 75 cents to $1.50. * * * * The most valuable part of the goat is the skin, worth $1.25 to $1.50, and the constant trend of prices is upward." (These figures of values are presumably in Mexican currency, in which the dollar is equivalent to about one-half dollar in United States currency.)

The Consul adds that the increase in the number of goats is very rapid, since they begin breeding at from six to eight months of age, and breed twice a year, bringing forth two and not infrequently three kids at each breeding season. A single shepherd it is said will look after at least 1,000 goats. He adds: "A careful investment of $1,000 well looked after can certainly be counted upon to double itself inside of two and one-half years and to give at least a 50 per cent. profit per annum from the end of the second year. The report closes by presenting the result of a three-years' experiment in goat raising on a farm in the state of Guerrero, Mexico, as follows:

"In 1904 the manager of the farm received 66,000 goats, including large and small, at a valuation of $1.50 each, equal to $99,000. From the produce of these he sold, during nine months of 1904 and the years 1905 and 1906, 50,000 head at $5.00 each, equal to $250,000, and had, at the close of 1906, 88,000 head on the farm, being 22,000 more than he started with. The result was, counting the value of the 22,000 increase at $1.50 each with the foregoing sales, the investment of $99,000 produced in less than three years $283,000, besides the original stock of 66,000 goats was intact." (Figures in Mexican currency.)

The above facts as to the possibilities in the increase of the meat supply of the United States, while retaining at home the hundreds of millions of dollars now sent abroad for the purchase of goat skins, and producing this supply of valuable material on lands now practically unutilized, are cited as the cause of the numerous inquiries upon this subject now reaching the Department of Commerce and Labor. The number of goats now produced in the United States is small compared with that of many other countries. The latest figures in the Bureau of Statistics show the number in the United States in 1910 at about 3,000,000; in Mexico, 4,250,000; Turkey in Asia, 9,000,000; British South Africa, 12,000,000; and British India, 34,000,000. The importation of goat skins into the United States was in 1911, stated in values, from India, nearly $7,000,000 worth; from China, a little over $3,000,000 worth; from Mexico, over $2,000,000 worth; from Brazil, $1,666,000 worth; from Argentina, $1,000,000 worth; and from England, $1,000,000 worth. For the current fiscal year, ending with the present month, the total value of this article imported will approximate $24,000,000, the number of animals represented by these importations being about 45,000,000.

The number of goats in the United States, according to the census of 1910, increased about 50 per cent. in the last decade, a very large proportion of the 3,000,000 enumerated by the census of 1910 being in the Southwestern States. Texas has 1,135,244 goats; New Mexico, 412,050; Arizona, 246,617; California, 138,413; and Oregon, 185,411.

Successful Hog Shipping.

John Murty, of Alvo, Neb., was at South Omaha with a car of mixed stock. For eighteen years he has been going regularly to that market, having shipped for a number of years from Verona before going to Alvo. During all that time he has made a study of the question of how to load his stock, especially hogs, so as to suffer the least loss. He has succeeded well in this. For a number of years back he says that he has averaged barely one dead hog for every fifteen cars shipped.

His method of loading is very simple. In the first place, he loads his hogs never to exceed 500 to 800 pounds over the minimum. If he has more than that weight of hogs on hand he leaves the surplus home. Then he is very careful to clean out out all the manure on the theory that the manure, which develops great heat when water is thrown on it, stifles a good many hogs in the summer time. After the car is thoroughly cleaned he beds it down with sand, if it is to be had; if not, with earth. In cold weather he uses straw for bedding, being very careful not to have it over four inches in depth, because if deeper hogs will fall over it and others will pile up on them. In the summer time he wets down his hogs before loading and again after they are loaded. In the winter, during stormy weather, he nails boards over the two lower cracks in the car on the north side, to protect them from the wind and storm and thus keep them from piling up on the south side of the car and smothering.—The Live Stock Report.

Chicago Live Stock.

On August 1st, 1912, at Chicago, the receipts of cattle were about 4,000 head, mostly common and medium steers and butcher stuff; good fat cattle were gobbled up quickly at strong rates; both corn-fed and distillery-fed steers sold at $9.85 per 100 pounds, both being a record price by a big margin; common and medium light-weight short-fed steers sold at $7.00 to $8.50; all cows and heifers sold steady to strong; fat cows went mostly at $6.50 to $8.00, and fat heifers at $7.00 to $8.25; bulls were higher at $4.60 to $6.50, including bolognas at $4.70 to $5.10; veal calves were 25 cents higher, selling at $9.50 to $10.25; heavy calves, $6.00 to $8.50; stockers and feeders were about steady at $4.60 to $6.80. Hog receipts, 18,000 head; demand was strong and prices about 5 cents better than the day before for the good grades; top was $8.35 for the light, with the bulk of shipping kind at $8.00 to $8.30, and packing at $7.50 to $7.75; about 4,000 carried over. Sheep receipts were 20,000 head; lambs sold steady to strong, and heavy sheep a little lower; most of the ewes sold at $3.50 to $4.40; wethers, $4.00 to $4.60; fat lambs, $7.00 to $7.75; common and medium lambs, $5.50 to $7.00—all quotations being at the price stated per 100 pounds.

Co-operation and Competition.

Co-operation is a good word, but when it comes to action in business competition is a good word also.

I want the privilege of sending a 60-day supply of Sal-Vet (my famous worm-destroyer and conditioner) to every man who owns sheep, hogs, cattle, horses or mules. I want you to see for yourself how it rids all farm stock of the deadly stomach and free intestinal worms—how it will stop your losses from worms and solve your stock-raising problems—how it will make your stock thrive better—keep healthy and free from disease. In making this offer I don't ask one penny from you, now or at any other time, unless Sal-Vet does all I claim.

SAL-VET

Worms rob you of your stock-profits—keep your animals thin and out of condition—steal their food—sap their strength and vitality and make them easy victims of disease. I'll rid your stock of these pests. I'll prove it before you pay.

READ THESE LETTERS

A short time after beginning to use Sal-Vet on a lot of thin sows in bad condition it completely cleaned the worms from these animals and at once they commenced to eat better, and to thrive accordingly. There were cases of cholera close by and we consider that Sal-Vet was our salvation. (Signed) D. E. C. LONG & SONS. Auburn, Nebraska.

I have just shipped a carload of hogs that went within a nickel of topping the market. These hogs were on Sal-Vet. Most of my neighbors lost their entire herds from disease. W. J. BUTLER. Ottawa, Ill.

Send No Money—Just the Coupon

Tell me how many head of stock you have. I'll ship enough Sal-Vet to last 60 days. You simply pay the freight charge when it arrives, and when the 60 days are up report results. If it does not prove satisfactory I'll cancel the charge—you won't owe me a cent. Fill out and mail coupon today. (80)

PRICES: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12. No shipment made for less than 40 lbs. Never sold in bulk; only in Trade-Marked Sal-Vet packages.

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Ship me enough SAL-VET to last my stock 60 days. I will report results in 60 days and will then pay for it if it does what you claim. If it does not, you are to cancel the charge.

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Hot-weather Hints.

These are at best trying days, and it is the duty of everyone to look well after their own comfort as well as that of those around them, for this may mean health. Imprudent diet, overexertion, undue exposure to the hot sun, very easily prove serious. It is much easier to guard against than to combat with trouble.

Too many make the mistake of baking and roasting and broiling, believing that the harvest hands must have good food or they cannot work. This is all true in a certain sense. Yet they do not need and cannot assimilate the heat-producing foods required in winter. Meat should be used sparingly. In many homes it is required, but it should not be used in quantity. And let there be variety in the way of serving. One day a beef soup bone with some good vegetables added to the soup will be relished. Another it may be ham or steak, and a third a small piece of pork served with baked beans will suffice.

Fruits and vegetables are nature's foods at this season and are really the most satisfying. They may be served in a variety of ways, the simpler the better. Those using a cream separator are sure of the most delicious of dressings—cream. And with this at hand there is no excuse for tiring one's self out making pie and cake. Plain cookies or bread with berries and cream is a dessert good enough for a king.

Many have discarded hot drinks and find the cold ones an improvement. There is danger in drinking ice water, especially when overheated. But if the pail of water is placed on ice it will soon become quite cool and as satisfying as though the ice had been added to the water. A bit of lemon juice with no sugar gives a cooling drink which quenches thirst better than water alone or than the usual lemonade. Some find a little sugar, ginger and vinegar added to water a good preventive against the illness so often resulting from overdrinking. Fruit juice is another pleasing addition to water.

Keep the house cool by opening doors and windows at night and keeping the blinds or shades closed during the heated portion of the day. Use cold water for cleaning the kitchen and note the difference in temperature. If a sick room becomes intolerable and there is no fear of trouble from the attendant dampness, wring a sheet out of very cold water and hang it in front of the window. The evaporation caused by the wind playing among its folds brings with it a perceptible lowering of the temperature.

Live out of doors as much as possible. There are many household duties which can be done on the back porch or in the shade of the apple tree. And when the work is over, instead of going to a warm chamber for a nap, go out under the trees. Even though you have a less comfortable bed than that of your own room, the abundance of pure air will make amends for it and more, and after a few trials you will gladly seek outdoors, for there is more of rest where you can take in full breaths.

Try frequently the plan of cold suppers in the orchard or by the brook. This may not sound right, but others have tried it and found it to work out nicely. Of course, it takes previous preparation. The sandwiches may be filled with meat, eggs, cottage cheese or lettuce, or there may be plain bread and butter with pickles or cheese, onions or radishes as a relish. Milk or buttermilk and fresh fruit, salads and the plain product of the farm will prove quite sufficient in variety. The children will be almost as happy as though it had been a real picnic, and there will surely be some pleasant surroundings to make you glad that you came.

Try not to worry over the little annoyances and inconveniences of every-day life. Now, if ever, you need to drop them out. If they must be climbed over, at least draw up your skirts and determine not to let any remembrances of them cling to impede future progress. Keep cool mentally, if you would be cool physically.—Bessie L. Putnam.

The Webster's Dictionary, advertised in The National Farmer and Stock Grower, is certainly one of the best books we have ever sent out.

The 1912 session of the Farmers' National Congress will be held in New Orleans, La., convening November 7th.

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There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

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The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

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Destroying the Grasshoppers.

Reply to Jacob Mahiason, Walnut Grove, Minn.: "Please send me by mail directions for killing grasshoppers."

Before attempting to give a remedy for the grasshopper plague, a few words in regard to its early stages of grwoth will not be out of place. In order for the grasshopper to multiply to any extent, the soil in which the eggs are laid must be undisturbed and there must be an abundance of food available. The most favorable condition for grasshopper development seems to be found in the alfalfa sections of the West. Where it is possible, one of the best preventive measures is to cultivate the ground. The soil need not be disturbed below the first two inches of the surface, for the most of the eggs are deposited very shallow. We fully realize that in many cases this cannot be done so as to completely destroy the grasshopper, but where it is possible to plow and cultivate in the fall, the number can be greatly decreased.

There are two ways of destroying the adult or grown hopper. One is by the use of the hopper dozer. Various forms are in use, but one that has given very good satisfaction can be built of sheet iron, ten or twelve feet long, and about twenty-six inches wide, with a board across the back, against which the grasshoppers will fly and then fall into the bottom of the hopper dozer. The bottom of the hopper dozer should be made water tight, so that a quantity of water may be poured into it, also a small quantity of kerosene. The hopper dozer should be mounted on low skids or small wheels and drawn by one or more horses. The grasshoppers will be collected in the hopper dozer and killed by coming in contact with the kerosene. This whole structure is rather inexpensive and has proved a very good method of destroying the grasshopper.

The Bureau of Entomology of the United States Department of Agriculture has recommended a poisoned bait, which is known as the "criddle mixture," and has given very good results in some sections. The mixture is made as follows:

One-half barrel fresh horse droppings, in which is mixed one pound each of salt and Paris green. If the droppings are not fresh, the salt is dissolved in water and mixed with the manure and poison.

Then this mixture is scattered freely about where the grasshoppers are abundant. Dr. Fletcher, Entomologist for the Dominion of Canada, cites an instance where the poison mixture was scattered around a portion of the field, with the result that this portion stayed green, while the grasshoppers seriously injured other parts of the same field. The criddle mixture has been preferred to other brands of poison because its effect on other forms of animal life is not so serious.—International Harvester Company Service Bureau.

Missouri Fruit Bulletin.

Bulletin No. 102, issued by the Agricultural Experiment Station at Columbia, Mo., is entitled "Combating Orchard and Garden Enemies." It gives directions for spraying all kinds of fruits and vegetables. Very valuable to fruit and vegetable growers. The bulletin can be obtained by writing to the Station for a copy.

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.....

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___ If your appetite is poor.
___ If you have rheumatism.
___ If you have sick headache.
___ If you have a pain in the back.
___ If you are subject to malaria.
___ If you spit up mucus or slime.
___ If you are subject to biliousness.
___ If you are troubled with catarrh.
___ If your sleep does not refresh you.
___ If you feel weak and all run down.
___ If you have palpitation of the heart.
___ If you have heartburn and indigestion.
___ If you have weak lungs or cough much.
___ If you have any rectal trouble or piles.
___ If you belch up wind from the stomach.
___ If your hands and feet get cold easily.
___ If you spit up sour or undigested food.
___ If you have foul breath and coated tongue.
___ If your bowels are irregular or constipated.
___ If you have specks floating before the eyes.
___ If you have dizziness or swimming of the head.
___ If you have itching or burning of the skin.
___ If you have hot and cold flashes over the body.
___ If you have boils & pimples on the face & on neck.
___ If you feel bloated, distressed or sleepy after eating.
___ If you are depressed in spirits & easily discouraged.
___ If you have pains in back, through loins, hips & joints.
___ If you get weak, nervous & trembling after slight exertion
___ If you have twitching of muscles, limbs, face & eyelids.
___ If you have too frequent desire to pass water, or if there is dribbling or painful urination.

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Just mark with a cross X in the coupon below any of the different symptoms you have and send it to me, and I will send you the **Treatment Free** so you may make a personal test of just what my special medicine will do.

This Treatment Will Be Delivered By MAIL, POSTAGE PAID, Right to Your Own Door Without One Cent of Expense to You

This offer is made to any person who sincerely wants to be cured of Kidney and Bladder Ailments, Rheumatism, Stomach, Liver and Bowel Disorders, Heart Trouble, Nervous Weakness, Catarrh and all other diseases arising from impure blood, Uric Acid conditions, Etc.

SEND NO MONEY Simply put a cross X mark before the symptoms that you have, cut out the coupon, sign your name in full and complete address, and I will do the rest.

The Object of This Advertisement

is to reach the sick, weak and suffering; those who have failed with other treatments, those who have given up in despair, those in remote places who are not supplied with modern, up-to-date and successful methods of curing diseases.

I Want to Prove to Those People at My Own Expense That I Have the Real Remedies

I have perhaps the most successful method yet devised for the permanent cure of diseases of which I have made a specialty. I do not ask you to accept my word for this. I am a Specialist and I do not have one remedy that cures everything; no patent medicines; no "dope." My special treatments are made up, of my own private prescriptions perfected after years of successful practice. My great success is due to knowing what remedies cure and treating my patients honestly. I count my cures by the hundred where a doctor in ordinary practice counts but one.

To Prove My Claims I'll Send a Treatment Free to Test

I want you to try at my expense, not yours. All I want to know is what you want to be cured of. I have made it convenient for you to tell me this by simply putting a cross X mark before the symptoms you have on the attached coupon or write me a letter in your own words about anything of a private nature (man or woman) that you want me to know. I realize that I must help you and get your good will if I expect you to recommend me to others. And you must believe that my remedies are genuine, and that I do cure, otherwise I could not afford this expense of advertising.

The Vast Majority of Patients I Treat Are Those who Have Failed With Other Treatments

You may feel discouraged on account of past failures; patent medicines may have proven worthless; your home doctor may have exhausted himself—even pronounced your case incurable—but this does not prove that I cannot help you and that I may cure you. The worst cases come to me. My treatment may be a surprise to you. Set aside your doubts; try once more. Try at my expense. You have nothing to lose.

Accept My Liberal Offer!

It Places You Under No Obligation Whatever To Me

I repeat—you are under no obligation to accept this free offer. No contracts; no express charges. I will pay the postage myself and deliver the treatment right to your own door without one cent of expense to you. Do not delay; do not argue. Just say to yourself "If Dr. Jiroch has so much confidence in his ability and his treatment to go to all this expense I am going to let him try." Put a cross X mark before the symptoms you have; sign your name and address to the attached coupon, cut it out and mail it to me to-day. It will obligate you to nothing. Just let me try to help you. Address,

Dr. F. W. Jiroch, Dept. 1272, **533-535 So. Wabash Ave., Chicago, Ill.**

Shows and Expositions.

Under the auspices of the Missouri State Immigration Society an Exposition will be held at the St. Louis Coliseum during the week of October 14th. Exhibits are expected to be in place from every county in the state. All who are interested should address Missouri National Land Congress, Coliseum Bldg., St. Louis, Mo.

Remember the date of the National Dairy Show to be held at Chicago, October 24th to November 2d. Mr. W. E. Skinner is General Manager, and his office is in the Unity Building, Chicago, Ill.

CAPTAIN OBSTINATE.

A Story of Napoleon's Grand Army.

One fine evening in the month of July, an old soldier of the "grand army," who had left one of his arms on the field of battle, was seated at the door of his pretty cottage.

He was surrounded by a group of young villagers, who were clamorously reminding him of his promise to tell them some of his military adventures.

After a moment of pretended resistance to their wishes, the old man took his pipe from his mouth, passed the back of his remaining hand across his lips, and thus commenced his tale:

"In my time, my friends, the French would have disdained to fight against Frenchmen in the streets, as they do in these days. No, no, when we fought it was for the honor of France and against her foreign enemies.

"But my story commences on the 6th of November, 1812, a short time after the battle of Wiazma. We beat a retreat, not before the Russians, for they were at a respectful distance from our camp, but before the sharp and bitter cold of their detestable country, a cold more terrible to us than the Russians, Austrians and Bavarians all put together.

"During the preceding days our officers had told us that we were approaching Smolensko, where we should get food, fire, brandy and shoes; but in the meantime we were perishing in the glaciers and continually harassed by the Cossacks.

"We had marched for six hours without stopping for breath, for we knew that repose was certain death. An icy wind blew the drifting snow in our faces, and from time to time we stumbled over the frozen corpse of a comrade. We neither spoke nor sang, even complaints were no longer heard, and that was a bad sign.

"I marched by the side of my captain; short, strongly built, rough and severe, but brave and true as the blade of his sword; we called him 'Captain Obstinate,' for when once he said a thing, it was fixed; he never changed his opinions. He had been wounded at Wiazma, and his usually crimson face was then ghastly pale, while a ragged white handkerchief, all stained with blood, was bound round his head, and added to the pallor of his countenance.

"All at once I saw him stagger on his legs, like a drunken man, then fall like a block to the ground.

"'Morbleu! captain,' said I, bending over him, 'you cannot remain here.'"

"'You see that I can, since I do it,' replied he, showing his legs.

"'Captain,' said I, 'you must not give way;'" lifting him in my arms, I tried to put him on his feet. He leaned on me, fell again, dragging me with him.

"'John,' he said, 'all is over. Leave me here, and rejoin your company as quickly as possible. One word before you go; at Voreppé, near Grenoble, lives a good woman, eighty-two years of age, my—my mother. Go and see her, embrace her for me, and tell her that—that—tell her what you will, but give her this purse and my cross. It is all I have! Now go.'"

"'Is that all, captain?'"

"'That is all. God bless you! Make haste. Adieu!' My friends, I do not know how it was, but I felt two tears roll down my cheeks.

"'No, captain,' I cried, 'I will not leave you; either you come with me, or I will remain with you.'"

"'I forbid you to remain.'"

"'You may put me under arrest, then, if you like, but at present you must let me do as I please.'"

"'You are an insolent fellow.'"

"'Very good, captain, but you must come with me.'"

"He bit his lips with rage."

"I lifted him and carried him on my shoulders like a sack. You can easily imagine that with such a burden I could not keep pace with my comrades.

"I still walked on, when presently appeared a troop of Cossacks galloping toward me, with furious gesticulations and wild cries.

"The captain was by this time completely insensible, and I resolved, whatever it might cost me, not to abandon him. I laid down on the ground and covered him with snow; then I crept beneath a heap of dead bodies, leaving, however, my eyes at liberty.

"Presently the Cossacks came up, and began to strike with their lances right and left, while their horses trampled us under their feet. One of these heavy beasts set his foot upon my right arm, and crushed it.

"My friends, I did not speak, I did not stir; I put my right hand into my mouth to stifle the cry of torture which nearly escaped me, and in a few minutes the Cossacks had dispersed.

"When the last of them had disappeared I quitted my refuge and proceeded to disinter the captain. To my joy, he gave some signs of life; I contrived to carry him with my one arm toward a rock which offered a sort of shelter, and then I laid myself by his side, wrapping my cloak round us both. The night had closed in and the snow continued to fall.

"The rear-guard had long since disappeared, and the only sound that broke the stillness of the night was the whistle of a bullet or the howling of the wolves feasting on the corpses that lay stretched around.

"God knows what thoughts passed through my soul during that dreadful night, which, I felt sure, would be my last upon earth. But I remembered the prayer which my mother had taught me long before, when I was a child at her knee, and, bending low, I repeated it with fervor.

"My children, that did me good, and remember always that a sincere and fervent prayer is sure to comfort you. I felt astonishingly calmed when I returned to my place by the captain. But the time passed, and I had fallen into a state of half stupor, when I saw a group of French officers approach. Before I had time to speak to them, their chief, a little man, dressed in a furred pelisse, stepped forward toward me and said:

"'What are you doing here? Why are you away from your regiment?'"

"'For two reasons,' said I, pointing first to the captain, and then to my bleeding arm.

"'The man says true, Sire,' said one of those who followed him; 'I saw him marching in the rear of his regiment and carrying this officer on his back.'"

"The Emperor—for, my friends, it was he—gave me one of those glances that only he or the eagle of the alps could give, and said: 'It is well. You have done very well.' Then, opening his pelisse, he took the cross which decorated his green coat and gave it to me. At that instant I was no longer hungry, no longer cold; I felt no more pain from my arm than if that awkward beast had never touched it.

"'Davoust,' added the Emperor, addressing the officer who had spoken to him, 'see this man and his captain placed in one of the baggage-wagons. Adieu!' And making me a motion of his hand, he went away."

Here the veteran ceased and resumed his pipe.

"But tell us what became of 'Captain Obstinate,'" cried many voices.

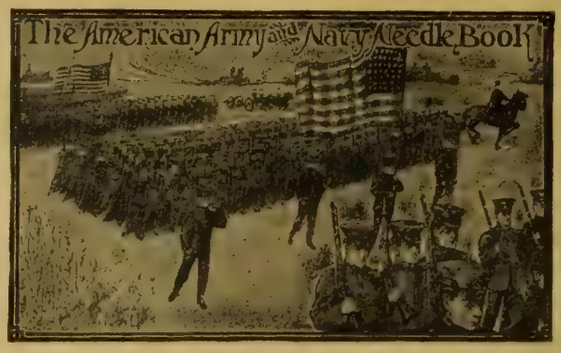
"The captain recovered, and is now a General on the retired list. But the best of the joke was, that as soon as he got well, he put me under arrest for fifteen days, as a punishment for my infraction of discipline.

"This circumstance came to the ears of Napoleon, and after laughing heartily, he not only caused me to be set free, but promoted me to the rank of Sergeant. As to the decoration, my children, here is the ribbon at my buttonhole, but the cross I wear next my heart."

And, opening his vest, he showed his eager audience the precious relic, suspended from his neck in a little satin bag.—Harper's Magazine, 1854.

The Army and Navy Needle Book.

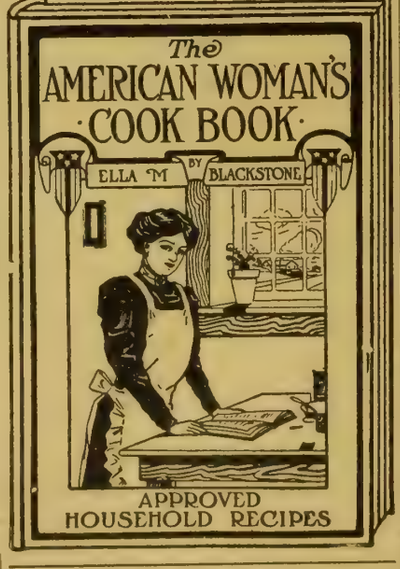
A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 2 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



THE BEST COOK BOOK.

The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.



The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is so easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles and preserves, ice cream and ices; also ruled pages for new recipes to be preserved.

The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar and include one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The corn cure advertised by Otto Ude is well advertised in St. Louis. It was originated forty years ago and is reliable. See page 21.

Have You a Chronic Illness?

If you have, you will surely be interested in the Bodi-Tone trial offer, which is printed on the last page of this paper. Bodi-Tone, which is now three years old, has made a great record in such cases. The manufacturers believe in it, for they will send you a box to try, no matter how old, hard or obstinate your case may be. If it does not help you, you need not pay for it.

Rider Agents Wanted

in each town to ride and exhibit sample 1913 bicycle. *Write for special offer.*
Finest Guaranteed 1913 Models **$10 to $27**
with Coaster Brakes and Puncture-Proof tires.
1911 & 1912 Models all of best makes.... **$7 to $12**
100 Second-Hand Wheels All makes and models, good as new..... **$3 to $8**
Great FACTORY CLEARING SALE
We **Ship on Approval** *without a cent deposit, pay the freight,* and allow **10 DAY'S FREE TRIAL.**
TIRES, coaster brake rear wheels, lamps, sundries, parts and repairs for all makes of bicycles *at half usual prices.* **DO NOT BUY** until you get our catalogues and offer. *Write now.*
MEAD CYCLE CO. Dept. M 270, CHICAGO

The Ounce of Prevention.

To keep the hair from falling out, rub a little salt water into the scalp every night before retiring. Take a little on the tips of the fingers and rub well into the scalp. Rub the finger tips in a rotary motion toward the crown of the head and use very little of the salt water.

Crow's feet and wrinkles perhaps disfigure a face quicker than anything else, and to prevent wrinkles, always use rain water for washing the face, and when washing and drying the face, rub up and back, never down, as the lines of the face naturally tend downward, and rubbing downward will accentuate all wrinkles. The habit of chewing gum is productive of wrinkles, as the incessant action of the jaws throws the mouth out of shape and must, sooner or later, bring out the wrinkles on the face. A famous physician says that the plumpest cheek will soon wrinkle under the force of this ugly gum-chewing habit and then it spoils the shape of the mouth and the eyes grow smaller.

Before going out in the sun or wind, dip a bit of old linen into cold cream and smear it over your face. Take another soft cloth and wipe all that cream away, then powder gently with corn starch and you have about the best preventive for tan or sunburn. A thin veil over this hides the "make-up," and, on returning, a bath of warm, soft water leaves an unharmed complexion.

It is an excellent practice to wash the face and hands at night just before going to bed; then the face is cleaned of floating dust and particles that might cause blackheads and pimples.

To prevent the hands from becoming rough and ugly, wear old, soft gloves when sweeping, dusting or doing any work that will roughen the skin; and to keep the hands soft, wash in warm water with good soap and then with a little corn meal, and when dry rub again with the corn meal.

To prevent a child's mouth from becoming sore, wash out the mouth daily with a weak boric solution, using a soft piece of linen, and to prevent chafing or any irritation of the skin, bathe with a stronger boric solution and allow it to dry on the skin; and one of the best and cheapest powders that can be made for young children is equal parts of boric powder and pulverized starch.

The best way to check perspiration and destroy the odor is to wash and dry the parts affected, then apply the boric solution with a piece of soft linen and allow it to dry on and then use the boric and starch powder with a little sachet powder added.

To prevent discoloration in bruises, apply a cloth wrung out of water as hot as can be borne comfortably, then dry with a soft cloth and rub well with butter and keep the part greased with the butter until all soreness is gone.—M. A. T.

The Cherokee Rose.

How many people in Columbus know that the white roses growing in the beds on the west side of the State House are the fragrant Cherokee roses of the Indians? Down in Alabama, which was first settled by Indians, the Cherokee roses grow wild everywhere. They seem to come up like weeds and send out their delicate fragrance on the warm air.

If one passes through the State House grounds when the sun is on the roses, he will observe the delicious odor. It is not like the fragrance of any other rose; it is distinctive, and delicate, and full of a haunting sweetness. The roses are a clear, pure white, like a pearl, with no trace of cream tint in them. They are full and round, like the old hundred-leaved rose of which the poet sang in "Lallah Rookh," and yet there is a beauty in them not found in th roses in the famous Vale of Cashmere.

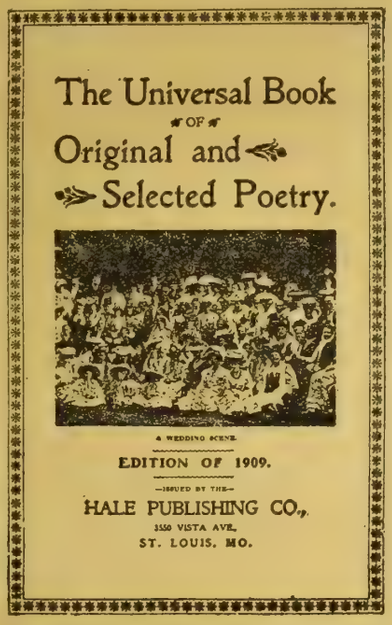
These roses are called the Cherokee in the South, the name being given them by the Cherokee tribe of Indians, which once inhabited that section of the country, but—"What is in a name? A rose by another name would smell as sweet."—Columbus Evening Dispatch.

Live Stock Marketing.

Compared with a year ago, cattle receipts at five principal markets have decreased 571,000 head, hogs have increased 350,000 head, and sheep increased 368,000 head. There is no shortage in the total.

Breeders' cards are on page 20.

The Universal Magazine



and the Universal Poetry Book.

TWO EXCELLENT PUBLICATIONS.

The Universal Poetry Book

CONSISTS of One Hundred Pages, containing three hundred and ninety beautiful, interesting, pathetic, descriptive, humorous and delightful poems. These poems have been selected from the very best of the ancient and modern authors and the occasional pieces which have attracted favorable attention. It is a book to be kept by the bedside to compose one to sleep, a book to carry in the satchel or to read on the train and street car. It is a book for all people at all times. We issued the UNIVERSAL POETRY BOOK for the purpose of using it as a subscription premium in connection with our own new successful paper, the UNIVERSAL MAGAZINE.

THE UNIVERSAL MAGAZINE

is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the UNIVERSAL MAGAZINE is, that it is not loaded down with advertisements. Notwithstanding it is a cheap magazine, the subscription price being 25 cents a year, it is supported by subscriptions alone.

A TEN-CENT PROPOSITION.

Anyone who will send 10 cents to pay for four-months' trial subscription to the UNIVERSAL MAGAZINE can select one copy of the UNIVERSAL POETRY BOOK as a free premium, and we will send it by mail, prepaid, safe delivery in good order guaranteed. Below will be found two subscription blanks for two subscribers.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St.Louis,Mo.:

Gentlemen:---Herewith please find Ten Cents to pay for four-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Universal Book of Original and Selected Poetry.

Name.....

Address.....

My occupation is.....

Here is a Subscription Blank.

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Gentlemen:---Herewith please find Ten Cents to pay for four-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Universal Book of Original and Selected Poetry.

Name.....

Address.....

My occupation is.....

Fruit Canning.

The bulk of this work comes during the hottest and busiest days in farm life, yet with proper utensils and a little care in advance it may be rushed through and still give good results. Most of the fruit may be prepared on the shaded porch, and then the cooking process hurried along rapidly when it is once commenced. If apples or pears are being pared, drop them into cold water as fast as done; this will prevent them from turning dark.

Never use overripe fruit to can. There is too much danger of its not keeping and thus giving more loss than gain. This is especially true of tomatoes. If there is a single soft spot on a tomato, reject it for canning. The trouble seems to permeate through the entire flesh. Berries, as well as all the firmer fruits, should be washed before being placed in the syrup. You will be surprised at the amount of dust and other impurities which a brief bath in cold water will dislodge.

Examine the cans well to see that there are no imperfections. A piece chipped from the top of a can may lead to spoiled fruit. If the cover bulges up or is depressed, beware. It should be level at the top. Rub each cover, inside and out, with some good cleaning powder, or even with wood ashes. This will not only improve its appearance but if there is a tiny hole in it the scouring process will render it free from corroded material and readily discovered. The rim should be free from dents. If any have been made in opening it previously, rub the rim down smooth with some hard surface. An old silver-handled knife or fork will answer, and in future strive to open the can by inverting the cover in a dish of hot water to loosen rather than by the prying process.

Be sure that the rubbers are good. New ones should always be used for tomatoes. If it is necessary to use the same ones more than once, save them for the plums and other more easily-kept fruit. Sometimes by putting two rubbers together they can be made to do as well for ordinary fruit as new ones. Dealers usually keep two grades in stock. We have found that the five-cent ones serve one season quite as well as those costing twice as much, and the latter are apt to crack and be useless after a single season. Absolute cleanliness is of course an essential both to can and cover.

Most fruit keeps nicely by allowing a teacupful of sugar to a quart of canned fruit, adding a little water and making it into a syrup before the fruit is added. Cook thoroughly, to be sure that all air is driven out. Pears should have a semi-transparent look and be soft enough to be easily cut with a spoon. As peaches are so easily converted into a mush, cook only enough to fill a single can at a time. But for most of the fruits much time is saved by using a large kettle and having several cans ready to fill at once.

Quince preserves are better combined with once or twice their bulk of sweet apple than when canned alone. They should be cut into thinner pieces than the apple and cooked longer, as they are more inclined to be tough. Save the parings, cook them separately and strain the water into the fruit, for much of the exquisite flavor is next to the skin. Elderberries and rhubarb combine nicely, the latter giving the acid taste which the former lacks. Strawberries and pineapple make a combination fit for the gods.

Test each can by inverting before putting them away. But do not leave it in this position long. Even though tightly sealed, the prolonged strain may prove too great and a leak result, when it would have kept perfectly. A few minutes will prove if there is a defect. Keep the cans in a cool, dry place. If it is light, wrap each can in dark paper; or the felt cases in which they originally come make ideal protectors. In handling, avoid taking them by the top, as it may loosen the sealing.—Bessie L. Putnam.

Among the Bees.

The buckwheat and autumn pasturage will give the bees plenty to do if they are given a chance. But if you let them manage the thing themselves they may get the comb crooked and make quite a medley of things. It is strange how some still cling to the notion that unless one is a professional apiarist it does not pay to use the sections and starter. The old plan of chunk honey, with brood cells and bee bread intermingled, has no place with the modern bee raiser, even if he is only a farmer, with a few stands of bees as a side issue. The sections cost less than a penny apiece and may be used several times, if kept in the home. Enough starter for thirty-two pounds of honey in these pound boxes may be purchased for a nickel at retail, and by sending direct to a bee-keepers' supply house still better terms may be made.

The superior quality of the pure white honey which is stored in the section boxes is assurance of ready sale at a good price. It is in convenient form to handle, and there is no waste, as is sure to come with the mussy "chunk" honey. The starter, which is really an imitation of comb, is given not so much to save the time of the bees in making this amount of comb—though it really does this—as to induce them to build the comb in straight pieces. If it is not inserted, they are liable to make two or three thin layers of comb instead of the one thick one in the box.

As shown above, the cost is small. The trouble of putting them in is more than compensated for by the ease with which the honey may be removed when finished. The starter comes in strips four inches wide and about sixteen inches long. Cut each into four squares, and each of these into four triangular pieces by two diagonal lines. If the knife is first dipped into cold water the severing will be neater. Nail a small block just large enough to slip into the section and half as thick as the section is thick upon a small piece of board. Slip the section over it, bringing one of the grooved sides tight against the block. On the block lay a piece of starter with longest side next to the section. Dip a brush into melted wax and touch along this line. Let stand five minutes and the starter will be glued firmly in the top, just where a neatly-constructed comb should be commenced.

When removing honey or giving new sections, take care not to pinch the bees. If it is absolutely necessary, use the smoker. But the fact that the bees must go to work and fan and fan after this to secure proper ventilation renders it advisable to use it as little as possible. Yet when the bees persist in clustering just where you want to put in a section or super, this is the only help.

Funny, isn't it? But when bees are disturbed, the first thing they do—if they do not sting—is to uncap honey. This looks as if they were like the good housewife when fire threatened, packing up ready to move out. If you happen to store your honey in a room with an open window, they may surprise you by finding it and carrying it away. But be careful not to leave any about the hive for them to clean up, as it may call robber bees.

Honey should be stored in a dry place, not so cool as to make the wax brittle, nor yet so warm as to melt it. The cellar is an abomination for keeping honey, which gathers moisture and soon becomes thin and watery. If ants trouble, they may sometimes be kept away by means of a chalk line drawn around the box. Tansy leaves scattered around will again repel the intruders. And if these fail, try scattering borax around the edges of the box. Honey which is well capped will keep a long time if properly cared for, and even after it becomes "candied" it is still a most delicious and wholesome sweet. Children like it as well as candy, and it is much better for them. If farmers only realized the sweets that are being wasted every year on their own farms because they do not keep bees, the little insects would soon become as much a farm asset as chickens or pigs!—Bessie L. Putnam.

Tribute to the Onion.

Kill the onion and you leave a gap in the universe. Kill anything else and there is a substitute. The potato is akin to the cereals; cabbage, turnips and cauliflower are of the same family; beans are elongated peas; the lemon is a pessimistic orange; beef reincarnated grass; watermelons just the survivor of a very fit cucumber, and so on. But the onion is sui generis alone, unique, triumphant. It is a special creation, to tempt the palate of a weary world. It proves the futility of man's wisdom. He might have guessed at everything else under the sun, but he would have never guessed an onion. Science may deduce a new star before it becomes visible, or radium before its discovery, but this succulent, fragrant, starry vegetable would have gone uninvented forever had not its own insinuating, yet not bashful, qualities forced themselves into tear-brimmed eyes and liquescent, anticipatory lips. With what a mixture of gratitude and awe should we view the spectacle of nature turning her energies to the transmuting of mere clay into a vegetable with an artistic temperament.—Richmond Times-Dispatch.

He Was Stale.

"Slip me a brace of cackles," ordered the chesty-looking young man as he perched on the first stool in the lunch room.

"A what?" asked the waitress as she placed a glass of water before him.

"Adam and Eve flat on their backs! A pair of sunny siders!" said the young man in an exasperating tone.

"You got me, kid," returned the waitress. "Watcha want?"

"Eggs up," said the young man. "E-g-g-s, the kind that come before the hen or after, I never knew which."

"Why didn't you say so in the first place?" asked the waitress. "You'd 'a' had 'em by this time."

"Well, of all things!" said the young man.

"I knew what he was driving at all the time," began the waitress as the young man departed. "But he's one of them fellows that thinks they can get by with anything. He don't know that they're using plain English now in restaurants."—Kansas City Times.

The Lion of St. Mark's.

"And did you stay long in Venice?"

"Only two days, but I saw everything worth seein', don't-y-know."

"Really! Then you'd see the Lion of St. Mark's, I suppose?"

"Rather; saw the brute fed, in fact!"—Punch.

Can you always eat all that you "can"?

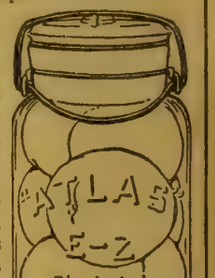
After the work of "canning" do you find much of your fruit is spoiled? Then, why persist in using old-style, narrow-necked, tin-topped, screw-capped jars? That was the old way of "canning." The new way, the easier, safer, *better* way is called "jarring," preserving in the all-glass

E-Z SEAL JAR

Try putting up beets, beans, corn and tomatoes for winter use. It is *fun* when you use the E-Z Seal Jar. It has the sanitary all-glass cap—no metal at *all*. No twisting and turning—the cap clamps with a spring seal. It closes and opens with a *touch* of the finger. And—your fruit *keeps!*

Free Jar—Free Book

Cut out this coupon, take it to your grocer—he will give you one E-Z Seal Jar—FREE. Be sure and write us for FREE Book of Recipes—it tells many things you should know. Get the Jar from the *grocer*. Get the Book from *us*.



HAZEL-ATLAS GLASS COMPANY
Wheeling, W. Va.

1-Qt. E-Z Seal Jar CG FREE for the Coupon

Please note—in order to secure free jar this *coupon must* be presented to your dealer before Sept. 1st, 1912, with blank spaces properly filled out.

HAZEL-ATLAS GLASS CO.,
Wheeling, W. Va.

This is to certify, That I have this day received one "Atlas" E-Z Seal Jar Free of all cost and without any obligation on my part. This is the first coupon presented by any member of my family.

Name_____

Address_____

TO THE DEALER:—Present this to jobber from whom you recieved E-Z Seal Jars. All coupons must be signed by you and returned before Nov. 1st, 1912.

DEALER'S CERTIFICATE. This is to certify, that I gave away one "Atlas" E-Z Seal Jar to the person whose signature appears above.

Dealer's Name_____

Address_____

THE SMITH FAMILY DOWN THE ROAD.

The County Fair Brings Some Surprises.

There was an unusual stir of excitement about the Smith farm one bright September morning. Every member of the family, except Baby Helen, was up at sunrise; such a bustle and stir was in the very air that old Shep decided he must help out by barking and getting in everybody's way. The milking and chores must be done, the breakfast disposed of and a big picnic lunch packed; then everyone must dress in his best. For it was the opening day of Fair week and the whole Smith family were planning to drive in the double wagon to the grounds and there spend the day. This was not the first Fair they had attended, but never before had they been in such good trim for a pleasure trip. The two little girls had fresh checked gingham dresses made after a neat pattern which the neighbor woman had suggested; the little boys donned new knickerbockers and freshly-laundered blouses; Mrs. Smith had made for the occasion a neat blue lawn, very becoming to her rosy cheeks; and Mr. Smith was wearing for the first time the only new suit he had had since his wedding day. Besides, each one had spending money jingling in pocket or purse, and each new jingle sent visions of rubber balloons, red lemonade, popcorn balls and fresh cream candy pulled over a big hook (to say nothing of rides on the merry-go-round) dancing merrily through the brains of the little Smiths.

Heretofore the family had elected to visit the Fair on Thursday, which is generally conceded to be the best day for the mere onlooker. But this year Mr. Smith and John expressed a strong desire to go the first day. Mrs. Smith and Myrtle seconded this so heartily as to look almost suspicious. The two smallest children didn't care particularly what day of the week they went, but, of course, the sooner the better. If Mrs. Smith and Myrtle had been less interested whispering together, they might have noticed that Mr. Smith and John had many a sly word with one and another.

Arrived at the Fair Grounds, the family immediately separated. Mrs. Smith and the two girls went straight to the big central building. At one end of this were arranged the exhibits pertaining to household arts; poultry, pigeons and cats occupied the opposite end; while the center of the building was given over to prize garden produce.

Mr. Smith and John, after putting up the horses, made a bee-line for the stock exhibit. There they beheld a sight which did Mr. Smith more good than a trip around the world; as for Johnny—he turned four somersaults in rapid succession. Never before had he been able to go beyond three, and even in this glorious moment he took care to count his turns and noted with rapture that at last he had realized his ambition in that respect. The cause of all this excitement was a young Jersey heifer eyeing them with friendly eyes as though glad to welcome her friends in her new quarters. Around the neck the little heifer wore a blue ribbon.

"Johnny, I'd always come 'round here every Fair time and I'd look at all the prize stock and I'd think how proud the owners must be, but I never thought once that I could take a hand at it, too. Just think of it, Johnny, your pa raised that little heifer there that's wearing the prize blue ribbon round her neck and he used to think he was good for nothing more than a fifth-rate farmer." In this strain Mr. Smith went on and Johnny rejoiced with his proud parent. Mr. Smith would probably have stood in front of the heifer all day had not Johnny at last said wistfully: "Honest, Pa, ain't you ever going to see enough of Daisy? I counted an awful lot on that punkin of mine, and now you don't even want to leave your prize long enough to see if I got anything I just bet that's got a blue ribbon, too."

"Bless me, Johnny, I clean forgot about everything else, I was so glad about Daisy. Yes, let's go right over and look at the punkins. And then we'll find Ma and Myrtle and tell them the news. Won't Ma stare, though? She never knew it was in me to do anything first-class."

But another half hour elapsed before they got to the "punkins." Entering the building at the poultry end, Mr. Smith caught sight of his wife with a handkerchief pressed to her eyes. Myrtle seemed to be trying to comfort her. What could be the trouble? His wife was not a crying woman. He reached her side in a couple of long strides. "Martha, what ails you? You be n't sick?"

"Oh, John, it's that White Wyandotte of mine!" gasped Ma. "She's been and took first prize. I wanted it so. I never had any kind of honors ever, you know, and I'm so glad about it I don't know what to do. It's funny I'd cry when I'm so glad, but I couldn't ever tell anybody what it meant to me when I saw my beautiful hen strutting around in there with the blue ribbon on. It was the neighbor woman got me into the notion of showing her, and even at the last I would have backed out, but she wouldn't let me."

"Why, it was the neighbor woman started me—but I forgot. You don't know the news. The Jersey heifer's won first prize!" With the announcement Mr.Smith began to caper about like a young colt, while Johnny solemnly turned another somersault in honor of the occasion. He stopped at one, however, as the floor was of concrete. Then he grabbed his father's coat and whispered: "Punkins, Pa!"

"Bless you, Johnny, we'll skip around there and see what's doing. Come, Ma, let's all go over to the punkins and see who won there. The boys all worked awfully hard over it."

But poor John was doomed to a slight disappointment, for the prize pumpkin bore an unfamiliar name, while his own name was placarded upon a card through which ran a red ribbon. John gulped hard, but he took his partial defeat like a little man and generously remarked: "That Brand boy won fair all right. I never did see such a punkin as that, and I thought mine was a mighty fine one." And John never knew that in that moment of self-mastery and generous concession to the merits of his neighbor's work he had won something infinitely more precious and more lasting than the blue ribbon.

Before the day was over the Smiths came to a faint realization of what their prize-winning exhibits had done toward raising them in the estimation of the neighboring farmers. For years these had looked upon the owners of the Smith farm as shiftless people; and not without reason. Some had noticed a change for the better during the past year, but nothing could have done more toward finally dissipating this reputation for shiftlessness than the act of the several members in placing worthy exhibits among the best farm products of the county. Mr. Smith talked with some of the most influential men of the county, men whom he had always felt looked down upon him. Now they approached him as an equal, asking questions as to Daisy's breeding, feeding, etc. Mrs. Smith was equally at ease with the poultry raisers who flocked to the exhibit, while John and Frank Brand, the successful pumpkin competitor, struck up a happy acquaintance.

Even that happy day came to an end, but the whole week was a time of celebration for the Smiths, and some of them were at the Fair every day. For the first time they realized that this annual exhibit of stock and farm products might be a real help to them in their own farm work. Mr. Smith and John spent many half hours discussing farm methods with fellow-farmers. Mrs. Smith jotted down in a note book pointers which other poultry raisers gave her, and Myrtle learned of a way to can strawberries without cooking them.

"Well," said Mr. Smith, on the day they took their exhibits home, "I wouldn't have missed this week for anything anybody could offer me. And here's a paper I subscribed for. Johnny and me took a fancy to it; it tells all about stock raising and lots of other things a farmer ought to know, and besides its got some pages for the women folks. I found out that all the best farmers take farm papers, and so I thought we'd have to take one, too."

"Why, John, I did the same thing, but the paper I took is mostly about poultry and gardening, with a few good cooking recipes and such things. But I guess we can stand the two of them all right, for there'll be four of us to read them. I never saw children so interested in anything as John and Myrtle are getting in the new way we are running the farm."—Janet Thomas Van Osdel.

Mechanical, Electrical and Civil Engineering

The wonderful expansion in all fields of activity has created a great demand for Mechanical, Electrical and Civil Engineers. You can save a full year's time at

Highland Park College

Vigorous and thorough instruction by expert specialists. Get your B. S. degree and be working a year before graduates of other colleges. Three years of 48 weeks each. Splendid opportunity for practical work, better than at almost any other technical college. Our graduates are filling good positions in all parts of the country.

Special One-Year Courses

Electrical Engineering—Designed especially to prepare young men for responsible positions, such as superintendency of the smaller electric power and lighting stations, power plants, etc. Diploma awarded.
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Machinists' Course—For those who want to become machinists in the shortest time. Plenty of shop work, not much text-book study. Special attention to accuracy and speed.
Automobile Machinists' Course—Arranged especially for those who want to secure a position in an automobile factory or to manage a garage. Students overhaul, repair, assemble and run cars. Very little text-book study.

Special Courses in Gas, Automobile and Traction Engineering

Each course may be finished in three months. Students work right in machine shops, traction engine house and auto garage; repair and drive engines and automobiles. Gas Engine Course may be taken with either the Traction Engine or Auto Course without extra tuition.
In all the Engineering Courses actual shop work is done by the students. Every aid is given to ambitious students with limited time and money. The tuition fees are small and living expenses low. The work done here is equal to that of the best Eastern colleges. For catalogue address

O. H. LONGWELL, President, Highland Park College, Des Moines, Iowa.

Regain Your Health.

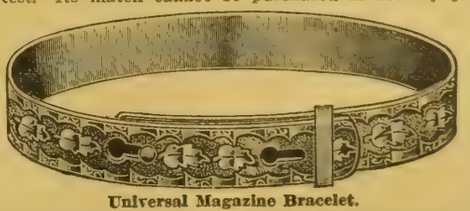
You ought not to wait another day before trying Bodi-Tone, which many of your neighbors have used to the great and lasting improvement of their health. You ought to test it, because you can get it on trial and need not pay a penny unless it greatly benefits you. Read the liberal Bodi-Tone trial offer on the last page of this paper and send for a box.

Live Stock in the East Indies.

Live stock in British India amount to 103,428,118 cattle, 16,952,364 buffalo, 23,235,176 sheep, 30,603,562 goats, 1,553,289 horses, 113,643 mules and 446,700 camels.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**
To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



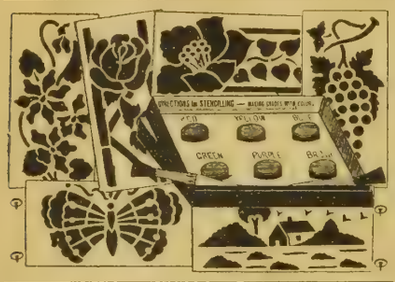
Universal Magazine Bracelet.

SPLENDID SUBSCRIPTION PREMIUM.

Beautify Your Home With This Popular Stencil Outfit.

Stenciling has long been a popular form of home decoration, and is today used more extensively than ever. Ladies are particularly apt at this work, and anyone can produce beautiful effects. From every standpoint stenciling is a very fascinating art of extreme usefulness. You can make the most artistic pillow tops, curtains, portieres, centers, etc., in colors for yourself or for sale, without having any knowledge of painting, by using this up-to-date outfit. In fact, stenciling is so simple with this outfit that a child ten years old can do it.

This outfit is just the thing for beginners. It consists of six cut stencils on special oil board, six cups of water colors (something new,



that will not spread, but dries instantly), two bristle brushes, four thumb tacks, also full and explicit directions for mixing colors and using stencils.

We have adopted the Popular Stencil Outfit as a subscription premium in connection with our monthly publication entitled The Universal Magazine. This is a nice, thirty-two-page, three-column magazine, issued monthly. It contains illustrated reading matter of interest to all the family. There are nice stories, historical sketches, selected poetry, a splendid line of patterns and a number of original household articles. The subscription price is 25 cents a year.

Our Subscription Proposition.

Send us fifty cents by postoffice money order and we will send you the Universal Magazine for two years and you can select the Popular Stencil Outfit as a free premium. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

UNIVERSAL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a

great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show.

The pretty Universal Embroidery Set illustrated shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us and consists of one large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us thirty cents and we will send you this dainty set for a short time only, absolutely safe delivery guaranteed, and the Universal Magazine for one year. The extra five cents is to pay postage thereon. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Coupon Worth a Fruit Jar.

Our lady friends are invited to understand the advertisement of the Hazel-Atlas Glass Company, of Wheeling, W. Va., on page 26. They manufacture the E-Z Fruit Jar and wish to introduce them into families where fruits and vegetables are canned. These jars are kept for sale by grocers, and if you can find the grocer handling their jars he will furnish you with a free sample that when canning time comes around you will buy their jars because you like them. It will do no harm to write the Hazel-Atlas Glass Company, Wheeling, W. Va., and ask for a free book on fruit jars.

MAY MANTON EMBROIDERY.

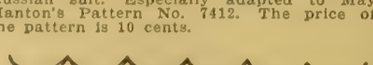
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.

Cushion Cover Embroidery.

No. 668.—Design for a cushion cover of supreme elegance and refined appearance. The price of the pattern is 10 cents.

Russian Suit Embroidery.

No. 667.—Design for embroidering a boy's Russian suit. Especially adapted to May Manton's Pattern No. 7412. The price of the pattern is 10 cents.



Scalloped Edge.

No. 666.—Design for a scalloped edge. The scallops are three inches wide and one and one-eighth inches in depth. Four yards and four corners are given. The price of the pattern is 10 cents.

A Stylish Collection.

No. 670.—Design for initial frames, suitable for handkerchief corners or any object requiring a small initial. Two transfers of each design are given. The price of the pattern is 10 cents.

Pin Cushion Cover.

No. 671.—Design for embroidering a removable cover for a pin cushion five inches wide by fifteen inches long. Two sides are given, the under side with edge and slits for ribbon only. The price of the pattern is 10 cents.

Embroidery Edging.

No. 669.—Design for an embroidered edge three-quarters of an inch in width. Four yards are given. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Dainty Colors.

She who would wear dainty-colored dresses must see that they are carefully laundered or they are soon faded and their beauty gone, and nearly all colors should set before washing.

A strong alum water is good for most tans, browns and blues, but the goods should not remain in the water; and purified oxgall is good for setting the different shades of pink, lilac and purple, and all nice colored garments should be washed, rinsed and dried as quickly as possible and the garments should be turned wrong side out and dried in the shade. No soap should ever be rubbed over dainty colors, but a nice suds should be made as for flannels, and the garment cleaned by pressing and squeezing between the hands.

An excellent way to clean delicate colored fabrics is to wash them through thin starch water without using soap, and the starch must be as smooth as can be without a lump in it. Rub through a second starch water and then rinse in blue water with a handful of salt, but no starch. The starch water cleans the goods perfectly, and there is plenty of starch left in the goods after rinsing to stiffen it sufficiently, and very dainty lawns can be kept in perfect condition with such treatment.

When the garment is perfectly dry, sprinkle with hot water, fold with as few creases as possible and roll up tightly, that it may be the same dampness all over when it is ironed, and iron on the wrong side.

No nice-colored goods should be subjected to sunshine while wet nor left in the wind after drying. When you have washed your pretty dresses your work is only half done. Be most careful about the way you hang them upon the line to dry, and when you are ironing one part of a dress, keep the other part pinned up in a cloth, and sometimes a pretty percale or muslin will fade with the most careful washing, and they can be colored some pretty color with the Diamond dye for cotton, and the work is easily done.

A faded muslin was colored a pretty shade of lavender and a faded percale was colored a dark shade of blue, and they looked almost as nice as new dresses, and a white lace waist was colored the same shade of blue with the same dye and then made over into a nice and serviceable waist, to be worn with a dark blue woolen dress skirt.

After washing any colored garment of a solid color, put a little dye of the same color in the rinse water each time they are washed, and they may be kept bright and new looking as long as they last.

Great care should be taken to keep the irons clean and smooth when ironing summer dresses, and they may be kept clean by rubbing them over coarse salt and then with a piece of beeswax tied up in a cloth and then over a piece of brown paper.—Aline.

BEAUTIFUL APRON PREMIUM.

To further introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine

white lawn, including piece for pocket and strings; also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Degrees of Fever.

The normal temperature of the body is 98.6 degrees Fahrenheit. When it is more or less raised above this there is said to be fever. Degrees of fever have been recognized as follows:

Temperature under 101 degrees Fahrenheit is slight fever.

Temperature under 103 degrees Fahrenheit is moderate fever.

Temperature under 105 degrees Fahrenheit is high fever.

Temperature at 106 degrees Fahrenheit is called hyperpyrexia.

Almost Enough.

A woman came into a photographer's studio in San Francisco the other day and said to the proprietor:

"Do you take children's photos?"

"Yes, certainly, madam."

"How much do you charge?"

"Five dollars a dozen."

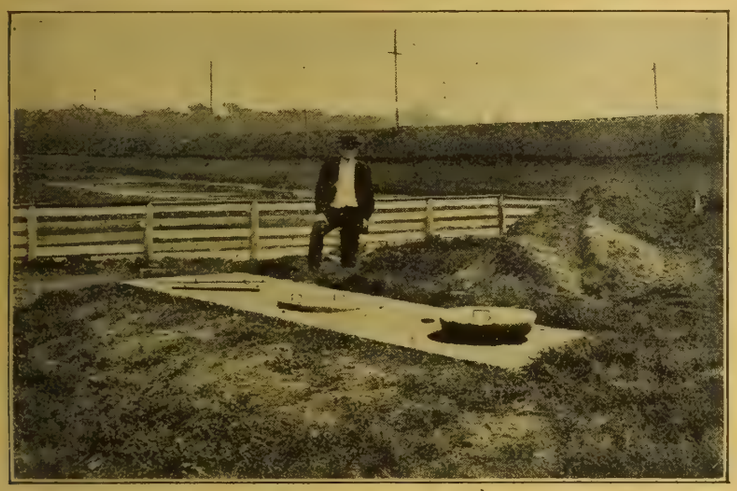
"Well," said the woman sorrowfully, "I shall have to see you again. I've only got eleven."—Denver Daily News.

Don't forget the four-paper combination on page 13.

SEWAGE DISPOSAL FOR COUNTRY HOMES.

Septic Tank Makes Modern Conveniences Possible.

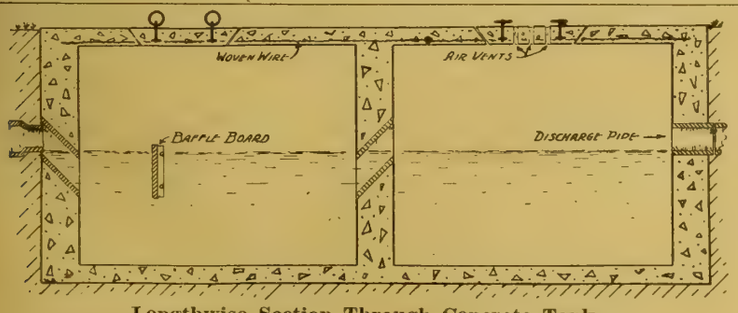
The general use in country homes of the modern conveniences of the bath and toilet has made necessary some effective and inexpensive means of disposing of the sewage. Otherwise the drinking water will be polluted and the health of the family endangered. Entire satisfaction is obtained by the use of the septic tank, which is nothing but a long water-tight cistern through which the sewage passes very slowly and evenly. Located underground, it is warm and dark—ideal conditions for the development of bacteria, little germs which eat up the sewage and render it harmless in much the same manner as another kind causes cider to ferment. The purified sewage, then merely clear water, may be discharged into an ordinary farm drain tile.



Concrete Septic Tank For Country Home.

Size of Tank Required.

Although the odor from a small septic tank is practically unnoticeable, yet it is best to locate it at least a hundred and fifty feet from the house. Choose a spot where it can be sunk to ground level and will be out of danger of flood waters. The tank should be large enough to hold the entire sewage for one day. For a family of eight to ten, plan a concrete tank of two compartments, each four by four by five feet long. Since the top and bottom are each four inches thick and the division and sidewalls eight inches, dig the pit four feet eight inches deep, five feet four inches wide and twelve feet long.



Lengthwise Section Through Concrete Tank.

Making the Forms and Pouring the Concrete.

If the ground stands firm, only inside forms will be needed. Make two, each four by four by five feet long. Old one-inch lumber will do for the siding. The compartment into which the sewage first enters is called the "charge tank." In each end of the wooden form for this tank cut openings for a five-inch tile with the lower edge of the hole sixteen inches above the bottom of the form. Through each of the sidewalls of this same form, eighteen inches from the inlet end and one and one-half and two feet above bottom, bore one-inch holes and insert in them greased wooden pegs extending four inches into the future sidewalls. Likewise, in the other form for the discharge tank, cut openings for a five-inch tile, this time with the lower edge of the hole two feet above the bottom.

Mix the concrete one part Portland cement to two parts sand to four parts crushed rock, or one part cement to four parts pit gravel. Place the four inches of concrete in the bottom and trowel to an even surface. Immediately set the forms in place so as to leave room for eight-inch division and sidewalls. Fill the forms with mushy wet concrete. At the proper heights insert the five-inch drain tile through the holes in the forms. Be careful that the outside end of the inlet tile to the charge tank is two feet and its other end sixteen inches above the tank bottom. The pipe leading from the charge tank is also set at the same sharp slope. The outlet tile from the discharge tank is two feet above bottom and with both ends level. By this arrangement of pipes, the sewage is kept in the tank to the depth of two feet and the ends of the tile in the charge tank are trapped or air-sealed, which aids the activity of a certain kind of bacteria. Likewise, other bacteria are developed in the discharge tank by means of the free circulation of air through the discharge drain tile and holes in the manhole cover.

Reinforced Top and Manhole Covers.

After the sidewalls are three days old, floor over the top of the forms and prepare to lay the four-inch concrete top. As molds for the manhole covers, have the tinner make two round bottomless dishpans, eighteen inches in diamter at the bottom and twenty-four inches at the top. Grease these tin molds and set one on the wooden floor over each compartment. Bore six one-inch holes in the floor inside the one manhole mold over the discharge tank and insert in them greased pegs projecting upward six inches.

Place one inch of concrete over the entire floor and at once lay on it, crosswise the tank, strips of heavy woven-wire fencing five feet two inches long, or three-eighths-inch rods running in both directions and spaced one foot. Likewise reinforce the manhole covers. Immediately place the remaining three inches of concrete and do not stop until the tank top and manhole covers are finished. Provide two lifting-rings for each cover by setting in them halves of old bridle-bits, or hitching-post rings, fitted with knobs of wire or with nuts and large washers. If a square wooden manhole mold is used, the concrete cover cannot be cast at once. In such case, carefully remove the wooden manhole form five hours after the top has been finished. Three days later mold the cover the same as for the tin form with this important exception—place heavy paper or cardboard around the edges of the opening to prevent the fresh concrete of the cover from setting to the old concrete.

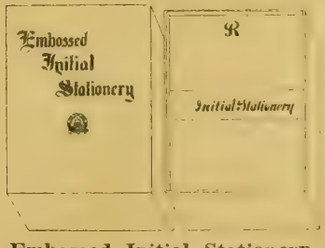
When the top of the tank is ten days old, lift off the manhole covers, saw openings in the wooden top and remove the forms. In the holes made in the sidewall by the greased wooden pegs, insert one-half-inch bolts and set them with mortar. To these bolts fasten the one by twelve-inch wooden baffle-board with extends across the tank and breaks up the current of the inflowing sewage. To carry the sewage from the house to the tank, use four-inch sewer pipe laid with tight mortar joints. Connect the discharge end of the tank with a string of drain tile.

The materials required for the tank described above are 5½ cubic yards of crushed rock, 2¾ cubic yards of sand and 9 barrels of Portland cement. If good pit gravel is used, no additional sand will be required.

When the septic tank is two weeks old it may be put to use. It will need cleaning at intervals of two to three years. By its use the health of the family will be protected and life in the country home will be made much more comfortable.

Universal Magazine Initial Stationery.

One of the most refined and elegant subscription premiums ever offered. A box of superfine white, cloth-finish embossed initial stationery sent free, postpaid, and safe delivery guaranteed. This is a splendid subscription premium offer in connection with our interesting publication entitled the Universal Magazine. The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions. patterns and poetry—a splendid publication for the money.



Embossed Initial Stationery.

Our Subscription Proposition.

To anyone who will send us a money order for 50 cents we will send the Universal Magazine for two years, and they can select their own letter as the initial for the stationery, and we will send the box as a subscription premium postpaid. Money returned if not satisfied. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

"In One Hour I Learned to Play the Piano at Home"

FREE

Without Lessons or Knowledge of Music You Can Play the Piano or Organ in One Hour.

This Wonderful New System Sent Free, If You Write at Once.

"Just Think, I Never Touched a Piano Before!"

Impossible you say? Then write at once for this wonderful New Method and prove by actual test without going to any expense.

A musical genius from Chicago has invented a wonderful system, whereby any one can learn to play the Piano or Organ in one hour. With this new method you don't have to know one note from another, yet in an hour of practice you can be playing the popular dance music and songs with all the fingers of both hands, and playing it well

The invention is so simple that even a child can now master music without costly instruction You can have this system free, merely by asking, if you write at once. Simply write, saying, "Send me the Easy Form Music Method as announced in The National Farmer and Stock Grower.

The system will then be sent to you Free, all charges prepaid and absolutely not one cent to pay.

This wonderful system is so plain and easy that the moment you see it and get this free method you will be astonished to find that what seemed a great task with years of study, has been mastered with just one single hour of practice You will be more than delighted. Write at once. It will not put you under any obligations to buy anything, or pay one cent We are sending a free trial to one person in each locality, merely to demonstrate this marvelous method. We prepay all charges. State number of white keys on your piano o Organ. Address: Easy Method Music Co., 2831 Clarkson Bldg., Chicago, Ill.

A Famous Grape Grower.

Mr. Geo. S. Josselyn, of Fredonia, N. Y., died at his home, June 17th, on his 70th birthday. Since 1878 he was interested in grape culture and established what afterwards became the largest and best known grape and small fruit nursery in the country. It was his grape nursery that furnished the two-year-old grapevines used by this publication as a subscription premium.

MAY MANTON PATTERNS.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering.

DAINTY DRESSES.

No. 7467.—Girl's Dress. Eight to twelve years. With round or high neck, short or elbow sleeves. 3⅛ yards 36 inches wide, 2¾ yards 44 inches wide, for the ten-year size.

No. 7495.—Girl's Box-plaited Dress. Six to twelve years. With square or high neck, short or long sleeves. 3 yards 36 inches wide, 1¾ yards of banding, for the eight-year size.

No. 7481.—Girl's Costume. Ten to fourteen years. No. 583 Embroidery Pattern. With tunic closed at the shoulders and six-gored skirt. 5 yards 36 inches wide, 5½ yards of banding, 3 yards of edging, to make as shown in back view, for the twelve-year size.

No. 7326.—Child's Dress. Four to eight years. 2¼ yards 36 inches wide, 1 yard 27 inches wide for trimming, for the six-year size.

No. 7257.—Child's Dress. Four to eight years. To be worn over any gulmpe. 3¼ yards 36 inches wide, with 1 yard 27 inches wide for trimming, for the six-year size.

The price of each pattern is 10 cents.

FASHIONABLE MODELS.

No. 7303.—Square-yoke Blouse. 34 to 42 bust. With low neck and without lining or with high neck and lining and undersleeves. 1 yard 36 inches wide, with 3 yards of banding to trim as shown in front view. 1¼ yards 18 inches wide for yoke and undersleeves and ⅝ yard of silk for bands, as shown in back view, for the medium size.

No. 7188.—Blouse For Misses and Small Women. Sixteen and eighteen years. With set-in sleeves, with or without eyelets and lacings. 1⅞ yards 36 inches wide, 1¼ yards of braid, 2 yards of cord for lacings, for the sixteen-year size.

No. 7463.—Tucked Kimono Blouse. 34 to 40 bust. With or without gulmpe lining. 1¾ yards 36 inches wide with 1 yard 18 inches wide for collar, ¾ yard 18 inches wide for yoke and undersleeves, for the medium size.

No. 7344.—Two-piece Skirt. 22 to 30 waist. With high or natural waist line, with or without circular ruffles. 2½ yards of material 36 inches wide for plain skirt, with 2 yards 36 inches wide for ruffles, for the medium size.

No. 7367.—Two-piece Skirt With Tunic Effect. 22 to 30 waist. With high or natural waist line, with inverted plaits at the sides. 2½ yards of material 36 inches or 44 inches wide, with 2 yards 36 inches wide for foundation.

No. 7471.—Four-piece Skirt With Tunic Effect, For Misses and Small Women. Sixteen and eighteen years. With high or natural waist line. 3¼ yards 36 inches wide for upper portion, ⅞ yard 36 inches wide for lower portion, for the sixteen-year size.

The price of each pattern is 10 cents.

MODELS FOR MISSES AND SMALL WOMEN.

No. 7337.—Mannish Shirt Waist For Misses and Small Women. Fourteen, sixteen and eighteen years. With turned-over collar and turned-over or straight cuffs. 1¾ yards 36 inches wide, for sixteen-year size.

No. 7287.—Fancy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without lining with undersleeves, with high or natural waist line. 2 yards of material 36 inches wide, with 1 yard 18 inches wide for yoke and undersleeves, ¾ yard of lace for the sleeve frills, ⅜ yard of silk for piping, for the sixteen-year size.

No. 7308.—Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. With straight skirt, with or without lining that can be made with high or low neck, with or without undersleeves. 3¾ yards 36 inches wide, with 1¼ yards 44 inches wide for frill and 5½ yards of rosebud banding, ⅞ yard 18 inches wide for yoke and undersleeves, for the sixteen-year size.

No. 7494.—Five-gored Skirt. 22 to 32 waist. With high or natural waist line. 3¾ yards 36 inches wide when material has figure or nap, 4¾ yards 27 inches wide when material has neither figure nor nap, for the medium size.

No. 7321.—Two-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without pointed extensions on front portion. 2¼ yards 36 inches wide, for the sixteen-year size.

The price of each pattern is 10 cents.

PRETTY MODELS.

No. 7468.—Fancy Blouse. 34 to 40 bust. With or without chemisette and high collar, with sleeves open or closed, with or without undersleeves. 2 yards 36 inches wide, 1 yard 18 inches wide for collar, ⅝ yard 18 inches wide for undersleeves, ⅛ yard for chemisette and stock collar, for the medium size.

No. 7493.—Blouse or Shirt Waist. 34 to 44 bust. No. 583 Embroidery Pattern for scallops. No. 652 Embroidery Pattern for daisies. With round or square collar, three-quarter or set-in long sleeves. 2 yards 36 inches wide for the medium size.

No. 7470.—Semi-Princess Gown. 34 to 42 bust. 3 yards 36 inches wide for blouse and upper portion of skirt, 3 yards 36 inches wide for front and lower portion of skirt and trimming, ⅝ yard 18 inches wide for collar, for the medium size.

No. 7477.—Four-piece Envelope Skirt. 22 to 30 waist. With or without plaited portion, with high or natural waist line. 5 yards of material 36 inches wide for plain

skirt, when material has figure or nap; 4¼ yards 36 inches wide when material has neither figure nor nap; 1 yard 36 inches wide for plaited portions, for the medium size.

No. 7483.—Four-gored Skirt. 22 to 30 waist. With high or natural waist line, with tucked or plain front gore. 4½ yards 36 inches wide to make with tucked front gore, 2¾ yards 36 inches wide, with 1¼ yards of flouncing 44 inches wide to make with plain front gore, as shown in small view, for the medium size.

The price of each pattern is 10 cents.

PRACTICAL MODELS.

No. 7469.—Coat For Misses and Small Women. Fourteen, sixteen and eighteen years. With diagonal or straight front, with or without belt. 2⅞ yards 36 inches wide for the six-year size.

No. 7487.—Norfolk Coat. 34 to 40 bust. 3¼ yards 36 inches wide, ¼ yard 21 inches wide for collar for the medium size.

No. 7479.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. With two-piece skirt and set-in sleeves in full or three-quarter length. 4 yards 36 inches wide, ⅝ yard 18 inches wide for collar and cuffs, for the sixteen-year size.

No. 7474.—Five-piece Skirt For Misses and Small Women. Sixteen and eighteen years. With inverted plaits at the sides, high or natural waist line. 4½ yards of wide for collar, for the medium size.

No. 7473.—Four-piece Skirt With Tunic Effect. 22 to 30 waist. With high or natural waist line. 2⅝ yards 36 inches wide for upper portion of tunic, 1 yard 27 or 36 inches wide for lower portion, for the medium size.

The price of each pattern is 10 cents.

MISCELLANEOUS STYLES.

No. 7486.—Seven-gored Princess Slip For Misses and Small Women. Fourteen, sixteen and eighteen years. 5¼ yards 36 inches wide for plain slip, 3 yards of embroidery 4 inches wide, 9 yards of insertion, 4¼ yards of beading, for the sixteen-year size.

No. 7478.—Princess Slip or Petticoat. Two to six years. With round, square or high neck, sleeveless, or with long or short sleeves. 1½ yards of material 36 inches wide, with 2 yards of embroidery 4½ inches wide, 2¼ yards of insertion, 1½ yards of edging, for the four-year size.

No. 7489.—Work Apron With Cap and Sleeves. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust. 4½ yards 36 inches wide for apron and sleeves, ⅝ yard either width for cap, for the medium size.

No. 6980.—Seven-gored Petticoat With Habit Back. 22 to 32 waist. 3⅝ yards 36 inches wide, 3 yards of embroidery, 2⅝ yards of insertion, 2 yards of beading, for the medium size.

No. 7480.—Girl's Bloomers. Six to twelve years. To be attached to underwaist or made separately. 2 yards of material 36 inches wide, 1½ yards 44 inches wide for bloomers, ¾ yard 36 inches wide for underwaist, for the ten-year size.

The price of each pattern is 10 cents.

EVERY-DAY ATTIRE.

No. 7484.—Tucked Blouse or Shirt Waist. 36 to 46 bust. With rolled-over or straight cuffs, with or without high turned-over collar. 2⅝ yards 36 inches wide, 2 yards 44 inches wide, for the medium size.

No. 7476.—Fancy Blouse. 34 to 40 bust. With or without lining, with or without revers, with high or round neck, with set-in sleeves in three-quarter or full length. 2¼ yards 36 inches wide, with ⅞ yard 27 inches wide for trimming, ⅜ yard of all-over lace 18 inches wide, 3 yards of lace for frills, for the medium size.

No. 7340.—Semi-Princess Gown. 34 to 42 bust. With set-in sleeves in three-quarter length with cuffs, or loose in elbow length, with square collar or high neck and turned-over collar. 5¾ yards 36 inches wide, with 1 yard 27 inches wide for trimming, for the medium size.

No. 7301.—Girl's Dress. Eight to twelve years. With sleeves sewed to the armholes, with or without shield, with straight-plaited skirt. 3½ yards 36 inches wide, with 1 yard 27 inches wide for the trimming, ½ yard of all-over lace 18 inches

wide and ⅝ yard of lace for undersleeves, for the ten-year size.

No. 7482.—Girl's Costume. Eight to twelve years. With belted blouse and six-gored skirt and collar that can be made square or round. 4½ yards 36 inches wide, ½ yard 27 inches wide for collar and cuffs, for the ten-year size.

The price of each pattern is 10 cents.

SUITS AND BLOUSES FOR BOYS.

No. 7485.—Boy's Blouse. Four to twelve years. With high or round collar, rolled-over or straight cuffs, with or without yoke on back. 2 yards 36 inches wide for the ten-year size.

No. 6918.—Boy's Russian Blouse. Six to twelve years. 2 yards 36 inches wide for the ten-year size.

No. 7472.—Boy's Suit. Two to eight years. 3¼ yards 36 inches wide, ½ yard 27 inches wide for collar, for the six-year size.

No. 7390.—Boy's Suit. Six to twelve years. With neckband or collar. 3⅝ yards 36 inches wide for the eight-year size.

No. 7400.—Boy's Suit. Two to six years. 2½ yards 36 inches wide for the four-year size.

The price of each pattern is 10 cents, which will be mailed to any address by the Fashion Department of this paper on receipt of amount.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

SELECTED POETRY.

ALL'S WELL.

The sun is busy bringing the havest time along;
The rattle of the "mower" is blended into song;
Where swallows dip and circle above the new-mown hay
The incense of the meadows is blown along the way;
The clouds are high and fleecy, there's promise everywhere,
And who would not be hopeful, with all the world so fair?

The fretful politicians are going to and fro,
Arousing foolish passions, predicting future woe;
With selfish hopes they hurry from place to place to plead
Or utter foolish warnings the foolish only heed;
Their mouths are full of hatred, their hearts are full of spite,
But who woud not be hopeful, with all the world so bright?

The willows bend serenely above the placid stream,
Within the peaceful shadows the herds lie down to dream;
The "mower" blithely rattles, and many a fairy fleet
Is tossed upon the billows that cross the fields of wheat;
The bees, lured by the clover, seek hidden sweetness there,
And who would not be hopeful, with all the world so fair?

Urged by their own ambitions the politicians roar
Concerning ills that threaten and woes that are in store;
For selfish ends they vainly attempt to terrorize;
With cheap conceit they tell us they only are the wise;
But summer's joys await us, the clouds are high and white,
And who would not be hopeful, with all the world so bright?

—S. E. Kiser.

THE RENEGADES.

The last of the longhorn steers were they—
The last of the herds, far-flung,
That were trailed from the Rio Grande way
In the days when the West was young;
They had cunningly dodged the round-up hands
When the range was combed in the spring,
But we drove them at last to a final stand—
God! the race was a noble thing.

They had fled through the stunted cedar trees
That dotted the mesa top,
But, with heaving sides and trembling knees,
We brought them at last to a stop;
But the fire was bright in each wild eye,
And they bellowed and pawed the dirt,
And they flung their spreading horns on high
As they ended that last, long spurt.

Then our grizzled foreman, Texas Bill,
Spoke up, in a voice most queer:
He said: "I know we've got to kill
The last durn renegade steer.
But I've seen the time when their like was strung
For miles on the Chisholm trail—
When you heard the songs the cowboys sung
To the herds when the moon was pale.

"I've seen the time when their spreading horns
Was thick as the scrub oak trees—
When they growed like the prickly cactus thorns
On a million steers like these;
So I'm goin' to hit the back trail here—
You cowboys can do the rest—
And I'll know, when I hear your shots ring clear,
It's the last of the old-time West!"
—Arthur Chapman, in Denver Republican.

A CATTLE RANGE AT NIGHT.

The prairie zephyrs have dropped to rest,
And the dust clouds settle down;
The sun dips low in the golden West,
O'er the mesa, bare and brown.
The tired riders come loping in,
As the hills grow dim and strange,
And the songs of the insect world begin—
'Tis night on a cattle range.

The stars gleam out in the calm, clear sky
Like twinkling orbs of light,
And over the range drifts the coyote's cry,
Through the star-lit summer night.
The night-hawk whirls in its ceaseless rush,
As the evening breeze is stirred,
And the cowboy's song breaks the lonely hush
As he circles the bedded herd.

The campfire throws but a fitful glare,
And the buttes, like specters, rise
Far over the deep arroyo there,
As sentinels of the skies,
While the silent forms in their blanket-beds,
Dream on, to the night wind's sigh,
As gently about their sleeping heads
The breeze drifts idly by.

The moon steals up o'er the dark butte's crest,
In silvery shafts, which gleam
And sparkle there on the brown earth's breast
Like gems in a fairy dream.
The night creeps on with its mystic charms,
To the song of the whippoorwill,
And drifts to Dreamland in Nature's arms,
And the range grows hushed and still.
—E. A. Brininstool.

THE DUDE RANCH.

We used to run a cow ranch,
In all that old term meant,
But all our ancient glories
In recent years have went;
We're takin' summer boarders,
And, puttin' it quite rude,
It's now the cowboy's province
To herd the festive dude.

We used to run an outfit,
The greatest in the West;
Our cowboys were the wonders—
Our roundups were the best;
The punchers are still with us,
But now they merely guide
The tenderfoot from Boston
Who's learning how to ride.

We used to brand our cattle
And ship 'em wide and far;
But now we import humans
From off the Pullman car;
The dudies have got us captured
And tied and branded, too;
And the cowboy 's readin' Ibsen
When his daily toil is through.
—Denver Republican.

HOPE.

The wretch condemned with life to part,
Still! still! on hope relies,
And every pang that rends the heart
Bids expectation rise.

Hope, like the glimmering taper's light,
Adorns and cheers the way;
And still, as darker grows the night,
Emits a brighter day.
—Goldsmith.

NOT SO ROMANTIC.

With a glance fair Claribel
Swept the room;
Might have done it just as well
With a broom.
—Exchange.

Whenever you see an Arrow think of Coca-Cola.

Satisfies

There never was a thirst that Coca-Cola couldn't satisfy.
It goes, straight as an arrow, to the dry spot.
And besides this,

Coca-Cola

satisfies to a T the call for something purely delicious and deliciously pure—*and* wholesome.

Delicious
Refreshing
Thirst-Quenching

Demand the Genuine as made by

THE COCA-COLA CO., ATLANTA, GA.

Free Our new booklet, telling of Coca-Cola vindication at Chattanooga, for the asking.

3-J

Was a Just Debt.

A noted lawyer of Tennessee, who labored under the defects of having a high temper and of being deaf, walked into a court room presided over by a younger man, of whom the older practitioner had a small opinion.

Presently, in the hearing of a motion, there was a clash between the lawyer and the judge. The judge ordered the lawyer to sit down, and as the lawyer, being deaf, didn't hear him and went on talking, the judge fined him $10 for contempt.

The lawyer leaned toward the clerk and cupped his hand behind his ear.

"What did he say?" he inquired.

"He fined you $10," explained the clerk.

"For what?"

"For contempt of this court," said the clerk.

The lawyer shot a noisome look toward the bench and reached a hand into his pocket.

"I'll pay it," he said. "It's a just debt."—Saturday Evening Post.

His Sarcasm.

"You have a lovely complexion," began the lover.

"Thank you," answered his fiancee, suspiciously. "Why speak of it?"

"It's so smooth and white and—er—natural—"

"It is. But you don't talk straight. Don't you believe that my complexion is my own?"

"Why, certainly, my own!"

"Then why refer to it at all?"

"I—I just wondered why it was that every time I leave you at night and go to the club the fellows all say that I've been eating marshmallows."

That's the real reason the engagement was broken.—Cleveland Plain Dealer.

Why Doesn't Smith Tumble?

"Jones is getting $5,000 a year and has a promise of further promotion."

"Wonderful fellow, Jones. He takes to his daily routine like a duck does to water. It's a pleasure to work near him."

"On the other hand, isn't it funny about Smith?"

"Yes, I feel sorry for Smith. But five years he's never got above $1,000. If he pastes on a postage stamp he makes work out of it."—Exchange.

Chronics

Don't Spend A Penny

No matter what your ailment may be, we want you to try a box of Bodi-Tone entirely at our own risk. No matter how old you are, no matter how long you have been sick, no matter what you have used without success, we are willing to send you a dollar box of Bodi-Tone, for you to try, without a penny from you. We don't care what doctors have told you, we don't care whether you have any confidence or belief in Bodi-Tone, we are glad to have you and *every chronic sufferer* try it at our risk. Don't spend a penny until you have tested it, until you are sure it is a right medicine for you, until you have seen and felt its curative and restorative powers in your own body. We know Bodi-Tone, we know what it does, we know the gratitude of the sick when they find the right medicine. We trust entirely to the power of Bodi-Tone and to *your gratitude when you feel that power*. We know you will gladly pay for permanent benefit, the kind Bodi-Tone brings.

All you need do is send us the coupon which tells us you want to try Bodi-Tone, with your name and address, and we will hand a dollar box of Bodi-Tone to you, to try at our risk.

We want to put Bodi-Tone in the hands of every *chronic sufferer*, to prove how Bodi-Tone is different from ordinary medicines, and therefore address this offer to "*Chronics*," for they are the ones who need Bodi-Tone the most. They are the ones who have wasted money over and over again without benefit, and that is why we say plainly, "Don't spend a penny for Bodi-Tone until you are sure it is the right medicine for you." A trial of Bodi-Tone at our risk and expense is not a gamble or an experiment, *but a test of a medicine that has already cured thousands*, a test that has proven in thousands of cases that Bodi-Tone is a right medicine for chronic sufferers, for poor, thin-blooded, weak, debilitated, worn-out, Rheumatism-racked, Stomach-tortured, Kidney-tyrannized, Heart-frightened men and women. A test of Bodi-Tone at our risk is a test that leads to our pay and Bodi-Tone's popularity. That is why we take all the risk and why we say to you and every chronic sufferer--Try a box of Bodi-Tone, but don't pay a penny until you have proven its worth to you.

Bodi-Tone Does Just As Its Name Means

It cures disease by toning all the body, and we want to show you what it will do for *your* body. Bodi-Tone is a small, round tablet, that is taken three times every day. Each box contains seventy-five tablets, enough for twenty-five days' use, and we send you the full box on trial so you can try this great remedy and learn what it is, so you can learn how it works in the body, how it *cures stubborn diseases* by helping nature to tone every organ of the body. Tone is a little word, but it means a great deal, everything in health. When all the organs are doing their part, when each is acting in a perfectly natural way, when all the functions are healthy and performed with natural vigor, when the energy, strength and power of resistance to disease are all at a natural point, then the body is in proper tone. When disease has attacked any part, when lack of vitality is found and felt, the tone of the entire physical body should be raised to the highest possible point, to make all the body help to cure and restore. This is the power which underlies all of Bodi-Tone's great work for the sick, this is the power it offers you to help you get new health and strength, new vigor and new vitality.

Not a Patent Medicine

Bodi-Tone is not a patent medicine, for its ingredients are not a secret. It contains Iron Phosphate, Gentian, Lithia, Chinese Rhubarb, Peruvian Bark, Nux Vomica, Oregon Grape Root, Cascara, Capsicum, Sarsaparilla and Golden Seal. Such ingredients guarantee its merit.

When you use Bodi-Tone you know just what you are using, know it is pure and safe and know you are taking the right kind of medicine to provide real help for the body. It contains nothing that your own family doctor will not endorse and say is a good thing. It does not depend on killing pain with cocaine, opium, morphine or other dangerous drugs. It does not excite the body with alcohol, but it tones the body and cures its disorders with remedies nature intended to tone and cure the body when that power was given them. Thus, Iron gives life and energy to the Blood, Sarsaparilla drives out its impurities, Phosphate and Nux Vomica create new nerve energy and force, Lithia aids in the Kidneys and dissolves rheumatic deposits, Gentian does invaluable work for the Stomach and Digestive forces, Chinese Rhubarb and Oregon Grape Root promote vigorous Liver activity, Peruvian Bark raises the tone of the entire system, Golden Seal soothes the inflamed membrane and checks Catarrhal discharges, Cascara gives the Bowels new life in a natural way, and Capsicum makes all more valuable by bettering their quick absorption into the blood. Every one of these ingredients possesses characteristics most valuable in this common-sense plan of toning all the body. Each exerts a special action in some certain part, organ or function of the body that helps to bring the whole body *back to nature and to health*. Its method is right.

Natural Curatives To Make Natural Health

Each Bodi-Tone ingredient adds a needed element from nature to the body, for Bodi-Tone is altogether *a natural remedy*. Each has a certain work to do in the body and does it well, in a natural manner. They are used in Bodi-Tone because of this ability. We claim no credit for discovering these valuable ingredients, each of which has a well deserved place in established medical science. We claim only the credit for our successful Bodi-Tone formula, which is our own discovery, for the way in which we have *selected, proportioned and combined these great natural curatives*, and for the health-making work which Bodi-Tone has so well proven its ability to perform in the body. The curative forces which Bodi-Tone so ably uses are the forces which have always existed in nature for the restoration of the body's health. Many are regularly prescribed by good physicians in combination with such drugs as each doctor may favor, for there are wide differences of opinion among doctors of various schools. The *exact combination used in Bodi-Tone* is what gives it the far-reaching and thorough curative and restorative power that makes possible the remarkable cures experienced by Bodi-Tone users, cures which prove the difference between Bodi-Tone and common remedies, cures which have won the gratitude of thousands.

You Need Bodi-Tone To Set Your Body Right

If you are tired of continual doctoring and bad health, if you are wearied of feeling you cannot depend on your body to act right and do its full duty, *you need Bodi-Tone right now*, and this offer gives you a chance to try it without risking a penny. You need it to seek out your weak spots and make them stronger, to stop the leaks which have been draining your vitality, to make your organs capable of giving you the right measure of strength, vigor, energy and full-blooded comfort your body should have. If there is anything wrong in your body, if any organ is acting in a way which you realize and know is not right, send for Bodi-Tone on this trial offer and give it a chance to set you right. If you do not feel right, eat right, sleep right, weigh right, work right and think right, now and all the time, put Bodi-Tone in command of your body for twenty-five days. Let it marshal your bodily forces, let it line them up and work them into shape, until all are marching along straight, strong and harmoniously, in perfect time, tune and tone, for that is what Bodi-Tone is for and what it is doing for thousands. If the doctor's prescriptions and ordinary medicinal combinations have failed, let this scientific combination of special remedies show and prove what it can do for you. Its greatest triumphs have been among men and women who had chronic ailments, who had used patent medicines and had doctored with their local doctors and out-of-town specialists, all without lasting benefit. It is because of its great work in these cases that all chronic sufferers and persons with obstinate diseases are invited to try a dollar box of Bodi-Tone at our risk.

Why be a Slave To Bad Health?

Why remain in ill-health month after month, why allow your body to make you a slave to ills, humours, distress and discomforts, when it is so easy to procure a trial box of this home treatment which has restored thousands to vigorous health and glorious strength? Why delay another day, when a trial of this proven medicine is yours for the asking? Why keep on suffering, when by filling in your name and address on the trial coupon and mailing it to us, you can get a full twenty-five days treatment of this great remedy which people everywhere are praising and talking about. It just costs a two-cent stamp, and you don't need to pay a single penny for the medicine unless Bodi-Tone benefits you. You have all to win and nothing to lose, no matter what your ailment may be, by thus trying it.

Thousands of Cures

of Rheumatism, Stomach Trouble, Kidney, Liver and Bladder Ailments, Uric Acid Diseases, Female Troubles, Bowel, Blood and Skin Affections, Dropsy, Piles, Catarrh, Anaemia, Sleeplessness, LaGrippe, Pains, General Weakness and Nervous Break-down, have fully proven the power and great remedial value of Bodi-Tone in such disorders. Each one got a dollar box on trial, *as we offer to you in the coupon.*

Its history of success has proven beyond a shadow of doubt how the Bodi-Tone plan of *toning all the body* is a right plan that helps to *cure* these and other disorders, that it is *a real aid to nature*. Many who had for years been in poor health and had tried good doctors and most all of the prominent medicines, have found that *one single box of Bodi-Tone* did more good than *all* other treatments combined. It goes to the root in the body and cures because its work is rational and thorough, the only kind that makes cures permanent. Read the reports, showing how Bodi-Tone makes new health and strength, send the coupon for a box on trial at our risk and see if it will not prove the *right thing* for you.

Doctor Said Nothing Would Help

OSWEGO, OREGON.—I am seventy-three years old, and had Catarrh of the Stomach and Bladder, Rheumatism and Heart Trouble for many years. I had such sharp, shooting pains that I thought they would kill me. I doctored for years, having had three of the best doctors in California and Oregon, but they did me no real good. When I got Bodi-Tone I was down in bed. My doctor said it would make no difference what I took, for I could not get any better. Well, that was over a year ago, and I am still alive and can split and saw wood and do a pretty fair day's work. The doctors said I had a slow heart, and for years I could not sleep on my left side, but now I lie down any way I happen to get into the bed and sleep until daybreak. The doctors used to inject morphine into me to kill the pain, but since I have used Bodi-Tone I have no pain. My feet and limbs used to swell clear to my knees, and my hands also, and now all is gone, along with the Rheumatism which I had for forty years. My Kidneys, Liver and Stomach do not bother me, and I can eat a good meal. Bodi-Tone was a blessing to me in my old age. G. M. SIMMONS.

Saved Her Life and Made Her a Well Woman

ATLANTA, TEXAS.—I feel like telling everyone what Bodi-Tone has done for me. I was almost dead when I saw it advertised. I read what it was made of and thought it might be the right medicine for me. I had tried most everything in the way of medicine; nothing seemed to do me any good. I have paid hundreds of dollars trying to get well, but all in vain. I was sick all over. I had Kidney, Bladder and Heart Trouble, Cramps, Nervousness and Constipation. I was past walking when I commenced taking Bodi-Tone. Now I am well of all those diseases. I have no pain anywhere in my body. Bodi-Tone saved my life, and I thank the Lord that I got the right medicine in time, for I was very far gone. MRS. S. A. PHILLIPS.

Permanently Cured a Year Ago

NORTH EASTHAM, MASS.—It is now over a year since I took Bodi-Tone, and I have waited to see if my troubles would return, but as they have not I feel it my duty to the public to testify what the medicine has done for me. I had Palpitation of the Heart so bad that I could hardly walk, and could never lie on my left side. I had Indigestion so serious that the doctors thought I must die, but since taking Bodi-Tone I am a well man. I can eat anything I want at any time and nothing hurts me. I have had no trouble during the year with either my Heart or my Stomach and sleep well at night, lying on either side. I am seventy-seven years old, and can now do a very good day's work alongside men of forty, and Bodi-Tone made it all possible. WARREN K. SNOW.

Trial Coupon

Clipped from Nat'l Farmer and Stock Grower

Bodi-Tone Company, Hoyne & North Aves., Chicago.

I have read your offer of a dollar box of Bodi-Tone on 25 days' trial and ask you to send me a box by return mail, postpaid. I will give it a fair trial and will send you $1.00 promptly when I am sure it has benefited me. If it does not help me I will not pay one penny and will owe you nothing. Neither I nor any member of my family have ever used it.

Name _____

Town _____

State _____

Street or R. F. D. _____

Husband and Wife Trial Offer When this trial offer is read in a home where husband and wife are both ailing and need Bodi-Tone, we will send TWO BOXES on trial, with the understanding that each will use a box, and pay us $1.00 each if benefited. In such cases this Coupon should be signed with the husband's name, followed by the words "and wife." Write name in this way and we will know *two boxes are wanted for husband and wife*, the only way we ever send two boxes on trial.

National FARMER

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JAY McGREGOR, 2:07¼—A TROTTING SIRE BY JAY HAWKER. A stallion whose record as a track performer is far surpassed by his fame as a sire of speed. There are few horses that stand better in the estimation of lovers of horses than the farm-raised JAY McGREGOR.

Address to Patrons and Friends.

During the months of September and October many thousands of subscriptions to The National Farmer and Stock Grower expire, and during these months we make every effort to obtain renewals. This year we are able to offer a subscription premium which we are proud to send to our patrons and which they are all delighted to receive. We refer to the Book of Live Stock Champions, which is fully advertised in this issue on page 22. Every picture in the book is excellent. There are seven hundred and fifty pictures, with record, owner and interesting features and history. It is beautifully bound in blue silk cloth. We are receiving compliments upon the splendid work, and, what is still better, our friends who receive the book are in turn recommending it to their friends. We specially solicit renewal of subscriptions. If you are not inclined to take the Book of Live Stock Champions, "The American Government" is another book well worth owning, and is one of our favorites. In any event, we will appreciate all our friends and patrons can do for us in the way of subscriptions, especially in the month of September.

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and Stock GROWER

The Farmer's House.

The farmer's house is a very great factor in the life of the farmer, and even more in the life of his family. The neglect of the farm house has doubtless more than once driven the children from the farm to seek more attractive homes in the cities.

Pride counts with young children, especially with those of spirit and ambition. To-day, more than ever before in the history of the world, the children have high ideals, for they have become accustomed to reading books. In these books they find the ideal homes and beautiful houses. If the farm house in which they live is unpainted and dropping to pieces, it will fall so far below their ideals that they will be very uncomfortable when their friends come to see them and will look forward to the time when they can go out from the old house forever.

This is a very undesirable frame of mind in which to have the children of the farm home. It deprives them of that inspiration they should have. It is far better to reverse things and make the farm house and the farm home so attractive that the children will be proud of them, whoever comes to see them.

The farmer can well afford to pay a little less attention to some other part of the farm and give the house the attention it should have. Make it a thing of beauty and a joy forever. On the farm such work as painting is generally done by the men that inhabit the house. Thus, putting on a new coat of paint is less expensive than it is in the cities, where labor has to be paid for at a high price.

A farm house should be thoroughly painted every two or three years to protect it from the weather and make it look fresh and bright. Every year certain parts should receive coats of paint—such parts as the porch floors, steps and window sills. These are more exposed to the rain, sun and wind than most other portions, and, if not frequently repainted, go to pieces rapidly.

The sides of the house that are most exposed to the sun will crack and begin to deteriorate more quickly than the other sides, and this should be kept watch of to prevent the woodwork getting into a condition where it will be difficult to cover up the deterioration.

The arrangement and equipment of the farm house are things that should be studied in the light of modern art and modern ideas of comfort. It is surprising how much a little money will do in improving conditions in the house. To-day there are farm houses as well equipped as are the houses of the well-to-do people in the cities.

Running water in the kitchen and the bath room, a sewer system, furnace heat, a telephone, and even electric lights, are possible in a great number of localities. These all cost money, but money must be expended in the country as well as in the cities if the people there are to have attractive homes.

Our Industrial Policy.

The National Farmer and Stock Grower is in favor of the United States collecting a reasonable range of customs duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government. By this policy fully one-half the money required for the support of the national government should be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed upon our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

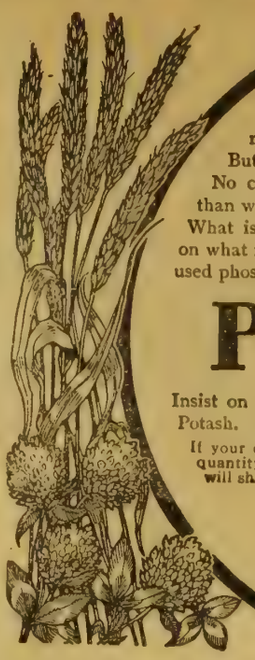
We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors. Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. It will cause more poverty in the cities than most people imagine. The nonproducing, so-called consumers in cities will be the first to find it out and be the greatest sufferers.

The Book of Champions.

"Philip H. Hale, editor of The National Farmer and Stock Grower, in St. Louis, has just published a picture book of 'Live Stock Champions,' which is full of interest to horsemen. It contains 720 indexed portraits of noted animals, among which are scores of thoroughbreds, trotters, Hackneys and draught horses. Schreiber's photographs of Rysdick's Hambletonian, Ethan Allen, George Wilkes and other old-time trotters make the book of lasting value to votaries of harness racing."—New York Herald. See page 22.

Small Fruits in Massachusetts.

Cranberries are by all odds the most important of the small fruits grown in Massachusetts, with strawberries ranking next. The value of the cranberry crop in 1909 was $1,062,000, while the strawberry crop was valued at $495,000. The total acreage of small fruits in 1909 was 9,552, and in 1899 8,436, an increase of 14.5 per cent. The production in 1909 was 29,260,000 quarts, as compared with 25,882,000 quarts in 1899, and the value $1,677,000, as compared with $1,494,000. The quantity and value of products thus increased somewhat less, relatively, than the acreage.



Wheat and Clover

Many farmers stick to wheat raising mainly because clover follows it in the rotation. But why not get the best possible out of both crops? No crop returns better profit for the right fertilizer than wheat.

What is the right fertilizer? That depends on the soil and on what fertilizer you have used on it. The longer you have used phosphate the sooner it will pay you to balance it with

POTASH

Insist on your wheat fertilizer containing 6 to 8 per cent. of Potash. **Potash Pays** on both wheat and clover.

If your dealer does not carry Potash, write us for prices, naming quantity needed, and ask for our free book, "Fall Fertilizers." It will show you how to save money and increase profits.

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One Year With Another.

The Secretary of the Missouri State Board of Agriculture says: "Missouri farmers are just now interested in the erection of new corn cribs and silos rather than in boring emergency wells or buying windmills to meet water shortage. Where a year ago 25 per cent. of the live stock went to market at a sacrifice because of dry weather, farmers are to-day looking in vain for cattle to eat the surplus grass. Such stock as is going to market is at highly satisfactory prices and the close of the month sees hogs and cattle selling higher than for many months, choice Missouri beeves reaching the record mark of $9.75 per 100 pounds."

Condition of the Buckwheat Crop.

According to the report of the Department of Agriculture, dated August 9th, 1912, the condition of buckwheat was 88.4 per cent. of a normal, compared with 82.9 last year and 90.2, the average for the past ten years. The area planted to buckwheat this year is estimated at about 835,000 acres, compared with 833,000 last year, 860,000 in 1910, and 878,000 in 1909. Indicated yield per acre, 19.3 bushels, compared with 21.1 last year, and 19.5, the average for five years, 1906-10. On the area planted it is estimated the total production of buckwheat, interpreted from condition reports, will be 16,000,000 bushels, compared with 17,549,000 last year, 17,598,000 in 1910, and 14,849,000 in 1909.

Wonderful Deep Tilling!

Note How It Pays!

The marvelous Spalding Deep-Tilling Machine plows from 12 to 16 inches deep, **pulverizes** and **mixes** the soil, all in **one operation.** Makes a regular **garden**-seedbed over the **entire** farm, which holds moisture through **any** drought. **Results from a thousand farms show wonderful crop increases.** Figures and facts from farmers, farm papers, experiment stations, agricultural experts, etc., are ready to send you now. Send today for them.

We'll send you also our book entitled "1,001 Knights," full of nothing but letters from owners, many owners in drought sections, saying, "If we'd bought the machine last fall, we'd have had a crop now."

The Spalding Deep-Tilling Machine is the only thing of its kind in existence. If you farm only 20 acres it will pay for itself the first season. **Our free books disclose the magic in the soil of a deep-tilled farm. Cut out this ad as a memo to write for them.**

User E. H. Smith of Steele, N. Dak., writes—"I plowed some old land with the Spalding Machine that had been farmed for 30 years, and sowed it to flax as an experiment this spring, and it yielded 9 bushels clean flax; another piece (shallow plowed) that I sowed, being the fourth crop raised on it, yielded 7 bushels."

Hundreds of other instances from every State in the Union.

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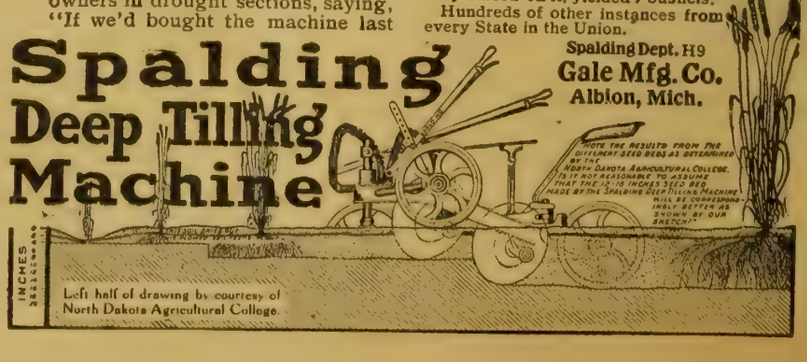
INCHES
NOTE THE RESULT FROM THE DIFFERENT SEED BEDS AS DETERMINED BY THE NORTH DAKOTA AGRICULTURAL COLLEGE. IS IT NOT REASONABLE TO ASSUME THAT THE 5-10 INCHES DEEP BED, MADE BY THE SPALDING DEEP TILLING MACHINE WILL BE CORRESPONDINGLY BETTER AS SHOWN BY OUR SKETCH."

Left half of drawing by courtesy of North Dakota Agricultural College.

Thoroughness in Farm Enterprises.

Many good plans fail on account of lack of thoroughness. In farming operations one great element of loss comes as a result of lack of completeness in the doing of things.

The writer remembers one episode of his young days. in which a cranberry marsh did not materialize on account of the lack of thoroughness in the inception of the enterprise. The money and labor spent all went for nothing, because just a little more labor was not performed, which extra labor would not have cost an extra cent.

Enthusiasm has been roused by successes in cranberry growing reported from different parts of the country. A brook running through a swamp in the pasture suggested the creation of a cranberry swamp of considerable size, which ought to be profitable. By an expenditure of about $50 a dam was built across the stream and the low area flooded. This flooding was to be used to destroy the insects that attack the cranberries at certain times. The water was let out of the artificial lake and the putting in of the cranberry plants began.

The sod should have been taken off or the land should have been plowed and replowed long enough to kill all the heavy grass growing on it. But here was where the fatal mistake was made. The sod was merely turned over and time was not given the grass to die. Besides, the furrows did not lie close together, and the grass grew up between them. But the cranberry plants were put in at once and grew up with the grass. The whole experiment was concluded in a few weeks, for the grass grew up and choked out the plants of the experiment. Yet how easy it would have been to have done the work rightly and have scored a success!

By reason of lack of thoroughness we endure many things we do not need to endure. Take the matter of rats and mice about the farm premises. With the aid of cement, foundations of houses and of barns can be so constructed that it will be impossible for rodents to get into the buildings unless they come in at the doors, which need not be the case.

As in the cities, so on the farms, there is a great lack of thoroughness in too many things we do. Much of the advice given by the Experiment Stations is in the direction of thoroughness in farm work. The growers of big crops point out the thoroughness of all the steps taken in the producing of the crops. The soil was prepared thoroughly, the fertilizer was mixed with the soil thoroughly, after the crops had come above the ground they were cultivated thoroughly and the weeds were kept down thoroughly.

The writer visited a peach orchard in Michigan that in certain years has yielded as high as $35,000 worth of peaches. Everything in that orchard showed the most thorough care. Not a weed was to be found on hundreds of acres. The owner said to the writer: "I will give you $1.00 each for all the weeds you can find in this orchard." The writer noticed men driving back and forth on heavy weeders, so that a dust mulch was made continuous. Then the peaches were thoroughly thinned, no peach standing closer than a handbreadth to any other peach. It was the thoroughness of the methods that gave the golden results.

Things to Remember About Alfalfa Growing.

Alfalfa naturally belongs to a locality where the sun is hot, the sky cloudless, the soil friable or sandy, and the water table permanently located within twenty feet of the soil. Under such conditions it will make wonderful growth and will remain sometimes for centuries without replanting. It is reported that west of the Andes in South America are to be found fields of alfalfa that have been in continuous use for more than two hundred years.

We have brought alfalfa out of its natural homes to a land of cloudy skies, interrupted sunshine, to a land of uneven water table, and to a land of weeds. It will grow with us in almost any part of the country, but not with the same vigor that it will where the conditions are all favorable to it.

The seed bed for alfalfa in humid states must be prepared with great care and the weeds and weed seeds must be exterminated. Plowing the land and leaving it full of weeds and grass is not the way to prepare for alfalfa, as one of the great enemies of alfalfa is grass, especially some of the more persistent varieties of grass.

Many fields of newly-planted alfalfa are failures because the land is not properly prepared and properly treated. Sometimes the alfalfa seed is sown on land that will not grow red clover and other legumes. This generally means that the land has in it too much acid to make the development of the bacteria that helps the alfalfa to get nitrogen from the air.

Such land should be limed, either with fresh lime, slaked sufficiently to become a dry powder or by an application of ground lime-rock at the rate of about one ton to the acre. Often this neutralizing of the acid makes it possible to grow alfalfa where none could be grown before.

If the land is properly prepared by way of liming, if it needs it, it may still fail to produce a good growth of alfalfa on account of lack of bacteria in the soil suitable to work on the roots of the alfalfa plant. The next move will be to get some soil from an old alfalfa field and scatter it on the surface of the newly-planted field. The bacteria are so extremely numerous that a little soil will contain millions of the bacteria.

In the Middle West alfalfa is of very great importance, as it furnishes a fine balance for corn, which is grown extensively in a large part of this region. It is rich in protein, as corn is rich in carbohydrates. It means everything to our live stock interests, as the great problem in live stock raising is the production of a cheap feed.

Where alfalfa can be successfully grown it is of inestimable value for feeding of most kinds of live stock, especially beef cattle and dairy cows. Its great advantage over red clover is, that much more of it may be grown on an acre. As much of its nitrogen comes out of the air and not out of the soil, it is not so hard on the soil as are some plants that do not have root tubercles, which are produced by the nitrifying bacteria.

Nearly every farmer can afford to experiment in a small way with alfalfa, and on many farms it will pay to grow it in a large way.

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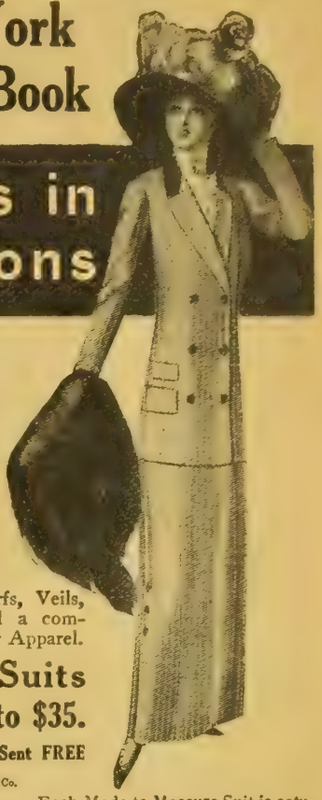

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Skirts, $2.98 to $9.98
Ladies' Coats, $6.75 to $29.75
Ladies' Dresses, $6.98 to $24.75
Furs, $1.95 to $18.57
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Ladies' Ready-Made Suits, $9.98 to $17.98
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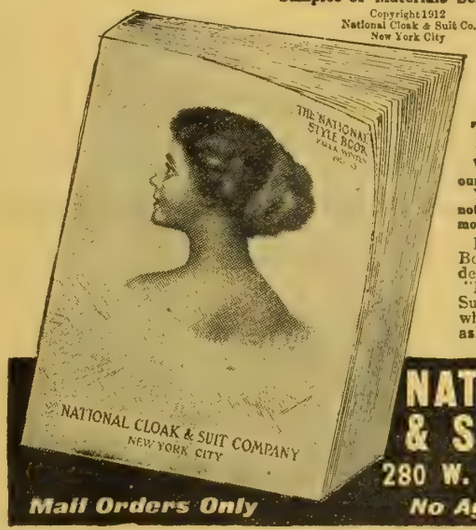

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Every Farm Has Climatic Zones, Says Expert.

"There are climatic zones on every farm that need to be studied and taken advantage of, just as slight peculiarities in plants and animals are studied and taken advantage of in breeding," says Eric R. Miller, United States Weather Forecaster, at the University of Wisconsin, in an article in the Journal of Geography.

"Different soils have the power to produce local differences in temperature," continues Mr. Miller. "This is largely due to the power to absorb heat and to the power to give out heat by radiation. A good absorber is a good radiator, and a poor absorber is a poor radiator. The temperature changes in the soil are very much modified by the state of the atmosphere above them. Clouds, dust and fog intercept both incoming and outgoing radiation so that the range of temperature of the soil cannot be so great. Clouds and fog act as a blanket, for they reflect back, and radiate back the heat sent out from the ground, and thus prevent the temperature from falling so low as it does on clear nights, when there is nothing to turn back or replenish the heat given out by the soil.

"The exposure of a slope to the sunshine is a factor of great importance, for the intensity of sunlight is greatest on a surface on which it falls vertically. Full advantage of this is taken in Europe, where the north banks of the valleys are terraced and planted in vineyards, which could not survive the colder climate of the level ground.

"The climate of this country is marked by greater variability than is that of Eurpoe, so that it is often important to nullify the effect of unseasonable warm spells in spring. To this end orchards are planted on north slopes, to retard blossoming in spring, because the climate there is colder than on level ground.

"A lake is of great importance in regulating the temperature of the land around, for it takes more heat to warm a given quantity of water to any stated number of degrees, than to warm the same quantity of any other substance to the same number of degrees. Similarly, the same quantity of heat will have less effect in heating water than any other substance, the same quantities being considered. It results from this that the shores of a lake experience less extremes of heat and cold than do places away from bodies of water The summers are not so hot, nor are the winters so cold."

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OATS MARKET SITUATION.

A Monthly Review of the Market, With Practical Explanation by the Editor.

The penalty of a large crop is usually low prices. The hand of every man is against the farmer, because everybody wishes to obtain the farmer's products as cheaply as possible. The seller tries to receive a good price for what he has to sell, whether he produced it or not, and on the other hand the buyer tries to get the product as cheap as possible.

"'Twas ever thus," and will be so for all time to come.

Let us look at the oats situation calmly and dispassionately. Let every man have due credit for being engaged in a legitimate occupation. We cannot all be farmers, and if we were, who would be our customers? City people are necessary, simply because there are certain forms of producers among them, and for those producers farmers are "ultimate consumers."

Just now the people in cities are buying oats cheaper than they ought to get them. The reason is that the crop of 1912 is estimated as being the largest on record, and the cool calculation on the part of the largest dealers in oats is that oats ought to be cheap and that the farmer cannot help himself. But there was never a greater mistake made. Under ordinary circumstances farmers use up 66 per cent. of the oats crop, and at present prices for cattle, hogs and sheep the entire oats crop, large as it is, can be used on farms at better prices and profit to the farmer than it can be sold for at the present prices and future prospects. Oats to pay back the cost of seeding, growing, harvesting, threshing, marketing and for the plant food taken from the soil, ought not to be sold for less than 50 cents a bushel on the farm.

Farmers must remember that expressed in bushels the oats crop always looks very much larger than it really is, and it almost requires two bushels of oats to equal in weight a bushel of wheat, and when oats are running light in weight it requires two bushels of oats to weigh equal to a bushel of corn. In feeding cavalry horses, many years ago, when the Quartermaster gave the order for supplies he said: "Order three bushels of oats to each bushel of corn and you will have all the corn you need and you will not have any oats left if you feed in proportion." If all farmers would feed that way the price of oats would take care of itself.

On August 31st, at St. Louis, oats shipped into market by the car-load were selling at 31 and 32 cents a bushel. Take off the cost of shipment, the commission for selling, the margin the dealer held out when buying small lots from farmers to make up the car-loads, and very likely the farmer at first hands did not receive over 25 cents a bushel, and at such a price every bushel is sold by the farmer at a loss of profit and a loss of fertility.

We cannot go into the circumstances of all the farmers who raise and sell oats. Some are tenants, some are conducting small farms, some are conducting rich farms, but they are all in the same boat when it comes to selling oats, and in each community they should get together and without any fuss or noise or notoriety simply agree amongst themselves that they have no oats for sale, or, if they must sell and cannot help but sell, to give the preference to stock feeders, who will keep the oats away from the grain markets, thereby letting a shortage appear instead of the expected surplus.

On August 31st, on the speculative market at Chicago, they quoted the September option at 31⅝ cents a bushel, showing a reduction of 1⅜ cents, compared with the close of the previous month. On August 31st the December quotation was 32¼ cents a bushel, showing a decline of 2 cents during the thirty days previous, and the May option of 1913, nine months in advance of actual delivery, was quoted at 34¾ cents. It can also be set down beyond the peradventure of a doubt that if farmers will feed the speculators on cheap oats and the speculators will empty the elevators by shipping oats at present prices, frightened by the very moderate crop of oats expressed largely in 32-pound bushels, there is no telling how low oats will sell before the end of the year.

This paper will appear on one hundred thousand farms in the farming territory where most of the surplus oats are raised. If one farmer will read this paper to another farmer who has surplus oats on hand, and it is passed on from farm to farm, and each farmer withdraws his oats from market and does it quietly, it will soon be observed that the market is advancing, and it will continue to advance, notwithstanding some few farmers of necessity, for actual need of money, may be forced to sell all or part of their oats before prices have advanced. The oats crop is the easiest for farmers to manage, so far as the market is concerned.

Young Men, Here's Your Chance.

The management of the Missouri State Fair has arranged to hold a Live Stock and a Corn Judging Contest during the State Fair at Sedalia, September 28 to October 4. The winner in each of these contests will receive a $50 cash scholarship, which will pay the expenses of one term at the Short Course in Agriculture, Columbia, Mo., which begins November 4, 1912. Besides this there will be $365 in cash divided into twenty-five premiums, ranging from $20 to $2.50, which will give every contestant a good chance to win one of the cash prizes if he does not succeed in getting the scholarship. For prize list and copy of the rules governing this contest write to Secretary John T. Stinson, Sedalia, Mo.

The 1912 Crop of Rye.

According to the report of the United States Department of Agriculture, the area planted to rye in 1912 was estimated at about 2,097,000 acres, compared with 2,127,000 acres last year, 2,185,000 acres in 1910, and 2,196,000 acres in 1909. It is preliminarily estimated the yield per acre is 16.9 bushels, compared with 15.6 bushels last year, and 16.3 bushels, the average for the five years, 1906-10. A preliminary estimate of the total yield places it at about 35,000,000 bushels, compared with 33,119,000 bushels last year, 34,897,000 bushels in 1910, and 29,520,000 bushels in 1909. The quality of rye is 94 per cent., compared with 91.5 per cent. last year, and 92.0 per cent., the ten-year average.

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Canadian Cattle at Chicago.

On Monday, August 18th, at Chicago, Mr. A. E. Cross, of Grassy Lake, Alberta, Canada, marketed cattle. The lot consisted of 1,336-pound steers at $9.00 per 100 pounds, 1,333-pound steers at $8.85 per 100 pounds, 1,188-pound steers at $8.75 per 100 pounds, rough steers, 1,215 pounds, at $8.65 per 100 pounds, and a full train of 220 heifers, 1,100 pounds, at $7.50 per 100 pounds. These cattle were well sold by Clay, Robinson & Co., live stock commission agents, and after paying all shipping charges, import duty, yard and feed commissions, the Canadian cattle averaging 1,100 pounds sold at the record price of $8.75 per 100 pounds for 1,188 pounds, and net the shipper $93 per head. It cost only $10.55 per head to transport and market them.

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WHEAT MARKET SITUATION.

With Observations by the Editor Concerning the Market in General.

On July 31st, at St. Louis, we left cash wheat selling at $1.01 to $1.03 per bushel, and thirty days later, at the close of business August 31st, we find cash wheat at St. Louis selling at $1.00 to $1.05⅛ per bushel. Our readers will remember that the quotation for cash wheat represents shipments to the wholesale grain market, where the grain is sold for cash, just the same as hogs are shipped to the cash market and sold and the returns made to the shipper by the commission firm.

We now turn from the cash market to the market that represents contracts made from day to day for future delivery, and to understand the drift of that trade, or, as sometimes happens, not to understand it, we make a journey in our minds to Chicago. At Chicago, on May 31st, the May wheat option was closed out at $1.10½ per bushel; that is to say, all trades for the delivery of No. 2 wheat were settled at that price, no matter whether the personal settlements were by delivery of the actual goods or by the loser in the transaction paying the difference in money.

The May option represented transactions in old wheat, and the July option was closed out after considerable of the new wheat had been harvested and the total of the new crop had been discounted, therefore it is not at all surprising that the July option went out of business on July 31st very much lower at 92½ cents per bushel, which was a decline, one month with another, of 18 cents a bushel. This story of real life in the wheat pit has already been told and is mentioned now to remind our readers that once a month we endeavor to keep them posted in regard to the past, present and future of the grain business, and we do not hesitate to claim that the regular readers of The National Farmer and Stock Grower are the best posted farmers in the matter of grain prices, unless others should be so deeply interested as to receive telegrams or special market reports form day to day.

The September wheat option ripens like a peach on September 30th, which will be on a Monday, and after that date it will have passed into history. The first time we noticed the price at which the September option was quoted was March 30th, when the price which somebody had paid for No. 2 wheat to be delivered at latest September 30th was 95⅞ cents; the next quotation a month later, mentioned by us, was on April 30th, and the price had advanced to $1.08¾; on May 30th the quoted price was $1.06 per bushel, and on June 29th the price quoted was $1.06⅛ per bushel, and we may say here, by way of parenthesis, that unless an unlikely revolution sets in affecting September wheat and advancing the price, certain buyers of wheat are considerable losers from the transactions they entered into in the months of April, May and June, unless their transactions were covered by contracts for delivery to some one else at a profit.

And the next thing some one will say is that these transactions do not interest the farmer, and whoever says it will be mistaken. Every transaction interests the farmer, and, what is of still more importance, has an influence towards making the price the farmer who produces grain will ultimately receive for it. Every man who has bought grain at what appears to be a high price is interested in upholding the market until he has transferred his load to somebody else; then he may have lost interest in the market, so far as sustaining it is concerned, and by reason of having later sold some grain cheaper, which transaction he may not have unloaded, he may find it to his interest to depress the market instead of sustaining it. Board of Trade commission firms are interested in selling consignments as high as they can, and when buying for their customers they are interested in buying as low as they can, and they do not care a cent for any other interest than the interest they are representing that minute, whether it be their own speculations or the interests they are intrusted with for the time being. The Board of Trade commission man is supposed to be working for his commission, and he can work as a "bull" or work as a "bear," just according as he is employed for the time being. The attorney who is trying to secure a conviction is just as legitimately engaged for the prosecution as the attorney for the defense who is trying to secure an acquittal. So it is that the man who is acting the part of the "bull" in sustaining the market to-day may be equally legitimately engaged as a "bear" tomorrow in all attempts to depress the market. Every attempt to advance the market is in the interest of the farmer, and every attempt to depress the market is against the interest of the farmer, and each attempt is just as legitimate and as honorable as the other.

Now we will go back to where we left off and will continue remarks concerning the September option. On June 29th the September option was quoted at $1.04⅛ per bushel; on July 31st the quotation had declined to 93½ cents a bushel; and on August 31st the September quotation had declined to 92⅝ cents per bushel, and that is where for the present we are obliged to leave it. September trading will be a matter of history before we publish another paper.

Before leaving the wheat trade, it is as well to state that on August 31st the December wheat option closed at 93 cents a bushel, and on the same day the quotation for wheat for delivery May 31st, 1913, was 97¼ cents, and those figures indicate the consensus of opinion of bulls and bears on August 31st was, that wheat was as low as it was likely to be, so far as the general trade is concerned.

Table of Estimated Yield.

The following table shows the indicated yield of the various crops as compared with the figures for last year:

Crop.	1911.	1912.
Corn (bushels)....	2,531,488,000	2,811,000,000
Winter wheat (bushels).....	430,656,000	390,000,000
Spring wheat (bushels).....	190,682,000	290,000,000
Oats (bushels)....	922,293,000	1,207,000,000
Barley (bushels)..	160,240,000	202,000,000
Rye (bushels)....	33,119,000	35,000,000
Buckwheat (bushels).....	17,549,000	16,000,000
White potatoes (bushel).....	292,737,000	371,000,000
Tobacco (pounds).	905,109,000	980,000,000
Flax (bushels)....	19,370,000	28,000,000
Rice (bushels)....	22,934,000	23,000,000

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The Farmer That is a Good Mixer.

To mix or not to mix is a problem well worth being considered by every farmer. In the city or on the farm, the good mixer is the man that is influential in the community. The man that keeps out of sight is generally the man that counts for little in either community. He may be overwhelmed with work, or think that he is too poor to mix with the rest of the community, but in either case he is taken by the community at less than his true value.

On the farms, perhaps more than elsewhere, men and women burdened with the work of life, tend to become recluses. Their round of work is never done and never will be if they work until there is nothing remaining undone. So, the only way out is for some of the apparently necessary work to be left undone, while the father and mother and children mix with the rest of the community.

The man on the farm should be a mixer in social events. He may think that he is not interested in the little social events, but others are, and he should be unselfish enough to get out of the ruts once in a while and do what interests others. Social life is of great moment to the women and children. Social mixing is medicine to them, and they will grow happy in being encouraged in social relationships.

The farmer should mix in the political life of his community. He owes a duty in this line to the public as well as in every other line. It is not enough that he appear on election day and deposit his vote. Real political work comes before election day at the various caucuses where principles are determined. The studious, intelligent farmer will find a joy in thus helping to lift up the political conditions existing within his influence.

He should be a mixer in the local church, whether he agrees with all its tenets or not. It is impossible to create a church that will hold principles agreeable to men at all stages of their development. But the church is now both a religious and social force. At the church, people meet together, and this meeting together is a great boon to all, an uplifting force of great value to any community.

In the life of the neighborhood the mixer is always a man to be desired. He is the one that is first thought of in every emergency, and, if honors are to be given, he is the man most likely to receive them.

The writer has in mind a man whom he has known for more than twenty years. He is a farmer and a good mixer, and his wife a good mixer. He was mixed up with nearly everything of an agricultural and social nature in his town and finally in his county. One day the farmers of his senatorial district were looking about for a man to represent them in the Senate of their state. They fixed on this man and supported him, regardless of party. He has now served for about sixteen years in that Senate and is an influence in his state. He was thus honored because he was a good mixer and men came to know him and his good qualities. The man that is not a good mixer is losing much himself and is depriving others of some of the good they would receive from his mixing with them.

Interest on Farm Loans.

Several years ago our readers will remember The National Farmer and Stock Grower made a pretty thorough overhauling of the rate of interest paid on farm loans.

We found that the subject did not appear to interest the farmers of such states as New York, Ohio or Pennsylvania, because they could borrow money on farm land security at as low rates as merchants and manufacturers. We found that in Illinois there was not so much money available, for the reason that if the mortgage was not paid when due, the holder of the mortgage would not be able to foreclose for a long time; in other words, the security was troublesome. But in Missouri no such difficulty was encountered, the law protected the creditor, and farmers could get money as cheap and on as good terms as anybody in any line of business. When we investigated Texas, Oklahoma, or rather the Indian Territory, as it was then called, it was entirely different. In the West, generally speaking, the rates were high and money was hard to get. In states like Texas, where farms of 200 acres in extent are exempt from debt, collection rates were high, except in cases where the debt represented a vendor's lien for purchase money, and the rate of interest was subject of agreement between buyer and seller. National banks do not directly loan money on farm lands, but were taking vendor's lien notes as security for short-time loans. Probably the highest rates of interest were paid in Texas and North Dakota.

The situation, as we understand it at the present time, is very much better, and where the security is good there is considerable more difficulty in raising the money to pay off the debt than there is to borrow money in the first place. There is considerable talk now about how it is done in Europe, where it takes a whole community to borrow a few dollars. In this country it requires no more machinery than we now have. We have postoffice savings banks, and in farming communities most of the deposits will be by farmers or farm laborers, and there ought not to be much difficulty to have it arranged for farmers to borrow money from the postoffice savings banks, or from the depositories which receive deposits of that money, and at reasonably low rates of interest. All money borrowed must be amply secured either by the title deeds of the property on which the loan is made, or sufficient personal security should be given in form of endorsement to make the loan secure. Not one cent of money should be collected from the people in the form of taxation to pay interest on money deposited in postal savings banks. The interest on postal bank deposits ought to be paid from the earnings of that money so deposited when it is loaned out again. There is no better way to secure for the people the beneficial purposes for which postoffice savings were instituted than to arrange to loan money to farmers, as we suggest, on good security at low rates of interest.

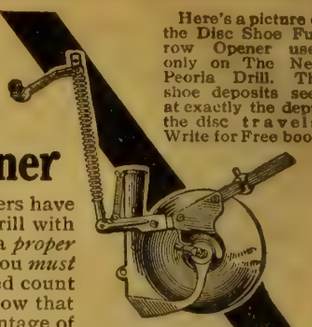
Not Back to the Plow.

Dean Woods, of the Minnesota Agricultural College, is credited with having stated that the Agricultural College is turning out graduates to positions beginning at $1,200 to $1,500 a year, and that every graduate so educated has the choice of several positions. Of course it is very nice that it should be so. There is quite a lot of work in various lines for Agricultural College graduates to do, and many positions in farming are open, especially where they can guarantee to bring into a paying condition the farm that ought to be classed as the "gentleman's plaything." The farm boy who attends the short course may go back to the farm from whence he came, but the actual graduate seldom does go back, but he obtains a city job, a professorship or the management of a larger farm. That is the tendency of the present time towards syndicate farming, the absent owner, the resident manager and farm laborers, rather than either farm owners or tenant farmers. No young man who has graduated at the Agricultural College can return in September and take up the plow where he left off. This is no kick on Agricultural Colleges. It is only a phase of the subject that some one who strives to look into the future ought to invite attention to. In all the arts and sciences the crop of professors is large and the crop of producers is small. Put us down as favoring the short course. For ten months in the year the best college and experiment station is the home farm.

Concerning Politics.

The tariff question is a political one, because it cannot be decided except by political action. It is truly an economic question and ought to be decided as such, independent of other questions that are more political and sentimental and less economic. But Congress does not legislate wisely, because there are influences brought to bear in their deliberations that have very little to do with the economic question. As Congress has now adjourned, it is not worth while to enter into the subject, for the reason that Congress will have no further opportunity to legislate until December, but it is well to say a word to the congressional candidate, because he may become, by election, a most important legislator and may even by a single vote decide whether foreign farm products shall be admitted or not admitted free of duty. It is not wise to concentrate your attention upon the Presidential nominees, because Presidents do not legislate, but it is good policy to follow the congressional candidates and find out how they stand and will stand and vote for them accordingly. We do not pretend to dictate what your views ought to be; but whatever your views are, vote for the man who holds those views, and make him announce his tariff views in advance whether he is or is not in favor of the same duties on farm products as on what the farmer has to buy. The farmer has been taught a lesson during the past year, and that lesson is in two parts. The first is, that it is well to have the Congressmen understand the farmers' principles; and the second is, that the farmer ought to understand his candidate's intention in voting upon matters distinctly relating to the agricultural interest. Congressional candidates are more easily influenced than Congressmen-elect.

Why You Should Buy The Drill With This Disc Shoe Furrow Opener



Here's a picture of the Disc Shoe Furrow Opener used only on The New Peoria Drill. The shoe deposits seed at exactly the depth the disc travels. Write for Free book.

Hundreds of *other* practical, progressive farmers have made big, extra cash profits by using the *only* drill with a furrow opener that sows every seed *evenly* at a *proper depth*, in a *packed furrow*. How about you? You *must* know the many advantages of making *every* seed count and of having a *uniform stand*. You *must* know that *any* furrow opener which combines *every* advantage of the *single disc* and the *shoe* is as near to *perfection* as any practical farmer could expect. We want to tell you *all* the facts, figures and proof of the *money-making* and *money-saving* advantages of

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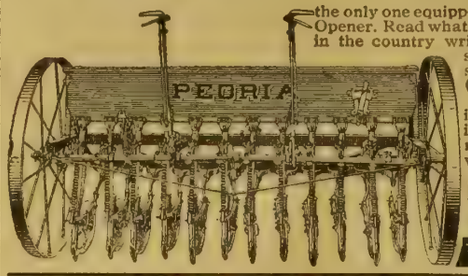

the only one equipped with our famous Disc Shoe Furrow Opener. Read what one of the biggest small-grain raisers in the country writes: "We have given the drill you shipped a good trial and I think I can safely say it's the best drill made." (Wyman Land Co., Halsted, Minn.) Let us send you our booklet showing opinions of others and telling why it will *pay you* to discard all other makes for this New Peoria, with its wonderful Disc Shoe Furrow Opener.

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Warranted For Twenty-Five Years
FREIGHT PAID To Any Station East of Rocky Mountains, except Texas, Okla. Colo., N. D., S. D., Wyo., Mont., N. M., La., Ga. Ala., Miss. and Fla., on all orders of three rolls or more. Special Prices to these States on request.

ONE-PLY - - - - Weighs 35 lbs., 108 Square Feet, $1.10 per roll.
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TERMS CASH: We save you the wholesalers' and retailers' profit. These special prices only hold good for immediate shipment.

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Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to Southern Illinois National Bank.

CENTURY MANUFACTURING COMPANY, Dept. 653, East St. Louis, Ills.

Plant Goes to Swift & Co.

It is now announced that the St. Louis Dressed Beef Company, one of the branch houses of the National Packing Company, has been transferred to Swift & Company. The Swift interests already have a packing plant at East St. Louis, and this transfer will give them the second one to operate with supplies obtained from the St. Louis live stock market.

The plant of the St. Louis Dressed Beef Company was started some twenty-two years ago by a number of St. Louis butchers and dealers, Henry and Gustav Bischoff, Louis Schaeffer, Matthew Courtney and others. It was very successful as an independent local packing house and finally engaged in the interstate trade. After the National Packing Company bought the business it continued to be an active competitor on the St. Louis market. Messrs, Swift, Armour and Morris, the principal owners of the National Packing Company, are voluntarily dividing up the assets of the National Packing Company in order to prevent future charges that said company is the illegal link or clearing house of the packers. Although in a general way the dissolution of the National Packing Company may be approved as tending to make each packer independent of the other, it is not by any means certain that competition in the live stock markets will be increased thereby. It is understood that the St. Louis property will continue for the present under the direction of the officers already in charge. Edward Tilden, of Chicago, is President; and Charles K. Urquart, Secretary and General Manager. The transfer is said to have been approved by officers of the United States Department of Justice.

A Farmers' Produce Association.

In another column will be found an article announcing the formation of The Mount Pleasant Produce Association of Allen, Miss., and we take pleasure in publishing the same, because it is a move in the right direction and it appears to be constructed with the correct view of matters as they now stand.

The gap between the producer and the consumer is a wide one, and in fact there are two gaps, one before the farm products reach market and one after the farm products are marketed at wholesale. It is the business of the farmer to close one gap by doing his own work properly and thoroughly, reaching the market with his produce in suitable packages and proper units, and if the farmer does his part as it should be done he will not be creating work for middle men to do on his side of the transaction.

After the farmer has sold his produce and obtained his money for that produce it is no longer any concern of his what becomes of it; that is the concern of the gentleman kicker, who, when potatoes are selling at wholesale at 60 cents a bushel, generally has to pay 60 cents a peck; that is the consumer's gap and it is not the farmer's problem.

On the one hand it is the duty of the farmer to see that his products are properly marketed, and when he in turn acts the part of the consumer and becomes a buyer of other people's products, it is important that his buying be done equally as well as his selling. This is best done by an association that shall have reasonable limits in locality and in the number of things to be done.

Many people jump into the association idea, thinking there is a whole lot of reforming to be done. Our idea of it is that reform, like charity, should begin at home. "Let the cobbler stick to his last," and let the farmer attend to his farm, and, associating himself with others, cooperate with them in preparing the products properly for market and making up the shipping units to suit the markets that are best able to buy those products, thereby being dependent for good service upon no man or set of men except themselves, their own employes and their own agents.

The Mount Pleasant Produce Association will find many doors open that appear to be closed; will find many a helping hand where they expect to find obstructions, providing they guarantee that their products are fully up to all representations and the association brand upon the association package is a guarantee of contents and quality.

There are many more of these associations in operation than the world has knowledge of. California products are 70 per cent. marketed under control of the producer, and where it is not done well it is usually because the associations in forming attempt to reform the other man instead of reforming themselves. The Mount Pleasant Produce Association appears to be starting off in the right direction, and these few remarks of the editor are full of good will for the members and for all similar associations now in existence or to be formed hereafter.

Address to Patrons and Friends.

During the months of September and October many thousands of subscriptions to The National Farmer and Stock Grower expire, and during these months we make every effort to obtain renewals. This year we are able to offer a subscription premium which we are proud to send to our patrons and which they are all delighted to receive. We refer to the Book of Live Stock Champions, which is fully advertised in this issue on page 22. Every picture in the book is excellent. There are seven hundred and fifty pictures, with record, owner and interesting features and history. It is beautifully bound in blue silk cloth. We are receiving compliments upon the splendid work, and, what is still better, our friends who receive the book are in turn recommending it to their friends. We specially solicit renewal of subscriptions. If you are not inclined to take the Book of Live Stock Champions, "The American Government" is another book well worth owning. The Cement Workers' Handbook, advertised on page 12, is also one of our favorites. In any event, we will appreciate all our friends and patrons can do for us in the way of subscriptions, especially in the month of September.

Grading Nursery Stock.

At the last annual meeting of the American Association of Nurserymen held at St. Louis, Mo., in June, 1911, a motion was passed appointing a committee to agree upon a uniform set of grades for fruit trees, to be adopted by the association. The motion went further and required the committee to have the same printed in the trade journals at least one month prior to the next annual meeting, and in compliance with that motion the committee presents the following grades:

All grades of trees shall be of fair shape, branched, well rooted. Caliper to govern and measurements taken two inches from the crown or bud, of the following grades:

Apple.—11-16 in. and up, 5 ft. and up; ⅝ to 11-16 in., 4 ft. and up; ½ to ⅝ in., 3½ ft. and up; ⅜ to ½ in., 3 to 4 ft., whips included.

Cherry.—¾ in. and up, 4½ ft. and up; ⅝ in to ¾ in., 4 ft. and up; ½ to ⅝ in., 3 ft. and up; ⅜ to ½ in., 2½ ft. and up.

Standard pear.—¾ in. and up, 5 ft. and up; ⅝ to ¾ in., 4 ft. and up; ½ to ⅝ in., 3½ ft. and up; ⅜ to ½ in., 3 ft. and up.

Dwarf pear.—¾ in. and up, 3 ft. and up; ⅝ to ¾ in., 3 ft. and up; ½ to ⅝ in., 2½ ft. and up; ⅜ to ½ in., 2 ft. and up.

Two-year plum.—¾ in. and up, 5 ft. and up; ⅝ to ¾ in., 4 ft. and up; ½ to ⅝ in., 3½ ft. and up; ⅜ to ½ in., 3 ft. and up.

One-year peach, plum and apricot.—11-16 in. and up, 5 ft. and up; 9-16 to 11-16 in., 4 ft. and up; 7-16 to 9-16, 3 ft. and up; 5-16 to 7-16, 2 ft. and up.

Some exceptions to the above may be made on such varieties as are known to the trade to be light growers, such as Yellow Transparent, Duchess apple, Seckel pear, English Morello cherry, etc., or from weather conditions affecting their growth, but such exceptions shall be noted in the printed price list issued by each grower or in their correspondence regarding all sales.

We would further say that the grades as named were adopted by the Western Association of Nurserymen at their meeting held in Kansas City in December, 1911.

It has been the aim of the committee to adhere to the grades generally used by the majority of the nurserymen of the association, and as most of these grades have been a standard for years, there should be no trouble in agreeing upon its adoption. The main object was to cut the number of grades to the minimum and to make enough distinction between each grade.

Respectfully submitted, E. P. Bernardin, E. S. Welch, W. T. Maloney, Committee.

Australian Beef For United States.

As evidencing the increasing attention which is being directed to Queensland as a cattle-raising country, a large Anglo-American firm has purchased a site on the Brisbane river and proposes to erect there, at a cost of $1,700,000, the most complete meat works in the world, capable of treating 600 cattle and 500 sheep daily. On the completion of the Panama Canal it is not improbable that chilled meat will be shipped to the United States.—The Weekly Sun, Toronto, Ontario, Canada.

During the census year the cheese production of the United States amounted to 320,000,000 pounds, valued at $44,500,000.

E. C. SIMMONS
KEEN KUTTER
CUTLERY & HW. MFG. CO.
TOOLS
HAMMER
No. KP110
PRICE $0.85
SAW
No. K818/28
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Building is easy
when you use Keen Kutter tools.
They seem to be "tailor-made"
especially for you. Cut just
the way you want them to and
make a clean job of it. Make
you feel that there is as much
carpenter in you as farmer.
KEEN KUTTER
Tools of Quality
represent the last word in tool design and construction. The teeth of a Keen Kutter saw are so tempered that it seems as though they do not get dull. Keen Kutter brace has just the right sweep and turns easily, having ball bearings. Chisels cut true and clean. Hammers have the right weight—rightly proportioned—do not tire you. It's the same with all Keen Kutter tools.
Send for Simmons Cream Separator Booklet No. 1331.
Next time you go to town ask your dealer to show you Keen Kutter tools—handle them yourself. Remember, our trade mark is your guarantee of money back from dealer if any Keen Kutter tool fails you. If not at your dealer's, write us.
"The Recollection of Quality Remains Long After the Price is Forgotten."
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PRICE
$2.00
CHISELS
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YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

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The National Farmer and Stock Grower.

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The parcels post that will go into effect on January 1st, 1913, will demonstrate more clearly than anything else has done that St. Louis is the center of distribution. The zone system will not satisfy everybody, but there will be no complaints from St. Louis, unless divisions are put up that are not zones. The zones around St. Louis, no matter how small or how extended, will be the richest zones, from an agricultural standpoint, in the United States.

The editor of The National Farmer and Stock Grower will be very much pleased to send out five thousand copies of the Book of Live Stock Champions in the month of September. The book is advertised on page 22, and not one word is exaggerated. We have received many compliments upon the value and elegance of this book, which is without doubt the best stock book ever published.

We advise our readers to make a study of the comprehensive index which appears on the first page. This index will direct you to one hundred and eighty-six articles or advertisements. It is so handy to find things by this index that when once accustomed to it, no other way of looking through the paper gives any such satisfaction.

Our patrons and friends will find a full-page advertisement of the 1913 model of the Overland Automobile. A catalogue is issued showing each car made, and the catalogue for our readers to ask for is L 69. Write to the Willys-Overland Co., Toledo, O., and ask for a copy. From a careful study of the catalogue you will understand more about the best makes of automobiles than was ever known before.

We have reason to congratulate Mr. T. E. Quisenberry, Director of the Egg-laying Contest at Mountain Grove, Mo., upon the manner in which he keeps up the interest in his work by pertinent and timely articles showing the progress of the contest and observations that instruct the reader. On page 18 our readers will find the nine-months' totals, and each month we hope to have something from Mr. Quisenberry until we have all the facts of the complete results.

Luther Burbank, of Pasadena, Calif., is at the head of the class in horticulture, having gone up to that position since he was at the head of the class in agriculture. Some of the little things he has done would be called great if done by somebody else, but with Burbank his great things are many; his little things look smaller than they really are by comparison. One of Luther Burbank's little things is his Crimson Winter Rhubarb, which has been taken up and improved by his neighbor, J. B. Wagner, until it is not only the best rhubarb, it is also a continuous yielder, and this rhubarb can be planted from a few roots and soon enlarge the plot until an acre of it will produce more profit than an ordinary fifty-acre farm. See page 19.

We are advertising a magnificent line of subscription premiums without going into the business of selling goods. If we had our way, there would be no premium except books, and those only that are on agricultural pursuits. One of our premiums will be found described on page 19. It is the sewing awl. We have sent out a great many of them to subscribers and they invariably give satisfaction.

Do your Christmas shopping early after reading page 25. The family is in need of some picture books for children, and the best books are advertised in connection with our Universal Magazine. We know it is a task to sit down and write a letter and to get a stamp and mail it, after securing a postoffice order for the money. But this is an exceptional case, and you ought to get busy, not for your sake or our sake, but for the sake of the children to whom these books will give much pleasure.

Our Valuable Publication.

We devote the columns of The National Farmer and Stock Grower to grain growing and stock raising in its various branches, because by so doing so we are enabled to appeal to the largest number of farmers with the same articles. The stock-raising industry is practically the same in Florida as it is in Iowa; if not, there is room for instruction in Florida. Dairying in New York and in New Mexico are on the same general lines of production, and articles when written for one state are acceptable in the other. With stock feeding, stock breeding, with poultry raising also, there is much in common in every state, therefore articles on live stock are practically without limit in their application. Not so with fruits: although there is a community of interest, there is a difference in crop seasons, that articles in the North are useless in the South, for the reason that Southern crops are marketed when Northern crops are growing. There are other crops that can be mentioned as grown in one section and not grown at all in another. All we intended to invite attention to in this article is, that The National Farmer and Stock Grower is useful to farmers, stock raisers, stock breeders, dairymen and poultry raisers in any state in the United States, and we invite subscriptions on that broad basis.

Vote Against Single Tax.

We have been requested to say a word against Single Tax and take pleasure in doing so. "Single tax" does not mean one tax any more than "free silver" meant that silver would be free. Single tax simply means a rearrangement of state taxes in an unpractical manner, and just as soon as single tax is voted, some other taxes will be imposed, and in the end there will be double tax and treble tax and a number of taxes, all imposed just as fast as the taxing power can impose them.

We have too many taxing powers, and all of them, except the people, are totally irresponsible. The Legislature that imposes a tax to-day is gone to-morrow. We have nothing before us except the statute books and cannot find any recourse for the greatest blunders, except through years of agitation, and in the meantime the evil done remains to plague us.

The so-called Single Tax is nothing more and nothing less than a scheme to double up the farmer's taxes. In cities it is improvements that constitute the earning power, and it would be very fine to do away with taxes on the great city buildings and pro-rate the taxes thus taken off on the farms of the country. And then after that is done, the federal government will step in and find some new form of taxation to replace the money collected in customs duties under the tariff laws. Farmers, one and all, should stand in line, and, if necessary, stand all night in line to vote against the misnamed proposition called "Single Tax."

Prosperity Through Sacrifice.

No one can form a fair idea of the sacrifices that have been made year after year in the cattle yards of the United States unless identified with the trade for a long time. We have reached an era of strong prices, but in order to do so it has almost required a famine to bring it about. Prices for beef cattle are now considered high by all who have to pay for them, whether it be the packer buying by the train, the butcher buying by the load, the small butcher buying only a few head, or the local butcher buying by the side, or the consumer buying by the pound. "Yes," said an old and retired cattle raiser, "I see that cattle are high, but my herd did not live to see it. A new generation is getting the money and the cattle owners who made the sacrifices have gone broke or passed away." The thought of the retired cattle man as expressed by him is largely true, yet there are many left who knew what it was to sell ripe and heavy native steer cattle at $3.80, $3.90 and $4.00 per 100 pounds that have barely been equaled in weight and quality by cattle recently selling at $10 to $10.25 per 100 pounds. Think of the hundreds of thousands of fat native cows that sold year after year at $3.50? How about the canners that pioneered the canning business on hundreds of thousands of Texas cows that cost $7.00 per head to ship from Texas to Chicago and netted the shippers $12 to $18 per head or less?

This article is not written in a spirit of complaint or to say that anything was wrong with olden days, because if we were poor we were then young, and riches will bring back youth, but to remind the men who are cashing the beeves that it is the good market and sometimes poor cattle that are bringing the good money. Fifty years ago there were Shorthorn steers weighing 2,500 pounds in market that sold for $4.50 per 100 pounds, and such cattle could not be turned out of a feed lot to-day and sold at a profit at $20 per 100 pounds. There were good cattle before 1912, and many of them were sold at a loss by breeder, feeder, shipper and butcher.

Yes, there were sacrifices being made in those days when the common saying was: "There are more babies born than calves;" but the calves reached maturity in three years and the babies reached maturity in twenty years. Yes, there were sacrifices made when Indians on Dakota reservations were fed on Texas steers at $2.80 per 100 pounds that had been gaunted down by drouth and a fifteen-hundred-mile drive from the original breeding ground. Dost thou not remember the sacrifices at Ogallalla of twelve-dollar steers that afterwards went into Chicago from Montana ranges to sell as fours and fives in market at around $3.50 per 100 pounds?

Used Automobile Bargains.

	Cost.	Price.
White Steamer, 20 h.-p.	$3600	$ 350
Ford, 2-pass., top and lamps	650	375
Mitchell, "G," 3-pass.	1300	400
Maxwell, 2-cyl., 5-pass.	900	400
Stoddard Dayton, 5-pass.	2000	500
Mitchell, K," 1909, equipped	1700	500
Ford, "T," town-car	900	500
Mitchell, "K," 1909, roadster, foredoor	1700	600
Mitchell, "I," 5-pass., equipped.	2200	600
Mitchell, "K," 5-pass.	1700	650
Maxwell, 1910, 4-pass., equipped.	1400	700
Marmon, 1909, 7-pass., equipped.	2750	750
Great Western, "40," 1910, 5-pass.	1600	800
Sterling, 5-pass., equipped	1300	800
Mitchell, "T," 5-pass., foredoor.	1600	875
E. M. F., 1912, 5-pass., foredoor.	1200	900
Mitchell, "T," 5-pass., foredoor.	1500	950
Mitchell, "S," 7-pass.	2300	1200
Matheson, 7-pass.	6000	1200
Overland, 5-pass., 40 h.-p.	1850	1100

Terms:—Part cash; balance notes. To secure these bargains, call on us and examine these cars.

WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

And yet all the time those sacrifices were being made the avenues of trade were building up to make it possible that when the right time came, when there were and are more mouths to feed than cattle to feed them with, the avenues of trade had been built up through sacrifice, and these good prices which the ranchmen and these stock farmers are now taking home with them constitute a matter of equalizing the prices of former days, the only regret being that not always does the man who lost the money in the period of low values get any of it back, now that prices are higher.

Raw Rock Not Available.

The fact that some encouraging results are obtained by using raw ground rock as an absorbent in stables is generally due to the fact that prior to the use of the rock the liquid portion of the manure had been allowed to go to waste or the manure had been improperly handled. The failure of stable manure to make available the insoluble phosphoric acid in raw rock is clearly shown by an experiment made at the Pennsylvania Experiment Station, and reported by Mr. Alva Agee in the National Stockman and Farmer for January 7, 1909. In this experiment a large quantity of stable manure was mixed with finely-ground phosphate rock and allowed to stand for many months under conditions that permitted no loss. Careful chemical analysis showed that the mixture did not contain any more available phosphoric acid at the end of the experiment than existed in the manure and in the raw rock separately at the beginning of the experiment.—Geo.D. Leavens, in National Stockman and Farmer.

Legislators Need Education.

It is reported that farm-implement mergers have just about fairly started. Apparently under the law it is perfectly legal for one outfit to buy several others. But if they consolidate without purchase the legal question remains unsettled. We ought to have laws that people can understand instead of laws that those who make them don't understand. If Congress would pass a law appropriating money to establish a school for legislators to attend before taking a seat in any Legislature, they could safely omit to appropriate money to educate farmers, who are, as a class, the best posted of any men in any business.

Every farmer should attend his State and County Fair and the Chicago International Live Stock Exposition.

Some of our so-called worn-out lands require the deep-tilling machines advertised on page 2.

It beats wheat!

Raising rice in Arkansas beats growing wheat anywhere. Hundreds of former wheat growers are in Arkansas now making two to three times as much money from rice as they did from wheat! This fact should make *any* wheat or corn farmer look into this.

[*Threshing Rice, Chas. Thompson's farm, Weiner, Ark.*]

Raising rice in Arkansas

is as easy as growing wheat anywhere—and think of the difference in net profit! Wheat brings you—at best—20 bu. per acre, for which you get around $1. And you raise it on land worth $100 and up per acre. Rice yields from 50 to 100 bu. per acre, brings from 75c to $1 per bu. and is raised on land that can be bought *now* as low as $20 per acre. Here's a typical experience:

65 bu. per acre, Honduras rice from 50 acres, sold at $1.07	$3,477.50
75 bu. per acre, Japan rice from 50 acres, sold at 75c	$2,812.50
Gross income	$6,290.00
Cost $25 per acre to raise	$2,500.00
Net profit	$3,790.00

A proposition that brings $37.00 per acre net is certainly worth finding out about. Bear in mind that these farmers never grew rice *in their life* before—and were successful from the first; for rice in Arkansas is planted on uplands, raised and threshed just like wheat; the only difference being the use of water.

This year there are over 75,000 acres planted to rice, and a bumper crop is sure. You ought to be in Arkansas while this crop is harvested. Low fares via Cotton Belt Route make the trip cost little. But first get our

Free Rice Book!

—50 pages and pictures describing the experiences of wheat and corn farmers who found their fortune in Arkansas rice. Write for this free book today.

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General Passenger Agent
1651 Pierce Bldg., St. Louis

COTTON BELT ROUTE

Butter Scoring 97 Points Made With Help of College.

Butter scoring 97 points, made from farm skimmed cream, was sent to the monthly scoring exhibition of the College of Agriculture of the University of Wisconsin as the twenty-ninth exhibit of a man whose first exhibit, in 1909, made from whole milk, was 89.33. His average score on the three exhibits sent during that exhibition year was 92. Next year he sent ten exhibits averaging 92.79. The third year, his ten exhibits averaged 94.83, with 60 per cent. of the entries scoring 95 or higher. This last year the average on his nine exhibits was 94.07, a slight reduction due to the poor quality of farm skimmed cream.

The Normal Composition of American Creamery Butter.

The production of creamery butter has reached vast commercial proportions and different standards are in force in the various states for the regulation of its quality and chemical composition.

Reports of thousands of analyses for water and other constituents have appeared in various publications, but data showing the composition of normal American creamery butter and the conditions under which such butter is made are not plentiful.

The purpose of the Department's new bulletin (Bureau of Animal Industry No. 149), published after a comprehensive study of the subject, is to show in a variety of ways the results of the chemical analysis of American creamery butter collected during one year throughout the principal dairy districts of the United States, and to present at the same time a record of the conditions under which the butter is made.

The area covered in this investigation embraces the fourteen states of California, Iowa, Kansas, Maine, Michigan, Minnesota, Montana, New York, North Dakota, Oklahoma, Pennsylvania, South Dakota, Texas and Wisconsin, and of the samples which were taken from the 488 creameries 695 reached the laboratory in good condition for analysis. The methods of sampling and of analysis are described and the results given in a general table in the appendix, while thirty tables constructed from the original data show some of the comparisons that may be made.

The pamphlet can be secured by those interested in the subject by aplying to the Secretary of Agriculture, Washington, D. C.

THE CORN MARKET SITUATION.

The Editor's Monthly Review of the Market.

It is not the intention to say much more in this article than to refer to the changes which have taken place from month to month.

We all know that the Department of Agriculture has reported that there is a great corn crop and we might as well admit it to be no secret. All discoveries of this character are estimates, and good ones at that, although they sometimes fall down when the final count is made.

At Chicago, on May 31st of the present year, the May option was cleaned up at 80 cents a bushel. That was the limit then, and now banking on the larger crop in sight. The Board of Trade gives us a quotation of 54 cents as the price at which the May option of the present crop will go out on May 31st of next year.

We understand that half way through Congress is a bill to make it a penal offense to deal in grain futures. They have an idea in Congress that the commerce of the greatest country on earth can be conducted like a corner grocery in a big town, where supplies can be had from the big wholesale houses between morning and noon.

The editor of this paper asked a grain dealer what would be the effect of the bill. He said the first thing would be doubling up of selling commissions, because it would cut down the number of transactions, and the next would be the consolidation of different grain-dealing interests and the falling away of small concerns until the syndicates would absolutely control the trade, far beyond anything ever before thought or dreamed of. "How are you," said he, "on such a bill?" and the editor said distinctly and positively that he had never asked for it.

At the risk of saying something that may cause some of our readers to say we ought to know more about it, we will observe that it is not clear why the September corn option, which was quoted at 66¾ cents a bushel on July 31st, was at 72¼ cents on August 31st, the September quotation being advanced, whereas the December quotation at 57¼ cents on July 31st actually declined to 55¼ cents on August 31st. In other words, one quotation was going up and the other was coming down. The explanation offered us was that dry shelled corn of commercial grades will be scarce on September 31st and will be abundant on December 31st.

It is not then the grand total of the corn crop that has the greatest effect on the market, but the available supply of certain grades and qualities that actually means so much in determining commercial values.

RAW ROCK PHOSPHATE

Of No Value as Fertilizer, Yet Sold as Such.

Somewhere near a year ago The National Farmer and Stock Grower saw that an educator on the subject of soil fertility and fertilizers had listed raw rock phosphate as a fertilizer that contained slowly available phosphoric acid. At that time we had reason to believe that by solicitation we could obtain some advertising of raw rock phosphate, providing we were prepared to endorse the goods, and we wished to advertise the fertilizer and advocate the goods, if it was right and proper for us to do so.

What we had read about raw rock phosphate was not altogether in its favor, because the testimony was for and against, and a large majority against, and only one distinct and positive advocate, and he considered a competent authority upon soils and farm chemistry.

The editor makes no claim to superior knowledge in farming, although a farm editor and a farm manager years before Agricultural Colleges were furnishing the bulletins, and he was willing to listen and to learn. And he investigated wherever he thought he could find some evidence to prove that raw rock phosphate, ground or unground, would be a good purchase for anyone who was engaged in tilling the soil.

The conclusion we arrived at and the conclusion that we still hold to is that if a farmer pays a dollar a ton for the best form of rock phosphate for fertilizing purposes he pays too much.

If raw rock phosphate was available as a plant food it would be used by many complete fertilizer manufacturers in their own combinations. And yet it does not appear in any one of them. And if they are asked why not, they answer that they dare not, because in rock form it is not an available fertilizer, and in examinations by chemists it would be found out and denounced as a fraud; furthermore, such combinations would fail, owing to the uselessness of the raw rock phosphate, and customers would be lost year after year, because plants would not derive benefit from that ingredient. Again, all true fertilizers are guaranteed to the state, licensed and inspected, whereas raw rock phosphate is neither licensed nor inspected, and has no more standing as a fertilizer than a load of coal.

Thus it is that raw rock phosphate, although containing fertilizer material in an unavailable shape, is an outlaw when placed among fertilizers and is not rendered available on farms by any farm process that will not exhaust the means of the farmer by waiting and waiting without merchantable crops and without profits until some unusually good preparation of the seed bed, supplemented by available manures, assisted by deep tillage, creates such results in a good season that there is gain enough for all, not forgetting unavailable raw rock phosphate that, standing alone, is characterized by its chief advocate as being absolutely no good.

We do not hesitate to say to our readers that we would be highly delighted if we could be convinced that we are in error in this case, but just now we believe the sale of raw rock phosphate as at present sold as a fertilizer ought to be prohibited by law. The pure-food law, it seems, ought to be extended to plant foods.

FARM AND RANCH LANDS.

FARM AND RANCH LANDS can be advertised effectively in The National Farmer and Stock Grower in small space at a reasonable price. The best land advertising in a general farm paper is classified and arranged by states. The National Farmer and Stock Grower will obtain for an advertiser more substantial inquiries in a ten-line advertisement than any other farm paper will give for five times the space or money. Send in your advertisement and let us quote you a price. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—FREE HOMESTEADS IN ARKANSAS under new three-year law. 500,000 acres good land vacant near railroads and markets. Our Homesteader's Guidebook tells just how to locate, acquire title, number of acres open in each county, and full text of new law. Price, 25c. **Farm Pub. Co.,** Little Rock, Ark.

ARKANSAS.—Near Arkansas City; 1,000 acres, with 350 of it in cultivation. Will be sold with live stock and work stock and crop started. The plantation is on the Mississippi river, at good landing; has on farm new gin, twenty tenant houses; two miles west of county seat, where there is a fine high school. All cultivated land is protected from overflow; also 300 acres rich land not under cultivation. The soil is rich sandy loam; makes plenty of hay and corn; good water; fine pasture for stock; has hay sheds, corn cribs, tool houses, commissary building and nice pecan grove. Price, $16,000; half cash; balance in payments at 6 per cent. interest, if desired. **J. S. Ross & Son,** Arkansas City, Ark.

FLORIDA LAND.—I will sell a part or all of one section of land just west of Jacksonville for less than one-half the price that adjoining land is now selling for. This is all good land. Extra good roadways and railroads in to Jacksonville. **Miss N. Ryan,** 2627 Clifton Ave., St. Louis, Mo.

KANSAS.—For Sale: Fine alfalfa and stock ranch; 2,240 acres; 600 acres sugar beet and alfalfa land; 80 acres in alfalfa and under irrigation; fair improvements. Price, $12.50 per acre, payable $2.50 cash, balance in ten payments at 6 per cent. Come out and see a bargain. **Roy S. Cone,** Garden City, Kansas.

MINNESOTA.—Farms for sale. Send for my list of CHOICE FARMS for sale, the best in the United States, considering location, terms, etc. Ask for my FREE BOOKLET, telling about the country, crops, markets, etc. **Geo. W. Elder,** McGinn Block, Thief River Falls, Minnesota.

MISSISSIPPI.—Farm for sale, two miles and a half from Starkville, and about the same distance from the Agricultural College. Starkville has about 2,500 inhabitants. Farm has 286 acres; good six-room dwelling; fine cistern; four tenant houses; plenty of woodland on place for all purposes; good fence all round the farm. There are two barns for cattle and hay, also horse barn. For fair price, terms and further particulars address **J. R. Cannon,** Starkville, Oktibbeha county, Miss.

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CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago.**

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send **The National Farmer and Stock Grower** for two years and we will send the book, **Profitable Dairying,** as a premium. Address,

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No. 8
Best Lock Made

DAIRY EXPERIENCE.

Building Up a Herd—Just Fifty Years of Careful Study and Management.

The following article is by Mr. L. A. Spies, who combines the double occupation of being one of the foremost milk producers in the state of Illinois and a high official of the Union Dairy Company of St. Louis, a company that is a large distributer of milk products. The address was delivered during Farmers' Week, 1911, at the Missouri Agricultural College.

"My experience in breeding live stock in Madison county, Illinois, covers a period of nearly fifty years. Like most boys on the farm, I fed the stock before and after school. I knew the ages and breeding of our stock better than father or my brother, and at fourteen years of age was given a free hand in selecting the breeding animals. We had been beefing the steers and cows we wished to dispose of except fresh cows, for which we had a good demand from St. Louis dairymen. We bred all our own cattle, which were milk Durhams. When I began farming for myself I bought heifer calves of father, and started a herd of my own. About the year 1882 we had a good supply of milk and commenced shipping to the Illinois Milk Company, afterwards the Union Dairy Company of St. Louis, but the Durham cows laid on too much fat. I put in a registered Holstein bull, but under high-pressure feeding I still had too much beef. I tried Jerseys, Guernseys and the best native cows; also three imported Holstein cows I bought at the old St. Louis Fair Grounds. They proved so satisfactory that I bought twelve more, four imported cows and their offspring, but, the most important, I bought the get of a great bull, imported by Smith & Powell of New York. He grew to be a very large animal, long and deep-bodied, four rudimentary teats an inch long; his heifers were great producers. It has been my experience that the bull is one-half the herd; that the stronger he is backed by his ancestors for good the greater will be his power to transmit those qualities. Never use a degenerate to head your herd, no difference if he has a fine pedigree—he may be a registered scrub. When selecting a bull to head your herd, go see his dam and sire, get a line on the quantity and quality of the dam's milk, unless she has an authentic record in the Advanced Register or a testing association. In starting a dairy herd, select the breed you like best and get a first-class registered bull of that breed, and get cows of the same breed. If you can't afford registered cows, get the best grades of the breed, but don't start with a grade bull, for he is one-half the herd, and you should make that one-half good and strong. I have a bull in mind that I bought in the year 1894 that had for his dam the grand cow Gerben Mechthilde, his sire Sir Henry Mechthilde of Maplewood. I used him on the herd for three years to the time of the dispersion sale in the fall of the year 1898, and wherever cows of that strain can be found in that section they bring good money on account of their production of large quantities of milk rich in butter-fat. I also advised two brothers in 1903, who came to me for advice, to buy a certain strain of Holstein in New York to head their herd, which they did. In 1908 I bought their herd and they are now among the top notchers at Calla Lily Farm. Seven years ago a farmer living in Bond county, Illinois, by the name of Wise, made an exceedingly good showing in the State Agricultural College year test with his herd of grade Holsteins, to the surprise of every one there. I traced the herd and found a patron of mine had sold Mr. Wise a registered bull, a son of the Gerben bull, breeding a large producing herd in the third generation from the start. In the capacity of buying milk by test at many creameries in Illinois from patrons whom I had advised in selecting their herds I find that the bull bred strong along certain lines transmitted this inherent virtue to the third and fourth generations, if mated properly. You must breed your herd to get a good one, unless you find some one who does not know what he has. If you buy your cows, you buy all the mistakes her breeder made with the cow. All dairymen should use the scale and Babcock test to find the amount of butter and milk each cow makes in one year. At Calla Lily Farm it showed me that I could not afford to buy, but must raise my herd, crowded as I was for room. The farmer holds his best cows high, that is, if he has any gumption. In these times a test association is one of the necessary things for a dairyman. Twenty-six farmers join to employ a competent man to test their respective herds; this gives him one day with each farmer to test the samples and instruct him and his family, or help in proper feeding and suggest improvements where most needed; it puts the farmer on the track of which cow is bringing a profit and which brings less or no profit at all. If you raise calves from your best cows, you know just what you are doing.

In Illinois land has nearly doubled in value in the past ten years. It requires intensive farming to buy and pay for a farm in twenty years, raise and educate a family and live as becomes a progressive man and family.

It is the age of smaller farms, better tilled and better managed, making three blades of grass grow where one grew before. Great wheat and corn fields give way to smaller fields, but more dairy stock—the most economical animal known to mankind. She will produce more food at a less cost in the shape of milk, butter, cheese, beef, veal and also build up his land. The high price of food the world over is causing the wise men to ponder, and well they may before it is too late. The land has been robbed; crops taken off and no food for the land given back.

On a visit to New York last summer I found tillable farms that were selling at $15 per acre—this, too, 125 miles from New York City. Forty miles south of Utica they are taking up dairying in earnest. I there saw more "black and white" cows to the mile than I ever saw before. The land robber, exclusive grain farmer, can pay $100 for good land, $150 for the best if near a good market, but only for a limited number of years—he is a curse to future generations—he robs the unborn of the chance to grow food by leaving the fields barren—he ruined and sold its fertility by the load.

The dairyman can farm land valued at $500 an acre, if fertile and near a good market, and he can build up the soil if he saves the fertilizer, as he should. This picture is not overdrawn, for in Holland land is valued at $700 to $1,000 per acre, and there intensive farming has reached its most perfect stage. They produce milk for the London market. They grow principally grass and make hay for their dairy cows.

"But we have something better. The great corn belt of the Mississippi Valley has in corn a plant the equal of which as a forage plant exists nowhere. Its yield in grain and fodder is unlimited; it will produce from ten to twenty tons of nourishing and succulent feed per acre. The

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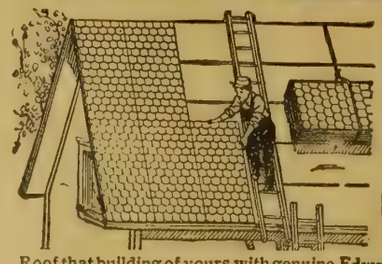

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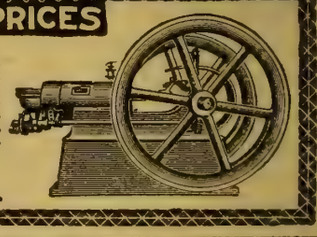

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best method of utilizing it is as ensilage and shredded corn fodder. It is the corner stone, the foundation, yes, the entire structure of animal husbandry in this section. We can feed a horse or cow for two and one-half cents per day with ensilage. We find it to be most profitable to cut when the grain is glazed. In this state it compares with dried fodder corn as a ripe apple compares with the dried fruit; the juice is distributed in just the right proportion and is easily digested in the animal's stomach.

"For thirty-six years we had been feeding corn with roasting ears while they lasted, and were anxious to prolong their season. Accordingly, twenty-six years ago we built the first silo in Madison county, Illinois, and we believe in Southern Illinois. Its capacity is 100 tons. We were so pleased with the results that in 1893 we built a second of 140 tons, having in the meantime increased our herd of dairy cows. Calla Lily Farm at St. Jacob, Ill., I am running as a model for the dairymen producing milk for the St. Louis market. We have eighty-eight fine Holstein cows producing certified milk, sold by the Union Dairy Company. This farm was an answer to the many questions that were continually being asked by our patrons how to feed, how to build silos, what kind of cows were best, what kind of barn did I recommend. There is the entire plant, which I built with my own money, and it is working nicely; some of the patrons are taking heed. There we emphasize the things that mean success. The pure-bred bull, records, silo, clover and alfalfa hay are all handled. It requires them to be successful."

HOLSTEIN-FRIESIAN RECORDS.

Seven-day Tests For Admission to Advanced Register—The Double Record of Another Dairy Queen.

The following is by Malcolm H. Gardner, Superintendent of Advanced Registry of Holstein-Friesian cattle, and consist of seven-day tests, unless otherwise mentioned:

"During the period from June 5th to August 10th, 1912, records for 232 cows were received and have been accepted for entry in the Holstein-Friesian Advanced Register; nine of which were begun not less than eight months after the freshening of the cows making them, and twenty-four of which were semi-official yearly or lactation records. The averages by ages or classes were as follows:

"Seven-day tests. — Seventy-two full-aged cows averaged: Age, 7 years, 3 months, 3 days; days from calving, 23; milk, 490.2 pounds; per cent. fat, 3.58; fat, 17.552 pounds. Nine senior four-year-olds averaged: Age, 4 years, 9 months, 9 days; days from calving, 24; milk, 496.7 pounds; per cent. fat, 3.36; fat, 16.699 pounds. Sixteen junior four-year-olds averaged: Age, 4 years, 3 months, 20 days; days from calving, 26; milk, 456.9 pounds; per cent. fat, 3.46; fat, 15.808 pounds. Thirteen senior three-year-olds averaged: Age, 3 years, 8 months, 19 days; days from calving, 22; milk, 421.9 pounds; per cent. fat, 3.43; fat, 14.484 pounds. Twenty-seven junior three-year-olds averaged: Age, 3 years, 3 months, 9 days; days from calving, 21; milk, 418.9 pounds; per cent. fat, 3.57; fat, 14.969 pounds. Eight senior two-year-olds averaged: Age, 2 years, 8 months, 15 days; days from calving, 21; milk, 357.4 pounds; per cent. fat, 3.36; fat, 12.011 pounds. Fifty-four junior two-year-olds averaged: Age, 2 years, 2 months, 15 days; days from calving, 21; milk, 330.4 pounds; per cent. fat, 3.52; fat, 11.636 pounds.

"This herd of 199 animals, of which nearly one-half were heifers with first or second calves, produced in seven consecutive days 84,567.8 pounds of milk, containing 2,983.781 pounds of butter-fat, thus showing an average of 3.53 per cent. fat. The average production for each animal was 425 pounds of milk, containing 14.994 pounds of butter-fat; equivalent to 60.7 pounds, or over 28.9 quarts of milk per day, and 17½ pounds of the best commercial butter per week. The averages are again very remarkable for the season and are only a hair's breadth less than those of the last issue of these reports, of which I said that they were the best yet for the time of year. With the best of our junior two-year-olds producing as much milk and fat as did our best full-aged cows a dozen years ago, who would venture to set a limit upon the dairy capacity of the Holstein cow?

Hardly is one Holstein-Friesian queen seated on the throne, with a production so large that it seems that she surely will be able to keep her crown for some time, than she is courteously requested to abdicate and resign throne and crown to a successor with a yet greater record. A few months ago I announced that Pontiac Lady Korndyke had won the crown in the seven and thirty-day divisions, with the great productions of 30.422 pounds fat from 601.4 pounds milk in seven days, and 125.541 pounds fat from 2,496.7 pounds milk in thirty days. Now she must stand aside to make room for Valdessa Scott, 2d, with the much greater productions of 33.5 pounds fat from 694.6 pounds milk in seven days, and 132.388 pounds fat from 2,933.9 pounds milk in thirty days. These yields are so large that it causes one to wonder how any cow can produce them; yet immense as they are, I have not the slightest doubt but that in due time some other and greater Holstein cow will surpass them.

"Valdessa Scott, 2d, is closely related in blood lines to the cows for many years prominently before the public, and the discovery of so wonderful a cow among the outsiders goes far to prove my claim that there are hundreds of great cows in the rank and file of the Holstein-Friesian legions. 'Where are these cows?' does some one ask. 'Perhaps in your own herd. Do you test? Do you give your cows a chance?' Every Holstein breeder, young or old, should know what he has in his own herd; but he should first make an effort to develop himself before he attempts to develop his cows. Only the broad-gauge feeder who feeds understandingly, mixing his feeds with brains, will be apt to make a success. Such a breeder realizes that the Holstein cow is a wonderful machine for converting feed into cash products, and also that she is at the same time a living organization whose wants must be studied and tastes consulted."

The Chicago International.

Again we have the opportunity and the pleasure to speak a word in favor of the Chicago Live Stock Show. The familiar annual "Preliminary Classification" has again come to hand and the date of the Show is November 30th for the opening and December 7th as the closing day. The State Fairs, beginning in August and lasting through September and October, are now making selections for exhibit at Chicago. That is the principal occupation of the State Fairs, so far as cattle, hogs and sheep and certain breeds of horses are concerned. And every time the judge looks at candidates for high honors he asks of the animal: "Are you of sufficient quality to be exhibited at the Chicago International?" and if the answer is favorable a ribbon is awarded which is a qualification for a Chicago exhibit. There are many State Fairs and Expositions and the Chicago International is the king of them all. The preliminary classification ought to be in the hands of all who may possibly become exhibitors, and may easily be obtained by requesting a copy of B. H. Heide, Secretary, Union Stock Yards, Chicago, Ill.

Is Your Purse Full?

YOUR farm is the purse from which you take the necessities and luxuries of life. What provision are you making to keep your purse full—to insure a constant supply of food, clothing, heat, light, protection, and worldly wealth?

No purse can stand a steady drain—no soil can produce constant yearly crops—without an adequate income. The purse must be supplied with money, the soil with plant food. It is easier, and far cheaper to maintain a fertile condition of the soil than it is to build it up after it is once exhausted. Be wise—begin now to use faithfully an

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Use your I H C spreader to distribute stable manure and saturated bedding while it is still fresh. Spread in light coats so that the plant food elements of the manure may combine quickly and thoroughly with the soil and become available for the use of growing plants. Spread quick-decaying straw to increase the moisture holding capacity of the soil and make it easier to till.

If you would have the spreading well done, do it with an I H C manure spreader, built to accomplish a definite purpose in the proper manner, at the least expense, and with the least strain on horses. Make the quantity of manure usually spread by the fork do twice the amount of good by distributing it properly with an I H C spreader and leaving the ground better and more evenly fertilized and in greatly improved condition. The driving mechanism of the I H C spreader is strong and thoroughly protected. The aprons, both endless and return, run on large rollers. The feed is positive. The manure is spread evenly, light or heavy as may be necessary, the quantity spread never changing until the feed is changed.

See the I H C local dealer and have him show you the spreader best suited to your needs. Get catalogues and full information from him, or, write

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[Please mention National Farmer and Stock Grower.]

About the Hopper Dozer.

Everyone is not interested at this time in the extermination of grasshoppers, but there is no telling where a copy of The National Farmer and Stock Grower may be found; therefore it is well to observe that the Agricultural Experiment Station at State College, New Mexico, has issued a circular entitled "Construction and Use of the Hopper Dozer," the aforesaid hopper dozer being the apparatus that can be made at home for the purpose of putting the grasshoppers to a sleep that knows no waking. The hopper dozer is made for field work, and can be hauled by hand or by horse power. Anyone who may be interested should write to the Director of the Agricultural Experiment Station, State College, New Mexico, and ask for a copy of Press Bulletin No. 189.

It Wasn't Soap.

A New Jersey farmer came to the city the other day, and, among other things, he visited a high-class restaurant. His appetite ran to cheese and, inquiring of the waiter what sort of cheese was listed, said he desired "something new." "Why don't you try a bit of Roquefort?" suggested the waiter. "What's that?" asked the farmer. "Hang it," he added, "bring me some. I like the name, anyway. He ate of it and liked it, so he thought he would take some home to his wife. Arriving late, he laid the small cheese wrapped in silver paper on the sideboard. He forgot to inquire about it till the next night and then he asked his wife how she liked it. "Oh, I s'pose it's mighty stylish up to the city, but I jes kinder couldn't use it. I couldn't get no foam out of it, and when I washed the children they smelled kinder funny, and I can't say that I like it."—Scraps.

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Agriculture For Girls.

The Missouri Women Farmers' Club has started a movement to interest girls in the study of agriculture — not merely caring for flowers or managing a vegetable garden, but real agriculture, involving a knowledge of soils, crops, live stock, fruit, poultry and dairy products.

In order to start the movement the club offers a $25 cash scholarship in Short Course in Agriculture to the Missouri woman over eighteen years of age who will write the best essay of from 450 to 800 words on the subject "Why Women Should Study Agriculture." This should pay one-half the expense incurred in one term of the Two-year Winter Course in Agriculture.

Every young woman who would like to take advantage of this offer should write for a copy of the rules governing the contest to A. J. Meyer, Superintendent of Short Courses, Columbia, Mo.

Comparison of Conditions.

According to the United States Department of Agriculture, the condition of the various crops on August 1, compared with their average condition (not normal) on August 1 of recent years, follows:

Peaches, 123.7; apples, 122.1; spring wheat, 112.6; oats, 110.9; hay, 110.2; barley, 107.2; millet, 107.2; flax, 106.2; grapes, 106.1; tomatoes, 105.9; pears, 105.5; hops, 105.0; alfalfa, 104.9; timothy, 104.3; Lima beans, 104.3; hemp, 103.9; cantaloupes, 103.8; cabbage, 103.7; Kaffir corn, 103.5; onions, 103.5; potatoes, 103.5; broom corn, 102.2; watermelons, 101.8; clover for hay, 101.7; oranges, 101.5; tobacco, 101.2; raspberries, 100; pasture, 99.9; sorghum, 99.5; peanuts, 99.4; sweet potatoes, 98.6; beans (dry), 98.5; sugar beets, 98.3; rice, 98.2; buckwheat, 98.0; corn, 96.6; cotton, 94.9; lemons, 94.1; sugar cane, 93.2; blackberries, 90.5.

The Immense Hay Crop.

According to the report of the Department of Agriculture, dated August 9th, the hay crop beats all records, and is 73,000,000 tons, or 18,000,000 tons in excess of last year, and 4,000,000 tons more than the big yields of 1909 and 1910, which were based on census returns. Hay (all tame).—Condition, 91 per cent. of a normal, compared with 85.2 per cent. last month, 68.6 per cent. last year, and 82.6 per cent., the average for the past four years. Indicated yield per acre, 1.49 tons, compared with 1.14 tons last year, and 1.42 tons, the average yield for the five years, 1906-10. On the planted area it is estimated the total production, interpreted from condition reports, will be 73,000,000 tons, compared with 55,000,000 tons last year, and 69,000,000 tons in 1910.

Barley Crop of 1912.

In barley the year 1912 will establish a new record, the estimated yield of 202,000,000 bushels being 24,000,000 bushels greater than that of 1906, the previous best year. On August 9th the United States Department of Agriculture reported: Condition, 89.1 per cent. of a normal, compared with 88.3 per cent. last month, 66.2 per cent. last year, and 83.1 per cent., the average for the past ten years. Indicated yield per acre, 26.7 bushels, compared with 21.0 bushels last year, and 24.8 bushels, the average for the five years, 1906-10. On the planted area, 7,574,000 acres, it is estimated the total production of barley, interpreted from condition reports, will be 202,000,000 bushels, compared with 160,240,000 bushels last year, 173,832,000 bushels in 1910 and 173,321,000 bushels in 1909.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Hog Cholera Again Threatens.

Reports now being published show that already hog cholera is cutting down pig crops. This year any hog losses will be especially calamitous, as the shortage of beef and mutton will insure a good price for every pound of sound hog flesh that can be put on the market. One well-known Chicago packer gives it as his opinion that "1913 will be a year of high values for hog products."

In view of the existing conditions no farmer or hog raiser can afford to take any chances, and he should lose no time in adopting preventive measures against any possible outbreak of hog cholera in his herds. As is well known, it is the most deadly and most contagious of all swine diseases. When it once puts in its appearance in a neighborhood, every herd for miles around is in immediate danger, for hog cholera spreads with astonishing rapidity, leaving thousands of dead hogs in its wake.

The actual experience of many practical hog raisers has proved that the cheapest and by far the most effective way to make hogs cholera-proof is to feed them on a small quantity of Merry War Powdered Lye regularly twice daily with their rations. When so fed, hogs, if they are thin, scrawny, wormy and off their feed, show marked improvement at once. The Merry War Powdered Lye effectually destroys and expels the stomach and intestinal worms and parasites, which, unless destroyed, sap the blood and strength of the hogs and pave the way for cholera.

Merry War Powdered Lye quickly puts hogs on their feed, tones up their systems, makes them healthy, sleek and fat, and positively prevents hog cholera. When ready for market, a bunch of Merry War Powdered Lye fed hogs will be in prime condition and command top-notch prices.

The expense of the Merry War Powdered Lye treatment is very small, only about five cents a month per hog. It is manufactured by the E. Myers Lye Company, of St. Louis, Mo., and is for sale at all druggists, grocers and feed dealers at 10 cents a can. The most convenient way to buy it is by the case of four dozen cans for $4.80. The E. Myers Lye Company have recently issued a most valuable book on "How to Get the Biggest Profits From Hog Raising," a copy of which will be mailed free to anyone interested on request. Write to E. Myers Lye Company,

Reliable Seed House.

We take pleasure in recommending the A. W. Schisler Grain Company, of St. Louis, as a buyer of seeds direct from seed-growing farmers. The firm also sells direct to farmers all seeds they need. The way to get acquainted with this firm in the first place is to write for their Golden Arrow Seed Catalogue. Address, A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo.

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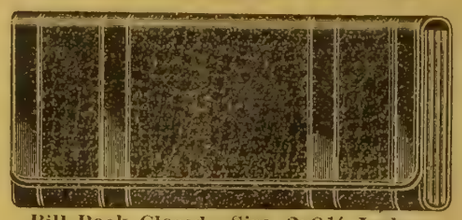

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Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

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Illinois State Fair.

Secretary J. K. Dickinson, of the Illinois State Fair, announces that definite contracts had been made for the last of the special attractions for the forthcoming State Fair, October 4-12. The most spectacular feature will be aviation. A fleet of airships have been engaged for each day, excepting Sunday. There will be a French monoplane, the Nieuport, which is said to resemble a hat, an American monoplane, manufactured by the inventor, Johnson, of Terre Haute, a Curtiss-type biplane, and the old-fashioned hot-air balloon, which will be operated by a woman.

Mule races and pony races have also been provided, and a Cuban woman will slide down an inclined plane in an automobile and turn three somersaults.

There will be a three-team turnout of very black ponies with gold-mounted harness attached to a white-enameled truck.

The airships will carry a mail bag with aerial mail out of the Fair Grounds every day.

The last day, Saturday, October 12, will be Automobile Day, and enough cash and trophies are offered to provide sensational driving. Disbrow, in a big Simplex, will be the great star, and the last event will be the climax of the Fair of 1912, when an automobile, a motorcycle, a biplane and both monoplanes, will race five miles around the race track.

Pastor Russell, the famous independent divine of Brooklyn and London Tabernacles, will deliver a lecture on Sunday on "The Life Beyond the Grave."

The Illinois State Fair this year offers nearly $90,000 in cash prizes, and nearly every department shows an increase in the prize money list.

The new $125,000 sheep and swine pavilion will be occupied in time for occupancy during the Fair, at least the contractors are under bond to finish it. The great Dome Building will have a brand new copper dome in place of the mass of glass it has carried ever since it was built at the Chicago World's Fair. The lower fourteen feet will remain glass, the balance being copper.

Open Letter About Eggs.

To farmers, buyers and shippers of eggs:

My Dear Sir:—It is a conservative estimate that more than $45,000,000 are lost in the egg-producing sections annually because of improper handling. This enormous loss is due to small eggs, cracked and broken eggs, dirty, stale, heated (hatched) and rotten eggs. Just think of the waste this sum means, from the time the mother hen loses from her business of egg laying in order to hatch and bring up the hens that lay these wasted eggs, to the money that the housewife pays for the bad egg that cannot be used. It is a loss to you, to the farmer, to every one in the egg business, and to the consumer. Will you assist us in our effort to save this loss and to improve the egg that finally gets to market?

To the buyer:—When farmers, peddlers, merchants, etc., come to you with eggs for sale, talk to them about the improvement of the market egg and enlist their co-operation in the elimination of this great loss. Here are some of the fundamental points to be considered by all egg men, whether producers, shippers or middlemen:

1. Encourage the production of large eggs. This can be accomplished by keeping pure-bred "general-purpose" breeds of fowls, hatching only the eggs that weigh at least two ounces apiece and from only the most vigorous stock. A higher price for large than for small eggs will help along the argument.

2. Infertile eggs do not hatch, do not form blood rings and seldom form black rots. If male birds are sold or penned up after June 1st the flock of hens will lay more eggs and they will be infertile and will keep better.

3. A year-round observation of New York egg receipts showed that over 12 per cent. were dirty-shelled and sold for a lower price on this account. You should buy these dirty eggs at a lower price, for you are paid less for them. If one nest is provided for each six hens, in a cool, dark place, kept clean and vermin free, dirty eggs will be reduced to a minimum.

4. More than 10 per cent. of the eggs received in New York during the year are "seconds," because they are stale. Tell your egg man that gathering eggs every afternoon, or twice daily in hot or murky weather, keeping them in a cool, clean, dry place until marketed, and marketing at least once a week and more frequently in the summer time, will reduce the number of stale eggs greatly. Of course, stale eggs are worth less money than fresh eggs, all along the line.

5. Can you convince your trade that eggs from stolen nests and from incubators are never fit for sale? If the farmer thinks they are good, reliable food, urge him to eat them at home. For, since the egg buyer can afford to pay more for large, clean, fresh, whole-shelled eggs, it is good business for the farmer to use small, dirty, cracked eggs at home.

6. Do you know how to candle eggs? If not, learn, and learn quickly! There is no other way by which you can determine the worth of what you are paying for. Having yourself learned how to grade eggs, show the merchants, peddlers and farmers in your neighborhood, by means of the candle, what kind of eggs they are bringing to you. Farmers are not scamps, nor egg buyers angels. Show the farmer the kinds of eggs you cannot pay for and he will find a way to eliminate the bad egg and to make the good egg even better.

7. When first-quality eggs come to your possession, what means do you take to keep them so until they go to market? To build up and keep a good reputation for your output you must grade carefully and uniformly; pack in good fillers, flats and cases; ship quickly and under good conditions. If you would be classed among up-to-date shippers you must have mechanical refrigeration, that the chilling of the egg may begin the minute you receive it. Candle eggs in a room where the temperature does not go above 55 degrees Fahrenheit. Ship chilled eggs in a good refrigerator car, in car lots. If you cannot chill the eggs before shipping, use a refrigerator car, well iced, and ship only the minimum load, that the eggs may receive the benefit of the ice before the market is reached.

Send this letter, or copies of it, to the egg people in your vicinity, if it will serve to strengthen your argument for better egg handling.—M. E. Pennington, Ph. D. Approved: James Wilson, Secretary of Agriculture.

Proven Teachers Wanted.

Every man knows how to run a hotel except those who are in the business; so it is in the minds of people that all farmers need instructors employed to teach them their business. The teachers ought first to prove their ability by their own books and their own profits.

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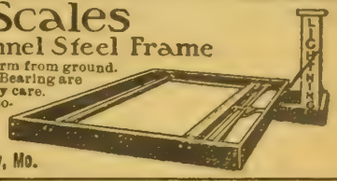

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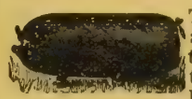

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THE AMERICAN POULTRY JOURNAL—the oldest, best and most elegant poultry journal issued in the United States. Great on breeding points, and splendid articles on raising, feeding and shipping poultry. THE AMERICAN POULTRY JOURNAL is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of Poultry Husbandry and retain the peculiar quality of being good instructors. You gain something every time you read THE AMERICAN POULTRY JOURNAL.

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

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A City Life Commission.

We did not take any stock in the Country Life Commission and did not care to read the conclusions until a long time after the whole performance was over. We then found ourselves just where we were before and just as wise. There is nothing the matter with country life that is not doubly the matter with city life. For every farm boy that cannot earn enough money to support himself there are ten city boys of the same age who are still more dependent upon their parents for food and clothing and money to spend. It is the same with grown-up people. The farmer of the poorest class is sadly outranked in this respect by the poor of the cities. In whole states like New York, Pennsylvania, Ohio, Indiana, Illinois, etc., the living conditions are so far superior on farms than in cities that the Commission should have been instructed to investigate city life and let country life work out its own salvation.

Boys coming to cities from farms would turn right back again if they came into the dark side of city life. They would go back anyway, only every son cannot inherit the old homestead; therefore some farm boys must be customers for the farm boys they leave behind, and many who do come remain in cities because they cannot again obtain the country positions they have given up.

There is urgent need of some city life investigation to ascertain how much of city money goes for necessaries and how much is expended for luxuries. There is an urgent need of light upon the dark city subjects. When farm earnings average $600 and $800 per farm and a city family will claim to be starving to death on a thousand dollars a year, there is room for investigation.

It would be interesting to know how many city housewives are buying bread at 10 cents a loaf, when they could buy flour and bake the same loaf for 2½ cents. It would be nice to discover how many families have a person to do the marketing and see what they get for the money, and how many families telephone their orders and are paying two prices instead of one out of clerks' and salesmen's salaries that are a good third higher than they used to be, and yet not large enough to stand the racket of carelessness in buying and ignorance in cooking.

For every good, economical housewife in cities there are ten in the country, and although many a farmer's wife has cause to complain of her hard lot, it will not require a Country Life Commission to find out that hereafter the farmer's wife will have more conveniences and less work.

We are not quarreling over city conditions or how city people live. There is certain liberty of action that all people are entitled to, and they are also entitled to obtain some experiences for themselves, for it is said some kind of people will learn no other way. But we have a quarrel with people who continually assume that the farmer is ignorant and the city people are wise. The reverse is the true situation. The next Commission appointed by the President should be appointed for the purpose of investigating city life, and a few first-class farmers should be members of the Commission. The first discovery would be that the American families are unthrifty and the foreign elements now coming in, Hungarians, Greeks, Russians, etc., are taking possession of the city occupations, and are the only people who provide food, lodging and raiment before they begin to expend money for luxuries.

Pleasant Hill Produce Association.

On July 27th the Pleasant Hill Produce Association of Allen, Miss., was launched. The purpose of this association, as stated in its Constitution, Article 1, Section 3, shall be to market the farm products of its members; to economic buying for same, and to disseminate needed information upon matters of interest to its members. Mr. F. E. Herring, of Martin, was made President; Dr. Colon Simmons, of McBride, First Vice-President; and P. S. Mangum, of Allen, Secretary and Representative.

The association expects to ship produce in car lots, and when it appears to be necessary to do some retailing. The association will place its representative in the field to superintend the sale of produce and to buy such articles and packages as may be of advantage to obtain in bulk and distribute same according to the requirements and orders of individual members.

The members of this association are farm owners and operators, living in Claiborne, Copish, Jefferson and surrounding counties, and is the seat of the famous "Mississippi cane syrup," made from the sugar cane as raised to perfection in those counties, and unsurpassed by anything of its name in the world. There is usually a surplus of Irish potatoes, beans, hay and grain to be shipped, and now that the boll weevil has invaded the country there will be a greater production of cattle, hogs and sheep. The lumber shipment from those counties is a considerable item.

By thus organizing buyers are enabled to find large quantities of fresh staple goods at reasonable prices. Buyers will do well to send daily quotations to such associations.

By communicating with Prof. P. S. Mangum at Allen, Miss., buyers can feel safe, as the Board of Directors, consisting of eighteen members, guarantees to make good any promised statement made by him as Acting Secretary and Representative.

We give the association our best wishes and will hail the day when more such organizations will be seen among the farmers.

The American National Live Stock Association.

As we understand it, the American National Live Stock Association, with headquarters at Denver, Colo., is the authorized representative of the live stock interests of the United States of America, and for that reason we publish the resolutions, so far as tariff matters are concerned, as adopted for the guidance and instruction of the members of that association. These resolutions are identically the same as those The National Farmer and Stock Grower has advocated ever since it was first issued, and is by us advocated for the reason that we believe in them:

The Preamble.

Whereas, This association recognizes that it has always been and must continue to be the settled policy of the government of the United States to raise a very large proportion of the funds necessary for its support from import duties, which will in a large measure affect the production, the consumption, the markets and prices of such imports and similar products of this country, the benefits and burdens of which should be fairly distributed as between the people, communities and industries of this country; and

Whereas, We believe that it has been plainly manifested by what has been said and done in Congress, and elsewhere, in connection with recent tariff legislation and attempted legislation, that it is the intention of many of our public men to open the door to the free importation of the products of the farm and ranch, including live stock, meats and other products of live stock, grains and feeds, and other food products in that part of the United States mainly engaged in such business, thereby shifting the burdens of the tariff system to the agricultural and stock-raising portions of the country, and depriving those industries of such benefits as would accrue were the tariff duties retained on those products. It appears to us that it is the avowed and deliberate intention to take the tariff off of the products of agriculture, including live stock and its products, for the purpose of reducing the price which the producer may receive, to the great injury of our business and for the supposed benefit of others; and

Whereas, Live stock and the products of live stock, including wool, hides, meat and meat food products, and all the products of the farm and ranch, should in justice receive the same measure of benefit or protection as is accorded to the products of other industries of the United States, including manufactures, without regard to whether it is called a protective tariff or a revenue tariff; and

Whereas, We believe it to be to the interest and to be the sentiment of the live-stock producing and agricultural interests of the United States that live stock and the products thereof, and all farm products, are entitled to and should receive an equal and equitable share in whatever benefit may or should flow from any system of import duties of the country; and

Whereas, We declare it to be unjust and discriminatory as against the live-stock producing and agricultural interests of this country, and therefore against the best interests of the United States as a whole, to place on the free list, and subject to the cheapest world-competition, live stock and its products, and the farm products of this country, while knowing that a tariff system will and must be maintained on manufactures and other commodities, the burden of which the farmers and stock raisers must bear, to the extent at least of their purchase of those articles of manufacture and commerce upon which there are import duties; now, therefore, be it

Resolved, By the American National Live Stock Association in convention assembled at Denver, Colorado, December 12 and 13, 1911:

The Resolutions.

1. That we demand the retention of sufficient duties on imports of live stock and its products, and all farm products of this country, as will be equal, fair and just to the industry which we represent, compared to the import duties on other products, whether those duties shall be levied for the avowed purpose of protection or for the avowed purpose of producing revenue to run the government.

2. We condemn us unjust, unfair and discriminatory the Payne-Aldrich Bill, in placing hides on the free list, and demand the restoration of same, and declare that we are unalterably opposed to the placing of live stock and live-stock products, and the products of the farm and ranch, on the free list.

3. We appeal to the live-stock producing interests and to the agricultural interests to unite in opposition to a discriminatory and unjust system of levying import duties whereby our interests shall be sacrificed for the benefit of others.

4. We declare it to be the just right of the live-stock and agricultural interests of this country to enjoy equally whatever preferences any system of import duties gives to the industries of this country, incidental or otherwise, in the home markets of the United States, in preference to the products of foreign countries, and we appeal to the fairness and good sense of the people of the United States to maintain the fundamental principle of our government —equal rights to all and special privileges to none.

H. A. JASTRO, President.

T. W. TOMLINSON, Secretary.

E. Myers, President, E. Myers Lye Co.

There Is A Specially Prepared Lye That Prevents Hog Cholera

It didn't "just happen" that *Merry War POWDERED Lye* has *proved* itself, by the *actual experience* of thousands of farmers to be the *safest preventive of hog cholera, destroyer of worms* and the best hog *conditioner and fattener* the world has ever known. Far from it—that is exactly what I meant it *should* do—what I have been earnestly striving to make it do during the past 20 years. Therefore I know what I am talking about when I say that *Merry War POWDERED Lye* is just what I claim it to be—*a POWDERED lye, specially prepared, that will prevent hog cholera, destroy worms, condition and fatten hogs!*

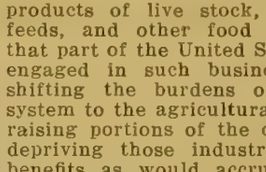
Don't be persuaded to try an ordinary, old fashioned lye as a *possible* preventive of hog cholera. At best it would be a doubtful, and perhaps a *dangerous* experiment. The use of *Merry War POWDERED Lye* is *not* an experiment. *Experience* has *proved* my claims for it. Plain directions for feeding to hogs are printed on the label. These directions are *not* guess work. They give, as the right quantity, one-half can to a barrel of swill or drinking water and *Merry War POWDERED Lye* should be used in that proportion *daily* to obtain the desired results.

That's mighty cheap hog insurance—*only 5c a month*—to *protect* a hog from *cholera*, and *worms, to keep him fat, sleek, healthy*, turning all feed into *juicy fat*—so you can market at the *highest* price. Letters from hundreds of farmers tell how *Merry War POWDERED Lye saved* their hogs and *increased* their pork profits. Here is a sample:

"I have about 40 hogs and I have been feeding them *Merry War POWDERED Lye* the past three months and believe it will do all you claim. Hogs have been dying all around me, but I have not had any sick."

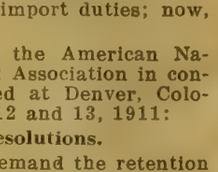
A. C. AIELSON, Vicksburg, Miss.

Now Prove All This For Your Own Self *Most dealers handle Merry War POWDERED Lye; 10c per can (120 feeds). It's convenient to buy by the case, four dozen cans, $4.80. If yours can't supply you write us stating dealers' names—we will see that you are supplied and send you, FREE, a valuable booklet on "How to Get the Biggest Profits from Hog Raising." YOU MAY ORDER DIRECT FROM US AT $4.80 PER CASE OF 48 CANS if your dealers won't supply you.*



E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

Which Kind Do You Want?



Overland 1913

$985

Overland 1913

Completely Equipped F. O. B. Toledo

This Completely Equipped, Powerful, 30-Horsepower 5-Passenger Touring Car

Here Are a Few of the Big Features:

Self Starter
30 Horsepower
5 Passenger Touring Car
110-inch Wheel Base
Timken Bearings
Center Control
$50 Remy Magneto
$50 Warner Speedometer
$50 Mohair Top and Boot
$25 Clear Vision Wind Shield
$25 Prestolite Tank

THERE never has been such an astonishing automobile value offered to the American farmer. Study the specifications—the detailed values. See the unusually complete equipment—everything possible and practical for an automobile. Remember the thorough and fine Overland construction and you'll get a good idea of this exceptional worth. $985 for this complete, big, powerful car. No extras; nothing additional to buy but gasoline. Ready for service the minute you get it. This car, at this price, smashes all previous records. It even totally eclipses our 1912 values, which a year ago baffled the world. 40,000 Overlands will be made in 1913. This enormous jump in production makes possible this new car at this new price. As our production goes up, prices come down, as has been shown in each preceding year.

In this age of rapid progress it is sometimes difficult to grasp the full significance of an important, progressive manufacturing step, such as this car exemplifies. But when you sum up the extraordinary cold dollar for dollar value which this car offers, as compared to any and all competing motor car values, the giant economical manufacturing strength of the huge Overland plants is realized and recognized. It only proves the ability of this most powerful and efficient automobile factory.

Here we can but call your attention to the bare facts. This is the car—a big, powerful, beautiful, spacious, comfortable, self-starting, thirty horsepower, five-passenger touring car—fully equipped—all ready for night or day, rain or shine, service. Made of the best materials on the market, by the most skilled men known to the trade, and in the most efficient automobile shops in America. And the price is but $985.

We can make the positive statement, without any kind of a condition, that this is the automobile industry's record value.

This car can now be seen in any city in America. Over 2000 Overland dealers are waiting to give you your demonstration. Look up the one in your vicinity.

Write us at once for full information and a 1913 catalogue. Address Dept. L 69.

The Willys-Overland Company, Toledo, Ohio

Detailed Specifications—Model 69T

MOTOR—Four-cylinder, cast separately. Bore, 4 in. Stroke, 4½ in. Horsepower, 30.

IGNITION—Remy Model R. D. Battery and Magneto—two sources of current.

COOLING—Water cooled. Thermo-Syphon Cellular Radiator.

OILING—Splash system for crank and cam shaft bearings. Cylinder and timing gears oiled with Kinwood force feed oiler.

CAM SHAFT—Carbon steel drop forged, three bearings.

CRANK SHAFT—Carbon steel drop forged, five bearings.

CONNECTING ROD—Carbon steel drop forged.

MAGNETO SHAFT—Drop forging.

PUSH ROD—Crescent drill rod steel.

CARBURETOR—Model L Schebler.

CENTER CONTROL.

FRAME—Channel section—cold rolled steel.

SPRINGS—Front, semi-elliptic.

TRANSMISSION—Selective. Three speeds forward and reverse. Annular bearings.

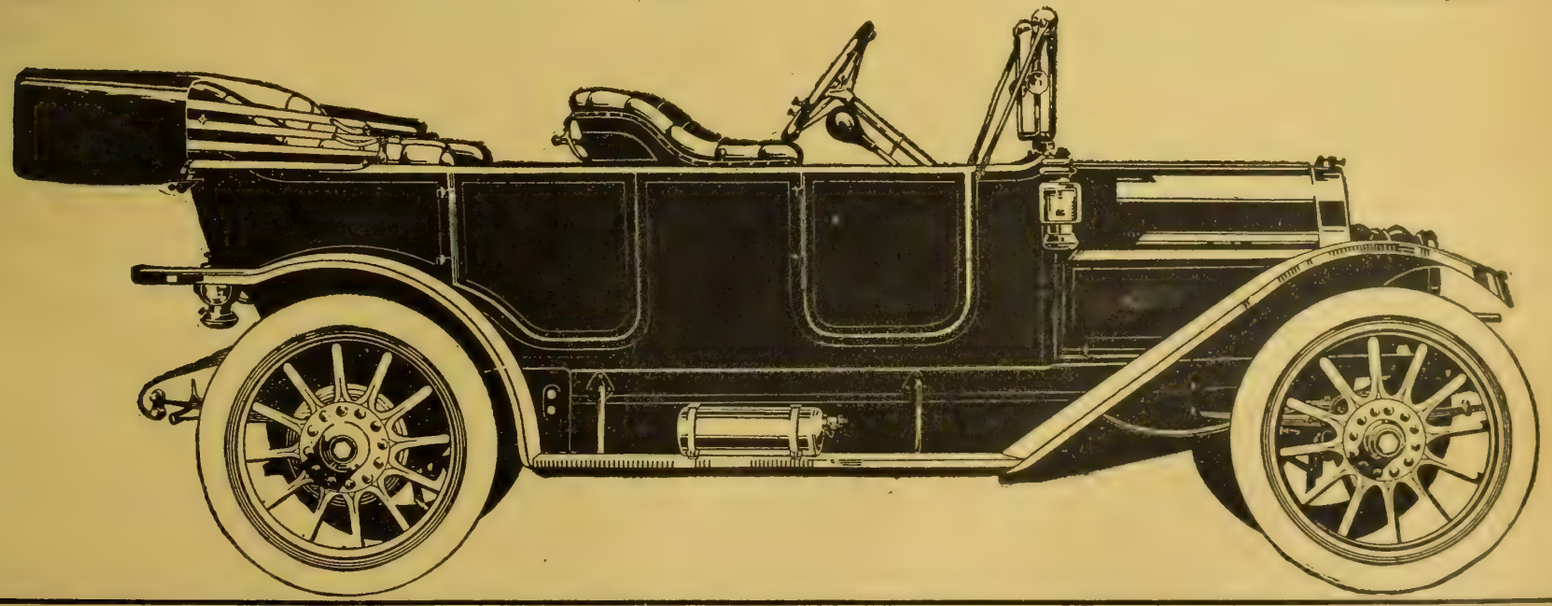
FRONT AXLE—Drop forged.

TIRES—32x3½ Q. D.

FINISH—All bright parts nickel plated, with black trim.

BODY—Overland blue; wheels, gray.

EQUIPMENT—Mohair top and boot; Warner Speedometer; Wind shield; Prestolite tank; Self-starter; five black and nickel lamps; tire irons; robe rail; foot rest; tool kit and jack.



HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

Seldom See

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

ABSORBINE

Before After will clean them off without laying the horse up. No blister, no hair gone. $2.00 per bottle delivered. Describe your case for special instructions and Book 8 E free.

ABSORBINE, JR., liniment for mankind. Removes Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Price $1 and $2 a bottle at druggists or delivered. Manufactured only by
W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

PINKEYE

EYE-O-LIN is a most efficient treatment for Pinkeye, Periodic Ophthalmia (Moon blindness), and all other inflammatory diseases of the eyes of animals. Send for pamphlet. If not as represented your money refunded. Price $1.00. Address JOPLIN CHEMICAL CO., 705 Main St., Joplin, Mo.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's
Spavin and Ringbone Paste

Put it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 15-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Not used on splint, curb or soft bunches. Write for

Fleming's Vest-Pocket
Veterinary Adviser

Best book on blemishes, and we send it free. Read it before you treat any kind of lameness in horses. 192 pages, 69 illustrations, lurably bound in leatherette.

FLEMING BROS., Chemists, (2)
28 Union Stock Yards, Chicago, Ill.

Stover HIGH GRADE *Gasoline Engines*
From 1 to 60 h. p. Circulars & prices on application.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Please mention Nat. Farmer and Stock Grower.

Horse and Mule Commission Salesmen.

Holland, Nugent & Maxwell Bros. hold public auction of horses on Monday and Tuesday of each week at the St. Louis National Stock Yards, and are selling mule consignments every business day in the week. This firm is always at work extending the connections at the market. Buyers and shippers of car-lots of horses or mules will find it to their advantage to obtain special market information from this firm. Once learn how well and thoroughly business is done at the St. Louis market and the shipments naturally follow. Address, Holland, Nugent & Maxwell Bros., National Stock Yards, Ill.

Mule Quotations at St. Louis.

Mining mules were the feature of the last week in August, but, as a matter of fact, work mules of all kinds were wanted. The following quotations represent car lots. Quotations as follows: 14½ hands, $90 to $130; 15 hands, $125 to $140; 15½ hands, $160 to $240; 16 hands, $135 to $240; 16½ hands, $175 to $280. Superior matched teams can be bought at $500, $600, $800 to $1,000.

Ropp's Commercial Calculator.

This is a standard book, and a revised, enlarged and improved edition. There are millions in use. **Ropp's Commercial Calculator** is especially valuable to farmers. By its regular use many hard problems become easy. It will prevent mistakes, relieve the mind, save labor, time and money, and do your figuring in the twinkling of an eye. As handy as a watch, always ready and reliable. Anyone who will send 50 cents for one-year's subscription to this paper, The National Farmer and Stock Grower, can select one copy of **Ropp's Commercial Calculator** as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Western Range Horses.

At the St. Louis National Stock Yards, on Thursday, September 19th, there will be held the seventh sale of Western Range Horses of the present season, and on Thursday, October 3d, the eighth sale of the season will be held. These sales are conducted with clockwork regularity and with absolute fairness by Campbell & Reid and Western Sale Stables Company. There are sales every two weeks. The season is now more than half over, and the only way to obtain some of these fine prospects is to come in and go for them. For further particulars address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Clay, Robinson & Co. at St. Louis.

Our readers will notice the advertisement of Clay, Robinson & Co., live stock commission agents at ten principal markets, including the St. Louis market at the National Stock Yards, Ill. The card is on page 17 and also refers to the other nine houses. The St. Louis establishment is making splendid sales and occasional high records. Shippers who wish to obtain superior market service for their cattle, hogs and sheep should write to Clay, Robinson & Co. at the nearest market and be placed on the list to receive their market reports.

World's Record on Grass Cattle.

On Monday, August 26, at Chicago, Clay, Robinson & Co. sold for D. N. Hartt, of Two Dot, Montana, twenty-five head of strictly grass Western range cattle, 1,321 pounds average, that they sold for the world's record price for that class of cattle of $9.50 per 100 pounds. They also sold the second cut, 123 head, 1,254 pounds average, at $9.00 per 100 pounds, and thirty-two heifers, 1,157 pounds average, at $7.75 per 100 pounds.

THE NEW ST. LOUIS FAIR

To be Open the Week of September 23d to 28th, 1912.

An army of men are at work on the grounds of the New St. Louis Fair, which are located on the edge of the city limits, on the St. Charles Rock Road. And well they may work, for the reason that the grounds will be opened for business on September 23d and there is much to be done.

Every effort is being made by the management to revive the St. Louis Fair in all its glory. The programme includes pageants, aviation meets, stock show, horse show, poultry show, sportsmen's show, harness meet, horse racing, auto racing, motorcycle racing and novelty racing.

The President of the organization is C. F. Blanke; Vice-President, Geo. W. Maxwell; Secretary, Thos. W. Garland; Treasurer, Julius Kessler. The General Manager is Joseph A. Murphy, former Secretary of the old St. Louis Fair; and the office of the company is at 1023 Chestnut street, St. Louis, Mo. The Fair Grounds are admirably located and reached by good roads for vehicles, automobiles and several lines of street cars. The farmers and stockmen who have kindly feelings for the old St. Louis Fair should remember to come in and assist the new enterprise. It does not conflict with the Missouri State Fair at Sedalia, which is a week later, September 28th to October 4th, or the Illinois State Fair, which is two weeks later, commencing October 4th and ending October 12th.

Bumper Crop of Oats.

The oats crop of 1912 will be the largest the country has gathered, surpassing by 21,000,000 bushels that of 1910, the previous record. On August 9th the United States Department of Agriculture reported: Condition, 90.3 per cent. of a normal, compared with 89.2 per cent. last month, 65.7 per cent. last year, and 81.4 per cent., the average condition for the past ten years. Indicated yield per acre, 31.9 bushels, compared with 24.4 bushels last year, and 28.4 bushels, the average for the five years, 1906-10. On the planted area, 37,844,000 acres, it is estimated the total production of oats, interpreted from condition reports, will be 1,207,000,000 bushels, compared with 922,298,00 bushels last year, 1,186,341,000 bushels in 1910, and 1,007,129,000 bushels in 1909. The amount of oats remaining on farms, August 1, is estimated at about 39,872,000 bushels, compared with 67,973,000 bushels last year, and 64,199,000 bushels in 1910.

Conservation Congress Meeting.

The Fourth National Conservation Congress will meet at Indianapolis, Ind., October 1, 2, 3 and 4, 1912. The officers are: President, J. B. White, Kansas City, Mo.; Executive Secretary, Thomas R. Shipp, Indianapolis, Ind.; Treasurer, D. Austin Latchow, Kansas City, Mo.; Recording Secretary, James C. Gipe, Indianapolis, Ind.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country are being conducted twice each month by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.,

As usual, during the season of 1912. The Eighth and Ninth Sales will be held

Thursday, September 19, and Thursday, October 3,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is very good this season, especially for well-bred Mares and Geldings in good condition, and every class is in demand, from yearlings up.

Please address,
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Heck Thomas, for six years Chief of Police at Lawton,, Okla., is dead. He died from natural causes. He was born at Athens, Ga., in 1850, and as a boy of twelve years was riding as scout and courier in the Confederate Army. He was well known in Texas as a terror to lawless bands of desperadoes. He is probably the last of his kind, the settlement of the country having rendered it more difficult for lawbreakers to operate in gangs. He was usually a Deputy United States Marshal, and his headquarters for ten years at a time were at Fort Worth, Texas. He died on August 15th, of Bright's disease.

Don't Have a Blind One

"VISIO"

An Absolute Cure for
Moon Blindness

(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Hog Book Free.

Book of facts on care and diseases of hogs. Tells how to prevent and cure disease, and destroy worms. Greatest discovery known. Sent free. Write Dr. D. C. Snoddy Co., Dept. H, Nashville, Tenn.

PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases.
DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

Remember the National Vehicle and Implement Show to be held at Peoria, Ill., September 21st to October 5th. It is a two-week show and will be interesting all the two weeks.

13

Time Has Told

Don't experiment with every remedy under the sun for Spavin, Ringbone, Curb, Splint, Capped Hock, Swollen Joints or lameness of horse or man.

Kendall's Spavin Cure

has been the old reliable remedy for 35 years. Try it.

Granby, Mo., May 14, 1911.

Gentlemen:—Have used your Spavin Cure for 25 years and have cured many spavins. I do not think it can be beaten. Very truly yours, C. L. England.

$1 a bottle, 6 for $5. At all drug stores. Ask for free book, "Treatise on the Horse," or write to—

DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

St. Louis Horse Market.

At the opening of September business was in fine shape in the horse market. The Eastern trade was entirely satisfactory, and there was very active bidding for Southern classes. The following prices represent the general run of trade: Heavy draft, good to choice, $200 to $230; Eastern chunks, $170 to $195; Eastern chunks, lacking quality, $135 to $160; Southern horses, good to extra, $125 to $145; Southern horses, fair to good, $90 to $125; drivers, choice, $150 to $175; plugs, $20 to $30.

The Army Mule Forever.

The army mule apparently has won his fight for existence. The test of the motor truck as a substitute for the mule on the march has been extensive enough to justify the following statement from Captain M. E. Faville, according to the Pacific Horse Review: "The automobile demonstration has been such as to warrant the conclusion that it is unwise and unsafe to supersede army mules with the troops by any other form of locomotion."

Record Price For Range Grass Heifers

On August 14th, at Chicago, the firm of Clay, Robinson & Co. received from C. B. Gunkel, of Bellfield, North Dakota, twenty-six head of grass-raised heifers, averaging 1,063 pounds in market, and the firm sold them at $8.00 per 100 pounds, which is by 65 cents per 100 pounds the highest price that any live stock commission firm has ever obtained for female grass range cattle. They were a fine lot of grade Herefords raised by Mr. Gunkel.

Trusses Like These Are A Crime

Get Rid of Straps and Springs and be CURED

Simply write for our free cloth-bound Book of Advice, containing facts which took us 10 years of day-after-day experience to learn. It tells how 290,000 people were benefited or cured in a simple and inexpensive way. Book explains why drugstores should not be allowed to sell their misery-making trusses. Explains the dangers of operation and why it is no longer necessary. Exposes the humbug "discoveries," "appliances," "plasters," etc., and puts you on guard against throwing money away.

Book tells how the wonderful Cluthe Self-Massaging Pad cures Rupture by strengthening the weakened muscles while holding with ease—**Sent on 60 days' trial to prove it**—how it is waterproof—no leg-straps—no body spring—how it ends constant expense on account of rupture. 5,000 Public Endorsements sent with the book.

After you have read this book you'll know more about your condition than if you had gone to a dozen doctors. You'll know how to get immediate relief without risking a penny. Just address:

Box 776—CLUTHE CO., 125 E. 23d Street, New York City.

Sheep and Lambs at St. Louis.

At the close of August the muttons and lambs were being sold as follows on the St. Louis market: Best fat lambs were worth $6.00 to $7.00 per 100 pounds; medium kinds, $6.00 to $6.50; fair offerings, $5.50 to $6.25; however, a few of the best reached $6.50. Most of the culls are selling at $4.50, with the trashy little ones at $4.00 and under. Mutton sheep are worth $3.75 to $3.85, most of them $3.75. Good breeding ewes sold the last few days at $4.50 to $4.85; fair kinds, $4.00 to $4.50; good stockers, $2.65 to $3.50; fair, $2.25 to $2.50; old cull sheep, $1.00 to $2.00; and bucks, at $3.00—all prices quoted being by the 100 pounds.

St. Louis Hog Market.

On August 30th, at the St. Louis market, several loads of hogs brought $8.90 per 100 pounds, but the bulk of sales went at $8.65 to $8.85. What hogs suited shippers and butchers brought $8.80 and upward, while the plain mixed hogs and others that sold went at $8.50 to $8.75; best grades of pigs and lights under 150 pounds, $8.25 to $8.65; medium grades, $7.25 to $8.00; fair offerings, $6.25 to $7.00; poor little pigs, $5.75 to $6.00; and the rough throw-out packers at $7.75 to $8.00 per 100 pounds.

Southern Cattle at St. Louis.

There are quite a variety of cattle in the Southern trade, which on August 31st were quoted as follows: Choice to prime corn-fed steers, $7.50 to $8.25; good to choice fed steers, $6.25 to $7.50; medium to good fed steers, $6.25 to $7.00; common to medium fed steers, $5.75 to $6.25; good to choice grass steers, $6.00 to $7.25; medium to good grass steers, $4.75 to $5.75; common to medium grass steers, $4.00 to $4.75; medium to good cows, $4.50 to $6.50; cutters, $3.50 to $4.25; canners, $2.50 to $3.25; bulls, $3.25 to $5.00; fair to choice heavy calves, $5.25 to $6.00; heretic calves, $3.75 to $4.35; yearlings, $2.75 to $3.50—all quotations being at the price stated per 100 pounds.

Feeding Cattle Prices.

At St. Louis, August 31st, at the close of the week, a summary was made of prices paid for stock cattle, feeders and dairy cattle. The prices were as follows: Good to choice feeders, $6.50 to $7.50; good to choice stockers, $5.50 to $6.25; medium to good feeders, $5.75 to $6.50; plain to good stockers, $5.00 to $5.50; common to light stockers, $4.50 to $5.00; stock cows, $3.50 to $4.25; fancy milkers, $50 to $70; fair to choice milkers, $35 to $50; medium milkers, $25 to $35; common milkers, $15 to $25—all quotations being at the price stated per 100 pounds, except milkers, which represent the cow and calf.

Native Butcher Cattle.

At the St. Louis market, August 31st, the following were prices quoted and paid for native butcher cattle: Choice to fancy corn heifers, $8.00 to $8.75; good to choice heifers, $7.00 to $8.00; medium to good heifers, $5.50 to $6.50; common to medium heifers, $4.50 to $5.50; fancy cows, $6.50 to $7.25; good to choice cows, $5.50 to $6.50; medium to good cows, $4.50 to $5.00; cutters, $4.00 to $4.50; canners, $2.75 to $3.25; fancy heavy bulls, $6.00 to $6.50; good bulls, $5.00 to $5.50; heavy sausage bulls, $4.75 to $5.00; light sausage bulls, $4.00 to $4.50—all quotations being at the price stated per 100 pounds.

Bankers Are Conservative.

Therefore what they say carries weight. Read this unsolicited letter from a prominent banker recently received by us:

Iuka, Ill., August 3, 1912.

CLAY, ROBINSON & CO.,
National Stock Yards, Illinois:

Gentlemen:—Your account-sales just received was VERY PLEASING to me. Your sale of the cattle was EXCEPTIONALLY GOOD, and the sale of veal calves was BEYOND MY EXECTATIONS, as you TOPPED the market. Further, I consider your sale of the lambs ABOVE THE TOP, as they were not top lambs. Yours Truly,

(Signed) D. W. HOLSTAW,
President Iuka State Bank.

For Sales Like Those Made For Above Customer, Ship Your Stock To

Clay, Robinson & Co.

LIVE STOCK COMMISSION,

National Stock Yards, Illinois.

Chicago	Kansas City	Fort Worth
Denver	South St. Joseph	South Omaha
Sioux City	South St. Paul	East Buffalo

Native Beef Cattle Prices.

On the last day of August, 1912, the following quotations represented the native cattle trade at the St. Louis National Stock Yards and were as follows: Choice to prime steers, $9.15 to $10.25; good to choice steers, $7.75 to $8.75; medium to good steers, $6.50 to $7.50; common to medium steers, $5.50 to $6.50; choice to prime yearlings, $8.50 to $9.00; good to choice yearlings, $7.25 to $8.25; fair to good yearlings, $6.00 to $7.00; common steers, 850 to 1,000 pounds, $5.25 to $5.85—all quotations being at the price stated per 100 pounds.

VALDESSA SCOTT, 2d—ILLUSTRIOUS HOLSTEIN-FRIESIAN COW, mentioned on page 11. Official record, 33.5 pounds butter-fat from 694.6 pounds of milk in seven days and 132.388 pounds butter-fat from 2,933.9 pounds of milk in thirty days. As we understand it, VALDESSA SCOTT, 2d, has produced the largest amount of milk and the largest amount of butter-fat in seven and in thirty-day tests. The actual merchantable salted butter in seven days is 41.875 pounds, and in thirty days 164.270 pounds.

EGG-LAYING CONTEST.

Nine-months' Records—Also Observations by the Director.

At the end of July the egg-laying contest at Mountain Grove, Mo., had discovered a hen that had passed the 200-egg mark in nine months. Mr. T. E. Quisenberry, Director, wrote to us, giving report as follows:

"The Leghorns and smaller breeds do not seem to be affected by the hot weather, and are now making better records and gaining ground faster than the larger breeds and varieties.

"The hot weather, the moulting season and 355 broody hens during the month of July cut the egg yield, and it will doubtless rapidly decrease from this time on.

"No pen has yet gotten so far in the lead but what the rank of the leading pens could be changed in a single month.

"The indications are that the pen which can continue to lay a reasonable number of eggs through the hot weather is going to be the pen which will win.

"Neither is the best individual record yet settled by any means.

"While a White Plymouth Rock hen has laid 208 eggs, yet a White Orpington is only 9 eggs behind her, and a number of others are in close pursuit.

"A total of 71,280 eggs has been laid in the nine months. The record for July was 8,873 eggs. Only seven pens were able to lay 100 eggs or more during the month. The best individual record is that made by Lady Showyou, White Plymouth Rock hen, No. 717. This hen has not missed a month since she entered the contest, her record for each month being as follows:

"November, 17 eggs; December, 22 eggs; January, 5 eggs; February, 17 eggs; March, 29 eggs; April, 29 eggs; May, 31 eggs; June, 29 eggs; July, 29 eggs. Total, 208 eggs.

"She has 92 days yet left in which to complete her year's record. The only month this hen has failed to lay an unusually large number of eggs was in January. We had a snow about January 5th, which was nearly two feet deep, and the temperature went to about 24 below zero. Lady Showyou laid an egg the day following and then quit business until about the 5th of February, taking just a month's lay-off. She then began a rather remarkable period of production in the days following this, laying 146 eggs in 151 consecutive days. She is the most industrious hen among the 655 in the contest. She goes immediately from the roost about daylight each day into her trap nest. She lays the egg and is released from the nest about 8 o'clock in the morning. She then spends the remainder of the day in eating a large amount of food and drinking lots of water, out of which to manufacture eggs for future days. We can usualy tell about when she is going to miss a day. As this time aproaches, she lays a little later each day; that is, if she is to miss soon, we will not find her in the nest so early as usual. She will go on at 10 o'clock, the next day at 1 o'clock, and the day before she misses we do not find her on the nest until about 4 o'clock in the afternoon. When we find her on as late as this, she then misses the following day, but the next day has laid by 8 o'clock and keeps it up at that hour until time to miss again. She has only missed laying five days in the past five months, and this has been true of her in each case when she missed a day.

Individual Records.

"The highest individual records to date; that is, all hens which have 175 or more eggs to their credit, are as follows:

No.	Eggs.
717—White Plymouth Rock	208
541—White Orpington	199
381—Barred Plymouth Rock	191
372—S. C. Red	189
601—R. C. Red	189
602—R. C. Red	189
179—S. C. White Leghorn	188
119—S. C. White Leghorn	186
19—Ancona	185
346—S. C. Red	183
613—Barred Plymouth Rock	183
64—S. C. Brown Leghorn	182
402—Silver Wyandotte	181
545—White Orpington	181
525—Silver Wyandotte	180
198—S. C. White Leghorn	180
488—White Wyandotte	177
663—Black Langshan	176
79—R. C. White Leghorn	176
487—White Wyandotte	176
463—Barred Plymouth Rock	175
401—Silver Wyandotte	175

Pen Records.

"The rank of the different varieties and the best pen record by each of the leading varieties is as follows:

Pen No.	Eggs.
107—R. C. Reds	808
13—S. C. White Leghorns	778
52—White Wyandottes	765
112—Black Orpingtons	760
85—Barred Plymouth Rocks	759
118—Buff Orpingtons	719
59—Silver Wyandottes	720
28—R. C. Brown Leghorns	714
96—S. C. R. I. Reds	711
114—White Orpingtons	666
77—White Plymouth Rocks	662
123—Black Langshans	650
37—Anconas	629
39—S. C. Black Minorcas	624
30—R. C. White Leghorns	618

"If the above pens and eighteen other pens of the same varieties which have made equally good records did not lay another egg during the year's test, their owners would have reason to feel proud of the showing made by their hens. The average person speaks of his flock as 'laying well,' or as 'good layers,' but he does not know what it really means and what his flock can really do until put to a year's test. Nine times out of ten he will be disappointed if an accurate record is kept for a year. There is nothing startling about the above records, but it is a good, clean, creditable showing for nine months for five hens.

Critical Observations.

"But of what value is a high egg record? In our opinion, high records within themselves are but sounding brass and a tinkling cymbal unless we can learn something from them and profit by them. They mean nothing unless we can learn how to produce similar yields. Feeding and housing, of course, have much to do with it, but we place greater value on the breeding than on either housing or feeding. The trap nest is a necessity in building up a laying strain, but this within itself is of but little value. The trap nest is only a means to an end. If you trap-nest some of your flock and then mark the chicks so you will know the sire and dam of the pullets and cockerels, then trap-nest these pullets and breed each year from the hens and males which seem to be able to breed high producers; in other words, you must do some pedigreeing with the trap-nesting. Every hen has hundreds and even thousands of undeveloped eggs in her body. The problem is not one of feeding and housing eggs into the hen's body, but the problem is how to get the eggs out of her body. The hens in this contest which have not laid an egg, we will guarantee if they are killed at the close of the contest, it will be found that each of them have from 1,000 to 5,000 undeveloped eggs in their bodies, apparently normal ovaries, but the process of egg production has been upset somewhere.

More Observations.

"More depends upon the male than the upon the female in producing a strain of layers. By trap-nesting and pedigreeing, as stated above, you will soon be able to discover the males which are able to produce females which lay a large number of eggs each year. When such a male is discovered, you have made a long step toward solving the problem. More seems to depend upon the record of the male than upon the female. The trouble with most of us in the past has been that we have been breeding from high laying females and paying no attention to the breeding of the male. We could cite you to many farms in this state where we have seen good laying strains ruined in this way. Dr. Pearl, of the Maine Experiment Station, says: 'Inherited high productiveness is not transmitted from mother to daughter, but may be transmitted from mother to son, or from father to son or daughter.' He has reached this conclusion after trap-nesting and pedigreeing hundreds of birds.

"We repeat, if you wish to build up a great laying strain, more depends upon the breeding of the male than upon the female, but you should always breed from good layers to get your male birds. It is only practical for the average person to trap-nest during the winter months of November, December and January of the pullet year to select your best layers, providing the pullets are mature, of course. These are really the months which determine which are your best layers as a general rule, but some hens are the exception and lay best in summer, and some hens make their best records the second year, and some even the third year of their life."

Poultry in Late Summer and Fall.

The high cost of feed for poultry at this time makes it necessary to carry as few of the birds through the winter as possible. The lessening of the size of the flock should begin as soon as egg production decreases, and should be continued till all of the surplus fowls are disposed of. This will make a large difference in the cost of feeding during the next few months. Moreover, in summer poultry brings a larger price than later, when more of the young stock are available for marketing.

If the flock is a big one, it will pay to separate it into two flocks—one to be kept throughout the winter season and the other to be disposed of for meat. This separation is for the purpose of giving two different modes of treatment in feeding. The flock that is to go to market can be fed on corn and like feeds rich in starch, that they may lay on as much weight as possible in a short time. The extra fat gives tenderness and flavor to the flesh. The fowls being fed for market need not have so much exercise as the other fowls. The fowls being kept for the continuation of the flock should have feeds not very rich in fat-forming ingredients, and may be allowed all the range possible, as it is not desirable to have them become fat, which is against egg production. On many farms this time the fowls have the run of the entire farm and exercise is unlimited. This keeps them in shape for egg production later in the season.

There is not so much danger overcrowding the spring chickens there is of overfeeding the fowls the previous year. It is difficult put fat onto spring chickens, ev when they are closely confine When such fowls are kept by ther selves there is little danger of ove fattening. But in most flocks t old and young birds are ke together as a convenience.

If early layers are wanted, th feed should be made as nutritious a possible to hasten maturity. A goo deal of meat and ground bon should be mixed with the ration, an these will greatly hasten the ma turity of the young pullets. Eg production is largely a matter o maturity. It is surprising that mor keepers of poultry do not have bon grinders, which would make it pos sible for them to feed ground bon at a very small cost.

As much growth as possible should be secured before cold weather comes, for the cold reduces the power of the food to get results in the way of development. When the nights and days become frigid, much of the starch and fat in the food go to make heat.

There is another thing that must be kept in mind in the late summer, and that is to give the young birds sufficient protection against wet and cold, which encourage the development of such troubles as roup. As soon as the weather begins to get bad, put the younger birds into dry and protected quarters. Failing to do this has sometimes led to the development of diseases that have remained with the flock during the entire winter.

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THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top.

Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Official Apple Packing.

It is said that the bill now before Congress aiming to establish a system of packing which will permit the use of the brand "U. S. Standard" stands a good chance of becoming a law. It is also said that the bill has the approval of men throughout the country in all branches of the apple industry, although one of the chief promoters of the bill, Congressman Sulzer, of New York City, does not represent an agricultural population.

This bill, should it become a law, will not compel the use of the form of package or the adoption of the grades specified—it only stipulates that packages of apples shall not be marked "U. S. Standard" unless they conform to the provisions of the bill. In the first place, three standard grades of apples are established, as follows: U. S. Standard, minimum size, 2½ inches; U. S. Standard, minimum size, 2¼ inches; U. S. Standard, minimum size, 2 inches; in each case the minimum size specified being in transverse diameter. Apples so packed are to be of one variety, hand-picked, well grown, of good color for that variety, normal shape, and practically free from bruises and other defects, or within 10 per cent. of these specifications. The standard barrel shall have dimensions as follows: Length of stave 28½ inches; diameter of head, 17⅛ inches; distance between heads, 26 inches; circumference of bulge, 64 inches, outside measurement: thus giving as nearly as possible 7,056 cubic inches. Barrels of other sizes used for apples shall not be considered as standard unless plainly marked on end and size, showing their fractional capacity in relation to the standard. The act will be effective July 1, 1913.

Laundering Table Cloths.

Many young housekeepers, and indeed not a few older ones, have never learned the value of having their table linen properly laundered, and the care the linen receives in the laundry makes years of difference in its wear.

Table linen should not be used long enough to become very soiled, as the hard rubbing necessary to get it clean will soon wear it out, and it is a good plan to remove all spots and stains from the cloth as soon as it is removed from the table, when it may be dried and put aside until ready to wash. Should table linen show any sign of turning yellow, wring out the pieces in warm suds, blue slightly, then dry and store again, and be sure that it is thoroughly dried and well aired before putting away. Some housekeepers drop a pinch of salt on a stain as soon as it is made, and this tends to its eradication.

It is nearly as essential to hang out table cloths properly as to wash them well, for if they are allowed to dry out of shape, stretching and pulling them straight wears them more than use, and the best way to keep them in shape is to gather the edge lengthwise in your hand as if about to run a seam, then wring and hang the cloth over the line. They should be hung across the line with the ends down, so that the weight while wet may come upon the lengthwise threads, as the warp threads are much stronger than the filling.

Table cloths generally wear out first in the folds, and by cutting off a few inches from one end and one side all the folds will be altered, thus giving the cloth a fresh start. A table cloth ironed with two lengthwise folds and then wound over a roller will look far better on the table than one with creases from too much folding, and any round piece of wood covered with some soft material can be used for the roller.

The table cloths and all the small cloths are given that clear white appearance so much desired by washing them through warm suds made with borax soap, and they come out white with less rubbing if they are allowed to soak for an hour in the suds before rubbing them out. There is rarely any necessity for rubbing table linen on a board; rubbing soiled spots with the hands, working up and down in the warm suds, squeezing and wringing through a wringer is sufficient.

There is nothing better than warm suds made with this Twenty-Mule Team Soap for washing all kinds of table linens from the finest cloths to the cheap, unbleached linens, as this soap makes the water very soft, and this softens the fabric so a very light rubbing gets it beautifully clean, and anything that saves rubbing is a saving to the cloth.

Table cloths should always be ironed lengthwise and from you, and if ironed quite dry and on the right side, they will have the desired gloss, hot irons and much pressure being requisites to success in laundering nice table cloths.—Martha.

Burbank's Crimson Winter Rhubarb.

A PREMIUM worth a fortune. A plant that can be grown in paying quantities on any small piece of ground, also in the house cellar. Returns $1,000 profit per acre. This is a creation by the famous plant specialist, Luther Burbank, of California. Rhubarb is a universal plant, and this Burbank's Crimson Winter Rhubarb is the King of the entire species, producing stalks of medium size, twelve to eighteen inches long, and producing them in all the fifty-two weeks of the year, whereas the productive life of common sorts is twelve weeks.

Burbank's Crimson Winter Rhubarb—Improved by Wagner.

A few roots of Crimson Winter Rhubarb will supply a large family and at the same time increase roots to enlarge the crop. We have decided to use a few roots of Burbank's Crimson Winter Rhubarb in connection with the Subscription Department of The National Farmer and Stock Grower.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains many good poultry facts, etc., etc., etc.

THIS IS A DOLLAR PROPOSITION.

Send us One Dollar ($1.00) and we will credit you with two-years' subscription to The National Farmer and Stock Grower, we will send you by mail prepaid Six Roots of Burbank's Crimson Winter Rhubarb, and we will also send you a copy of J. B. Wagner's booklet, entitled "RHUBARB FOR PROFIT." This premium is in line with the policy of the publishers of The National Farmer and Stock Grower to furnish premiums that can be developed. Rhubarb is never dormant in warm climates, and in any country the roots can be planted any time the frost is out of the ground. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The 1912 Corn Crop.

According to the United States government report on August 9th, the condition of corn was 80 per cent. of a normal, compared with 81.5 last month, 69.6 last year, and 82.8, the average for the last ten years. Indicated yield, per acre, 26 bushels, compared with 23.9 last year, and 27.1, the average yield per acre for the five years, 1906-10. On the area planted, 24,744,000 acres, it is estimated the total production of corn, interpreted from condition reports, will be 2,811,000,000 bushels, compared with 2,531,488,000 last year, 2,886,260,000 in 1910, and 2,552,190,000 in 1909. It will be remembered that the corn crop of 1910 was first estimated at 3,125,968,000 bushels.

In Massachusetts, only five per cent. of the total value of crops was contributed by cereals. Hay, forage and vegetables constitute the main crops.

The state of Massachusetts devotes 2,750 acres to flowers, plants and nursery products, with an output valued at $3,000,000.

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

Write for prices and you will receive an actual photograph of MASTER KEEP ON, the best Boar we ever owned. Satisfaction guaranteed in all sales.

KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S POLAND-CHINAS.

Ten fancy 100-pound males and ten fancy 100-pound Gilts for sale. Also five fancy 200-pound Bred Gilts for sale. Forty fancy 50-pound Pigs marked down so any farmer or breeder can buy them. Write for prices and catalogue and please mention this paper.

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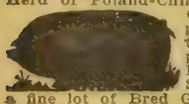
Grand View Breeding Farm, Marmaduke, Ark.

NINETY DAYS SPECIAL BARGAINS IN POLAND-CHINAS.

Special Bargains, and prices cut to the bottom. We are closing out the Blue Ribbon Herd of Poland-China Hogs, including the Great Missouri Champion, Hutchinson Sensation, 53,000; also a prize-winning son of Royal Meddler, 50,111. Several matured Sows, a fine lot of Bred Gilts and several choice Pigs from four weeks to five months old, sired by as good Boars as the breed affords. This herd is rich in the blood of the most noted families in the world. Nothing reserved. Everything goes at private sale. Write for circular, description and prices.



JOHN McLAUGHLIN, Marmaduke, Ark.

BREEDERS' ADVERTISING MEDIUM.

In the last eight years every edition of The National Farmer and Stock Grower has been 100,000 copies or more. In the year 1911 the average circulation was 123,829 copies each edition. This is by far the largest circulation in the United States of America, reaching live stock breeders, ranch owners and stock farmers. Small space in this publication is equal to large space in any other. Write for rate for breeders' cards and public sales of pure-bred stock. Send in your copy at the same time.

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Pedigreed Poland-China Pigs, the best of breeding, big bone, fancy show stuff, $15 to $25. Write your wants to

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The day has come when every farmer in the United States should raise either a few sheep or more than a few. All flocks should have good, healthy ewes, and what is most important, there should be a pure-bred buck to head the flock. The National Farmer and Stock Grower is a first-class medium for advertising pure-bred sheep. The circulation is upwards of 120,000 copies each edition. Send in a copy of your advertising and write for rates. Address, **NATIONAL FARMER AND STOCK GROWER, 3550 Vista Ave., St. Louis, Mo.**

HOLSTEIN BULL CALVES FOR SALE.

We have some fine pure-bred Holstein Bull Calves for sale, six weeks to eight months old, that will be sold at right prices if taken soon. Write at once for particulars in breeding and price to

JOHN MITTMANN & SONS, Muscatine, Iowa.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Matsre Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

PURE-BRED SHROPSHIRE RAMS.

Registered Shropshires. Come, and if you are not more than pleased I will pay your car-fare both ways. Or shipped subject to your approval upon arrival, or money refunded.

HOWARD CHANDLER, Chariton, Iowa.

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10,000 Ferrets for sale. Write for price list and catalogue. It's free.

DeKLEINE BROS., Box 9, Jamestown, Mich.

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That's the meaning of those long, deep sides—choicest, sweet, tender, fresh pork.

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THEY CROSS OUT GREAT ON LARD TYPE.

Write for descriptive booklet.

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Regstered Sows and Pedigreed Pigs.

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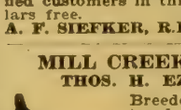
POLAND-CHINAS OF LEADING STRAINS.



A lot of nice, growthy, Spring Pigs at $15 each, by Size and Quality, 47,389, Master Meddler, 2d, 55,000, and Siefker's Mastodon, 2d, 62,072, and out of my best Sows. Have many satisfied customers in thirty-seven states. Circulars free.

A. F. SIEFKER, R.F.D. No. 1, Defiance, Mo.

MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

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DICKINSON MERINO RAMS AND EWES.

For sale: Dickinson Merino Rams that have the constitution and size for wool and mutton. Write for further particulars.

ALEX. TAYLOR, Moundsville, West Virginia.

On October 24th, Gudgell & Simpson, of Independence, Mo., will sell a draft of their famous Hereford cattle at Kansas City, Mo.

St. Louis Hay Market.

The following sales of hay were made on the last business day in August, sales on St. Louis Side: One car no-grade ot $6.00. Timothy—One car thrashed at $8.50; one car do. at $9.00; one car No. 3 at $10.50, delivered; one do. at $11; three do. at $12; two cars No. 2 at $13; two cars No. 2 at $13.50; four cars No. 2 at $14, one delivered; three cars good No. 2 at $15; four cars scant No. 1 at $16, one delivered; one car No. 1 at $17; three cars No. 1 at $17.50; one car No. 1 at $18. Prairie—One car No. 3 at $10; one car No. 2 at $11; one car good No. 2 at $12; one car choice No. 2 at $14. Alfalfa—One car No. 3 at $13; one car choice at $17; one car choice at $17.50. On East Side: One split car clover-mixed at $15, delivered to St. Louis. Timothy—Two cars No. 2 at $10; one car No. 2 at $14; one car No. 1 at $16; three cars No. 1 at $16.50; one car No. 1 at $17. Clover—One car No. 1 at $15.50.

BLOODED STOCK NOTES.

On October 23d Aberdeen-Angus cattle will be sold at public auction by W. F. Eckles, of Green City, Sullivan county, Mo., who has a fine herd.

On August 16th, at Wheaton, Ill., Thos. Stanton, breeder of Berkshire swine, sold forty-one head at auction at an average of $95 per head. The top of the sale was $875, paid by Geo. J. Sayer, of McHenry, Ill., for the boar Sittyton School Boy by Schoolmaster.

Again Mr. A. F. Siefker, of Defiance, Mo., is advertising his pure-bred Poland-China hogs for sale. He has now a nice lot of sturdy pigs for sale out of sows that are good enough to be in any herd. Mr. Siefker always aims to keep a customer by treating him right.

O. Harris & Sons, of Harris, Sullivan county, Mo., will sell a draft of their fine herd of Herefords on October 23d.

Mr. J. G. Truman, Manager of Trumans' Pioneer Stud Farm, Bushnell, Ill., arrived home August 8th with an extraordinary collection of Shire, Percheron and Belgian stallions, running in ages from two to seven years old. Mr. Truman with his father and brother attended the leading shows of Europe and bought a grand collection. A catalogue of these horses is already issued and will be mailed on request. The catalogue also includes Hackney horses.

The National Dairy Show will be held at Chicago, October 24th to November 2d, and we are requested by Mr. W. E. Skinner, General Manager, to announce that entries close October 1st.

Mr. John McLaughlin, of Marmaduke, Ark., has come back again with an advertisement in order to advertise some good Poland-China pigs that he is offering for sale, also several bred gilts and sows of his own raising. Nearly all the pigs are sired by the big Missouri champion, Hutchinson Sensation, and the sows and gilts are to be bred to a son of Royal Meddler. Mr. McLaughlin is closing out his fine herd of hogs at bargain prices.

At Sterling, Ill., October 24th, the Woodland Farm Company will sell a fine lot of Holstein cattle at auction.

Mr. J. W. Kirby, of Kirby Stock Farm, says he will have one of the best offerings that he has ever made and that he will be glad to send to those really interested a photograph of one of his fine herd boars. It will be a good idea to write him. Marmaduke is an important breeding center, situated in Greene county, Northern Arkansas, on the St. Lou and Southwestern Railway, not f south of the Missouri line.

Included in public sales announc for the month of October will be sale of Shorthorns by C. J. McMast at Altona, Ill., on October 22d.

Percheron horses will be sold auction October 25th by T. H. Wei of Blairstown, Iowa.

At Shelbyville, Ky., on Octobe 30th, Giltner Bros. and Luce & Mox ley will sell a fine lot of Hereford of their own breeding. The cattl from these fine herds ought to attrac considerable attention.

On October 31st, W. P. Doolittle of Wodland, Mo., will sell a fine selection of O. I. C. hogs at public auction.

Mr. Alex Taylor, who is advertising Delaine Merino sheep in this edition, in reply to our query, reports that yearling rams will weigh from 100 to 125 pounds; two-year-olds, 140 to 160 pounds; at maturity, from 175 to 200 pounds. Ewes, about 100 pounds when full grown. The fleece is a good, long staple of fine Delaine wool, ewes shearing 8 to 12 pounds; rams, 15 to 20 pounds.

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And they get them every time they buy a bottle of Frazier's Distemper Cure, or we will refund the purchase price. Distemper, influenza, epizootic, shipping fever, catarrhal fever, coughs and colds cured in three to six days. By placing 10 drops in ground feed, it will prevent these diseases from running through your stable, no matter how horses are exposed. Absolutely safe for mares in foal, stallions in or out of stud, colts and all others at any age or under any condition. Our new size dollar bottle, holding three times the quantity of the fifty-cent-size bottle, is the most practical size for horsemen. Send for our free horse booklet, just issued. "Frazier's" may be had from all first-class druggists, or direct prepaid from the Binkley Medical Co., Dept. H, Nappanee, Indiana.

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To be applied a few times, when you can easily remove the corn. Sent by mail on receipt of 25 cents.

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THE TRADE IN FEEDING CATTLE.

Information on the Subject From a First-class Authority.

Whenever the time comes for the farmer who has plenty of feed on hand to buy cattle for feeding purposes, he is always in need of expert advice upon the feeding-cattle situation. He first wishes to know if there are a large number of cattle already on feed, as the answer has much to do with his own programme, and he also wishes to know if the country is or is not full of feeding cattle, so as to obtain a resonable amount of information at hand upon which to arrive at conclusions upon which to base his own action.

It is absolutely useless to ask this question of even a commission firm, unless they have unusually superior means of ascertaining the answer. We usually ask the question in sufficient time to obtain the answer for publication in our September edition, and that part of the investigation which is best done by a live stock commission agent we ask of Clay, Robinson & Company, for the best of all reasons that they are able to investigate both sides and the middle of the subject, and, what is of equal importance, they make many loans to farmers for the purpose of enabling those farmers to buy feeding cattle in order to feed the cattle and sell them again at a profit, if there is any prospect of so doing. Clay, Robinson & Company are actively engaged in buying stock cattle and feeders for their customers on the ten (10) principal cattle markets of the country, and when the word goes out from the central organization that the stock cattle and feeder trade is under investigation, it is not the hog salesman or the sheep salesman who does the work, but it is the stock and feeder experts who get right down to the heart of the subject and who answer all the inquiries of that character, and all the power and force of the United States Department of Agriculture could not ascertain the facts any better or sooner. Clay, Robinson & Company advise us as follows:

"For some time it has been conceded by those in close touch with both country and market conditions that there was a big shortage of stocker and feeder cattle in this country—East, West, North and South"—say Clay, Robinson & Company, live stock commission men. "However, few realized that the supply of such cattle had reached the acute scarcity stage. But it has. And there is no relief in sight for those who would produce a late fall or winter crop of beef.

"To get up-to-date information on the prospective supply of stocker and feeder cattle at the leading markets for this season, we wrote our houses on the ten leading markets of this country with regard to this subject. The replies all tell the same story—a big decrease, with emphasis on the 'big.' They report a prospective falling off of anywhere from 25 to 75 per cent. from last year, mostly 40 to 50 per cent.

"Reasons for the shrinkage in supplies are easily detected. It is a culmination of affairs that have been working to this end for several years. Extensive Eastern and Middle West breeders of not so many years ago are now feeders. Even the Far West grower has become a feeder by reason of the great demand in winter for hay-fed cattle. Then the 1910 and 1911 drouths, along with the terrible winter, materially reduced the supply of young cattle in the corn-belt and range states through forced shipment to market, or by mortality. Also the great influx of settlers to the range country has cut the cattle supply there. For months market prices have been so high that thousands upon thousands of young and immature cattle, both steer and she stock, have been sent to the shambles instead of being kept back for maturity or breeding purposes. The slaughter of young calves of a good beef type has been on the increase, high prices being the magnet that draws them to market.

"There is no mistaking of the demand for stocker and feeder cattle this season—it will be of the insistent, hungry kind. Enormous crops of oats, corn and hay are practically assured, which, along with record prices for fat cattle, will stimulate the demand as not seen in this country in years.

"Those who intend to stock up with either stock or feeding cattle will lose instead of gain by holding back their orders with the express purpose of getting the stock on a materially lower price basis. Prospective demand and supply this season practically assure the highest average market for thin cattle in the history of the business. Place your orders early and avoid the rush, is good advice to follow."

Clay, Robinson & Company are fully equipped in all departments on the live stock markets of East St. Louis, Chicago, Kansas City, South Omaha, South St. Joseph, Sioux City, South St. Paul, East Buffalo, Fort Worth and Denver.

The 1912 Crop of Wheat.

According to the reports of the Department of Agriculture, August 9th, 1912, it is preliminarily estimated that the yield per acre of winter wheat is 15.1 bushels, compared with 14.8 bushels last year, and 15.5 bushels, the average for the five years, 1906-10. On the area planted, 24,744,000 acres, it is estimated preliminarily the total production of winter wheat is 390,000,000 bushels, compared with 430,656,000 bushels last year, 434,142,000 bushels in 1910, and 418,000,000 bushels in 1909. The quality of winter wheat is 90.7 per cent., compared with 92.0 per cent. last year, and 91.1 per cent., the five-year average, 1907-11.

The condition of spring wheat is 90.4 per cent. of a normal, compared with 89.3 per cent. last month, 59.8 per cent. last year, and 80.3 per cent., the average for the past ten years. Indicated yield per acre, 15.1 bushels, compared with 9.4 bushels last year, and 13.4 bushels, the average yield per acre for the five years, 1906-10. On the planted area, 19,201,000 acres, it is estimated the total production of spring wheat, interpreted from condition reports, will be 290,000,000 bushels, compared with 190,682,000 bushels last year, and 209,979,000 bushels in 1910.

The total production of all wheat is 680,000,000 bushels, against 624,000,000 bushels, final estimate of 1911, 635,000,000 bushels for 1910, and 683,000,000 bushels, the census report of 1909.

The Landlord's Satisfaction.

"Are you the landlord of this hotel?" asked the guest who had his baggage on the porch.

"I guess I be," answered the man with the pale eyes.

"Well, I want to hand this little sentiment to you. Your hotel is positively the worst I have ever seen in this country, and I've traveled all over it."

"I know it," answered the landlord. "And I have a kinder pride in it. Lemme tell you something about it. Every time we git beat outer a board bill it's sure some satisfaction to know that we got the best of the feller that done it."—Exchange.

I'll Rid Your Hogs of Worms I'll Prove It, or No Pay

I'll Feed Your Stock 60 Days Before You Pay

Now is the time to protect your hogs against cholera. The first step is to get rid of the worms that sap their blood and lower their vitality, making them easy victims of contagious diseases. I guarantee to make every animal on your place worm-free, or no pay. Then if disease breaks out in your neighborhood your hogs will be much less apt to contract it and far more likely to recover if attacked. Send me no money in advance. I don't ask you to pay one penny until you see with your own eyes what Sal-Vet will do for your stock; how it will make them thrive better and put on money-making flesh.

Beware of Imitations **SAL-VET** *Look at the Name Carefully*

TRADE MARK REG. U.S. PAT. OFF.

Sal-Vet works wonders on all farm stock. It kills and completely expels stomach and free intestinal worms. It saves your hogs and sheep, saves your feed and makes every animal gain faster on the same feed. All I ask is a chance to prove these things on your own farm at my risk. *Read these letters:*

"Neighbors all around me have lost hogs, but I have lost none since feeding Sal-Vet."—Walter J. Gilbert, Waltonville, Ill.

"My hogs are doing fine, although there are a lot of hogs dying throughout the neighborhood." H. C. Hancock, Narka, Kans.

Sal-Vet is easy to feed—requires no doping, no drenching, no handling. Your stock will like it. Let them run to it freely for 60 days—watch the results while they doctor themselves.

Sidney R. Feil, Registered Pharmacist, and Graduate National Institute of Pharmacy

Send No Money—Just the Coupon

Fill out the coupon at the right—mail it to me today. I'll send you enough Sal-vet to last all your stock 60 days. (It costs only one-twelfth of a cent a day for each sheep and hog and but slightly more for larger animals.) You simply pay the freight charge when it is received and when the 60 days are up report results. If you are not satisfied that Sal-Vet has done everything I claim, I'll cancel the charge—you won't owe me a penny. Fill out the coupon and mail it today.

SIDNEY R. FEIL, President
THE S. R. FEIL COMPANY, Mfg. Chemists
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Shipments also made from our Western and Southern Branch Warehouses, to save customers time and freight.

Read How SAL-VET Is Saving Other Farmers Thousands of Dollars

"Your Sal-Vet has done all that you claim, and perhaps more. Hog cholera has been all around me, and I have not had one sick hog. I cannot praise Sal-Vet too highly, and I do not hesitate to recommend it to all hog raisers."—(Signed) A. O. Kellogg, Troy Grove, Ill.

"I do not know that your Sal-Vet kept my hogs from cholera, but it was prevalent among all my neighbors' herds, and did not affect ours."—(Signed) Thos. Hauser, Rt. No. 1, Kyles, O.

"I fed a carload of hogs on which I made a thorough test of Sal-Vet for seventy days. Cholera or some disease like it was killing off hogs all around me, but I never had a single one sick; they remained in fine condition during the entire time."—(Signed) W. C. Grove, Box 235, Hominy, Okla.

"I just finished feeding the 200-lb. barrel of Sal-Vet. My hogs are the only ones left in this immediate locality. I haven't lost one."—James F. Martin, Little York, Ill.

PRICES: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 600 lbs., $21.12. No orders filled for less than 40 lbs. Never sold in bulk; only in Trade-Marked Sal-Vet Packages.

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The S. R. Feil Co., Cleveland, O.

Ship me enough Sal-Vet to last my stock 60 days. I will pay the freight charges when it arrives, report results in 60 days and then pay for it, if it does what you claim. If it does not, you are to cancel the charge. NF&SG 9-12

Name.....

P. O.....

Shipping Sta..... State.....

Number of Sheep..... Hogs..... Cattle..... Horses.....

How Tom and Lucy Trained Their Children.

When Tom told Lucy that she was his heart's choice and his life would not be complete without her, and asked her if she would be his and let him be hers, his manhood was pledged to stand by that avowal. Her reply that she would settle the question as fully as human wills can settle such matters. They had yielded to one of the deepest and strongest yet tenderest commands of nature—a command which no one has ever disregarded without peril to himself. Every man and woman who join for life and all ought to be bound by a link of nature's own forging, for her forces are living ones with which no one can trifle and escape harm.

As they looked into the face of their first child they felt the heavy weight of responsibility which rested upon them. To train and quicken the powers of an unfolding mind; to mould a human character; to fit a life for beauty, truth and duty involve possibilities upon which the finest brains may well spend their best efforts.

No wonder, then, that their desires went up to the Creator and Supporter of all things for guidance and strength. The pity, hope and love induced by a young child are enough to deepen the emotions of any soul.

Nor did they stop at that point in duty's realm, but they resolved to meet life's tasks the very best they could, believing that it is wrong to be ignorant when one can know, and that it is evil to do less than one's best. They thought that before the bar of nature man can not stand acquitted until he has done his best; until he has given mankind the best there is in him.

With brave, true hearts—brave and true because pure—they asked: "What is my duty?" and endeavored to meet its demands. The intuitions of healthy manhood and womanhood taught them that one ought to be strong and keep strong; that one ought to respect his own character and his own convictions of right with the deepest respect; that one ought to be master of both his brain and his muscles; and that right and truth, based on eternal law, must win at last.

So they studied themselves; they studied the book of nature; they studied the thoughts of the best minds of the ages, that they might know well how to do their part, for duty is fulfilled not simply by yielding to mighty impulses, but also by securing for them the best channels of action. They were careful that the unfolding mind should be impressed by beautiful scenes, by gentle, tender words and by those unspeakable manifestations of love that express themselves in the face and especially through the eye. On the walls of their rooms were beautiful pictures. Everything about the house was well arranged. Flowers seemed to find their home there and their odor filled the place. Around the evening fireside they sang songs such as voice the purest sentiments. In their every action, tone and look the children read a message of love.

One of Lucy's friends while on a visit to her home said: "Your baby seems to give you very little trouble. Tell me how you managed to have such a sweet-tempered child!" "Well," said Lucy, "Tom and I have tried to learn how to train a child right. We have been careful not to indulge the baby too much. You know that if you pay them too much attention it soon comes to pass that they demand all one's time. We give all needed care and, as occasion comes, we play with the child, but never encourage the feeling that it has a right to our time at its pleasure. I am careful of my own and the child's health, because we think healthy, well-trained children ought to be happy. Health, you know, is perfect adjustment of part to part, organ to organ and individual to environment. And peace of mind is likewise due to the perfect adaptation of the mind to its conditions and surroundings. So far, we are well pleased with the results. As one by one the children of the household came to the age for learning to walk and talk they were encouraged to do their best. Tom said: 'A child ought to be looked after and helped to acquire a complete control of its hands and feet.' And when other duties would allow we would spend hours to giving attention to the movements of our children and showing and helping them to use their parts well. The outcome of it was that the neighbors thought it was wonderful how well the children

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912.

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True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS,

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THIS is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

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The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

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We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title.

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HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1912.

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Address.....

My occupation is.....

could use their hands, and that they could talk as distinctly at three or four as most children do at eight. Some accounted for it on the ground that they had been born lucky. Tom said, though, that he didn't think luck had anything to do with it; that he considered it an essential part of parents' duty to guard well all the habits of their children; that the care we had taken accounted for our children's self-control, and that, in truth, the luck was in the painstaking of the parents, for he himself had obtained a better command of his own hands while showing the children how to use theirs."

Their mother trained their minds by reciting and reading to them beautiful stories and poems. They gave her the closest attention, and when at the close she asked them to tell her what she had read, even the youngest could repeat almost the entire piece. She made it a fixed rule to spend at least one evening a week, when the weather was fair, out in the fields and woods with them. And, as she deeply loved nature, she early inspired in them the same taste. She said that she knew no sweeter, truer pleasure than that of the sunny evenings spent among her children looking at the grass and flowers and trees, listening to the chirping insects, humming bees and singing birds and asking and answering the little ones' questions. And when at such times they would all embrace her and say: "Mamma, I love you so much!" her heart was filled with joy.

They were careful to see that the children's tempers were kept sweet. When hungry, they were given something to eat; when tired, they were put to sleep. If they became cross and fretful, search was made for the cause, and that, if possible, was removed. The sweet voice and gentle touch of the mother had charming powers for lessening grief.

Care was taken to teach them what would hurt them, and they were not allowed to tease each other. So little were their ill-humors called up that their self-possession in the face of little annoyances was often spoken of.

At an early age attention was given to make them obedient and teach them self-respect. Tom and Lucy both thought that the deepest principles of a strong character are self-respect and love of right. And they aimed to train the impulses of their children to right action, that as they grew older they would have the strongest incentives and restraints in their own breasts.

They were very careful not to require too much, and at the same time to see that their requirements were kept. If ever a little one was slow when told to do or not to do a thing, it was enough to say: "Mamma, or Papa says so and they know what is best," and the doubt at once passed away.

Early they were taught to tell the truth and to be just and generous in play; never to do anything that would make them ashamed of themselves. Of course, with their lack of foresight, they would sometimes do wrong. When questioned about it they would say: "I must tell you the truth, I did it. I am sorry." In one such case it was suggested to one of the boys that he could deny out of it and no one would ever be able to detect the falsehood. He spurned the suggestion, saying: "I would know it on myself. Do you think that I want to go around with my heart telling me that I do not tell the truth? I would rather take the punishment, whatever it is, and be done with it, than to go about ashamed of myself and thinking that I am such a big coward as to do wrong and then deny it. My word is worth too much for me to break it." So deeply was the principle impressed on their minds that they shrank at even the thought of dishonoring themselves. To encourage them in self-watchfulness, their mother would at times point out to them what was wrong in conduct and advise and warn them and thus deepen their sense of right and truth.

Knowing the disposition of children to imitate, Tom and Lucy guarded well their own actions and chose the companions of their children. Thus they had no rude, unkind or vulgar words in early life to shadow their later years.

When the time for school came, the teacher was chosen for his practical sense and fitness for his work. Tom said he was persuaded that there was an orderly unfolding of the mind and studied with deep interest the facts of child-life as brought out by our leading educational thinkers who are seeking to put education in line with nature's laws. And, too, he believed in the maxim of the great Greek teacher who held that a pupil learns nothing from a teacher he hates. Having made their selection, they joined their efforts with his in the work which under nature was theirs, but which, under existing conditions, must be done in part by others. And together they worked to develop strength of mind, strength of character, and to co-ordinate part with part. They aimed to have enough work to keep up a good interest and secure good results, but not enough to break down the health or discourage. And they wanted as much as possible of it done where the home life and school were in touch.

As the children had been trained at home to respect the rights of others, it was very seldom that they overstepped their bounds elsewhere. As love and respect for themselves and others had been the ruling forces of their lives until this period, they continued to be. When conflicts did arise their case was wisely considered, for they were forming views of right and justice which would influence all their future lives. As long as principles were at stake they were encouraged to stand kindly but firmly by them.

Industry is the moving force in nature's domain, so the boys and girls were urged to be diligent in the discharge of all their work. Their attention was called to such facts as that grains of dust make the fields drops of water make the rivers, and they were often shown that man is always making his own future. Labor beautifies and sustains all that man has to do with. By tempering the work to their strength the children came to love it and exulted in the outcome of their efforts.

In their views on money matters, as in every other thing of importance, Tom and Lucy were agreed. They thought that children ought to be taught to make and spend money, for while many evils grow out of its abuse, still money is a necessary part of our civilization. It lays our cables, builds our steamers, girdles the globe with telegraph and railroad routes, builds factories, is the blood of commerce, supports our churches, our schools and our government. So Tom talked over small business ventures with the boys and Lucy devised a way whereby her girls were taught the use and worth of money. Tom said he wanted his boys and girls to know something about how to use what he expected to give them. He had seen too many parents wear out their lives to get a fortune for their children and then see the fruits of their labors prove a curse to both. This thing of giving boys and girls a little money now and then to buy candy and toys gives a wrong view as to what money is for. It is a convenient representative of a given amount of time and labor. Trained in this way children are least likely to become spendthrifts and always have means to obtain what they desire and need.

As the years slipped away, Tom and Lucy realized that soon their children would be undertaking life's duties for themselves. Lucy would speak out the message of her heart to her girls one by one in some such words as these: "My dear child, you want to spend a happy, useful life. Love is the power that opens up to woman the sweetest and best treasures of life. The blessings you give out to others come back and enrich your own being. A woman's strength is her purity. Mankind lay their tributes of honor, respect and love at the feet of pure, loving womanhood. One of their dearest joys is to do her honor. For her every manly heart is a true defense. Character is woman's treasure, her all. Let no one ever have any cause to question yours. You cannot prize character too highly."

Tom mingled with his children and had both their respect and love. When his boys were turning into their teens he would advise them in regard to their future. "In this wide world, my boy, you will need friends. It costs very little to treat people kindly and with resuect. And you may be sure that what you give out will come back to you. Love, kindness and good faith were never lost. Let your interest in others be genuine and flow from a heart full of good will and sympathy. Mankind are looking for people whom they can trust. Honor your own word. Stand by your promises. It is not kindness but weakness to promise a favor that you know you cannot fulfill. To make your word good will require a great deol of firmness, decision and judgment. Weigh well before you promise, and, having promised, with another depending on you, keep your word to the end. Every man sets his price on his word, and, in the long run, others accept the value one sets for himself. Honesty and judgment are the sustaining forces of progress and commerce, as purity is of the social realm. Reason, judgment and will ought to rule the conduct of men. My boy. a true, brave man respets and loves womanhood. Always treat the daughters and sisters of other men as you would have your own sisters treated. Draw the line for yourself where you would have your sisters draw it. Follow the golden rule in this as in all other respects. It will be a good, safe guide to you. It is a crime against all that is purest and best to either wreck a woman's confidence or character. Let others be and do as they may; be sure you are in the right and never, never go back on your own character. Respect your own and another's good name and character as though a special gift from heaven to you."

Their children grew to be strong, pure-minded, warm-hearted, self-respecting men and women. Wherever they went they were noble representatives of manhood and womanhood. And their lives were a blessing to all within reach of their influence. The joy awakened by their successes and achievements made the evening of life sunny for Tom and Lucy. And their children's tribute of love and respect well repaid the parents for the care spent in training them right.—L. C. McLeod.

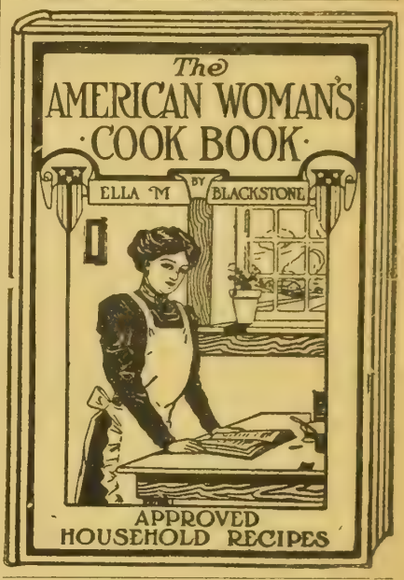
THE BEST COOK BOOK.

The American Woman's Cook Book.

This is a splendidly-bound book that weighs nearly two pounds. There are three hundred and eighty-four pages of approved household recipes, including many excellent dishes never before presented in a Cook Book.

The American Woman's Cook Book is by Ella M. Blackstone, who is famous for clearing the road for the student of domestic science by giving the reasons for everything. It is so easy to learn from her when everything having a bearing on the subject is explained so clearly.

The book includes chapters devoted to foods for each month; time required to digest different articles of food; menus for all occasions; table etiquette; kitchen don'ts; kitchen equipment, and useful hints and recipes for the home in general; specially-drawn articles upon various subjects, such as soups, fish, poultry, beef, veal, mutton, pork, salads, vegetables, and all classes of dishes, besides beverages, candies, pickles, and preserves, ice cream and ices; also ruled pages for new recipes to be preserved.



The thorough alphabetical index is a wonderful help to all subjects. A good book is known by its index, which in this case is eighteen pages, three columns to the page.

The publisher's price for single copies of the American Woman's Cook Book is $1.50 per copy and 15 cents postage, but we have contracted for such a large number we have obtained the benefit of a reduced rate. Therefore we will send one copy of the American Woman's Cook Book, postage paid, for One Dollar and include one-year's subscription to The National Farmer and Stock Grower. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

May Be Worth the Money.

"Did you have any luck with the shrubs you bought from that agent last fall?"

"Yes, indeed. One or two of the dozen now look as though they may grow."—Detroit Free Press.

A Bad One.

Binks—"Which is the most dangerous, the automobile or the aeroplane?"

Jinks—"Well, the aeroplane runs over more people than the automobile."—Cincinnati Enquirer.

Dressmaking in Ten Weeks.

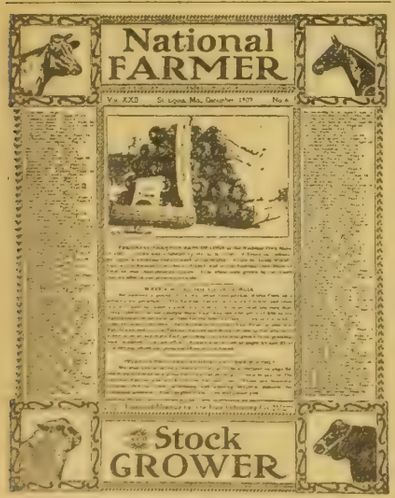
For several years we have been seeking something in the form of an instructor that was able to impart instruction in dressmaking that could be understood. We have seen charts and diagrams and had all kinds of methods explained, which indicated that it all led up to personal instruction. After you had studied the book you then had to go over it again with the teacher, and very likely the book cost more than it was worth.

We have obtained a book at last that we can plainly see is a guide and a helper to the beginner, and with it an intelligent girl or woman may learn to be independent, to

MRS. EDITH M. CARENS,
Author of the Book entitled "Dressmaking in Ten Weeks."

make her own clothes, to make clothes for others, to earn a living and to be able to enter one of the best-paid professions open to women.

There is just as much pleasure in work as there is in play if you only know how, and idleness at best is a sort of cultivated uselessness. The time is coming fast when incapable people, whether men or women, will be pushed aside from the industrial walks of life.



The book we have selected as the best known to us is by Mrs. Edith M. Carens, who is Principal of a College of Dressmaking. The picture presented herewith is of Mrs. Carens, and was made from her photograuh, although our office boy remarks that it must have been taken when she was learning and before she commenced teaching. The youthful appearance of the author does not detract from the book, which is all right. The book entitled "Dressmaking in Ten Weeks" is a condensed course of twenty complete lessons, and especially arranged for home study work. Each line is the result of careful preparation and years of study by an expert. There is information found here that can be obtained nowhere else.

There is an entire lesson on hand sewing, which alone is a book within itself, dealing with all kinds of fancy stitches, different kinds of hems and seams, proper method of buttonholes, also the making of hand-made trimming.

There are lessons on the drafting of garments to measure, also directions on the proper handling of patterns.

The book instructs you on the buying of materials, the preparing of the cloth before it is cut, the designing, cutting, fitting and finishing of every kind of clothing in a woman's wardrobe.

There are lessons on sleeves, infants' and children's clothes, underwear, shirt waists, fancy waists, the making of separate skirts, one-piece frocks, Princess and lingerie dresses, evening coats and gowns, mourning attire and tailoring, also the designing and making of fancy trimmings that give the snap and style to the finished garment. The last lesson in the course deals in detail with the proper management of an establishment for profit; how to organize and conduct a Dressmaking School; in fact, it goes on to explain the different branches in dressmaking and suggests specializing, teaching the pupil how to properly handle these special features to make money.

Each lesson is followed by a set of questions, and there are many rules and much valuable advice to the learner all through the course, which make the study of this manual so simple that a child can grasp the ideas involved. No mother should bring up a daughter without teaching her to sew, for how many girls are heard to say: "I wish I could make my own dresses," when her friends had more and prettier clothes. A few yards of material and a bit of trimming artistically arranged will make a stunning garment, costing but a few dollars if made by yourself, and by carefully following the instructions in this book, the girl or woman with little knowledge can in a few weeks become quite proficient in dressmaking.

The size of the book is 5x8 inches, contains 128 pages, and has fifty illustrations.

Our Subscription Proposition.

What we wish to do is to please every girl and woman on the farm. We wish them to say to husband, to father or brother and to uncle: "I would like you to subscribe for The National Farmer and Stock Grower. It pleases me and will please you. The price is 50 cents a year. It is full of good articles on general farming and stock and poultry raising in all branches. And besides all that, if you do subscribe, I will receive as a commission or premium a copy of the book 'Dressmaking in Ten Weeks,' postage free and safe delivery guaranteed. I need that book, and the best way to get it is to send 50 cents for one-year's subscription to The National Farmer and Stock Grower." Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Low Rate For the Fair.

The railroads have given a uniform rate of two cents a mile for Fair Week at St. Louis, also for Veiled Prophet's Week. All who intend to come in to attend the Fair should see about their railroad rates at once. Fair Week is from September 23 to 28.

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Universal Salt and Pepper Shakers.

The Universal Magazine ought to be known by all our readers, for the reason that it is a nice publication that is very good company on a farm.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the Universal Magazine is, that it is not loaded down with advertisements.

Universal Salt and Pepper Shakers, Reduced Size.

When we send out the Universal Magazine we also like to send out a useful and meritorious subscription premium with it.

To this end we have adopted a pair of Aluminum Salt and Pepper Shakers, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents we will send the Universal Magazine for ten months, and we will send the pair of Universal Aluminum Salt and Pepper Shakers as a premium, postage paid, safe delivery and satisfaction guaranteed.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find Twenty-five (25) Cents to pay for ten-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a subscription premium, post free, safe delivery guaranteed, one pair of Universal Salt and Pepper Shakers.

Name.. .....

Address..... .....

DON'T PAY TWO PRICES

Save $8.00 to $22.00 on

Hoosier Ranges and Heaters

Why not buy the Best when you can buy them at such low unheard-of Factory prices. Our new improvements absolutely surpass anything ever produced. Save enough on a single stove to buy your winter's fuel. Thirty days free trial in your own home before you buy. **Send postal today for large free catalog and prices.**

Address Hoosier Stove Co., 247 State St., Marion, Ind.

98 cents

Post Paid

Guaranteed 5 Years

To advertise our business, make new friends and introduce our great catalogue of Elgin Watches we will send this elegant watch to any address by mail post paid for **ONLY 98 CENTS.** Regular gentlemen's size, open face, full nickel silver plated plain polished case, Arabic dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. Send this adv. to us with your name & address & 98c, and watch will be sent by return mail postpaid. Satisfaction guaranteed or money refunded. Send 98c today. Address

R. E. CHALMERS & CO., 538 So. Dearborn St., CHICAGO.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine.** The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet,** postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.

Universal Magazine Bracelet.

MAY MANTON PATTERNS.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering.

MODELS FOR THE COOL DAYS.

No. 7522.—Child's Coat. Two to eight years. With or without belt on back and patch pocket, with collar that can be rolled over and buttoned up closely at the throat. 2¼ yards 36 inches wide for the six-year size.

No. 7530.—Child's Coat. Six months and one year. With or without cape, to be tucked or gathered. No. 583 embroidery design. 2⅝ yards 36 inches wide for the one-year size.

No. 7508.—Long Coat With Front Yoke and Fancy Collar. 34 to 42 bust. 6 yards 36 inches wide, with 1½ yards 36 inches wide for collar and cuffs, for the medium size.

No. 7527.—Girl's Cape. Six to twelve years. With hood or round collar. 3½ yards of material 44 or 52 inches wide, with ¼ yard of silk for lining hood, for the ten-year size.

No. 7535.—Boy's Single-breasted Overcoat. Eight to fourteen years. Four yards of material 27 inches wide, with ⅛ yard of velvet for collar, for the twelve-year size. The price of each pattern is 10 cents.

EVERY-DAY ATTIRE.

No. 7525.—Plain Blouse or Guimpe. 34 to 44 bust. With high, round or square neck, or with yoke facing. 2 yards 36 inches wide with ½ yard 36 inches wide for peplum, for the medium size.

No. 7528.—Corset Cover For Misses and Small Women. Fourteen, sixteen and eighteen years. 1⅛ yards of material 36 inches wide, 3¼ yards of beading, 3 yards of edging, for the sixteen-year size.

No. 7378.—Tucked Blouse or Shirt Waist. 34 to 42 bust. With long or three-quarter sleeves, with or without collar. 2⅝ yards 36 inches wide, with ⅝ yard 27 inches wide, ¼ yard 36 inches wide, and 1½ yards of insertion and 1½ yards of edging for the frill, for the medium size.

No. 7494.—Five-gored Skirt. 22 to 32 waist. With high or natural waist line. 3¾ yards 36 inches wide when material has figure or nap; 4¾ yards 27 inches wide when material has neither figure nor nap, for the medium size.

No. 7504.—Five-gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without plaited portion at left of front. 4¼ yards of material 36 inches wide, ⅝ yards any width for plaited portion, for the ten-year size.

No. 7507.—Four-piece Skirt. 22 to 32 waist. With high or natural waist line. 5 yards of material 36 inches wide when material has figure or nap; 2¾ yards 36 inches wide when material has neither figure nor nap, for the medium size.

The price of each pattern is 10 cents.

SIMPLE MODELS FOR SCHOOL WEAR.

No. 7505.—Girl's Dress. Ten to fourteen years. With four-gored skirt, round or high neck, elbow or long sleeves, with or without revers, cuffs and trimming bands. 4 yards 36 inches wide, with 1¾ yards of banding to trim as shown in front view, ⅝ yards 27 inches wide to trim as shown in back view, for the twelve-year size.

No. 7499.—Child's Russian Dress. Two to six years. With square or high neck, short or long sleeves, with or without bloomers. 2¼ yards 36 inches wide for dress, with 1 yard 27 inches wide for trimming, 2 yards 36 inches wide for bloomers, for the four-year size.

No. 7510.—Girl's One-piece Dress. Six to twelve years. With elbow or long sleeves, square or round collar. 3¼ yards 36 inches wide for the ten-year size.

No. 7512.—Boy's Sailor Blouse Suit. Six to ten years. With round or square collar. Knickerbockers that can be finished with knee bands or hems and elastic. 3⅝ yards 36 inches wide, with ¼ yard 27 inches wide for collar and cuffs, 6½ yards of braid, for the eight-year size.

No. 7102.—Boy's Blouse Suit. Eight, ten and twelve years. With round collar or neck band. 3⅜ yards 36 inches wide, for the ten year size.

The price of each pattern is 10 cents.

PRACTICAL MODELS.

No. 7509.—Norfolk Middy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without shield, with elbow or long sleeves. 3⅜ yards, 36 inches wide, with ⅜ yard 27 inches wide for collar and cuffs, 5 yards of braid, for the sixteen-year size.

No. 7514.—Fancy Blouse. 34 to 42 bust. With round or high neck, elbow or long sleeves, shaped or straight front edge. 2 yards 36 inches wide, with ⅝ yards 18 inches wide for chemisette, 1¾ yards of lace for frills, or ⅝ yard 27 inches wide for collar and cuffs, for the medium size.

No. 7519.—Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. 4½ yards 36 inches wide, with ¾ yard 27 inches wide for belt and trimming, for the sixteen-year size.

No. 7524.—Two-piece Skirt With Side Panels. 22 to 30 waist. With high or natural waist line. 3¼ yards 36 or 44 inches wide, width at lower edge 2½ yards, 2 yards when plaits are laid, for the medium size.

No. 7515.—Five-gored Skirt. 22 to 32 waist. With high or natural waist line, with shaped or straight front edge. 3¾ yards 36 inches wide, width at lower edge 2 yards, for the medium size.

The price of each pattern is 10 cents.

The foregoing patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

We hope our friends and patrons will read about the Book of Live Stock Champions on page 22.

THE MEXICAN RESURRECTION PLANT.

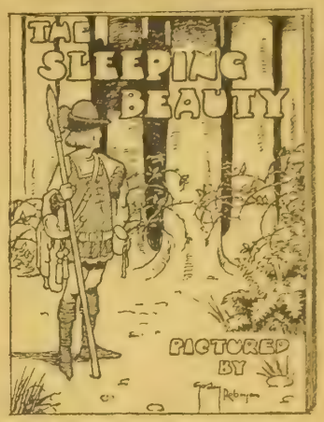
This is a great and pleasing novelty. Without water it dries up and is apparently dead. Place it in a shallow tank of water and it revives to a beautiful, living, fern-like plant. Let it dry out again and it curls up like a ball and can be kept for years. It will revive again directly it is placed in water. It requires no soil, no nourishment, no attention.

We have adopted the Resurrection Plant as a subscription premium to the **Universal Magazine.** The magazine is most interesting and is published monthly. It is an illustrated publication, with genuine stories, splendid poetry and home reading. Send 25 cents for one-year's subscription to the **Universal Magazine** and we will mail you one of these genuine Resurrection Plants as a free premium.

Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Universal Magazine Subscription Premiums For Children.

A Premium That Will Delight the Hearts of the Little Ones. Four Fine, Beautifully Colored Toy Books.



ANIMAL SERIES.
No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

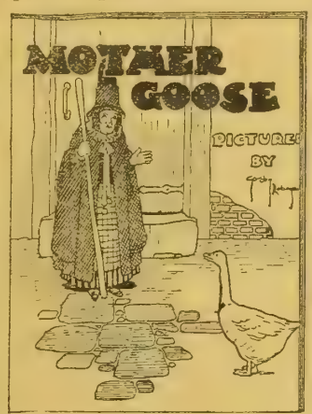
FAIRY TALE SERIES.
No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

The Universal Magazine

PUBLISHED MONTHLY.

3550 Vista Ave., ST. LOUIS, MO.

THE UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry— a splendid publication for the money. To anyone who will send us a money order for 25 cents we will send the UNIVERSAL MAGAZINE for one year, and we will send as a subscription premium any four of the beautiful, colored Toy Books for children. Send us your orders. Order each book by number.



MOTHER GOOSE SERIES.
No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 116—Little Red Riding Hood.

LITTLE DARLINGS SERIES.
No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

In the Canning Season.

The first thing is to test the cans. If for tomatoes, use new rubbers. Rubbers may be used a second time for most fruits, and if one seems a bit thin, use two together, but be sure that one does not slip past the other and so make an uneven pressure in spots.

Rub up each cover until bright and shining. This will make your fruit look better when the work is done; more important, if there is even the tiny hole in a cover, the scouring process will disclose the fact. Then fit each to its proper can, fill the can half full of water, fasten on rubber and cover and invert for an hour. If there is a leakage, a better fitting cover must be found.

After the fruit is sealed, some say to invert the cans over night. We prefer to use this test only an hour, or even less. When left for so long in this position the strain is apt to start a leak, even though the fruit would have kept perfectly as put up. The test which assures no present leakage is sufficient and does not provoke one.

Molasses cans, with the fitting cover, may be reserved for canning tomatoes, providing the tin is perfect. Seal with wax, and they serve the purpose as well as the new cans for the purpose. Many have success with tomatoes only when using tin, but we have found no cause to complain when using glass and have wondered if it were not because we always pare the fruit instead of scalding to remove skins. Cook just enough to heat through, add a little salt and seal.

Combinations of fruit juice left over make excellent jelly. A little plum juice added to peach juice will make it jell more readily as well as improve the flavor. A few apples will also serve the same purpose. By thus combining and piecing out left-overs, nothing is wasted, and the shelf of canned goods is very nicely stocked with a variety.—Bessie L. Putnam.

The Trip to Town.

There are families in which the man of the household attends exclusively to this detail, marketing the butter and eggs and buying the household supplies. It would be quite a waste of time for the wife to leave her household duties, and he can do this while the dew is on, or on some rainy day. But does he ever consider that she can in many ways make the time spent profitable if only given a chance?

First, she needs a play hour occasionally, just as much as anyone, and while the farmer who thus takes upon himself all the errands outside may not realize it, it is a rest to get out, even for a little while.

But there are many little things which she observes that will enable her to save the pennies in another way. Every window has in it possibilities. The economizing woman sees in the ready-made dress an idea which with the aid of a new pattern is the means of revolutionizing the outgrown dress into a stylish one which will serve the child for best another season.

The crochet bags, so stylish now and retailing at one or two dollars, may be readily made at home by anyone familiar with the hook, and this during spare moments. One may read about how to make this or that, but when it is shown already made the impression is stronger and one sees just what results are. Those bags, by the way, are a most convenient as well as durable article, and can be made to match the dress. A large rose in the Irish crochet serves for the center, with the standard filling stitch to complete the pattern.

The display of fancy work will give some new hint for a doily, perhaps evolved from a piece of left-over linen, or a worn tablecloth. There are lessons at every step, and the woman who so determines can make her trip to town pay, even though there were no butter to market.—Bessie L. Putnam.

Pure Water.

It is a strange fact that even those who fully realize the importance of pure drinking water in the family seem to think that so long as there is water of any kind in the pasture there is no reason for concern. It may be a mud-hole, continually roiled by the endeavors of the animals to quench thirst. So long as it is wet it is supposed to answer all purposes.

Even if the cow drinks this filthy water freely, and most likely she will do just as we would under similar circumstances, drink the smallest quantity possible, can she be expected to furnish wholesome milk out of such material? More than 84 per cent. of milk is water. When we compel her to drink water which we would not dare to drink ourselves, she literally though innocently pays us back in our own coin by using this same water in the filling of the milk pail.

Ah! But it no longer fills the pail. Bereft of the most of her foundation material, she cannot keep up the milk supply. We grumble about the shortage in pasture and buy grain to make up the deficit, when an abundance of pure water would do more toward counteracting it than the extra feed. We cannot keep in the best physical condition without an abundance of drink in some form. Is it reasonable to expect the best from our domestic animals when hampered by thirst?

At this season there is the added danger of typhoid. This disease is too often traced to the milk supply. Stagnant water is almost sure to be foul with it, and if stock is permitted to wade through it at will the danger is greatly increased. If you have an abundance of running water, good. But look carefully at its source and see that there are no contaminating influences during transit. A good drilled well with a gasoline engine will be cheaper, if this is lacking, than the doctor's bills invited by impure water.—Bessie L. Putnam.

Marking Clothing.

This is especially necessary where there are several children nearly of an age. The rubbers which fit Johnny may be squeezed upon Tom's more plump foot, but at the risk of tearing. And even at best, everyone has a special gait and way of fitting the foot to the shoe, and a change, a running-down of the heel in another way, helps to hasten the end of the article. If the rubbers are stamped in the inside with a big black initial, the danger from this will be lessened, especially if the children are taught to watch for the proper letter.

In under garments there may be a provoking confusion or doubt unless each garment is properly marked. By writing the initial on a slip of paper and basting it over the garment one can quickly stitch the letter upon the machine so that it will not easily be erased. If done in white thread, there is is no danger of any stain, and yet it is sure to be always legible.

Handkerchiefs are neatly marked with an embroidered initial, or the name may be written on the cloth with a lead pencil and then a line run in with fine thread. The latter method takes but a moment and serves the purpose fully. This is one of the articles most likely to become interchanged unless precaution is taken, and yet neatness as well as the sense of ownership should serve to guard for each his very own.

The practice of letting things get "mixed up" creates chances for discord and dispute; it discourages the efforts of those naturally tidy when one with careless habits has an excuse for appropriating their belongings. Individuality should begin early in the ownership and care of clothing. And it saves time to mark each garment when new rather than to try over the various heads to find out which it fits best. If the label is regarded as a part of its completion, all trouble is ended.—Bessie L. Putnam.

Table Manners.

The little one may become one of the most agreeable members of the company at mealtime by looking carefully after the details of behavior at the start. As soon as baby is old enough to eat solid food it is old enough to learn that it is expected to eat and not to muss over and throw away food; and when it insists upon playing rather than eating, remove it from the table without further parley.

Prepare it neatly for the table. Clean napkins, an unbreakable plate and small spoon should be its equipment. A cup of milk or water is its individual property, but not the coffee of any adult within its reach. Place the spoon properly in its right hand. While there are special occasions in which a left-over is pardonable, aim as a rule to give only as much food as should be eaten, and insist upon this being done in a neat manner. Show that papa does not play with his food or try to help himself to that of others. An ill-mannered child is in no place so annoying as at the table; the well-behaved one is a continual source of delight. And the difference between the two is marked by the old cable, Habit.—Bessie L. Putnam.

Was Used to More Rain.

Lambert Kaspers, a Chicago attorney, told the following story at a recent Y. M. C. A. banquet:

A Kansas farmer, a Dane, applied for naturalization papers. The Judge asked him: "Are you satisfied with the general conditions of the country?"

"Yas," drawled the Dane.

"Does the government suit you?" queried the Judge.

"Yas, yas, only I would like to see more rain," replied the farmer.—Chicago Tribune.

Appreciated.

"You are the most precious thing in the world!" sighs the young man.

"Nonsense!" replies the young woman, albeit pleased nevertheless.

"Nonsense nothing! Why, if I married you abroad I'd have to smuggle you into this country!"—Judge's Library.

Can you always eat all that you "can"?

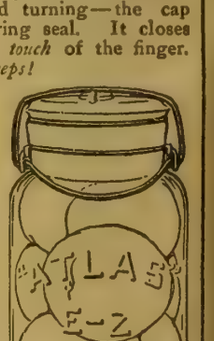
After the work of "canning" do you find much of your fruit is spoiled? Then, why persist in using old-style, narrow-necked, tin-topped, screw-capped jars? That was the old way of "canning." The new way, the easier, safer, *better* way is called "jarring," preserving in the all-glass

E-Z SEAL JAR

Try putting up beets, beans, corn and tomatoes for winter use. It is *fun* when you use the E-Z Seal Jar. It has the sanitary all-glass cap—no metal at *all*. No twisting and turning—the cap clamps with a spring seal. It closes and opens with a *touch* of the finger. And—your fruit *keeps!*

Free Jar— Free Book

Cut out this coupon, take it to your grocer—he will give you one E-Z Seal Jar—FREE. Be sure and write us for FREE Book of Recipes—it tells many things you should know. Get the Jar from the *grocer*. Get the Book from *us*.



HAZEL-ATLAS GLASS COMPANY
Wheeling, W. Va.

1-Qt. E-Z Seal Jar CG FREE for the Coupon

Please note—In order to secure free jar this *coupon must* be presented to your dealer before Sept. 1st, 1912, with blank spaces properly filled out.

HAZEL-ATLAS GLASS CO.,
Wheeling, W. Va.

This is to certify, That I have this day received one "Atlas" E-Z Seal Jar Free of all cost and without any obligation on my part. This is the first coupon presented by any member of my family.

Name_____

Address_____

TO THE DEALER:—Present this to jobber from whom you recieved E-Z Seal Jars. All coupons must be signed by you and returned before Nov. 1st, 1912.

DEALER'S CERTIFICATE. This is to certify, that I gave away one "Atlas" E-Z Seal Jar to the person whose signature appears above.

Dealer's Name_____

Address_____

THE SMITH FAMILY DOWN THE ROAD.

The Mortgage is Cleared and Plans Are Made For the Future.

Three years after the Smith family began to "find itself," John Smith finished paying off the mortgage on the farm. He did it wholly from the profits of his share of the farming. Mrs. Smith had offered to help with the money she was making from her poultry, fruit and vegetables, but her husband had replied to her offer: "I want to pay it out of the actual farming and stock raising that I do. You'll find a use, and a good one, too, I bet, for every cent you earn. I see now that it was all my fault that a mortgage was ever put on this place. The farm was yours to start with, so I want to be man enough to clear off my own debt."

The night he came home with the canceled mortgage there was a celebration in the house down the road. The neighbor woman and her husband were invited to it, just as they were included in nearly all the pleasures of the Smith family, for Mr. and Mrs. Smith gratefully remembered that the neighbor woman had never forgotten them when they were living at their worst.

Do you remember that first cheerless glimpse into the Smith home? Suppose to-night at this celebration we look in again and note the changes these three years have wrought, not alone in the house and its furnishings, but in every member of the family as well—the transformation that marks the man or the woman living a purposeful life. Let us now enter with the neighbor woman and her husband.

Mrs. Smith, wearing a soft gray dress with white frills of lace at neck and sleeves, meets her guests at the door and greets them heartily while she leads them into the living room. This room is the best in the house. Perhaps in some homes it might be called the parlor. But Mrs. Smith's reading during the past years has borne fruit. She decided that she wanted a comfortable room in which the family could spend their spare hours in place of the stiff, stuffy parlor. Also she wished to feel that it was a fit place to which she could welcome her visitors, which were now not infrequent. Dovetailing with these plans there appeared in one of Mrs. Smith's papers the plans for a remodeled farm house and the living room in this plan exactly suited her taste. A big bowed window stretched across the south end of the room and a seat was built around it. Book shelves were built across the other end of the room. An arch was cut through the partition that had separated the old sitting room and the parlor. This old sitting room was converted into a dining room.

The furnishings of the living room are simple and in good taste. A brown paper, plain save for a golden line running through it, covers the walls, with a cream paper relieving the ceiling. The old floors are replaced with Southern pine. A rag rug in brown and tan, with just a glint of yellow through the border, covers the floor, except for the space of about a foot and a half, where a border of the floor shows. Several comfortable chairs, a couch and a big library table are in the room. Mrs. Smith seems to have a true sense of the artistic. Barren as her early married life had been, it would seem probable that in selecting furniture she might choose cheaply-covered, highly-ornamented stuff. It was otherwise. After visiting the village store, where she was shown a medley of plush-upholstered, cheaply-veneered furniture at ridiculously high prices, she sent for the catalogue of a mail-order house. Here she found displayed a good assortment of a better grade of furniture at lower prices. And so she selected the several pieces of solid oak modeled along good lines. She also bought a good reading lamp. Many were the pleasant evenings spent around the big table.

The children had had some study of famous paintings at school, and with their help Mrs. Smith selected reproductions in sepia tints of Breton's "Song of the Lark" and Millet's "The Gleaners" and "Bringing Home the New-born Calf." It was the mail-order catalogue that helped her in this matter also.

A second-hand piano, an old-fashioned square but of excellent tone, had been purchased, and on this evening it is brought into use, for the neighbor woman is a fair musician, while Mary's stumbling fingers as yet evoke but little music from the instrument.

After the serving of a dainty lunch, consisting of chicken salad with mayonnaise dressing, hot rolls, olives, coffee, ice cream and cake (Mrs. Smith meanwhile proudly explaining that the salad dressing and the rolls had been made by Mary just as she had learned to make them at the cooking class), the elders fell to talking of the children and their future.

"I expect in about two years from now John'll be away at the Agricultural College learning farming," remarked Mr. Smith. "He's got over a hundred saved for it and now that the mortgage is out of the way, I can help some, for what he'll learn he'll pass on to me. That's a bargain, ain't it, Johnny?"

"You bet!" replied Johnny. "And I'll just have to work awfully hard learning for two people all at once."

"And has Mary any plans?" asked the neighbor woman.

"Oh, you know Mary's daffy about cooking, and she says she's going to keep on studying domestic science until she can teach it. She beats me at the cooking already."

"Why, here's a letter I forgot to give you, Martha," interrupted Mr. Smith, who had been rummaging through his pockets. "I took it out of the box as I came up from the field this noon."

As Mrs. Smith read the letter, she gave an exclamation of surprise and then passed it on to Mr. Smith without comment.

"Well, by jingo!" cried he. "Here's Martha been left a fortune. And so she needn't farm it any longer. Listen, neighbors, her uncle's died and she gets $15,000 in cash and a little four-hundred-acre piece of the best farming land besides. Now she can live like a lady in town."

"No, John," replied the wife. "That money doesn't mean so much to me now. I'd never be satisfied with any other life than this, and neither would you or the children. It will mean that we can have some extras that we couldn't have had otherwise. A few more good books, a good music teacher for the children, some traveling every year when we are least busy on the farm, and a couple of homeless children from the city to bring up right. This legacy is all right now, John, but I'm mighty glad it didn't come three years ago, before we knew the pleasure and profit of real work. Then it would have meant our ruination. Now it gives us a chance to help somebody along, just as our neighbors helped us at a time when we semed too blind to see for ourselves."

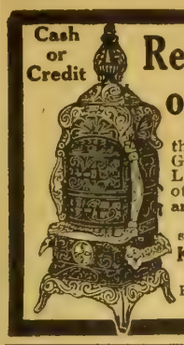
"Bravo, I knew I was safe in saying we might go to live in town!" cried her husband; "and as for helping somebody else, what's that song of your neighbor woman— the somebody song?"

The neighbor woman took her place at the piano and began to softly play and sing while the little company joined in one by one:

Somebody did a golden deed,
Proving himself a friend in need;
Somebody sang a cheerful song,
Bright'ning the skies the whole day long.
Was that somebody you? Was that somebody you?

Somebody tho't 'tis sweet to live,
Willingly said: "I'm glad to give;"
Somebody fought a valiant fight,
Bravely he lived to shield the right.
Was that somebody you? Was that somebody you?

—Janet Thomas Van Osdel.



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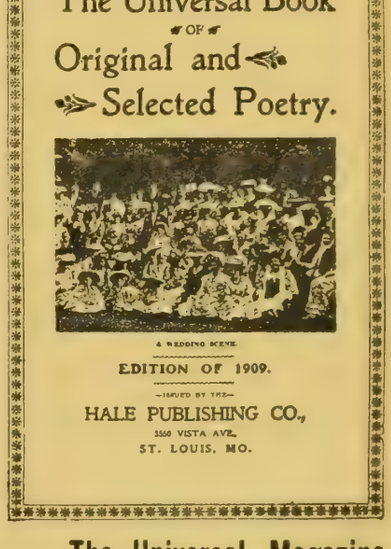

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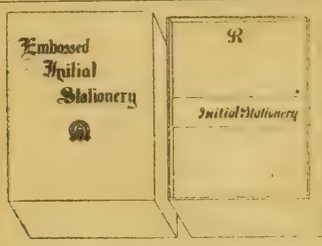

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columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send fifty cents to pay for the Universal Magazine for two years can select their own initial letter, and we will send a box of stationery prepaid, safe delivery and satisfaction guaranteed. Wherever one box is sent we expect to sell a dozen, because we are offering the right kind of premium—one we will be glad to send to any lady in the land. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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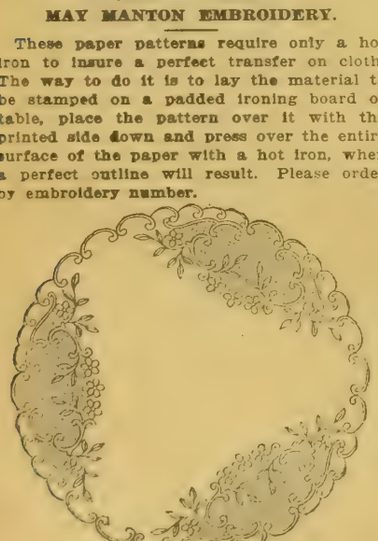
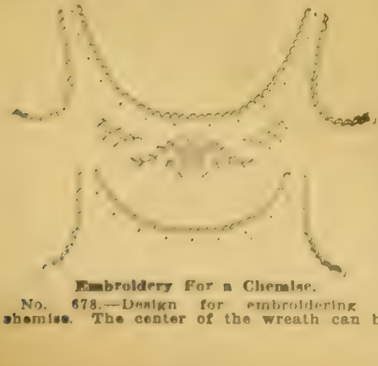
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect outline will result. Please order by embroidery number.



Splendid Center Piece.

No. 674.—Design for an embroidered center cloth with punched work background. The design is twenty-two inches in diameter. One transfer is given. The price of the pattern is 10 cents.



Embroidery For a Chemise.

No. 678.—Design for embroidering a chemise. The center of the wreath can be filled with punched work or with French knots.

For a Book Cover.

No. 673.—Design for embroidering a magazine or book cover. The price of the pattern is 10 cents.

Beautiful Blouse Design.

No. 672.—Design for embroidering a blouse front, collar and sleeves. The dots within the circles can be used for punched work or for French knots. The price of the pattern is 10 cents.

Low-neck Night Gown.

No. 675.—Design for embroidering a low-neck night gown with short sleeves. The centers of the wreaths can be worked in punched work or French knots. The price of the pattern is 10 cents.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Vegetable Market at St. Louis.

On the last business day of August the wholesale vegetable market at St. Louis was doing business as follows:

Potatoes.—Sales loose from farmers' wagons at range of 65 to 70 cents per bushel, mainly at 60 cents. Some sacked lots on levee, but, being poor, were going at 60 cents.

Onions.—Iowa sacked Red Globe at 45 cents on track to 50 cents delivered; Missouri sacked yellow and pale red at 35 to 40 cents, delivered; heated less; North Missouri red at 40 to 50 cents, and white at 60 to 65 cents per bushel. Sales: North Missouri—Twenty-eight sacks red at 40 cents; thirty sacks do. at 50 cents; 100 sacks do. at 45 to 48 cents; thirty-one sacks small do. at 40 cents.

Beets.—Home-grown at 25 cents per bushel box loose, and 10 to 15 cents per dozen bunches.

Butter beans.—Home-grown at 75 cents to $1.00, and Lima beans at $1.00 to $1.25 per peck basket loose.

Cabbage.—Home-grown kraut stock at 30 to 32½ cents per 100 pounds, by weight; green quotable on orders at $1.10 per crate in shipping order.

Carrots.—Lot Northern sold at 60 to 70 cents per seventy-pound sack, delivered; home-grown, 15 to 20 cents per dozen bunches.

Cauliflower.—Choice Buffalo (express receipts) sold at $2.50 per crate.

Celery.—Fancy Michigan (Tecumseh) Golden Heart at 20 to 25 cents per dozen for x, 30 to 35 cents for xx, and 35 to 40 cents for xxx; Kalamazoo White Plume and Golden Heart at 10 to 20 cents per dozen for small to medium and 25 to 30 cents for fancy large; iced in barrels at 10 to 15 cents per dozen; square boxes and flat crates of Golden Heart (2 to 2½ dozen) at 30 to 40 cents; and White Plume at 20 to 35 cents—damaged and heated much less.

Cucumbers.—Home-grown green loose at 25 to 50 cents, and yellow mustard at 40 to 50 cents per bushel; Dill pickles and salt pickles at 40 to 60 cents, and small vinegar pickles at 75 cents to $1.00 per bushel loose.

Eggplant.—Home-grown sold at 50 to 60 cents per bushel loose.

Gumbo.—Home-grown sold at 20 to 25 cents per peck basket.

Green corn.—Home-grown sold at 5 to 8 cents per dozen.

Lettuce.—Lower again; receipts larger. New York hampers head lettuce at $1.00 to $1.25 per hamper; Chicago cases at 75 cents for choice fresh—held stock sold at 50 cents; home-grown sold at 10 to 15 cents per bushel box loose.

Peppers.—Steady. Home-grown at 40 to 50 cents per bushel box loose—small and poor less.

Spinach.—Home-grown loose at 20 cents per bushel.

Squash.—Home-grown at 10 to 15 cents per bushel loose.

String beans.—Home-grown round green and corn beans at 15 to 20 cents per bushel loose.

Sweet potatoes.—Bermuda selling at 75 to 85 cents, and Red Nansemond at $1.00 per bushel box loose. Alabama Southern Queen at 50 cents per hamper—car sold at 50 cents, delivered; Tennessee Bermuda at 75 to 80 cents per hamper, and 35 to 40 cents per melon basket; Virginia yellow at $2.85 to $3.00 per barrel.

Tomatoes.—Home-grown ripe loose at 15 to 30 cents per bushel, as in quality; yellow preserving plum tomatoes at 10 to 15 cents per one-third-bushel basket.

Turnips.—Home-grown at 25 cents per bushel box loose—top for Globe.

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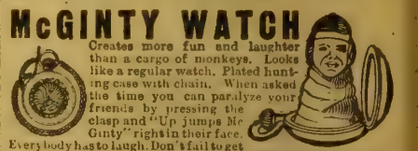

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Brute.

He—"I forgot something."

His wife (pouting)—"You forgot to kiss me."

He—"Yes, but I came back for my umbrella."—New York World.

Rice Fields of Arkansas Making Farmers Rich.

Hickory Ridge, Ark., August 25.

A night's ride from St. Louis, and one finds himself in the northern edge of what has come to be known as the great Arkansas prairie rice belt. Until the train passes through Jonesboro, just a little way north of this place, the traveler does not realize that the topography is much different from that which he has viewed from the car window since daylight. But just before reaching Obear the fact becomes apparent that the hills are disappearing and that almost as far as the eye can see there is a vast, almost level prairie. It is the Grand Prairie, which embraces most of five counties in Eastern Arkansas. To the eye it appears almost a deal level. In fact, it is slightly undulating. Every acre is perfectly drained. At Obear the first rice fields are seen. As the Cotton Belt train nears Weiner the development appears more general. From Weiner, Waldenburg, Fisher, Hickory Ridge and to the south stretch thousands upon thousands of acres of waving rice, the sturdy stalks standing to their middles in a shallow sea of pure, fresh water. It is the marvel of the age. To one who has not watched the progress of this wonderful development it is a mystery. To one who has kept in touch with it it remains a miracle.

Values Increase Rapidly.

Two or three years ago these waving fields, which will this season return a net profit of from $40 to $60 an acre, could be bought for from $5.00 to $15 per acre. To-day unimproved lands are selling at from $25 to $50, and improved lands, ready for rice growing, bring from $60 to $100. But sales of improved lands are few, it would seem, because they are worth more to hold and crop than to sell.

It cannot be said that lands in any section along the Cotton Belt Line from Jonesboro to south of Stuttgart have yet reached a point where they are held too high for profitable investment. Lands which yield an annual net profit of from $40 to $60 per acre each year are really worth much more than any owner or speculator in the Arkansas rice district had dreamed of asking for them. The really wonderful thing about it all is that improved and unimproved lands may be bought at so reasonable a figure. Thousands of acres near Hickory Ridge, Waldenburg and Weiner, part prairie and part sparsely wooded, are held at from $25 to $50 per acre. One wonders, when he sees the rapid development going on in all directions, how long this condition will prevail. At Weiner the crop area this season is more than double that of last year, or about 10,000 acres.

Rice is not an experiment in the territory around Weiner and Hickory Ridge. But it has just come into real commercial importance. On account of the development of rice culture in this section it was necessary to build a large mill at Weiner last year for the treatment of the grain before marketing. The milling process consists of hulling and polishing the grain. This process is tedious and expensive, but the American trade has demanded the fancy article.

Recently the United States Department of Agriculture has called attention to the fact that polishing of the rice, though improving the looks of the grain, does not in the least increase the food value and there has been an effort to popularize the unpolished rice among the individual consumers, whose likes and dislikes, of course, guide the millers, and it is likely that before very long brown rice will be extensively used.

Donate Mill Site.

With this end in view the Buck Head Rice Company has erected an extensive plant for the milling of unpolished rice at Hickory Ridge, Ark., on the Cotton Belt Route, in the heart of the great Arkansas Rice Belt. Citizens of Hickory Ridge donated a site for the mill, which has a capacity of 500 barrels a day.

The same company that built the mill at Hickory Ridge purchased 4,820 acres of rice land in the same vicinity, and this will be developed for rice production, and all of the crop will be run through the mill at Hickory Ridge and put on the market in an unpolished condition.

Charles Thompson, a Weiner rice farmer, raised a 160-acre rice crop last season. The crop thrashed out almost sixty-five bushels to the acre for the entire field. He cleared up a net profit of just about $6,100. This was the second crop on the larger part of Mr. Thompson's tract. This year the area of his fields is greatly increased.

In the Hickory Ridge section the development this year has been wonderful. The crop promises to be as fine as ever grew, and the area is three or four times as great as last year. It is such a simple and so comparatively inexpensive a process to convert non-producing land into farms which yield a net return of $40 to $60 an acre annually that men with even moderate means are not going to let the opportunity pass.

Water at Small Cost.

One mile west of Hickory Ridge is the model rice farm of Burnham & Young. Their field of 230 acres was irrigated with water from one well. These Hickory Ridge and Weiner farmers seem to be demonstrating the possibility of putting an abundant supply of water on their fields at a minimum cost. Formerly the belief was that one well could supply water for not more than 100 to 140 acres. But the limit has been nearly doubled in the newer fields, due largely to the fact that the water level is higher and that the pumps can handle the supply from wells of large bore.

A farmer, well known in Cambridge, Ill., who owns 160 acres in the Arkansas rice district, gathered 7,500 bushels of rice last season from 135 acres, and sold his entire crop for 83½ cents a bushel. This is what he says:

"We have in Illinois 400 acres of land that is worth on the market $200 per acre, or $80,000. Last year our returns from that tract were $2,000 in rentals, yet here in Arkansas my 160 acres (which are worth about $12,000) returned me a net profit of $2,100. The Illinois land pays $5.00 per acre rent and the Arkansas $15.55 per acre rent."

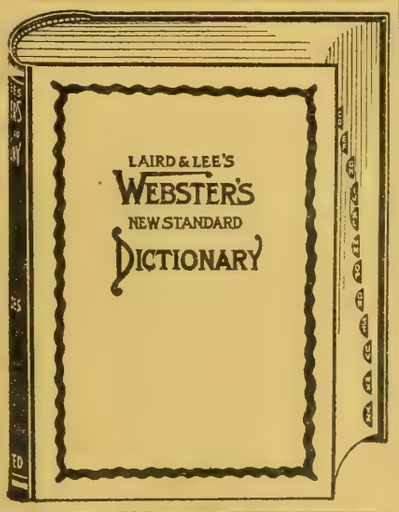
The farmer of the North who has never seen a rice field need not depend upon any one individual's success. There is at hand any amount of authenticated data which prove not only the possibilities, but give the actual results in all parts of the great Rice Belt. Along the Cotton Belt Route, from a point north of Weiner, in Poinsett county, to the south and extending for miles east and west, hundreds of thousands af perfectly adapted lands await development.

For further particulars concerning the rice fields of Arkansas write to E. W. LaBeaume, 1651 Pierce Building, St. Louis, Mo., and ask for Free Rice Book.

Harvesting Rice at Waldenburg, Arkansas, on the line of the St. Louis and Southwestern Railway.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 750 pages, in all, 840 illustrations, substantianlly bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical,



classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

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Seven Commandments of Alfalfa Growing.

Thou shalt not sow alfalfa seed on wet or undrained land.

Thou shalt not sow alfalfa seed on acid or sour land, but shall apply calcium in the form of lime, or ground limestone rock.

Thou shalt supply alfalfa land with an abundance of stable manure.

Thou shalt thoroughly prepare the alfalfa seed bed.

Thou shalt sow only good alfalfa seed, free from noxious weeds.

Thou shalt inoculate the soil if thou wouldst reap the best benefits from the alfalfa crop.

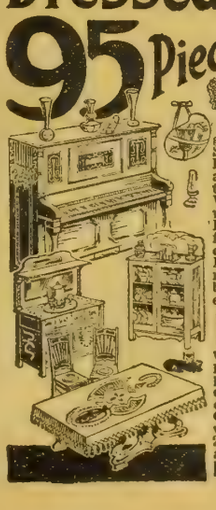
Thou shalt not sow in late fall, if thou wouldst obtain a creditable stand.—I. H. C. Service Bulletin.

A Famous Nurseryman.

The death roll for the month of June included Mr. James J. Harrison, President of the Storrs & Harrison Company, Painesville, Ohio. Mr. Harrison was born in England, in the county of Kent, in 1829, and died at the ripe old age of 83. He was a fruit and flower specialist, and, commencing with a few acres, his firm owned a thousand acres of cultivated stock when he died. His partnership with Jesse Storrs dates back to the year 1858.

Read about the Book of Live Stock Champions on page 22.

Dressed Doll & 95 Piece Furniture Set, all FREE



Here is a doll and nearly a hundred other articles that will delight the heart of any little girl. All are given away absolutely free. Dollie is a little beauty. Sweet little face, ruby lips and blue eyes, soft curly hair. She is nicely and **COMPLETELY DRESSED** and makes a perfect little lady. She is jointed, can turn her head, sit down. This is **A REAL DOLL.** With dollie comes her entire outfit of toy cut-out furniture—95 Different pieces. There is complete **DAINTY FURNITURE FOR THE WHOLE HOUSE.** Kitchen furniture including a big range. Dining room set with china closet and side-board. Parlor furniture including **DOLLIE'S PIANO,** standing lamp, etc. Bed room furniture complete and lots of little pieces, such as wash-board, duster, kitchen utensils, water-set, foot-stool, etc., etc. Don't fail to get this beautiful and wonderful set.

FREE OFFER Send us your name and address and we will send you six new beautiful art pictures and six coupons, each good for 35 patterns. Collect 25 cents with each picture and pattern coupon on our big offer which includes more. Send us the $1.50 collected and Dollie and her complete outfit of 95 pieces will be sent you, **ALL CHARGES PREPAID,** at once. You can do this little work **IN AN HOUR.** This is all we ask—just make six 25 cent sales giving with each sale extra a beautiful picture and pattern coupon. Did you ever hear of a better offer?

H. GUEST, 501 Plymouth Ct., Doll Dept. 131 CHICAGO, ILL.

SELECTED POETRY.

WHERE'S THE OLD-TIME BOY?

Where is the boy—the real boy—the boy
that used to be;
The boy that planned to run away and go
to sail the sea;
The boy that yearned to twist a brake upon
the local freight;
The boy that thought a circus ring held all
of proud estate?
And where's the boy—the boy-est boy that
ever lived at all,
Who whistled on his fingers in a wild, ear-
splitting call?

Boys nowadays go solemnly at learning this
and that,
Which he held in the busy brain beneath
his rugged hat—
Oh, where's the hat he used to wear?—the
"coffee straw," whose peak
Rose high, while all the sagging brim
slapped him on neck and cheek,
Or else it was a "hickory," a shoestring for
a band—
The dealer strung them on a card, all ready
to his hand.

He was a Boy! He knew more things than
you and I may learn;
He knew where Indian turnips grow, and
how they itch and burn;
He knew the birds familiarly, he watched
May apples grow,
And had his private fishing place, where
only he might go;
He went farefooted—how his feet got
stone-bruised right away!
He never had his two front teeth. Where
is that boy to-day?

Ah, how he'd whistle! First and little
finger in his lips,
And then a blast that cut the air like to a
hundred whips!
And how he looked! His mouth stretched
wide, his eyes all strained and set—
It's strange that such a boy as that is now
no longer met.
Becollared and beshoed, our boys go aim-
lessly through life
And never stand red-faced and blow upon
their finger-fife.

—Chicago Evening Post.

CALENDAR OF DISCONTENT.

SPRING.

Too well I knew you, Spring, and so restrain
My foolish muse from all such flatterings
vain
As "mild" and "gentle"—lest I be repaid,
Even as Marsyas of old, and flayed,
This time by icy hail and cutting sleet,
Instead—I pray your going may be fleet,
That soon I may forget and drowse away,
My weariness beneath dear Summer's sway.

SUMMER.

Insufferable season of the sun,
When will your endless reign of fire be done?
When will your noisy insect court take
flight?
Your orchestra that rests not—day or night;
Your armies with unconquerable stings;
When will they flee—what for do they have
wings?
How long before brave Autumn with a shout
Will succor me and put them all to rout?

AUTUMN.

You dismal mourner, wailing by the bier
Of Summer dead, with lamentations drear,
Driving me frantic, ever and anon
With reminiscences of Summer gone,
Now mimicking her tenderest airs and tones,
Now harrowing me with horrid shrieks and
groans.
Were good, old, jolly Winter only here
I'd soon forget you and your evil cheer!

WINTER.

Hoary impostor! with mock jovial air,
You took the green earth prisoner unaware
And pinioned the trees that moan and call
To Spring to free them from your icy thrall.
You manacled the stream who tugs in vain
To loose himself from your relentless chain.
And I—my heart is sad, my lyre is dumb;
Mild, gentle Spring—Oh! will you ever come?

—Oliver Herford, in Scribner's.

THE SPEED-FIEND'S "EXCELSIOR."

The afternoon was fading fast,
As down the road there scooted past
An auto, and the man inside
Oft muttered, as he "let her slide,"
"Faster!"

His brow was glad; his feet were braced;
His eyes in goggles were encased.
And as adown the road he swung,
One cry alone rang from his tongue:
"Faster!"

In happy homes as he dashed past,
The people stood and stared, aghast;
He opened up another notch,
And yelled at passers-by: "Now, watch!"
"Faster!"

"Don't go too fast!" one did adjure,
"The motor cops will get you sure."
The roar of his exhaust replied,
As he then yanked the throttle wide:
"Faster!"

"Oh, stay," one beauteous maiden cried,
"Take me with you on your joy-ride!"
He only smiled and shook his head,
And yelled one word, 'twas this he said:
"Faster!"

"Beware the fences and the holes,
The chickens, dogs, the cats and poles."
This was the speed-fiend's last "Good-night,"
As on he went at break-neck flight,
"Faster!"

At break of day a farmer ran
Out to the road, and stopped to scan
The dusty highway, when, ker-smash!
He heard a roar, a yell, a crash!
"Faster!"

Our traveler in his auto car,
Had landed with a jolt and jar.
He whispered as they pulled the wreck
From off his bruised and battered neck:
"Faster!"

There in the sunlight, cold and gray,
Covered with grease and oil he lay,
And just before his spirit passed,
One word he whispered—'twas his last:
"Faster!"

—E. A. Briningstool.

THE WONDER CHILD.

The night that wonder child was born I
heard
A fitful calling as of some wild bird,
Some sudden wind that went about the
hill;
With cadenced sorrow and with laughter
shrill.
When morning showed the child my heart
knew night,
For both his eyes were sealed against the
light.

His ivory lids were closed. But to and fro
He saw the elemental beings go;
The spirits of the storm and of the sea,
The dancing fauns, the dryads in the tree.
And all glad goddesses and garden sprites,
He ran to me with tales of their delights.

Nothing I heard, until the night he came,
I lay in silent tension in the gloom,
Watching, lest I might see some spirit
pale,
Listening, lest I might hear some trailing
veil.
Nothing I heard, until the night he came,
With "Mother, listen. Sorrow cries your
name."

I held his tender shape against my heart
And listened. All the shadowed world
seemed part
Of one great symphony that sang of grief.
The wind, the clouds, and every moving
leaf
Sang of the road whereof I had no choice,
And, suddenly, my heart heard Sorrow's
voice.

All night the child lay closely at my side,
But when the morning came his body died.
Then, as I went to seek the garden air,
I saw the idle dreams upon the chair,
And Hope, black-veiled, sat weeping by my
flame,
And all day long gray Sorrow cried my
name.

—Ethel Clifford, in Harper's Weekly.

FATHER'S RETICENCE.

Father doesn't always answer when I'm
anxiousest to know,
When I asked him just this morning why
no peaches ever grow
On the apple tree, he told me: "'Cause it's
nature's way." Then I
Feeling not the least bit wiser, asked the
simple question: "Why?"
Father took his hat and muttered: "Guess
it's time for me to go."
Wonder why he never answers when I want
the most to know?

Once I asked him how the oak roots that
were all mixed up with beech
Picked out just the sap for oak laves—each
the rightful stuff for each,
From the self-same soil and moisture, never
making a mistake.
Father turned to mother, saying: "How my
poor old head does ache!"
Mother told me: "Please be quiet. Don't
disturb your father so!"
Now, why doesn't father answer when I'm
anxiousest to know?

Yesterday down at our garden we were
pulling up some weeds
And were wondering why no sprouts came
from the dwarf nasturtium seeds.
Then I said: "Say, father, tell me why the
things that are the best
Are so hard to start to growing, when this
sorrel and the rest
Grow so swiftly if they've even just a tiny
root or so?"
Father only sighed in silence, though I'm
anxious still to know.

—Chicago News.

A CALL TO MEN.

Let us be kindlier, men!
We are brutes, without meaning it, oft;
The least things displease us—they just
mean to tease us—
Let's make our answering soft!
Let us remember how human
It is to be not always sweet;
Let us forgive and forget,
And be first with a kiss when we meet.
Let us be nobler, men,
In our daily habits with those
Who stand by our side whatever betide,
Who help us, whatever our foes.

Let us be kindlier, men!
Let's put the harsh word away;
Let's fill the lives of the women with song,
The lives of the children with play.
Let us remember how soon
The storm settles down, and the ship
Goes foundering deep, with eternal sleep
Sealed upon each loved lip.
Let us be thoughtful and fair,
Considerate, earnest and true;
Let us be kindlier, men,
And that is the call unto you!

—The Bentztown Bard.

BOB WHITE'S SUMMER CALL.

Sumac leaves are turning red,
Sort o' hazy overhead;
Field doves in the shattered wheat
Findin' lots of grains to eat;
Yellow primrose shinin' there
Where the rabbit makes his lair;
Crickets singin' as if death
Counted out the longest breath;
Then, in rhythmic beat o'er all,
The magic Bob White's summer call!

In the bottom, peer and look
At that circle in a nook
Of the tall, rank grass and weeds,
Where at night where no path leads,
Heads turned outward in a ring,
There they nest—that whirr of wing.
How it startles, as if light
Suddenly took thought of flight,
And before your eyes whirred up
Bubbling in the blue sky's cup!

Later summer brings it back—
Ah, that call along the track
Of the old fields and the lanes—
How it sobs with thoughts of rains
Washed with autumn, fairly chill,
And the mists along the hill
Rolling sunward through the morn
Over tasseled tops of corn;
Ripe persimmons in it, too,
And dark grape skins wet with dew!

Bob White! From the wood it comes,
Then the stirring of those drums
Of the beating wings—that rattle
Of the unborn dreams of battle
As a startled cock or hen
Darts across the field again,
Or goes running down the road
Faster than your whip can goad
Dobbin onward, so you'll see
What makes all the mystery.

Bob White! Through the dusk so clear
Sounds that call upon the ear!
Bob White! Other side the way
Answering echoes have their say;
Moon flowers open on the porch,
Firefly sparks his fairy torch,
Tree frog gurgles on the elm—
God's great heart is at the helm
Of this green world after all—
Says the Bob White's summer call!

—Baltimore Sun.

BLOSSOMS OF PEACE.

The Spirit of Peace to the battlefield came,
The cannon had blackened the earth with
its flame,
The drums were all hushed and the bugles
were still.
The smoke-wreaths had vanished from
valley and hill;
The swords that were red, though it was
not with rust,
Were broken and tarnished and ground in
the dust;
And she gazed with a tear at the blue and
the gray,
Where silent and stark in the shadows they
lay.

She summoned a cricket to pipe them a
mass
While she wove them a pall of the daisies
and grass;
She fashioned of violets sheaths for the
swords,
To buttercups charged all the cavalry cords,
And out of the blood of the soldiery brave
Commanded the wild rose to blossom and
wave;
And buried in myrtle, starred over with dew,
The bayonets dropped by the gray and the
blue.

She bade from the forest the woodpecker
come,
And to each of the birds she presented a
drum;
Then, calling the wood-thrushes brown, on
parade,
She gave them the bugles that heralds had
played.
The trumpets she hung on a slender green
vine
That she taught o'er the door of a cottage
to twine;
And when she had broidered on caisson and
gun
Her name in white clover, her labors were
done.

—Minna Irving.

MY STRENGTHENER.

Little fellow, do you know
How you cheer me on the way;
How you give me strength to grow
Stronger-hearted, day by day?
Do you know that your wee hand
Leads me onward, hour by hour?
Tell me, do you understand
All your magic, hidden power?

In your bonnie eyes I see
Hints of heaven's beauties rare,
And your childish songs lead me
To a country fine and fair.
All my burdens roll aside
When I clasp and hold you tight;
Every step my path you guide,
Every day you make more bright.

Little toddler, can you guess
How you aid me hour by hour?
Do you know that each caress
Seems to give me unseen power?
When the day is drear and long,
Your sweet smile gives strength anew;
I am cheered by every song
Dropping from the lips of you.

When temptations lure my feet,
And I seem about to fall,
In your love I have complete
Strength to conquer over all.
I am aided by your smile,
When to sordid tasks I go,
And my worries flee the while
I have you to love and know.

Little toulehead, I toil
Gladly, just for your dear sake;
In the tumult and turmoil,
Any task I'll undertake.
Even when disasters smite,
And ill-luck seems to pursue,
I can always win the fight,
For I have the love of you.

—E. A. Briningstool, in Los Angeles Express.

THE NEW VILLAGE BLACKSMITH.

Under a costly canopy
The village blacksmith sits,
Before him is a touring car
Broken in little bits,
And the owner and the chauffeur, too,
Have almost lost their wits.

The village blacksmith smiles with glee
As he lights his fat cigar.
He tells the helpers what to do
To strengthen up the car,
And the owner and the chauffeur, too,
Stand humbly where they are.

The village blacksmith puffs his weed
And smiles a smile of cheer
The while his helpers pump the tires
And monkey at the gear,
And the owner and the chauffeur, too,
Stand reverently near.

Behind the village blacksmith is
The portal of his shop;
The shop is very large in size,
With a tiled roof on top,
And the owner and the chauffeur, too,
At it were glad to stop.

The children, going home from school,
Look in at the open door;
They like to see him make big bills
And hear the owners roar,
And the chauffeurs weep as they declare
They ne'er paid that before.

He goes each morning to the bank
And salts away his cash;
A high silk hat and long frock coat
Help him to cut a dash;
But the owner and the chauffeur, too,
Their teeth all vainly gnash.

The chestnut tree long since has died,
The smith does not repine;
His humble shop has grown into
A building big and fine,
And it bears "Garage" above the door
On a large electric sign

—Dublin Evening Telegram.

RICH.

The love that's in my baby's eyes, the play
times that we have at night,
The joy that's in my lady's smile, her
cheering words that all is right,
The little home where we abide that rings
with laughter—aye, and song,
I would not risk in any way by any act
that I deem wrong.

There is no price that I would take to tinge
my loved one's cheeks with shame,
To rob them of their pride in me, and dull
the eyes with love aflame;
There is no profit that I'd take to cloud my
home now sunshine filled,
No sum of gold that could bring back the
laughter once it had been stilled.

They do not ask that I be rich, they do not
urge me to be great,
To climb the mountain heights of fame or
claim the honors of the state;
They ask me merely to be kind; they want
me only to be true,
And in return they give me love when each
long day of work is through.

I'll keep my home a dwelling place for
merry laughter and for song;
I would not risk one little smile by barter-
ing with what is wrong.
I'll keep those eyes aglow with pride, unto
their love I'll fondly cling;
For though I may be poor in purse—in love
I'm richer than a king.

—Detroit Free Press.

BUSINESS IS RUSHING.

They're wagin' war in Africa in real old
Sherman style;
They're shooting folks in China and man-
euvering a pile;
The rebels down in Paraguay are kicking
up their heels,
And the moving picture feller, he is busy
making reels.

They're ski racing up in Norway and they're
scalin' the Swiss Alps,
And the Yaquis down in Mexico are out in
search of scalps;
The suffragetttes in England are all busy
raisin' bob,
And the movin' picture feller, he is strictly
on the job.

All the well-known "possibilities" are
speakin' every day
And most every noted orator is mixed up in
the fray.
The special trains are whizzin' round the
country with a yank,
And the movin' picture feller, he is turnin'
off his crank.

The earthquakes and volcanoes and prize
fighters do their share,
And there's plenty of excitement every day
and everywhere;
But we do not have to travel round to find
it, for we know
That we'll see the whole blamed business at
the movin' picture show.

—Richmond Times-Dispatch.

THE SMILER.

There's an idiotic fellow whom I meet
where'er I go;
He's the crazy kind of fellow all the little
children know.
You wouldn't think him silly from his
manner or his style;
Still, it seems he must be foolish, for he
always wears a smile.

When the way is long and weary and the
load is hard to bear,
When you're weighted down with trouble
and there's no one seems to care,
That's the time this foolish fellow comes
a-singing up the road,
With a word and smile to cheer you and to
help you with your load.

With his smiling "Buck up, partner, 'cause
we're bound to pull it through;
Though your load's too big for one man, it's
a little load for two."
And you feel yourself uplifted with the
strength to play your part,
With his arm to aid your body and his smile
to brace your heart.

No, he hasn't got ambition, but his lifework
never ends;
He knows a million people, and he's got a
million friends.
He doesn't strive for fame and wealth, he
hasn't got a goal;
He's just a simple fellow, with God's sun-
shine in his soul.

Yes, he's just a foolish fellow, with the eyes
that cannot see
All the misery and sadness that are plain
to you and me,
But he knows the joy of living, all that
makes the world worth while;
And I'd like to be as foolish as the man
behind the smile.
—Eugene Black, in New York Times.

WHEN MA'LL GET HER VACATION.

I'm glad—the kids all are, I guess—
When school vacation's here. We dress
Ourselves just any way we choose;
No stockin's on our feet, nor shoes,
Just breeches, waist, an' hat, an' they
Are plenty for a summer day;
An' when we go to swim we jest
Give one good shake, an' we're undressed!

But mother has an awful time!
When she sees us kids start to climb
She hollers to us: "Don't do that!"
An' if she don't know where we're at
She worries till we're home again.
She tells us to be "little men"
An' not climb trees an' make a noise—
But dad tells us to "just be boys."

Dad says he likes to see us run,
Play ball an' swim an' jest have fun,
Dad says that bein' men is tough
An' that we'll be men soon enough.
He tells ma that she goes "Cluck, cluck!"
Like an old hen that's hatched a duck;
An' then they both laugh, like that wuz
A joke, an' ma says p'raps she does.

But though vacation's just begun
I guess ma'll be glad when it's done;
She says when we are safe in school
She knows that no old swimmin' pool
Will git us drowned. Ever since
I slipped and tumbled off the fence
She says vacations wear her thin,
An' she'll need hers when school takes in!
—Atlanta Journal.

Progress at Panama.

While the official date of opening of the Panama Canal is January 1, 1915, such excellent progress is being made that a year from next fall water will probably be admitted.

Comparatively few of those who live inland realize what an increase of trade is likely to result from the traffic through the canal. There is no question but what it will be enormous, and affect all of us in greater or less measure. The canal is a matter of such general interest that facts apout it are worth attention, as most people are not accurately informed on the subject.

For instance, the estimated total cost of the canal is $375,000,000, or almost four dollars each for every resident of the United States. Most people do not realize that the canal is cut from the northwest to the southeast, the Atlantic, or northern, terminal being west of the Pacific terminal.

From deep water to deep water its length is about fifty miles; from shore line to shore line about forty. Three hundred feet is the minimum bottom width of the canal, and the depth will vary from forty-one to eighty-five feet.

The working dimensions of the lock chambers are 110 by 1,000 feet and 79 feet in depth. There are three locks near the Atlantic and three near the Pacific side, raising the main channel of the canal to eighty-five feet above the mean sea level of both oceans.

It is estimated that there will be 5,000,000 cubic yards of concrete work in the canal, calling for between 4,500,000 and 5,000,000 barrels of Atlas Portland cement, which is being used exclusively.

The probable time of transit through the canal will be ten to twelve hours, vessels steaming under their own power except in the locks, where they will be handled by donkey engines.

These are facts which give one an idea of the magnitude of the undertaking.

As the opening approaches, preparations are going on quietly all over the world in anticipation of the great increase in over-seas and costal traffic which will result. South America is on the verge of a tremendous industrial development. The Far East shows vivid signs of an awakening.

It is to be feared that other nations are more alive than we to the certain commercial benefits of the canal, and will profit thereby at our expense, unless legislation favoring American shipping using the canal is passed. Such legislation would be certain to favorably affect the entire country, as offering wider markets and consequently increased consumption of raw materials and home-grown products.

Ship building would also revive, forming additional employment, and a merchant marine to back our navy.

The subject in all its phases is worthy of careful study by every patriotic citizen.

Ribbon Flowers.

Seldom does fashion touch upon a more charming thought than the ribbon flowers, now so much worn in place of a brooch. They are easily put in place, quickly evolved from a bit of inexpensive material, perhaps a left-over which would go to the scrap-bag, and one may have enough changes that each dress will be supplied with the flower best in harmony with it.

Wild roses are quickly made from a narrow strip of bias silk folded through the middle and the two edges gathered together, the raw edges being first turned in. Then draw up the gathering thread, shaping into a single or semi-double rose, and cover the center with French knots in gold thread to simulate stamens. Two or three of these arranged together, with a few loops of dark green baby ribbon for a background, make a beautiful setting for the pink or white blossoms. More double roses may be made in a similar way, with the ribbon or silk petals filling to the entire center.

Sweet peas are very easily made, and the realistic effect in their simple fashioning must be seen to be realized. A cluster of a dozen will require a yard of one and three-fourths-inch satin ribbon and a couple of yards of soutache braid. Choose the braid of a dull, blue-green tint, to simulate stems. The ribbon should be of various colors, white, rose and lavender being a good combination, and if you can chance upon one or two pieces with shaded colors, fortunate. A mauve may also be used in the combination.

Cut the braid into ten or eleven-inch pieces, and the ribbon into three-inch strips. Taking one of the pieces of ribbon, fold the end in slip, one end of the braid between them, and pleat the ends of the ribbon tight about it in about two pleats. Now bring the braid down on one side of this ribbon in a loop about half an inch long and catch in place at the side with a stitch to form a part of the calyx. Bring over and down again on the other side in the same way. Then return to top for stem, which should hang perfectly straight. To finish the flower, catch in the very middle of the little bag thus formed, drawing the edges of the ribbon together on the inside. This will make a V-shaped finish to the flower, which gives a very close resemblance to the sweet pea blossoms.

Make a second flower of the same color on the other end of the stem, or, rather, the piece of braid. Make the next pair of blossoms of a different color, and when you have completed the sixth pair, tie the stems together loosely in the middle with a bit of baby ribbon, and then clip some of them past the middle, so grading that they will depend in uneven lengths.

Another way to make the sweet peas is to take small pieces of silk or satin and gather or tie at the top. Place two of these together, one slipped just past the other. Over the two slip a calyx purchased at the shop or one slipped from a discarded millinery flower.

Daisies are made with baby ribbon tied at the ends to mark the petals and the center filled in with French knots. Many other flowers may be imitated in a similar way, and it is quite a pleasure to note how the fashioning of one after a model will lead to the originating of another, especially if natural flowers are at hand for a pattern. A few pieces of delicate silks or satins and some dull, olive-green ribbon for a setting will accomplish wonders. It is so gratifying to be able to get something artistic out of mere scraps, and then one can well afford to share the results with friends, and a dainty ribbon flower for the neck is a gift which will be always appreciated.—Bessie L. Putnam.

The Range With a Reputation
The Economy of A New Range
It is a mistaken idea of economy to try to get along—to attempt to get results with an old worn out range or cook stove merely to save the price of a new one. You can probably stick a knife blade anywhere in the seams of your worn out range where the bolts are loose and the stove putty has crumbled away and you're burning twice the fuel necessary. You can save the price of a Great Majestic in the saving of fuel alone—and that would be good management and real economy. Don't trust wholly to a printed description in buying a range, because a very glowing description can be given of a very ordinary range. If you are considering a new range, it will pay you, before investing your money in any range to go to some dealer who handles them and carefully compare, point for point, with any other—the
Great Majestic
Malleable and Charcoal Iron Range
A Perfect Baker—Fuel Saver—Outwears Three Ordinary Ranges
ONLY range made of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break. Put together with rivets—joints and seams absolutely air-tight always. Oven lined with guaranteed pure asbestos board, covered with an iron grate—you can see it— insuring a dependable baking heat with half the fuel required in ordinary ranges.
All Copper Movable Reservoir—Other Exclusive Features
Reservoir is in direct contact with fire, heats through pocket stamped from one piece of copper—patented feature only in Majestic. Oven Thermometer—open end ash pan—ventilated ash pit—ash cup. Sold by dealers in nearly every county in 40 states. Write for our booklet, "Range Comparison."
Majestic Mfg. Co.,
Dept. 131, St. Louis, Mo.
Aluminum Top Reservoir
It Should Be In Your Kitchen

The Christian Life.

To believe without proof God is love, and prove that faith true by finding love the life we are made for; to trust Christ at first simply as our best teacher, and let the sense of His godliness grow as His life is reproduced in us; to own men of every race, class and creed as our brothers whom we are to help Christ save from physical injury, human unkindness, social injustice, and their own wrong-thinking, wrong-feeling, wrong-doing, as the greatest evils of all; to bear cheerfully whatever sacrifice of pleasure or burden of pain this saving service involves; to struggle strenuously for better economic, political and social conditions, in the calm assurance that God's best gifts are spiritual, to be had by us all for the asking; to do all in the modest and reverent sense of how little our best efforts add to the glorious work God's good spirit is doing through institutions so much greater and men so much better than we—faith proved by life; trust tested in experience; love without limit; the passion to serve and to save; the willingness to suffer and to sacrifice; the striving for the temporal in the peace and power of the eternal; so they may be clothed with modesty and crowned with reverence — these are the Christian Life.

Fruit Market at St. Louis.

The following sales were made on the last day of August:

Apples.—Practically none save small, green, specked, overripe and inferior fruit offering, and this is hard to sell and low-priced, at, say, 75 cents to $1.15—mainly at $1.00 per bushel. Sound, hard, of good size and color would bring more if here; New York Duchess dull at $2.50 to $2.85 per barrel, delivered. Home-grown boxed fruit in large supply and slow at from 15 to 40 cents, according to quality. Sales: River receipts—Twenty, twenty-three and fifteen barrels Shackleford at $1.00; sixteen barrels Grimes Golden at $1.40; eight barrels Maidenblush at $1.75; fifteen barrels Ben Davis and fifteen barrels Shackleford at $1.25; twenty-eight barrels fancy Grimes Golden at $2.25; twenty-four barrels Ben Davis and Jonathan at $1.10; fifteen barrels Shackleford and Stark also at $1.10; twelve barrels choice Maidenblush at $2.35; eighteen barrels Shackleford at $1.05; thirteen barrels Shackleford at 75 cents; twenty-two barrels Shackleford at $1.25; twenty-two barrels Orange Pippin at $1.47; fourteen barrels Jonathan at $1.87; fifteen barrels Grimes Golden at $1.75; thirty-two barrels Shackleford at $1.15; eighteen barrels Shackleford at $1.20; thirty-two barrels Grimes Golden at $1.65; eighteen barrels Grimes Golden at $1.21; eighteen barrels Shackleford at $1.25; ninety-four barrels and ten barrels Shackleford at $1.20; thirty barrels Stark at $1.00; twelve barrels Senator and Bellefleur and Walbridge at $2.00; forty-four barrels Grimes Golden at $1.25; eleven barrels Pewaukee at $1.00; twenty-four barrels Shackleford at $1.30; twelve barrels Senator and Minkler at $2.25; thirty-five barrels Ben Davis and Jonathan at $1.50; two barrels Grimes Golden at $1.00; one barrel Wolf River at $1.25; and 145 barrels No. 1 Grimes Golden at $1.90. About 1,100 barrels in by boat—nearly all windfall and poor stock.

Peaches. — Fancy, sound, high-colored fruit in pretty good demand, firm and not overplentiful; soft and overripe stock, which has to be moved quickly, sells at low prices. Sales included: One car Oklahoma flat crates Elbertas at 50 cents, delivered; two cars Oklahoma flat crates at 65 cents, delivered; two cars Arkansas flat crates fancy Elbertas at 70 cents, delivered; one car Oklahoma six-basket crates fancy Elbertas at $1.40, delivered; one car bushel baskets Arkansas Salways at $1.10 to $1.25, delivered.

Pears.—Plentiful; only a quiet demand for choice eating varieties; common, small, green, very dull. Quote: Michigan bushel baskets Clapp's Favorite at $1.00 to $1.25: Alabama Kiefer at 25 cents for melon baskets and 40 to 60 cents per hamper; home-grown and near-by common green varieties at 25 to 50 cents per bushel box, and 10 to 25 cents per one-half bushel basket; and Seckel at 35 to 40 cents per one-half bushel basket and 75 cents per bushel box; bushel baskets Illinois Seckel at 60 to 85 cents; Duchess and Howell at 75 to 80 cents; Bartlett at $1.00 to $1.25.

Plums.—Damsons slow sale and barely steady in price; red varieties dull. Quote: Home-grown and near-by red varieties at 20 to 25 cents for one-half bushel basket; Damsons at 50 to 60 cents per one-half bushel basket and 2 cents per pound, by weight.

Grapes.—Offerings large and demand quiet. Quote: Home-grown Concords and white varieties at 15 to 25 cents per twenty-pound basket —jelly stock less.

62 INDIVIDUAL PRESENTS, INCLUDING 20 INCH FULLY DRESSED DOLL, JUST AS SHOWN HERE, ALL ARE REAL ARTICLES POSITIVELY NO "CUT-OUTS" all Free

This is the greatest doll combination ever offered and all 62 articles are **given as one gift**—all free. The big doll is **life size**—nearly two feet high, dressed complete from her pretty picture hat with feather, lace and gilded buckle, to her dainty slippers, including **complete underwear**, petticoat, stockings, etc., her dress is very prettily made, half length and trimmed with lace. Her little chatelaine watch with fleur de lis pin is a beauty. The little baby doll is 4½ inches high and has long flaxen hair **nearly to her knees.** The barking dog is half a foot high, brown head, white body, collar with bell, push doggie's head and he opens his mouth and **barks just like a real puppy.** The dining room set is made of bamboo, dining table and four upright chairs. The 24 piece **Tea Set is a beauty,** nice decorated tray with six little cups and saucers, six tea spoons, tea pot and cover, sugar and cover and creamer all to match. The 3 baby rings are made of white metal, each with a **different stone setting.** Dollie's house is decorated in colors with gable roof and very pretty. The 3 piece garden set of rake, hoe and shovel, the 7 piece tool set of saw, hammer, hatchet, file, trowel, wrench and chisel, are **all made of white metal,** perfect little instruments. Dollie's lantern, mail car, street car and opera glasses, also the ten pet animals, are also made of white metal and **stand up** as natural as life. The baby whistle looks and sounds like a small policeman's whistle.

HOW FREE: As stated above, all these 62 doll articles ARE FREE--to advertise our business. SEND NO MONEY, just your name and address and we will send you postpaid 12 new style wall picture paintings and 12 coupons, each good for 35 patterns. You hand out one picture painting and one coupon on a big offer including more and collect 25 cents. You only need to make these twelve 25 cent sales--NO MORE or less--and we will then send you the big dressed doll and ALL the other fascinating doll presents. You can do this work in an hour. Our pictures, pattern coupons and other things GO LIKE "HOT CAKES." We run all the risk. Just send your name today if you want this wonderful 62 doll combination.

H. B. PATTERSON, Secy., 501-509 Plymouth Ct., Dept. 137, CHICAGO

FREE

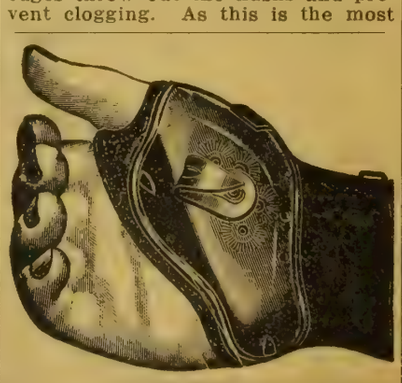
Watermelons. — Receipts: Seven cars on 'Frisco, twenty-eight cars (eighteen cars through) on Iron Mountain, one car on Wabash; three cars on R. I. Offerings liberal, and include a good many cars of stale and sunburnt melons, although tracks are gradually cleaning up; no shipping demand and local trade mainly of a cheap character. A car Arkansas melons (refused for charges) sold for $50 on track Quote: Car lots Missouri at from $40 to $80, according to size and quality of melons and loading of cars. Sales on track: Missouri—One car thirty-five-pound (stale, bad order) at $45; one car eighteen to twenty-pound (fresh) at $55; one car twenty-two to twenty-three pound (fresh) at $60; one car twenty-five-pound (fresh) at $35; one car eighteen to twenty-pound and one car twenty-four-pound at $50; one car at $45; one car at $50; one car at $52.50; one car at $55; one car at $57.50; one car at $60; one car at $65; one car at $67.50.

Cantaloupes. — Colorado Rocky Fords lower, with sales at $2.50 to $3.00 per crate for Standards and Jumbo in jobbing way delivered and Standard flat crates at 90 cents. Illinois (Poag) baskets dull at 20 to 25 cents. Home-grown Hackensacks and Gems plentiful and slow at 25 to 50 cents per bushel loose.

Crab apples.—Dull. Quote: Michigan bushel baskets fancy Siberian at $1.50; Missouri bushel baskets at $1.00; barrels quotable at $2.00 to $2.50.

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most



approved hand husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Gainsford Marquis, a famous Shorthorn bull, has just been sold for $7,000. His picture is in the Book of Live Stock Champions, page 302. See page 22 of this paper.

During the first week in August, a draft horse weighing 1,750 pounds was sold at auction by Holland, Nugent & Maxwell Bros., at the St. Louis National Stock Yards, for $345.

National FARMER

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KENTUCKY'S CHOICE—BLACK SADDLE STALLION. Winner of the $1,000 stake at the New St. Louis Fair of 1912, on grounds of the Universal Exposition Company, St. Louis, Mo. KENTUCKY'S CHOICE, winner of many championships, is the property of Mrs. Richard Tasker Lowndes, Jr., and was ridden by Mr. Matt S. Cohen, of Bellvue Stock Farm, Danville, Ky. Our readers who have copies of the Book of Live Stock Champions advertised on page 22 will find KENTUCKY'S CHOICE on page 328; will find ASTRAL KING, the Missouri saddle champion, on page 330; will find the great old champion REX McDONALD on page 325. The Book of Live Stock Champions is an everlasting exhibition of the champions in the show ring, champions on the turf, champions of the dairy, champions from the Chicago World's Fair in 1893 to the spring of 1912. Stockmen will find it to be a constant pleasure and continual instruction to own a copy of the book.

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and Stock GROWER

The Unused Temperature of the Soil.

We come but slowly to make use of great natural forces. The world for long centuries fully understood the principles of air pressure, yet it is only in our day that the pneumatic cleaner has come on the market. We are not yet using the force produced by the wind, though it has been slightly utilized by windmills for a few hundred years. Tide mills have been in use here and there for decades of years, yet no general effort is yet being made to utilize the energies stored up in the great movement of the ocean waters.

It is so with the temperature of the earth. It has been utilized only in a small degree in any country, though it has in it great possibilities of comfort for the human race. We have not yet realized its importance enough to utilize it extensively.

Here and there, however, it is being used in a small way, but very effectively.

The great fact is that in the temperate zones the temperature of the earth a short distance below the surface is about constant the year around. Scientists have named this layer of even temperature the "zone of thermal equilibrium." Therma means heat and thermal means pertaining to heat. It is assumed that this zone in the cool regions of the world is about 100 feet in thickness, though its thickness varies. The immediate surface of the ground varies in temperature according to the temperature of the air above it. But this variation decreases as we go deeper in the soil, till, at about eighteen feet a point has been reached where the temperature is the same, whether the month be December or May.

Some years ago the writer tested the temperature of some deep wells in Northern Illinois, and in almost all cases the water was at 50 degrees, though the time was midsummer. The water from these wells was being used in creameries. It was a great help in the saving of ice and was used in the washing of butter.

Now, this is nothing new to multitudes of farmers that have wells that are deep or on whose farms are springs where the water apparently comes from great depths. This is no new thing, but it is an old fact that should be called to mind with emphasis. The water from such deep wells has a cash value on the farm. Yet many of the wells on our farms are only shallow affairs.

Wherever a well is to be put down it should go deep into the zone of thermal equilibrium. Then the water will be cool and is more likely to be free from germ life than is the water from a shallow well.

Farther north the temperature of the zone of thermal equilibrium falls rapidly. In Wisconsin it is about 45. In Canada it gets down to about the freezing point, and the writer has seen Canadian wells that, as late as the first of June, were coated with ice. This is a magnificent condition for the pursuit of dairying.

Homes and barns can be so constructed as to make the most of these conditions. Some of the great stone buildings in the big cities are always cool on their first floors, even in hot weather. The writer has in mind a great stone structure that cost four millions of dollars. There is a mass of cool air always present on its lower floors and in the basement, even when people are suffering with excessive heat in the streets.

To take advantage of this, houses should cover large space on the ground and have roofs that are constructed to be non-conductive of heat. The cellars should be deep and perfectly drained. Shallow cellars seem to be coming to be more common, but they can never give the good results of the deep cellars.

Seeing Is Believing

You Can't Afford To Buy Any Range Unsight Unseen

If you were buying a horse, you wouldn't want any printed description—you would want to look him over mighty carefully so as to know you were getting your money's worth. So before deciding upon any range the wise woman will go to the local dealer and examine closely into the superior points of merit of the *Great Majestic Range*—it will stand the test of comparison, point for point, with any range ever made. When you have made this comparison—your choice will be the range with a reputation—built on honor—the

Great Majestic

Malleable and Charcoal Iron Range

Aluminum Top Reservoir

A Perfect Baker

A Fuel Saver

Outwears Three Ordinary Ranges

It is the only range made of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break. It outwears three ordinary ranges.

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The *Majestic* is put together with rivets oints and seams remain air tight forever. Oven lined with *pure asbestos board you can see it.* Takes but half the fuel—assures perfect baking.

All Copper Reservoir—Against Fire Box

The reservoir is *all copper* and heats through copper pocket, stamped from one piece, setting against fire box. Holds 15 gallons of water. Just turn lever and it is instantly moved away from the fire.

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—increasing strength and wear of a *Great Majestic* more than 300% at a point where other ranges are weakest—many other exclusive features. *Ask to see it.*

For sale by dealers in nearly every county in 40 states. Write today for our booklet, *"Range Comparison."*

Majestic Mfg. Co.
Dept. 131
St. Louis, Mo.

Aluminum Top Reservoir

The Range with a Reputation

Ask Your Neighbor

It Should Be In Your Kitchen

East Indian Grain.

Consul General E. D. Winslow at Copenhagen, Denmark, reports that country as receiving quantities of East Indian gram (Cicer arie-tinum) which is displacing American corn in that market. It is said that the unmonly high price of American maize (corn) that has ruled during the last few years has compelled the Danish farmers to look about for a cheaper substitute, and that a good feeding stuff has been found in the East Indian gram.

Gram is principally used as a food for hogs. It is fed ground and it is said that experiments have proved it to be of great feeding value and fully equal to corn. According to statistics available, the importation into Denmark of gram has been about 40,000 tons.

From the Kansas Farmer.

Breeders of pure-bred stock will remember the Book of Champions issued by Philip H. Hale, of 3550 Vista Ave., St. Louis, Mo., about the time of the Louisiana Purchase Exposition, and will be glad to know that a new edition for 1912 has been issued. This book contains photographs of 750 champion animals of all breeds in the United States and is a splendid volume for the library of the breeder and farmer. The price of the book is one dollar. (See page 22).

American Breeders' Association.

The ninth annual meeting of the American Breeders' Association will be held at Columbia, South Carolina, January 24, 25 and 27, 1913, just preceding the opening of the American Corn Exposition.

Students of Heredity and Eugenics, improvers and breeders of live stock, poultry, field, garden and horticultural crops are invited to attend.

Write for programme and particulars, reduced rates, etc., to Hon. Willett M. Hays, Secretary, United States Department of Agriculture, Washington, D. C.

Death of a Pioneer Plow Maker.

On September 2d, it was reported from Sparta, Ill., that Mr. F. R. Crothers had died at his home at the age of 83 years. He was born on a farm where now stands a part of Indianapolis, Ind., December 23, 1820. He came to Illinois in 1838 and settled in Coulterville. In 1843 he established the Crothers Plow Works, which has grown into a large manufacturing establishment. The first steel plow made in the state of Illinois was manufactured in these works in 1860.

At the New York State Fair, the gold medal for the highest quality market milk was awarded to Henry N. Corwith, Bridgehamton, N. Y., on a score of 96½.

You Pay Too Much For Your Lumber

You can save several hundred dollars on the cost of your new building, if you buy lumber direct from us. You pay no middle men's profits for which you get absolutely nothing in return. Our prices are direct to you from the manufacturers.

Look at these Prices.

On our high-grade guaranteed RUBBER ROOFING

One-ply, per roll	$ .90
Two-ply, per roll	1.15
Three-ply, per roll	1.35

All Our Stock is High-Grade and Brand New for your building—Lumber, Hardware, Roofing, and a full line of High Quality Mill Work. Shipped to you direct, freight prepaid. Our yards are the biggest in St. Louis and we carry everything you need

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Valuable book of designs will be sent you FREE on receipt of 10c for postage.

Write us for FREE building plans.

Chicago Wrecking Co., 4124 Gravois Ave., St. Louis, Mo.

RAW ROCK PHOSPHATE.

Of No Value in General Farm Practice—Mixing Manure With It Does Not Cause It to Become an Available Plant Food.

In previous issues of The National Farmer and Stock Grower we have made mention of raw rock phosphate as being of no value as a fertilizer, for the reason that the phosphoric acid contained therein is locked up by nature and may require generations to become available as plant food. The phosphoric acid contained in the rock can be rendered available by chemical process, but in the raw, untreated state the farmer who buys it can obtain no returns.

In this connection we publish a letter which is from a most prominent authority upon the subject of commercial fertilizers, one who has been in the business during his entire business career, and now, although retired from active work, is still a student of chemistry and an investigator of plant foods.

The Letter.

43 Chatham street, Boston, Mass., September 13, 1912.

Philip H. Hale, Editor National Farmer and Stock Grower, St. Louis, Mo.:

Dear Mr. Hale:—I have read with interest your editorial in your September issue concerning raw rock phosphate and I agree in the main with your conclusion that it is of doubtful value in general farm practice.

Raw rock phosphate, whether Tennessee or Florida, contains large quantities of phosphoric acid. Thus it has largely taken the place of bone and become the basis of acid phosphate and commercial manures; but in its raw state, it is unavailable to plants, and therefore is not used to any extent by fertilizer manufacturerers. It is first washed, then ground and finally dissolved with sulphuric acid, making acid phosphate, which contains its phosphoric acid or phosphorus in an available form. In this form it not only supplies the available phosphorus for growing crops, but for some reason or other, which we do not understand, it has a stimulating or catalytic action on plant growth, either directly in the assimilation of plant food, or indirectly in promoting the growth of beneficial bacteria in the soil, which we know is necessary to crop production. Raw rock phosphate does not supply available phosphoric acid to the crop, and on that account probably does not promote bacterial development.

It has been claimed by some that the mixing of raw phosphate rock with manure will render some part or all the phosphorus available. A very interesting bulletin has just been issued by the Rhode Island Experiment Station (No. 151) which details "the effect of cow dung on the availability of rock phosphate." The concluding paragraph of this bulletin reads as follows:

"The experiment indicates that practically no increase in the amount of available phosphorus results from mixing fresh cow dung and floats (that is, very finely ground phosphate rock) together for a number of months before applying them to the land."

If fresh cow dung (solid excrement), free from extraneous material, which was the kind used in this expperiment, will not render phosphate rock (ground so fine that it will float) available, then what form of stable manure will do it? Moreover, if stable manure will not render the phosphorus available, is it reasonable to suppose that ordinary soil, even when rich in humus, will accomplish the same thing in time for current crops to assimilate?

Farmers who engage in intensive agriculture, and all farmers should engage in that kind of agriculture, for it is the kind that pays, must have available plant food for the growing crop, since it is the growing crop that pays the bills. A bird in the hand is worth two in the bush.

I agree with you that it is not right to advertise raw rock phosphate as a fertilizer. It should be licensed and inspected in all the states and sold for just what it is—not as a fertilizer, but as a source of phosphorus which is insoluble, unavailable and in its raw state unsafe for the commercial farmer to rely upon in growing crops which are planted and mature in one season.

Yours Very Truly,
(Signed) W. H. BOWKER.

The Chestnut Bark Disease.

The growing appreciation of nuts and their products as foods renders the situation regarding the chestnut tree of special interest. Once its chief value consisted in the number of rails it could produce; but now, aside from the fact that it is valuable in many ways for its timber, is a rapid grower and not fastidious regarding location, its importance as a producer of nutritious foods gives a double regret at the edict in many places now official, and fast threatening a far wider area, "The chestnut tree must go."

But eight years ago it was first recognized as a serious menace around New York City, though it had infested the trees of Long Island for some time before, and now the chestnut in the vicinity of the metropolis is destroyed. Pennsylvania was the first state to take up the matter systematically, and well she might, for while four years ago but two counties were known to be inoculated, today the four counties near Philadelphia have 80 per cent. of their timber infested, and a line diagonally covering almost the entire eastern half of the state marks diseased land, while isolated tracts are located in many parts of the western half, some of them bordering the Ohio line.

The disease is due to a fungus growth which attacks the inner bark, and is thus not available for insecticides. Thus far there has been no remedy found but the ax, specialists advising all chestnut trees near the badly-infested lands to be cut, the bark, stumps and brush to be burned, in order, if possible, to stamp out the westward march. Drastic measures must be employed or the chestnut will soon be a thing of the past. The native variety, chinquapin and European chestnut all readily succumb, though the Japanese and other Asiatic varieties seem to have stronger resisting power. Every owner of chestnut timber should acquaint himself with the symptoms, and park authorities or those purchasing nursery stock will do well to keep a watchful eye out for any indications of the blight, and consult at once with specialists if its appearance is suspected.—Bessie L. Putnam.

Telephones on Farms.

The Western Electric Company, with headquarters at 463 West street, New York, report that during the past five years they have sold a half million "Bell" Telephones to farmers, that the demand shows no signs of abating, and it is only a matter of steady progress when the proportion of country homes with telephone service will equal that of the cities.

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Free Book For Cow Owners.

Our readers who will look on page 11 will find something of value that they can obtain free by writing for. It is the De Laval Handbook, published for the purpose of furnishing farmers with information concerning all that relates to dairying. Although it is issued by the De Laval Cream Separator Company and is to be had for filling out and mailing to them a blank form at the bottom of the advertisement, the book is just as valuable as if the price was a dollar, for books not as good have been sold for a dollar a copy. The blank form to be filled out asks what make of cream separator you use, and, if you are not using a cream separator, simply say that you have none. What the book contains is fully set forth in the advertisement, and it ought to appeal to anyone who owns cows. Cut out the coupon, sign and send it in and you will receive the book promptly. Address, The De Laval Separator Company, 165 Broadway, New York, N. Y.

Wheat Harvest Time.

It will be seen from the following that every month in the year has a wheat harvest somewhere:

January—Australasia, Chili, Argentina.

February-March—East India, Upper Egypt.

April—Lower Egypt, Asia Minor, Mexico.

May—Algeria, Central Asia, China, Japan, Texas.

June—Turkey, Spain, Southern France, California, Tennessee, Virginia, Kentucky, Kansas, Utah, Missouri.

July—Roumania, Austro-Hungary, Germany, Southern Russia, Switzerland, France, Southern England, Oregon, Nebraska, Southern Minnesota, Wisconsin, Colorado, Washington, Iowa, Illinois, Indiana, Michigan, Ohio, New York, New England, Eastern Canada.

August—Holland, Belgium, Great Britain, Denmark, Poland, Western Canada, the Dakotas.

September-October—Scotland, Norway, Sweden, North Russia.

November—Peru, South Africa.

December—Burmah, Argentina.

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The Oats Market Situation.

Oats continue at a low range of prices and the market report will not be cheerful reading to farmers who have any considerable number of bushels of oats for sale. But so far as we have gone prices have not been pulled down to the low level of two years ago, when there was another large crop to be disposed of.

On August 31st, St. Louis cash oats were selling at 31 to 32 cents a bushel, and on September 30th the price was the same to a half cent higher. When we review the speculative market the appearances are not so good. The September option passed away at 31 cents a bushel, showing a loss of five-eighths of a cent per bushel in thirty days. December, the next active option, declined from 32¼ cents on August 31st to 31⅝ cents on September 30th. The December option has ninety days to run from September 30th before it matures, and if farmers will only restrain the selling of oats that quotation can be advanced five to six cents a bushel before maturity.

After the December quotation is matured it is five months before another active option is traded in, and for the reason that the crop is exhausting itself all the time May is usually a higher month than December. The May option was quoted at 33¾ cents a bushel on August 31st, and was reduced to 33½ cents by September 30th, a decline of a cent and a quarter in thirty days. And yet this is a fair prospect, for the reason that the situation might be very much worse. We contend, however, that the market is in the power of farmers, and that slow marketing of oats will be followed by advanced figures; that prices will advance from natural causes if farmers having oats to sell will have a reasonable amount of patience.

The Corn Market Situation.

The price of corn is no longer high. Indeed, the people who buy and sell the corn in market have an idea that prices will be reduced in consequence of the immensity of the crop. We have been told that the export trade is going to be brisk on account of the shortness of grain crops of Europe, but market prices, market prospects and market operators cannot prove it.

On August 31st, on the cash market of St. Louis, No. 2 corn sold at 80 cents a bushel, and on September 30th the sales were at 68 to 69 cents a bushel, showing an actual decline of 11 cents a bushel.

In the speculative market, which is responsible for all contracts for future delivery, the decline on the September option was 3¼ cents in thirty days, the quotation falling from 72¼ cents on August 31st to 69 cents when it was closed to a final delivery on September 30th.

But the real decline in the price of corn shows itself in the contracts for delivery on December 31st. That option was quoted at 55¼ cents on August 31st and declined to 49⅝ cents by September 30th, which is 19 cents less than the December option matured at last year.

The option that does not mature until May 31st of next year declined from 54 cents, quoted August 31st. to 50⅝ cents on September 30th. Farmers can here see the penalty of large production, because if there is any product that has the benefit of the law of supply and demand it is corn, for the reason that farmers can hold the corn, or feed it to stock, or send it to mill before they are obliged to ship it to market. At any rate, other countries cannot raise corn in any abundance and Uncle Sam is in control of the supply.

The Wheat Market Situation.

The figures of the wheat trade were not much changed when the September option was closed out at 91½ cents a bushel. Our readers can see something by going back five months to look at the September option. On May 31st it was quoted at $1.06 per bushel; on June 29th the quotation was $1.06⅛ per bushel; on July 31st it was quoted at 93½ cents a bushel; on August 31st the quotation was 92⅝ cents a bushel, and, as before observed, it was closed out at 91½ cents a bushel on September 30th.

Having done with the September option, the next delivery is the December option, maturing on December 31st, 1912. On August 31st we left the quotation at 93 cents a bushel, and it was quoted at 91 cents at Chicago at the close on September 30th, showing a two-cent decline during the month of September.

The option in which all traders take an interest is May. It is at the finish of one crop and the opening of another, the new crop being pretty safely estimated as to quantity. We left the May option at 97¼ cents and we find it again on September 30th at 95¼ cents a bushel, this particular option being two cents a bushel lower than the month before.

Farmers will now see that the people who call themselves consumers have no room for complaint, so far as the cost of wheat is concerned. From a farmer's standpoint the market is low, and many a farmer will not receive in net cash the amount of money that the wheat cost him to raise.

Fruits at St. Louis.

Wholesale quotations on basis of early October trading:

Apples.—Ben Davis at $1.00 to $1.25 for small, poor No. 2 and windfall, to $1.50 to $1.60 for good to choice; $1:75 to $1.85 for fancy, with color; Jonathan at $1.50 to $2.25 for No. 2; $2.25 to $2.85 for choice up to $3.25 to $3.50 for fancy and extra fancy high colored; Grimes' Golden, $1.50 to $1.75 for small and No. 2; $1.75 to $2.25 for choice; $2.40 to $2.60 for fancy; Gano, $1.00 to $1.25 for small and poor No. 2; $1.00 to $1.75 for choice; and $1.90 to $2.00 for fancy high colored; Huntsman's Favorite at $1.40 for No. 2 to $1.75 for choice and $2.40 for fancy; Roman Beauty, $1.50 to $2.00 for poor color to $2.50 to $2.75 for well colored.

Crab Apples.—Wisconsin bushel baskets selling at $1.65.

Pears. — Illinois and Missouri Keifer pears at $1.50 to $1.90 per barrel, according to quality; ten barrels sold on levee at $1.85 and seven barrels at $1.90. Home-grown Keifer pears at 35 to 50 cents per box and $1.25 per barrel measure loose.

Peaches.—Utah Elbertas in jobbing way at 50 to 55 cents per box delivered.

Grapes.—Home-grown Concords at 35 to 45 cents per twenty-pound basket. Michigan and New York Climax baskets of Concords at 14 to 15 cents (one car Michigan sold at 14½ to 15 cents, delivered), and bulk at $30 to $35 per ton; pony baskets Delaware at 10 to 11 cents, and Concords at 7 cents.

Cantaloupes. — Slow sale and barely steady in price. Colorado Rocky Ford Standard crates at $1.25; pony crates at 75 cents and flat crates at 50 cents—all delivered; burred Gems, Standard flat crates, at 70 cents delivered; Pink Queen flat crates at 70 cents delivered.

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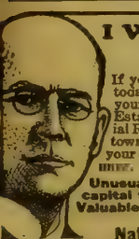

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Concerning Parcels Post.

Heretofore the limit in weight for a package of merchandise was four pounds. Parcels post will raise the limit to eleven pounds.

Heretofore the merchandise rate of postage was 16 cents a pound for any distance, and under the new law the highest rate will be 12 cents a pound.

After January 1st, on rural routes and city delivery, the rate will be five cents for the first pound and one cent for each additional pound.

After January 1st, packages sent inside of fifty miles of the mailing office will cost five cents for the first pound and three cents for each additional pound.

After January 1st, for distances from 51 to 150 miles, the rate will be six cents for the first pound and four cents for each additional pound.

After January 1st, in the zone extending from 151 to 300 miles the rate will be seven cents for the first pound and five cents for each additional pound.

After January 1st, in a zone ranging from 301 to 600 miles, the first pound will cost eight cents and each additional pound will cost six cents.

After January 1st, in the 601 to 1,000-mile zone, the rate will be nine cents for the first pound and seven cents for each additional pound.

After January 1st, in a zone 1,001 miles to 1,400 miles, the rate will be ten cents for the first pound and nine cents for each additional pound.

After January 1st, in a zone 1,401 miles to 1,800 miles, the rate will be eleven cents for the first pound and ten cents for each additional pound.

After January 1st, a package going over 1,800 miles will cost the maximum rate of twelve cents a pound.

Each additional pound means each full pound, and a fraction of a pound will be charged as a full pound.

Cash Grain at St. Louis.

The following are official quotations for September 30th, 1912:

Wheat.—No. 2 red wheat, 99c. to $1.06½; No. 3 red, 97c. to $1.01; No. 4 red, 90 to 95½c.; No. 2 hard, 89 to 92c.; No. 3 hard, 87 to 90c.; No. 4 hard, 84 to 85½c.

Corn.—No. 2 corn, 68 to 69c.; No. 3 corn, 67½ to 68c.; No. 4 corn, 66½c.; No. 2 yellow, 68½ to 69c.; No. 3 yellow, 68½c.; No. 4 yellow, 67½c.; No. 2 white, 74¼ to 74½c.; No. 3 white, 72 to 73c.; No. 4 white, 66c.

Oats.—No. 2 oats, 32 to 32¼c.; No. 3 oats, 31½ to 32c.; No. 4 oats, 30½ to 31¼c.; No. 3 white, 34c.; standard, 33½c.; No. 3 white, 32 to 32c.; No. 4 white, 32c.; No. 2 rye. 71c.

Poultry, Butter and Eggs.

St. Louis Butter, Egg and Poultry Exchange quotations are given herewith on basis of opening trade of October:

Eggs.—Miscellaneous lots sell as low as 18 cents; grade first at 22 cents with new whitewood cases; 21¾ cents with good second-hand cases; and 21½ cents, cases returned.

Butter. — Creamery: Extra, 31 cents; firsts, 29 cents; seconds, 27 cents; dalde-packed, 25 cents for choice Northern in a small way. Country-store-packed firm and in demand, selling for packing stock at 21½ cents.

Cheese.—Per pound: Northern, Twins, 17½ cents; Singles, 17½ cents; Longhorns, 18½ cents; Daisies, 18¼ cents; Young Americas, 18¼ cents; Prints, 18½ cents; Limburger, 18 cents. Swiss—No. 1, new, 21 cents; No. 2, 19 cents. Brick, 18 cents; all inferior goods less.

Live Poultry.—Chickens: Springs, 13½ cents. Ducks—Spring and old, 13 cents. Geese—Spring, 11½ cents. Turkeys—Large young, 16 cents; old, 16 cents. Chickens—Fowls, 12½ cents; cocks, 7 cents. Geese—Old, 5 cents. Guinea chickens—Old, per dozen, $2.00; young, $3.00 to $4.00.

Dressed Iced Poultry—Turkeys, 17 cents; fowls, 13½ cents; cocks, 8 cents; spring chickens, 14 cents; young ducks, 15 cents; do. geese, 12½ cents.

Pigeons and Squabs—Live pigeons at 75 cents per dozen. Squabs—Fancy homers (seven to eight pounds to the dozen), $2.00 per dozen; large homers (nine to ten pounds to dozen), $2.50 to $3.00; common live squabs and dead pigeons, $1.00 per dozen.

The Pleasant Hill Produce Association.

In our last edition mention was made of this organization, with headquarters at Allen, Miss. The Secretary now writes as follows:

"We are glad to see the great interest being shown everywhere in this movement. The association is meeting a fundamental need as deep as life itself.

"Too much money is being spent by our government, railway companies, etc., in telling the producer 'how to raise two blades of grass where one grew before, and the necessity of raising a variety of crops.' More of this money should be spent on the source of our troubles.

"If our producer could find a ready market for everything he is already raising he would diversify, rotate and grow the two blades instead of one. Our farmers know enough to practice these things, if they only had some sure monetary encouragement along the line of marketing. There is too much waste and profits lost in marketing.

"To solve in a practical way this vital problem, the Pleasant Hill Produce Association was formed and is working. We want, and are working to that end, the whole state to join us in this move. The producers will help, of course. The progressive papers, as always, will be glad to join; the transportation companies will aid as a mere matter of business, as better farm conditions spell increased traffic for them, and our merchants will aid, for their meat and bread is a direct product of the producer.

"By a concerted move we can make our efforts so much more effective."

Write the Secretary of the Pleasant Hill Association, Mr. P. S. Mangum, Allen, Miss., who will be glad to answer anyone wishing information along the lines of the proposed action.

The Sale of Roots.

Roots shipped to the St. Louis market were selling as follows, October 1st: Golden Seal, $3.70; Lady Slipper, 15 cents; Seneca, 36 to 38 cents; Pink, 20 cents; Black, 8 cents; May Apple, 3½ cents; Snake, 24 to 26 cents—stemmy and leafy less; Kansas Blacksnake (Echinacea), 10 cents—split root half price; Oklahoma Blacksnake, 9c.—Missouri worthless; Angelica, 5c.; Wahoo—Bark of root, 20 cents; bark of tree, 5 cents; Blood, 4½ cents; Blueflag, 5 cents; Sassafras, bark of root, 5 cents; Wild Ginger, 2 cents; Spikenard, 3 cents; Scullcap leaves—Bright, 9 cents, but dark worthless; Wild Ginseng, $6.00 to $6.25; cultivated do., $3.00 to $4.00 per pound.

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The biggest pain a man with a million has is over the fact that it isn't two.—New York Press.

Avoid Winter Killing of Wheat.

The past winter with its unusual cold has made several things in wheat growing very plain. Some sections suffered severely on account of winter killing. We have in mind several fields of wheat near our home in Southern Indiana. One field of thirty acres produced 105 bushels; another field of forty acres yielded 160 bushels. These are about average yields for a great many fields.

Most of this wheat was put in late and made very little growth before cold weather. It was planted late partly on account of unseasonable weather and partly to avoid damage by the fly. The winter was extremely severe and in trying to avoid insect damage the wheat growers ran right into an equal and greater peril—that of winter killing.

While the winter was unusual, it is apt to repeat itself any year, and it often happens that fields of late wheat are injured where little growth is made in the fall. It would seem proper to sow early to obtain more growth before winter, but here we have the danger of Hessian fly. The problem is to get a fair growth after danger of fly is largely past. This can usually be accomplished very profitably by early plowing of the field combined with frequent harrowing with smoothing harrow and with disc harrow if heavy rains pack the ground. The effort should be made to conserve moisture, liberate plant food and form a well-compacted seed bed with an inch or two of loose soil on the surface. This preparation combined with good seed will do much to insure a crop the following summer.

However, there is another insurance not so much nor so widely used as it deserves which should be given attention, i. e., commercial fertilizers. If we put all the work suggested on the field it is only the part of wisdom to add fertilizers and thus give the crop every chance. The wheat plants need plenty of good food to make a quick, strong growth, and a good fertilizer supplies parts of food apt to be lacking. It furnishes the plant food in a form which the wheat can use freely. It is easily possible to sow fertilized wheat several days later than unfertilized and obtain an equal or greater growth before winter. This enables us to avoid the fly and at the same time obtain a growth of wheat which will be unaffected by ordinary winters and will make a profitable crop after such a winter as that of 1911-12.

The high-grade fertilizers are best for making fall growth and for supplying the needs of the crop the following spring. By high-grade we mean a fertilizer made of good, easily available materials and one which carries a large per cent. of the plant food. These high-grade goods usually cost a little more, but they are cheaper per pound of plant food.

There are several good formulas for wheat fertilizers. One containing 2 to 3 per cent. nitrogen, 8 to 10 per cent. phosphoric acid and 5 to 6 per cent. potash is excellent. This can be used very profitably at the rate of 200 to 300 pounds per acre and the effect will show not only on the wheat but on the clover which follows.—J. G. Gentry, Indiana.

Planting Onion Seed.

The Experiment Station has conducted experiments in the growing of onions by transplanting from a seed bed to the field and by planting the seed in the field where the onions were to grow, and, when large enough, thinning them in the row to the proper distance. It has been found that, everything considered, the transplanting plan is the best and most economical. The thinning of onions in the field beds is exceedingly tedious and expensive, under our method of irrigation. Aside from the extra work and cost of thinning, there are always considerably more weeds in these beds, which make it necessary to start weeding earlier and more frequently. In the germination of onion seed under field conditions there are always a few places, though small they may be, where the seed fails to come up. In these vacant places onions must be transplanted, in order to have a uniform stand in the row.

In order to grow onions by the transplanting method, the seed must be started in the fall or winter. The results at the Experiment Station show that the best seeding period is comparatively short. That is to say, if the seed is planted too early, most of the plants will go to seed the following summer. If, on the other hand, tthe seed is planted too late, the young plants will not be large enough for transplanting at the proper time in the spring. This "best period of seeding" has been found to be, at the Experiment Station, from about the 20th of September to the 10th of October. The practice at the Station is to plant the seed in the field seed beds about the last of September. This period of starting the seed may vary a little, according to the altitude and climatic conditions in different parts of the state. The grower should, however, keep in mind not to start the seed too early or too late, or else the plants will either go to seed or not be large enough for transplanting at the proper time in the spring.

The preparations of the seed bed is of much importance. The land should be plowed thoroughly, and disced or acmed, if necessary. It should be gotten as level as possible. It is best not to have the beds or plats too large. If the soil is somewhat light, it is advised that a light dressing of well-rotted manure be put on it, and be disked in before the seed is planted.

The seed can be drilled in rows about four inches apart. This is best done by using a garden drill, such as the Planet Junior. Great care should be taken in regard to the depth. If it were possible under field conditions, it would be best to have the seed about one-half inch in depth. Since this is a hard matter to do, three-fourths inch to one inch depth should be the limit. Immediately after planting the seed it should be irrigated, to produce germination. As a rule, another irrigation is given the plats while the plants are coming through and before germination is completed. During the winter two or three irrigations may be given the seed bed. The number of these irrigations will depend upon the winter —whether it is dry or wet. If the germination were ideal and everything went on all right during the winter, we could probably count on three pounds of seed producing enough plants for one acre; but to be on the safe side in practice, we usually count on four to five pounds of seed. The winter temperatures in the Mesilla Valley do not injure the little onion plants. During the last two winters they have stood a zero temperature without material injury.

In the Mesilla Valley, it is the practice to transplant from the 1st to the 15th of March. Transplanting at this time gives the best results. The later the transplanting is done the poorer the results. The old rule in regard to the proper size of onions for transplanting was that the onion was ready for transplanting when it was as large as a pencil. This rule does not have to be followed in the transplanting of this crop in this climate, as all of the onions are transplanted long before they are that large. Oftentimes when they are not more than twice as large as a toothpick. —Fabian Garcia, New Mexico College of Agriculture.

Up to September 17th, New York City had received this year 4,026,597 cases of eggs for sale, which is 325,855 cases less than were received during the same period last year.

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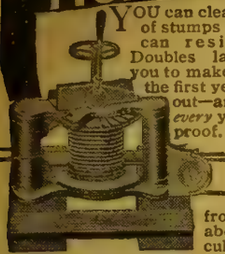

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Items on Soil Feeding.

It pays to feed soil well. If soil is well fed it will in turn feed its owner.

It takes something more than soil, sunshine and water to make good crops—it takes available plant food in the soil. Much of the plant food is latent, and long processes are required to make it over into a condition in which the plants can use it.

One thing that surprises one often is the readiness with which a certain kind of plant food is utilized by the soil, even when it is not lacking in that kind of plant food. The writer put some potash on soil on which he believed potash already existed in sufficient quantities, but the results were remarkable. He had similar experiences with nitrogen. There is a probability that the fertilizer applied was more available than that already in the soil.

It is hard to feed a soggy soil. If a soil is not well drained, it will be of little use to give it a large amount of fertilizer. Manure or commercial fertilizer cannot produce results under such adverse conditions as those furnished by water-logged soil. The air must get in, and that cannot be till the water is first taken out. If the air does not get in, aeration cannot take place. Aeration is necessary to permit the soil bacteria to live and perform their functions, which are allied to the growth of plants.

Soil feeding will be ineffective if the soil remains cold, which it will do if not well drained. This fact accounts for unfavorable reports on fertilizers applied to certain fields. Overabundant water makes soil impossible to warm, which is another argument in favor of drainage.

Often fertilizer applied to the soil fails to do its work because the soil has in it too much acid. It is then said to be sour. An application of ground lime rock or of air-slaked lime or of hydrated lime, will cure the sourness. Sour soils are not suited to the growing of any legumes. If legumes will grow well in a soil, it is not sour. Some of the legumes are peas, beans, clover and alfalfa. If any of these do well in a soil, it is not sour. This kind of a test will do where a chemical test is not possible.

All kinds of fertilizer are good for soil, but especially those fertilizers that have bulk, made so by vegetable matter. Barnyard manure is always good when it does not carry too many weed seeds into the plowed ground. The barnyard manure has with the plant food some carbonaceous matter, which gives food to the bacteria engaged in elaborating plant food.

The man that wishes to keep up the fertility of his farm should make it a point to put on as much fertilizer as he takes off in crops each year. This will keep his soil in a condition to respond to every cultural operation.

The growing of clover and the turning under of clover sod every third year will greatly increase the amount of nitrogen in the soil. The roots of clover are more valuable for this purpose than are the roots of cowpeas or soy beans.

Exhaustion of the Soil.

Prof. E. H. Farrington, of the Wisconsin Agricultural College, in speaking of soil exhaustion, made a very interesting statement regarding the selling of dairy products from the farm as compared with selling the grain productions directly off the farm. Here is what he says:

"There is a great difference in the amount of soil fertility removed from the farm by selling crops as compared with the selling of cream and butter. The constituents of the soil that become most easily exhausted by farming operations are the nitrogen, the phosphoric acid and the potash. These each have a market value per pound and can be bought in commercial fertilizers. They are also contained in farm manures.

"An analysis of different crops and of milk, butter and cheese will show how much of these various constituents are removed from the farm when a certain quantity of these products are sold. For instance, by using the same prices per pound for the following crops, etc., we find that the fertilizing constituents taken from the soil when one ton of hay is sold from the farm have a value of $4.34, one ton of corn $5.36, one ton of wheat, $6.63, one ton of milk $2.17, one ton of skim milk $2.31, one ton of butter 49 cents, one ton of whey 84 cents, and one ton of cheese $14.19. The value of each ton of these different products is well known. For instance, the ton of hay may be sold for $20.00, while the ton of butter is worth $600.00, and a ton of cheese $200.00. These figures show, however, that if the crops raised on the farm are fed to the cows and either cream or butter only is sold, then for every $600.00 worth of butter sold only 50 cents' worth of fertility is drawn from the farm."

In encouraging the farmers to engage in dairying, Prof. Farrington says:

"Dairying keeps up the fertility of the soil as already explained.

"Skim milk is very valuable to the farmer not only for the reasons given, but because it is profitable for a farmer to become a stock raiser; that is, raise calves, pigs, poultry, etc., rather than a crop producer and a seller of grain.

"Dairy products, butter and cheese, are not bulky to market, being much more concentrated and the cost of transportation less than it is for hay, grain, etc.

"Dairying utilizes waste land, such as stony pastures, timber and swamp land, which may be used for pasturing the cows, if these are kept, but which otherwise would give no returns.

"Dairying gives profitable employment during the entire year and idleness is not good for either man or beast."

A visit to the National Dairy Show at Chicago, October 24th to November 2d next, will give every one a short course in dairying that cannot be equaled anywhere in the world, and all such matters as here discussed by Prof. Farrington will be illustrated by the world's experts in every branch of the dairy industry.

Fortune in Rindless Ham.

There is a handsome fortune awaiting the person who will invent a method of curing hams and bacon from which the skin has been removed. Albert Halstead, American Consul at Birmingham, reports that the increasing use of pigskin as leather and its tendency to advance in price have made the leather manufacturers cast wistful eyes at the skin that is wasted by being left on pork products. The Leather Trades Review estimates that there is a yearly loss of skins amounting to about $3,000,000 in Great Britain and Ireland alone.—Milwaukee Sentinel.

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Farmers and the Election.

The National Farmer and Stock Grower will not take the liberty of advising farmers how to vote at the coming election and will do very little more than remind farmers that it is a duty they owe to themselves and to the country to vote upon the general election and particularly for the Congressional candidates.

The main question before the people is the tariff question. Shall foreign grain, meat, butter and vegetables and all other farm products being imported contribute to the support of the government or not? Shall the home productions be taxed and foreign productions come in free?

One vote in the House of Representatives may decide the tariff question. It is therefore good policy to get acquainted with the views of the Congressional candidates.

It is not wise to concentrate your attention upon the Presidential nominees, because Presidents do not legislate. Legislation begins with your member of the House. No matter what your views are, vote for the Congressional candidate who holds those views, and make him announce his tariff views in advance whether he is or is not in favor of the same duties on farm products as on what the farmer has to buy.

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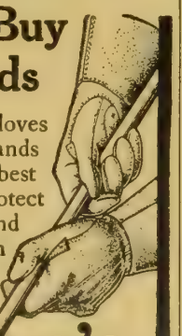

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The farmer has been taught a lesson during the past year, and that lesson is in two parts. The first is, that it is well to have the Congressmen understand the farmers' principles; and the second is, that the farmer ought to understand his candidate's intention in voting upon matters distinctly relating to the agricultural interest.

Send a man to Congress without knowing his views in advance, and when he votes it will most likely be against your interest.

The Acetylene Farm Light.

In this edition of The National Farmer and Stock Grower we have on page 19 an advertisement of the apparatus which is used to install the Acetylene Light on country properties. Naturally enough, it may appear to be a new thing, this making light by generating gas from crushed stone, and it looks almost too good to be true; but on page 25 we have printed a letter on the same subject, which is the story of the acetylene plant on an important plant-growing establishment that is devoted to growing ornamental trees and shrubs, to large and small fruits and flowers, such an establishment being fully up to date in all plantings. The manager of such an establisment is able to pass an opinion which all can respect as a basis for their own judgment. The trifling cost of operation is the most astonishing because in cities we are paying five times as much for coal gas or for electric light. Our readers who wish to light up their own homes, their barns and buildings and heat their own cooking ranges, should ask for more light on the subject in writing to The Oxweld Acetylene Co., 68 Adams street, Chicago, Ill.

The Story of Baby Beef.

It is now nearly thirty years since we first heard about what is called "Baby Beef." We were then acting as assistant editor of a weekly publication, long since deceased, entitled the Texas Live Stock Journal. It was mainly devoted to cattle raising as a ranch interest and was the official paper of the "round-up" organizations then gathering the cattle on the free range, and it was always an advocate of improved stock.

The editor-in-chief and owner of the publication was Mr. George B. Loving, a native Texan, who had been identified with the Texas cattle business from his youth up. His father had been killed by Indians while driving cattle upon the Chisholm trail, in New Mexico, and his brother was the head of a cattle company and the pioneer Secretary of the Texas Cattle Raisers' Association. In addition to his connection with the publishing business Mr. George B. Loving was interested in selling ranches on commission. He sold a number of them, and this branch of his business took him to England, where he had the honor of being entertained by Mrs. Adair, who lived in London, but who was an American lady, the true Cattle Queen of Texas, as owner of several ranches in the Panhandle.

During his visit to London Mr. Loving heard the expression "Baby Beef," and he asked an explanation of what was meant by it, and that explantion was furnished by Mrs. Adair, whose husband owned an estate near Dublin, in Ireland, where the principal operations consisted of raising and fattening young cattle, mostly calves and yearlings, for shipment to England, there to be sold at the nearest and best market, which was, according to circumstances, either London or Liverpool. These young cattle were known as "baby beef."

The writer has a clear recollection of Mr. Loving bringing into the office an article in the beautiful handwriting of Mrs. Adair, setting forth the reasons why calves had to be forced to market maturity, the main reason being that heavier and older cattle were scarce and did not respond in gain per day in proportion to the amount and cost of feed consumed.

It appears to us that it was about the year 1884 that George Loving returned from his trip to England and bringing with him the manuscript referred to.

Since then "baby beef" has been the subject of many an Agricultural College bulletin, and stock feeders in the United States have come of necessity to feed and finish younger cattle because of the difficulty of obtaining heavier and older cattle as feeders.

In this country it was the late John D. Gillett, of Elkhart, Ill., himself the great feeder and finisher of heavy beef cattle, who was the first to realize in a wholesale way that it was more profitable to feed calves from birth to market and send the steer to the butcher before he was two years old, than to feed the animal until reaching true maturity and heavy weight.

Mr. Gillett fed many a car-load of beef steers to weigh upward of two thousand pounds per head, and was well satisfied when he received eight cents a pound for show steers; but he finally discovered that it was cheaper to produce two steers of one thousand pounds each than one steer weighing two thousand pounds, providing the calves could be obtained at a fair price.

When Mr. Gillett was in his prime as a cattle feeder steers had to weigh 1,600 pounds or better to bring the top of the market, and if he lived to the present day there would be a broad smile of satisfaction upon his genial countenance to learn that two steers of 1,000 pounds each will bring more money, even on a Christmas market, than one steer weighing 2,000 pounds.

This country will never be so badly off for feeding steers as to stop the production of good-weight cattle, say 1,400 to 1,600 pounds, but from this time forward, even among good cattle, those weights will be comparatively scarce, and the majority of the cattle fed for market will be marketed at less than 1,200 pounds.

Even now finished beef cattle are scarce weighing 1,300 pounds and upward, and will surely be scarcer in the future. The stock farmer and feeder can take comfort from the new situation. It indicates that a less quantity of feed is required to produce a marketable steer. It requires less time, and a calf is just as profitable an animal to work on as a grown steer; furthermore, in the future there is less possibility of overstocked markets. Twenty thousand cattle do not count for much in Chicago if the average steer weights are under 1,000 pounds. Under the circumstances it appears that even with an abundance of corn there will be no overproduction of beef cattle, and it looks as though cattle feeders have a prospect they need not be afraid of.

"Baby beef" that are "butter balls" are in the fashion, and heavy beef steers cost more to raise and to finish for market, and do not outsell "baby beef," pound for pound, under present conditions.

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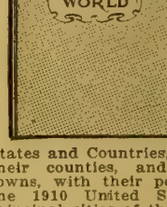

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THE ACETYLENE LIGHT.

Letter on the Subject From One of the Foremost Nurserymen and Florists in the United States.

Nursery, St. Louis County, Mo.,
September 27th, 1912.

Mr. Philip H. Hale, Editor The National Farmer and Stock Grower, St. Louis, Mo.:

Dear Sir:—Your valued favor of the 23d inst. has been duly received and contents carefully noted. In reply will say that during the month of August, 1909, we installed a 100-light Acetylene Plant in our storage house, which is 80x120 feet, 14 feet high. In this house we have between forty-five and fifty one-foot burners. In addition to this, we are piping the gas to our greenhouses, about 170 feet from the plant. We have about eight lights here. Then we have piped a second storage house, 24x50 feet, which is used as a work shop, in which we have ten lights. This is about 250 feet from the plant. Then we have part of the residence supplied with light with four burners. This is also about 250 feet from the plant.

In addition to this we are piping the gas to our office, which is about 400 feet from the plant, in which we use three to four lights.

We have a carbide feed machine and like it very much. In fact, we have had no trouble in the working of this machine and it has given us the very best of satisfaction with the least amount of work.

During the packing season, which is usually during the short-day period, the latter part of October and November and in spring from March 1st to April 15th, when considerable night work is going on, our extreme light expense has been 100 pounds of carbide per week, or about $3.75. During this time we have an average of from thirty to fifty lights burning for five or six hours every evening, a number of them all night and during dark and cloudy weather, five or ten lights burning all day in the storage house.

During the summer months 100 pounds of carbide usually last us from two and a half to three months, giving us practically three months of light, when needed, for $3.75. Thus, you see, that when you are not burning any lights, you are not using carbide, as the machine is self-regulating, and when the drum has sufficient gas the machinery is automatically stopped and does not begin to work until the gas gets below a certain point.

We certainly would not be without Acetylene Light, as we find that the light given is such that it is easy upon the eyes, and people who have weak eyes find that they can read and work by the Acetylene Gas Light much better and easier than they can with any other forms of light. The mellow, yellow, steady light is very easy on the eyes, and the writer can vouch for it, as he is very frequently compelled to burn midnight oil during the rush season in order to get work out for the next day, and assure you that it is a great difference between the old-time coal oil that we formerly had to be content with.

We are sending you a photograph of our storage house, built in the fall of 1909, and which is lighted with the above Acetylene plant.

We are sorry that we have no photo showing the inside of this storage house during our busy season, when every available space is taken up with the various kinds of nursery stock carried in same, usually some 600 to 700 varieties of fruit, ornamental trees, shrubs, etc., for our mail-order and early shipping trade. This house is built of solid concrete, one building inside of the other, with an air chamber around the entire building between the walls. The roof is also double insulated with continuous air chamber and double-glass skylights, the skylights facing north so that we do not have any sunshine in the house.

Some day this fall or winter, when you have an opportunity, we will be glad to have you visit us and we will show you the method of storing nursery stock in this building. This invitation we also cordially extend to any of the readers of your valuable publication.

We believe this will be of much interest to you. Yours Truly,
H. J. Weber & Sons Nursery Co.,
Per F. A. Weber, Sec'y and Treas.

The St. Louis Fair.

During the week of September 23d to the 28th the St. Louis Fair was revived on the new grounds, situated on the St. Charles Rock Road, just outside the city limits. The attendance for the week was 239,757 admissions, and the Thursday patronage exceeded some of the big days at the World's Fair.

The present organization does business under the name or title of the Universal Exposition Company, and the original intention was to revive both the World's Fair and St. Louis Fair. With the means at command very much has been done in a very creditable manner. The grounds consist of one hundred and fifty acres, not any too even in conformation but capable of being made into a superior site for a great Fair. Very much has already been done to beautify and grade the site, to lay out roadways, and with an equal effort between now and next fall the grounds will be surprisingly beautiful. The race track is already graded and in use for saddle and harness events, for motor contests and for military drills.

The programme for the week was full of stirring contests and pleasurable sport. The splendid club house is a delightful resort for visitors, and, taken all in all, the Fair gave pretty general satisfaction, notwithstanding a number of noticeable features usual at State Fairs were totally absent.

The agricultural exhibits were good but small. The horticultural exhibit was superior, but one large tent contained it all; the dairy show was missing and the poultry show had quality without quantity, and the live stock show was on a vacation. And yet everything passed off beautifully and with the finest weather a Fair ever experienced the management gave entertainments that suited the people and they were well satisfied.

Next year there will be more buildings, complete departments, and there will be a live stock exhibit up to all modern standards. When the grounds were turned over to the Exposition management by the graders it was too late to give a live stock show this year, not so much on account of the management, but because the stockmen who were appealed to for exhibits begged hard to have the show postponed until next year.

Vote Against Single Tax.

Again we advise farmers, and all others for that matter, to vote against the humbug misnamed "Single Tax." Single tax is supposed to be one tax, but it does not mean single; it means double, and more. The law they are trying to pass provides for one tax taxing land, and another tax taxing corporations. The real intent, however, is to take the taxes off the buildings in the cities and stick it onto farms in the country. If a farm or orchard was incorporated, as some of them are, they would have to pay a land tax and a corporation tax, and, of course, that would not be a single tax.

Single tax simply means a rearrangement of state taxes in an unpractical manner, and just as soon as single tax is voted, some other taxes will be imposed, and in the end there will be double tax and treble tax and a number of taxes, all imposed just as fast as the taxing power can impose them.

In cities it is improvements that constitute the earning power, and it would ve very fine to do away with taxes on the great city buildings and pro-rate the taxes thus taken off on the farms of the country. And then after that is done, the federal government will step in and find some new form of taxation to replace the money collected in customs duties under the tariff laws. As stated in the September number, farmers, one and all, should stand in line and, if necessary, stand all night in line to vote against the misnamed humbug called "Single Tax." This time it is Missouri where the vote will be taken; next time it will be Illinois.

The National Style Book.

The greatest and best ladies' outfitters are the National Cloak and Suit Company, of New York City. They offer to send The National Style Book free. There are 200 pages in the Style Book and it is full of the latest patterns and up-to-date costumes. Style and quality without extravagance go together in the books of the National Cloak and Suit Company. Write for theNational Style Book and address National Cloak and Suit Company, 280 West Twenty-fourth street, New York City, N. Y.

FARM AND RANCH LANDS.

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—FREE HOMESTEADS IN ARKANSAS under new three-year law. 500,000 acres good land vacant near railroads and markets. Our Homesteader's Guidebook tells just how to locate, acquire title, number of acres open in each county, and full text of new law. Price, 25c. Farm **Pub. Co.,** Little Rock, Ark.

COLORADO.—The Land of Opportunity (Eastern Colorado) for the man of small means. 320-acre Homestead Relinquishment for $350.00. Smooth, level, fertile; big crops; good neighbors and school close; shallow water; small improvements; ten miles from town; can be proved up under new three-year Homestead Law. Presbyterian buyer preferred. **Elder S. R. Smith,** Sheridan Lake, Colorado.

FLORIDA LAND.—I will sell a part or all of one section of land just west of Jacksonville for less than one-half the price that adjoining land is now selling for. This is all good land. Extra good roadways and railroads in to Jacksonville. **Miss N. Ryan,** 2627 Clifton Ave., St. Louis, Mo.

MISSISSIPPI, ALABAMA AND FLORIDA FARMS; highly productive, harvesting something every month in the year; where winters don't consume what summers produce; healthy, delightful climate; low prices; easy terms. Land salesmen wanted. Big commissions. **American Land Company,** 1208 Boyce Building, Chicago.

MISSOURI.—8,080-ACRE STOCK RANCH far half its value for quick sale. Address owner for further information. **A. J. Johnson,** Merchants' National Bank Building, Springfield, Mo.

MISSOURI.—Farm Lands in Western Missouri, by far the richest section of the state, are for sale at prices that are more than reasonable, considering the income that can be made. Will be pleased to show a few tracts that are worth the money. **J. H. Lipscomb,** 306 Fidelity Trust Building, Kansas City, Mo.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property **FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND,** 7910 Adams Express Building, Chicago.

Southern Farm Facts

Land at $10 an acre up

Alfalfa makes 4 to 6 tons per acre; Corn 60 to 100 bu. All hay crops yield heavily. Beef and Pork produced at 3 to 4 cents per lb.—Apples pay $100 to $500 an acre; Truck crops $100 to $400; other yields in proportion.

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The Sole of Steel

THE FUTURE MILK DEMAND.

Encouraging Prospect For All Who Are Earnestly and Permanently Engaged in the Dairy Business.

Milk production has not reached the limit, neither has the demand reached its limit. And what may be said of milk applies equally well to cream and to butter.

It is only a few years ago when the consumption was considerably less than the average production, and then, in order to allow consumption to come up to the supply, something had to happen to reduce the supply temporarily so as to prevent the markets being smashed with milk. What usually happened was that some of the dairy farmers, being tired of dairying, would turn out their cows and do something else.

To-day, in the fall of the year 1912, it is safe to assert that consumption of milk and cream has increased sufficiently that it will hereafter be necessary for every dairy farmer in the country to bring into operation all the resources at their command in order to furnish the population of the country the milk, cream and butter in the proportion to which those people have been accustomed, and it will be done at a fair profit.

Since the writer of this article first milked a cow the population of this country has increased from sixty millions to one hundred millions of people, and the cow population has not increased in proportion. It is therefore easy to see that whereas formerly production was large and consumption could not catch up with it, now conditions are reversed; it is consumption that is unsatisfied, and the producer has to hump himself in order to fully supply the market requirements.

Right now the population continues to increase, and it is very doubtful if the increase in dairy cows can keep up with the procession. This new condition ought to be very satisfactory to all farmers with an inclination towards dairying. The dairy farmer has an assurance of a permanent market that he never had before. There is absolutely no brighter prospect than that of the dairy farmer. He may not be in a bonanza business, yet he can rest assured that his product will sell higher in the future than it has in the past.

It is therefore up to the dairy farmer to make a new declaration, that declaration being that he will not turn to any strange gods but stick to his farm and to his business and determine to obtain and sell a larger product, a better product and at less cost of production. All that is possible and in many instances is very much easier than it looks.

To increase production is easy, increased production at less cost is not difficult, and a better product is possible to obtain on ninety farms out of every hundred. The main difficulty in a majority of instances will be the making the new declaration, that come what may, dairying in one form or another is to be the chief business of the farm.

When the programme is fixed, then in earnest will begin the work of improvement, and most questions will be answered as they arise without hesitation. Heretofore it has been easy to get in and get out of the dairy business, almost as easy as going to bed at night and getting up in the morning. But in future the coming back will be more difficult. It will be easy to get out, but coming back will not bring back the good old cows that formerly formed the milking herd or the fine young heifers that went to market for beef; neither will the coming back make up for lost time and the lost opportunities. Dairying is a permanent occupation, and it is one of the few occupations having the guarantee of a demand greater than the supply and better prices in the future than in the past.

The Cable Plowing in Europe.

United States Consul J. S. Brittain at Prague, Austria, reports to the United States Department of Commerce that the deep plowing on the large sugar estates is mostly done by portable engines. One of these engines is placed at each side of the field, and by the aid of a cable draws a five to eight-share plow from side to side across the field. An argument in favor of these plows is that the ground is not packed by the weight of the engine, as when the engine passes over the land. The gasoline-driven engines being so much lighter, it is thought they will gradually take the place of the plows operated by cable. Deep plowing can be done with less expense by gasoline engines drawing the plow direct. One obstacle in the way to large sales of gasoline engines is the high price of gasoline in Austria.

Economy in Operating a Dairy.

If you have been operating a dairy farm or a creamery or a milk-delivery business for years without getting in step with modern economical methods, and some hard-fisted chap would come along some day and show you that the same energy, the same feed and the same love of your business, properly directed, would net you 50 per cent. more money at the end of the year, you would feel sore at yourself, now, wouldn't you? Well, the only way to be sure that you are up to date is to take a squint at what your neighbors are doing. For this purpose a milestone of working progress in all that pertains to dairying has been planted by the creation of the National Dairy Show, which encompasses every branch of the dairy industry in the simplest possible form, giving everyone who attends an opportunity to see what the world is doing in the dairy business. You ought to spend a few days at it each year. This year's show is October 24 to November 2, at Chicago. The railroads are doing all that they can to interest the people and will afford reasonable rates and service to enable you to go.

When the Field Work is Over

and on rainy days, the farm that is equipped with an efficient assortment of tools sees much waste time made valuable. Improvements and repairs to machinery, buildings and wagons, together with numerous kinds of work in the woods become easy and profitable tasks.

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DAIRY AND CREAMERY NOTES.

The Borden milk contract price for the six months commencing October 1st is $1.70 per 100 pounds for the period contracted for. Other condensing milk companies paying the same price are Kee & Chapel, Ira J. Mix Dairy Company and Oatman Condensed Milk Company.

Milk shippers in the New York 26-cent freight zone are receiving 3½ cents a quart net at the shipping station, which makes the cost delivered in New York to be $1.71 per 40-quart can. New York received in September 315,000 cans of milk and 14,600 cans of cream.

At the New York State Fair, the highest scoring butter, 99½ points, was exhibited by Mrs. H. G. Fullerton, wife of the manager of the Long Island Agricultural Society. It was pretty near perfection, and the score is the highest we have any record of.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send **The National Farmer and Stock Grower** for two years and we will send the book, **Profitable Dairying,** as a premium. Address,

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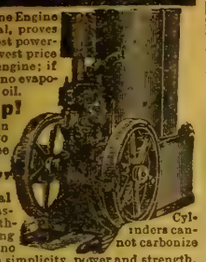

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Sample Dairy Rations.

Where alfalfa hay, or cowpea hay, or good silage is fed, grain should be fed at the rate of about one pound daily for each four to five pounds of milk produced. When such roughages as timothy, stover and clover are given, much more grain should be fed.

The richer the milk, the more grain should be fed per pound of milk produced. The amount given below in each ration is about an average ration sufficient for a 1,000-pound cow.

No. 1. Roughage—Alfalfa hay at will. Corn silage, thirty-five to forty pounds. Grain—Ground corn or ground corn and cob, fed one pound per day for each four pounds of milk produced. For very heavy milkers add a little bran. For very light milkers the hay can be reduced.

No. 2. Roughage—Alfalfa hay, ten pounds. Corn stover at will. Corn silage, thirty to forty pounds. Grain—Ground corn, five pounds; wheat bran, five pounds; linseed meal, one and one-half pounds. One pound grain to three to four pounds milk daily.

No. 3. Roughage—Alfalfa hay, ten pounds. Clover hay at will. Corn silage, thirty to forty pounds. Grain—Corn and cob meal, five pounds; wheat bran, three pounds; cotton-seed meal, one and one-half pounds. One pound grain to four to five pounds milk daily.

No. 4. Roughage—Clover hay at will. Corn silage, thirty to forty pounds. Grain—Ground corn, five pounds; ground oats, five pounds; cotton-seed meal, one and one-half pounds. One pound grain to four to five pounds milk daily.

No. 5. Roughage—Clover hay, ten pounds; corn stover at will; corn silage, thirty to forty pounds. Grain—Ground corn, five pounds; wheat bran, four pounds; gluten feed, three pounds; cotton-seed meal, one pound. One pound grain to four pounds milk daily.

No. 6. Roughage—Cowpea hay at will. Corn silage, thirty to forty pounds. Grain—Ground corn, five pounds; ground oats, five pounds. For very light milkers reduce amount of hay or oats. One pound grain to four and one-half pounds milk daily.

No. 7. Cowpea hay, ten pounds; clover hay, ten pounds; corn silage, thirty to forty pounds. Grain—Ground corn, five pounds; ground oats, four pounds; linseed meal, one pound. One pound grain to four pounds milk daily.

No. 8. Roughage—Clover hay, ten pounds; corn stover at will; corn silage, thirty to forty pounds. Grain—Ground corn, five pounds; wheat bran, five pounds; cotton-seed meal, one and one-half pounds; gluten feed, three pounds. One pound grain to three and one-half pounds milk daily.

No. 9. Roughage—Corn stover, ten pounds; millet hay at will; corn silage, thirty to forty pounds. Grain—Ground corn, four pounds; ground oats, four pounds; wheat bran, four pounds; cotton-seed meal, two pounds. One pound grain to three pounds milk daily.

No. 10. Roughage—Oat hay at will; corn silage, thirty to forty pounds. Grain—Ground corn, four pounds; wheat bran, four pounds; cotton-seed meal, one pound; gluten feed, three pounds. One pound grain to three pounds milk daily.

The following feeds are interchangeable in the above rations:

1. Alfalfa, cowpea, one and one-half times as much clover.
2. Millet, Hungarian, oat hay, red top, sorghum, corn stover, timothy, etc.
3. Silage, beets, mangels.
4. Ground corn may be replaced by oats, barley, emmer, rye or Kaffir corn.
5. Other grains may be substitued. For example, in any grain mixture, one pound of cotton-seed meal can be replaced by two and six-tenths pounds of gluten feed without materially affecting the balance.—C. C. Hayden.

Illinois Butter Scoring.

The August scoring for Illinois buttermakers was held at Urbana on Friday, August 23. The butter was judged by John Crawford, of Elgin; Frank Collyer, of Chicago; and N. W. Hepburn, of the University Dairy Department, Urbana.

Of the twenty-two (22) tubs exhibited, ten received scores of 90 or above; nine scored between 88 and 90; while three received scores below 88. The average score was 90.34; the highest 94, received by W. F. Conway, of Sharon, Wisconsin; and the lowest 84. In general, this lot of butter was much like the July exhibit, the defects being partly caused by seasonal conditions, several creameries showing the effects of infrequent deliveries, due, no doubt, to the shortage of cream at this time of the year.

The following is a brief statement taken from the method blanks, showing how the butter with a score above 90 was made.

Sam Grimm, Crete; no method blank; score 93.66.

F. J. Weddige, Big Rock; average 92.66. Exhibit made from both whole milk and cream, not pasteurized; no starter used; held eighteen hours before churning; churned at 54 degrees; washed at 55 degrees; salted wet with 40 pounds salt to 476 pounds of butter. Analysis, moisture 12.89; fat 84.06; salt 2.10; curd, .95.

Spring Valley Creamery, Thomson, Ill. Average score 93.50; no method blank. Analysis, moisture 14.86; fat 80.78; salt 3.53; curd .83.

F. R. Palmer, Union, Ill. Average score 93.16; exhibit made from whole milk pasteurized at 160 degrees; forty gallons of starter added; held three hours before churning; churned at 56 degrees; washed at 58 degrees; salted wet with 40 pounds salt to 389 pounds butter. Analysis, moisture 13.44; fat 83.74; salt 2.06; curd, .76.

W. F. Conway, Sharon, Wis. Average score 94; exhibit made from both milk and cream, not pasteurized; 15 per cent. starter added; held three hours before churning; churned at 52 degrees; washed at 54 degrees; salted wet with 30 pounds salt to 619 pounds butter. Analysis, moisture, 14.10; fat 82.21; salt 2.67; curd, 1.02.

Chas. Fildes, Olney, Ill. Average score 92.83; exhibit made from gathered cream, not pasteurized, and no starter was added. Churned at once; churning temperature 56 degrees; washed at 56 degrees; salted wet with 72 pounds salt to 990 pounds of butter. Analysis, moisture 16.50; fat 79.06; salt 3.16; curd, .74.

J. R. Newberry, Newton, Ill. Average score 91; exhibit made from gathered cream, pasteurized in cans at 150 degrees; no starter added; held twelve hours; churning temperature 51 degrees; temperature of wash water 56 degrees; salted wet with 11 pounds salt to 312 pounds butter. Analysis, moisture 13.42; fat 84.09; salt, 1.69; curd, .80.

G. A. Cutler, Belvidere, Ill. Average score 93; exhibit made from whole milk not pasteurized; 10 per cent. starter added; held nine hours before churning; churning temperature 50 degrees; temperature of wash water 56 degrees; 17 pounds salt added to 232 pounds butter. Analysis, moisture 14.18; fat 82.36; salt 2.42; curd, 1.04.

L. R. Weckerly, Dakota, Ill. Average score 92.66; exhibit made from both whole milk and cream, pasteurized at 150 degrees, and 25 per cent. starter added; cream held over night and churned at 51 degrees; temperature of wash water 56 degrees; 250 pounds butter salted at the rate of 9 pounds per 100. Analysis, moisture 14.24; fat 82.66; salt 2.08; curd, 1.02.

O. W. Albright, Scales Mound, Ill. Average score 93.33; exhibit made from gathered cream not pasteurized; ripened with 30 gallons starter; held 1¾ hours; churning temperature 50 degrees; temperature of wash water 54 degrees; salted dry with 35 pounds salt to 598 pounds of butter. Analysis, moisture 13.83; fat 83.32; salt 1.90; curd, .95.

Analysis.

Several tubs ran high in moisture, three being above 16 per cent., one running as high as 17.56. Four other samples ran above 15. The average moisture content was 14.32; this is nearly 1½ per cent. above the market average for moisture. The average salt content was 2.34, the highest 3.20, and the lowest 1.58.—N. W. Hepburn, in charge of scoring exhibition.

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Dr. Alexander, Professor of Veterinary Science, University of Wisconsin, discusses DAIRY COW DISEASES AND THEIR PROPER TREATMENT.

Prof. Hugh G. Van Pelt, the Iowa State Dairy Expert, and one of the Editors of Kimball's Dairy Farmer, has contributed a most interesting discussion on PROPER DAIRY FEEDING AND BALANCED RATIONS.

Dr. Burkett, Editor of the American Agriculturist, tells about the MOST SUITABLE DAIRY CROPS, and other widely known authorities discuss SOIL FERTILITY, DAIRYING FOR PROFIT, FARM BUTTER MAKING, SILOS AND SILAGE, etc., etc.

A series of photographs illustrating the desirable points in selecting a dairy cow are shown, and also photos of representative cows of the various well-known dairy breeds, together with statements from the secretaries of the various dairy cattle associations setting forth the claims for consideration of each breed.

The HANDBOOK also contains much general information such as tables of weights and measures, silo capacities, etc., that every dairyman at some time or other has occasion to refer to.

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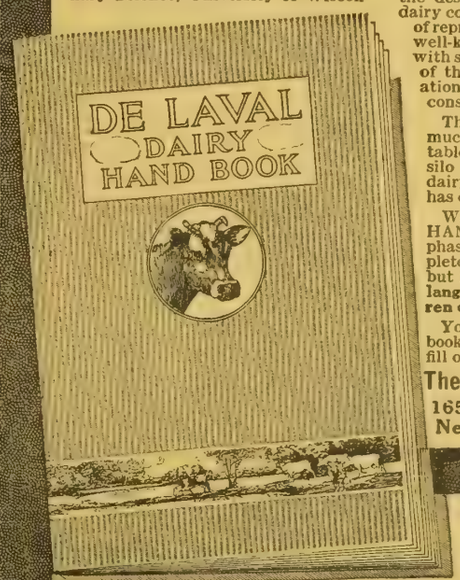

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TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

The Fall Army Worm.

The terrible destruction of the fall army worm to wheat, rye and alfalfa a year ago is still fresh in the minds of many Missouri farmers. The fear that the pest will reappear again this fall has led many to inquire concerning the pest. There is little that can be done to control this pest, but this must be done in time. It is already appearing in some sections, and one should be ready to do what he can to check it.

The pest passes the winter in the ground in the chrysalis or resting stage. From these the moth appears in the spring to deposit eggs for a spring brood of worms. These mature and a second brood appears in midsummer. These mature normally by September, when the destructive fall brood appears to devour wheat, rye, alfalfa and other green crops. The spring and summer broods are of little importance, but the fall brood is extremely destructive when natural conditions are favorable.

The cold winter greatly reduced the pest and the summer has been favorable for its enemies so that until recently it has not been able to increase greatly. Fall rains bring out the grass, alfalfa, wheat and other crops and provide plenty of young green food for the pest and the cool weather checks its enemies. This favorable change will probably enable it to cause considerable trouble before frost.

Remedies.

The fall army worm, like the chinchbug and Hessian fly, is not troublesome every year. Natural conditions keep it in check. It is seldom extremely destructive two years in succession, though this is possible. To protect wheat and rye one should plan on sowing just as late as possible, as the parent moth usually arrives by early September, and if no wheat or rye is up, it must deposit on other crops of less importance. Once the pest is in wheat, rye or alfalfa, some relief can be gotten by using a heavy roller or a weighted brush. If the ground is dry and fairly firm many will be destroyed in this way. Last year we had so much rain that relief was almost out of the question. This pest does not migrate rapidly, like the true army worm. It first appears in patches, and if one is watchful he can often stamp it out in such patches by the use of poison or other means and thus keep it from destroying the entire crop. Hogs, poultry and birds are also helpful in destroying the caterpillar.

Data recently collected indicates that where fields of wheat, rye and alfalfa were completely stripped last fall the crops were a complete failure.

Greatest Watermelon County.

Scott county, in Southeastern Missouri, is the greatest watermelon shipping county in the United States. Melons are shipped from there to almost every Northern city of size in this country. Shipments are also made to Canada. From 900 to 1,100 melons make a car-load, and they bring the grower an average of about $100 per car. Information compiled by the Missouri State Board of Agriculture and which will be used in a bulletin is full of interest. It is shown that one dealer alone has handled 2,500 car-loads of melons.

Fatal Epidemics in Stock.

Hog cholera or a disease resembling it very closely is reported breaking out in many different parts of the country. Many of our readers will remember that last year a similar epidemic carried off thousands of hogs, especially in the Central West. In view of this fact, we urgently advise everyone to take prompt methods to prevent this costly disease getting a foothold on their farms. See to it that your feeding troughs and sleeping pens are clean and sanitary and especially watch out for worms.

Ninety per cent. of the diseases of farm animals are caused by worms. They not only rob your stock of feed, sap their vitality, but derange their digestion, making them an easy prey to contagious epidemics. Stock that is free from worms stand a much better chance of throwing off these contagious diseases. Their digestion is usually good, the food they eat gives them strength and vitality and makes them practically immune from such diseases.

In some sections there is also a new and serious epidemic among horses. The losses already amount to hundreds of thousands of dollars. Veterinarians are puzzled as to what it is, many being of the opinion that it is caused by worms. There is little question that worms are the starting point of such puzzling plagues.

If farmers and live stock owners would give more attention to preventing and ridding their stock of these costly pests, we are confident it would lessen the spreading of disastrous epidemics and save millions of dollars' worth of stock. Now that veterinary science has placed within our reach remedial agents which have proven so efficacious and which can be tested without risk, there is little excuse for much of the losses caused by worms to-day. For instance, just turn to page 21 and read the offer Mr. Sidney R. Feil, President of the S. R. Feil Company, Cleveland, Ohio, makes in their advertisement of "Sal Vet," a worm destroyer and conditioner. Read the letters from farmers who have used it, and, above all, fill out the coupon and send for a supply of "Sal Vet." You take no risk. Mr. Feil will ship you enough "Sal Vet" to last all your stock sixty days; no charge is made at the end of sixty days if it does not prove satisfactory. We have carried this advertising for two years, and if "Sal Vet" was not a highly successful remedy, they could not continue to offer it on such a liberal "make-good" selling plan. Dr. C. D. Smead, New York State Veterinarian, says: "In my judgment, if farmers would keep 'Sal Vet' before their stock all the time the worm problem would be solved."

Free Magazine and Paper

Subscription Guide

Subscriptions taken by special authority for American periodicals, magazines, and especially for farm papers. Every possible clubbing arrangement to give the subscriber the benefit of the rock-bottom, co-operative rates. Write for Subscription Guide.

Address, THE HALE PUBLISHING COMPANY, 3550 Vista Ave., St. Louis, Mo.

Selecting Seed Corn.

A beautifuly illustrated and thoroughly practical bulletin on the selection and care of seed corn may be had free by addressing T. C. Wilson, Secretary of the Missouri State Board of Agriculture, Columbia, Mo. In the fall is the time to select corn, and now is the time to send for the bulletin.

The Right Way to Wean Calves.

There are many advantages in weaning calves by the modern method in using the **Humane Calf Weaner** illustrated on page 8 of this paper. Perhaps the greatest advantage is that the cow and calf can be left together. This keeps both contented and both will do better than when kept apart all day worrying and calling for each other. The **Humane Weaner** is especially well built, easily put on and off, is adjustable to any size, and is so made that it cannot come off and get lost. Every farm should have several. They can be bought by mail at 35 cents each from the Jacobsen Farm Supplies Co., Dept. A, Racine, Wis.

Is Your Purse Full?

YOUR farm is the purse from which you take the necessities and luxuries of life. What provision are you making to keep your purse full—to insure a constant supply of food, clothing, heat, light, protection, and worldly wealth?

No purse can stand a steady drain—no soil can produce constant yearly crops—without an adequate income. The purse must be supplied with money, the soil with plant food. It is easier, and far cheaper to maintain a fertile condition of the soil than it is to build it up after it is once exhausted. Be wise—begin now to use faithfully an

I H C Manure Spreader
Kemp 20th Century, Corn King or Cloverleaf

Use your I H C spreader to distribute stable manure and saturated bedding while it is still fresh. Spread in light coats so that the plant food elements of the manure may combine quickly and thoroughly with the soil and become available for the use of growing plants. Spread quick-decaying straw to increase the moisture holding capacity of the soil and make it easier to till.

If you would have the spreading well done, do it with an I H C manure spreader, built to accomplish a definite purpose in the proper manner, at the least expense, and with the least strain on horses. Make the quantity of manure usually spread by the fork do twice the amount of good by distributing it properly with an I H C spreader and leaving the ground better and more evenly fertilized and in greatly improved condition. The driving mechanism of the I H C spreader is strong and thoroughly protected. The aprons, both endless and return, run on large rollers. The feed is positive. The manure is spread evenly, light or heavy as may be necessary, the quantity spread never changing until the feed is changed.

See the I H C local dealer and have him show you the spreader best suited to your needs. Get catalogues and full information from him, or, write

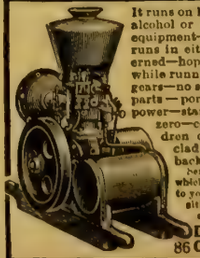
International Harvester Company of America
(Incorporated)
Chicago **U S A**

I H C Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizers, etc., make your inquires specific and send them to I H C Service Bureau, Harvester Building, Chicago, U S A

It makes no difference how many farm papers you are receiving—The National Farmer and Stock Grower will be found to be the most valuable of them all. Read it and be convinced.

20 Reasons Why You Should Investigate the SANDOW Kerosene Stationary ENGINE



It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—throttle governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year iron-clad guarantee—15-day money-back trial. Sizes 2 to 20 H. P. Send a postal today for free catalog, which shows how Sandow will be useful to you. Our special advertising proposition saved you one-half cost of first engine sold in your county. (167)

Detroit Motor Car Supply Co.
86 Canton Ave., Detroit, Mich.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

St. Louis Vegetable Market.

The following represents the wholesale market at St. Louis, October 1st, 1912:

Potatoes.—Sacked Wisconsin white stock at 59 to 60 cents per bushel on track; Michigan Rural at 61 to 64 cents; red stock from 56 to 58 cents; common poor less.

Onions.—Sacked Red Globe at 50 to 65 cents per bushel, delivered, as in quality; sacked white at 75 to 80 cents.

White Pickling Onions.—Chicago boxes at $1.00; home-grown at $1.50 to $2.00 per bushel loose.

Beets.—Home-grown at 30 to 40 cents per bushel box loose, and 15 to 20 cents per dozen bunches.

Butter Beans.—Home-grown at $1.40 to $1.65, and Lima beans at $1.50 to $2.00 per peck basket loose.

Cabbage.—Minnesota domestic at $7.00 per ton on track—car sold at that; Eastern Danish at $14, and Holland seed at $15 per ton in bulk, delivered. Home-grown sold at 50 to 60 cents per 100 pounds by weight; shipping stock or orders at $1.10 per crate in shipping order. Chicago red cabbage at $1.50 per barrel.

Carrots.—Sacked Northern at 90 cents to $1.00 per 100 pounds, delivered. Home-grown at 20 cents per dozen bunches.

Cauliflower.—Choice New York sold at $1.25 to $1.35 per crate.

Celery.—Home-grown at 20 to 25 cents per bunch; celery roots at 30 to 40 cents per dozen.

Cucumbers.—New York bushel baskets at 75 to 90 cents; dill pickles at $1.00, and small pickles at $1.50 to $1.75. Home-grown yellow mustard at 50 to 60 cents per bushel loose.

Egg Plant.—Home-grown at 40 to 75 cents per bushel loose.

Green Corn.—Choice home-grown at 8 to 15 cents per dozen.

Horseradish.—Home-grown from wagons at $4.25 to $4.85 per barrel loose.

Lettuce.—New York hampers at $1.00 to $1.25. Buffalo cases at 25 to 50 cents. Home-grown at 10 to 25 cents per bushel box loose.

Parsnips.—Home-grown at 50 to 60 cents per bushel loose.

Peppers.—Average offerings home-grown at 40 to 50 cents per bushel box loose—extra large at 85 to 90 cents.

Rutabagas.—At 45 cents per bushel in bulk, delivered.

Spinach.—Home-grown loose at 20 to 50 cents per bushel.

String Beans.—Home-grown choice round green at $1.25 to $1.40 per bushel loose. Southern Illinois wax and green at 50 cents per melon basket.

Tomatoes.—Home-grown ripes at 30 to 75 cents, as in quality, and green at 15 cents per bushel loose; yellow preserving plum tomatoes at 35 cents per bushel loose.

Sweet Potatoes.—Home-grown Bermuda at 50 cents; Queen at 60 cents; yellow and red Nansemond at 60 to 65 cents per bushel box loose; Virginia yellow at $2.50 per barrel, delivered.

Turnips.—Home-grown washed at 75 to 90 cents per bushel box loose.

New York Egg Grades.

The following quotations, dated October 1st, will show the New York grades: Western-gathered white, 29 to 34 cents; fresh-gathered extras, 31 to 34 cents; extra firsts, 28 to 30 cents; firsts, 25 to 27 cents; seconds, 22 to 24 cents; thirds, 20 to 21 cents; poor, 19 cents. Dirties—No. 1, 20 to 20½ cents; No. 2, 18 to 19 cents; inferior, 12 to 17 cents. Checks—Good to fine, 18 to 19 cents; poor to fair, 9 to 17 cents.

Our First-page Index.

We advise our readers to make a study of the comprehensive index which appears on the first page. This index will direct you to one hundred and eighty-six articles or advertisements. It is so handy to find things by this index that when once accustomed to it, no other way of looking through the paper gives any such satisfaction.

COUGHS and DISTEMPER

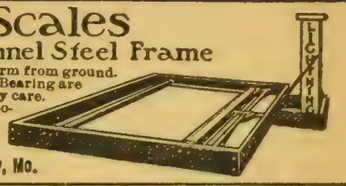
Among Colts, Mares and Stallions cured with one bottle of FRAZIER'S DISTEMPER CURE, or your money refunded. One dose placed in trough or feed will prevent all cases. Influenza, Pink-Eye, Catarrhal Fever, Colds and all forms of Nose and Throat Troubles cured in four to eight days. $1.00 bottle holds three 50 ct. size bottles. Send postal for free booklet on the horse. Sold by druggists or prepaid from

BINKLEY MEDICAL COMPANY, Dept. H, Nappanee, Ind.

Lightning Pitless Scales

New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.

NEW WHEELS For Your Old Wagon

"ELECTRIC" STEELS to fit any wagon—old or new. Make a new wagon of your old gear at small cost. We guarantee fit. Give a low lift—you get more work done in less time, with less labor. Cost less than wood wheels and last longer. Do not rut fields and meadows. Investigate "Electric" Steel Wheels.

ELECTRIC HANDY WAGON—made of Oak, Hickory and Steel. Just what you want for all kinds of knock-about work. Will last a lifetime. Has unbreakable steel wheels. Easy draft. Let us show you how to save yourself and your team. Write us today for free book. Address

ELECTRIC WHEEL CO., Box 40, Quincy, Illinois.

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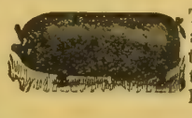
Four Great Papers . . For One Year . . . . . For Only One Dollar.

FOUR STERLING, UP-TO-DATE SPECIAL FARM PAPERS.

THE NATIONAL FARMER AND STOCK GROWER—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



THE AMERICAN SWINEHERD—issued monthly—a leader in its class. The hog paper, the pig paper, the brood-sow paper and strictly first-class in teaching how to top the market by producing top hogs.

THE SHEPHERDS' JOURNAL is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

THE AMERICAN POULTRY JOURNAL—the oldest, best and most elegant poultry journal issued in the United States. Great on breeding points, and splendid articles on raising, feeding and shipping poultry. THE AMERICAN POULTRY JOURNAL is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of Poultry Husbandry and retain the peculiar quality of being good instructors. You gain something every time you read THE AMERICAN POULTRY JOURNAL.

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Mr. Jeffries got 93 bu. of corn per acre

on a tract of land near Clarendon, Ark. Of course, that's some yield; but taking seasons *as they come*, you could raise as much corn down there on $20 land as you can on the *best* corn lands of Iowa or Illinois.

[*Frank Tate's corn Camden, Ark.*]

Take the case of Chas. E. Crigger of Blytheville. His 200 acres, ready for the plow, stood him only $3000. "Now I am getting 50 bu. of corn per acre regularly," says Mr. Crigger. Last year my crops brought me $10,400." You could get *twice* as much profit from land that cost *half* as much — along the

Cotton Belt Route in Arkansas and Texas

— besides cutting your winter expenses *'way down*, on account of the milder climate.

Frank Tate, near Camden, Ark., told me he made 63 bu. of corn per acre. Mr. Tilson, who owns a Red River Valley farm in East Texas, says his section has the irrigated lands northwest beat a mile for alfalfa. He is getting $50 per acre from alfalfa on his *low*-priced land—with no need for irrigation.

These lands won't stay cheap always. They have already doubled in value since 1905; but even this year you can buy at $12 to $25 per acre, as good land there as you are farming now. And you'd have *every* advantage of schools, churches, close neighbors, good local markets, phones, rural free delivery, etc. This proposition deserves serious thought.

On the 1st and 3rd Tuesdays of each month there are low round trip excursions to Arkansas and Texas via Cotton Belt Route, allowing 25 days' time and free stopovers. Go on the *next* one.

Get our free books!

Written by a farm man who knows farming from A to Z. He traveled over thousands of miles in these sections to learn where the *real* farm opportunities were—the kind he knew *you* would grasp if you saw them. He tells you, in plain words, all about them. 100 pages and farm pictures. Send a postal today for your *free* copies.

E. W. LaBEAUME
General Passenger Agent
1466 Pierce Bldg., St. Louis

COTTON BELT ROUTE

Peaty Land Made Valuable.

Peaty swamp lands frequently prove a disappointment in cropping. Proper drainage is apparently the only problem in reclaiming such soil for farming purposes, and the first two or three crops may be fairly satisfactory. Generally the third crop, however, proves very poor and later very little or no sound grain is produced. Corn and other crops grow plenty of forage and straw, but are failures so far as maturing a good crop of grain is concerned. This has been the universal experience of farmers on this kind of land, and, if no remedy other than drainage is applied, the soil remains as unproductive as ever, although the system of drainage may be entirely efficient in relieving the land of excess moisture.

Peaty swamp lands are usually very black and very rich in organic matter. They generally contain an excess of nitrogen in comparison to the other plant foods, and this fact explains why crops may grow exceedingly well and yet fail to give the desired results at maturity. Phosphorus is also generally very plentiful, potassium being the element of plant food in which the soil is very deficient. This being the case, it is logical to expect that an addition of the plant food which is lacking will bring about proper conditions for assuring a good harvest of mature grain. The application of potassium invariably corrects the deficiency of peaty soils, as both experiments and general practice in the use of same have clearly demonstrated. To just what extent the addition of the plant food will improve the conditions in the cultivation of this type of land is best shown by results obtained by actual farmers who have tried the use of potash. The following results were obtained on the farms of Mr. J. H. Milligan, in Whiteside county, Illinois, and Mr. C. C. Porter, Kankakee county, Illinois, as reported by the Illinois Experiment Station in Bulletin No. 157:

The soil on the Milligan farm consists of black, peaty material, rich in organic matter to a depth of sixteen inches. Below this lies soil that is lighter in color, containing considerable sand and with very little organic matter. The soil was of very low productive capacity, especially for corn, and would produce practically no ear corn. Potash fertilizer was applied in the form of potassium chloride (commonly called muriate of potash) and potassium sulphate, each material containing about 42 per cent. of potassium. About 200 pounds of the fertilizer were applied the first year and 100 to 200 pounds per acre each succeeding year.

As a result of the use of this fertilizer, good crops of corn were produced, yielding from 41 to 55 bushels per acre as a three-year average. Not an ear of corn was produced on the same kind of soil in the same field which had not been treated with the potassium. The corn on this soil receiving no potassium failed to produce even a fair yield of stalks, all of which were barren of grain. The use of the potash made a fifty-bushel crop of corn per acre, against no corn at all, conclusive evidence of the value of the fertilizer and the wisdom of its application to peaty land.

Other fertilizers were used on the same soil, including applications of nitrogen in the form of dried blood and phosphorus in the form of steamed bone meal. Lime was also added to the soil, but in no case was there any grain produced except on the soil to which the potash had also been applied.

On the Porter field similar results were obtained, with the exception that the untreated soil did yield a small amount of grain, amounting to an average of 3.6 bushels per acre per year for a period of nine years, in comparison to an average yearly yield of 44.6 bushels per acre on the soil which was treated with potash. The soil in this case was of black, peaty material, underlaid with about twelve inches of yellow sand and impure limestone formation. The fertilizer application was at the average of 154 pounds of potassium sulphate per acre per year.

E. Myers, President, E. Myers Lye Company.

No More Hog Cholera —No Hog Worms— Bigger Pork Profits

By Feeding Daily Merry War POWDERED Lye

Are you going to wait until there is an outbreak of hog cholera in *your* neighborhood—when it spreads from herd to herd killing off hogs like flies—or will you take steps *right now* to *prevent* any possible outbreak in *your own* herd? You need have no fear of hog cholera wiping out *your* pork profits if you will feed a little *Merry War POWDERED Lye* twice *each day* with the regular rations. *It costs only 5c per month per hog*, and thousands of farmers can tell you it *prevents* hog cholera. This awful disease may be raging in a neighborhood, but hogs that are on a *Merry War POWDERED Lye* diet, are conditioned against it, as surely as a vaccinated person is protected against smallpox. Besides it destroys hog worms, keeps the digestion in such perfect condition that every pound of feed is changed into firm flesh thus preventing feed waste and greatly increasing pork profits.

The use of *Merry War POWDERED Lye* as a hog remedy, conditioner and fattener is *not* an experiment. It is a *specially prepared, powdered* lye that has been *tried* and *proven safe* and *effective* for those purposes. Full directions on every can. Don't experiment with an untried, old fashioned, ordinary lye. Get *Merry War POWDERED Lye*—the *time-tried* remedy that *actual experience* has *proved* to be the safest, surest preventive of hog cholera the world has ever known.

These Hogs Could Not Take Cholera

"We have had hog cholera all through our district. Those who have been using *Merry War POWDERED Lye* have missed it. One man in particular, who buys it by the case, has cholera all around him, but so far his hogs have escaped." C. M. COOPER, Proprietor of "The Right Place" Dawson, Neb.

Make a test for yourself. Merry War POWDERED Lye comes in 10c cans (120 feeds per can). It is convenient to buy in case lots—4 dozen cans for $4.80 at Grocers', Druggists' or Feed Dealers' Everywhere. There are no substitutes. WE WILL SUPPLY YOU DIRECT, $4.80 FOR 4 DOZ. CANS, IF YOUR DEALERS WON'T SUPPLY YOU. Write for our valuab.. booklet "How To Get The Biggest Profits From Hog Raising." Sent FREE for the asking.

E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

Which Kind Do You Want?

[Please mention National Farmer and Stock Grower.]

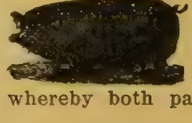
The yearly average value of the nine crops of corn at 70 cents per bushel on the soil receiving no potash amounted to $2.52, while the yearly average value of the nine crops of corn on the soil receiving the potash amounted to $31.22, a difference in favor of the fertilizer of $28.70.

The cost of the potassium at $50 per ton for potassium sulphate was $34.74, or an average annual cost of $3.86 per acre. The average yearly increase on the nine crops of corn due to the application of potash amounted to 41 bushels per acre, which at 70 cents per bushel was worth $28.70. The average net gain per acre, therefore, amounted to $24.84, which amounts to a cash return of 644 per cent. on the investment. Where can a farmer, or other business man for that matter, earn such a per cent. on money invested in legitimate lines of enterprise?

These experiences are not exceptional ones. They can be verified by the experiences of hundreds of other farmers who have made their peaty soils profitable by the use of potash. As one farmer expresses it: "It was just like finding an extra corn crop each year and at but very little extra expense. By thus making available to profitable cultivation my black muck soil I have practically enlarged my farm area without buying more land, by adding to my use several acres of most excellent productive soil, which before were not worth the taxes. The cost of the fertilizer is insignificant compared with the excellent annual returns I can now expect from this formerly waste land."—H. E. Trebor.

The American Swineherd.

A FARMER who wishes to subscribe for a paper that is specially devoted to Swine Raising can do no better than subscribe for THE AMERICAN SWINEHERD. It is published monthly at Chicago, Ill. There are generally about sixty pages of instructive matter and very useful reading. The price is 50 cents a year. THE NATIONAL FARMER AND STOCK GROWER has an arrangement with THE AMERICAN SWINEHERD whereby both papers can be subscribed for at the price of one.



The National Farmer and Stock Grower

Is a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in THE NATIONAL FARMER AND STOCK GROWER. There are thirty-two pages, four columns to the page. It is published monthly.

Send us Fifty Cents and we will send you THE AMERICAN SWINEHERD and THE NATIONAL FARMER AND STOCK GROWER, both papers, for one year.

THE HALE PUBLISHING CO., 3550 Vista Ave., ST. LOUIS, MO.

Overland 1913

$985

Model "69 T" — Completely Equipped

Self Starter
30 Horsepower
5-Passenger Touring Car
110-inch Wheel Base
Timken Bearings
Center Control
Warner Speedometer
Remy Magneto
Prestolite Tank
Mohair Top and Boot
Clear Vision Wind Shield

In 24 Hours the Demand for This Car Was Greater Than Our Annual Supply

AND yet we are shipping better than 150 cars a day. Think of it! Nearly 1000 cars a week, and still the public refused to be satisfied. We could ship 500 cars a day and at that we could not wipe out our immediate orders. But 150 a day is the very best we can do just now. That is our present production limit. Later on when our new factories are swung into working operation we can improve this condition; for this season we will make 40,000 Overlands, which nearly doubles our production of the season that just closed.

We announced this car to the general public the latter part of August. The instantaneous effect took our breath away. Inside of twenty-four hours we heard from practically every corner of the globe. It seemed to jar the entire automobile universe. Cables from abroad were almost as thick as American telegrams. Distributors, dealers and the appreciative motor buying public alike, telephoned, wired, wrote and traveled from every direction. Our headquarters in Toledo were swamped with requests, demands and threats. Everybody wanted a Model 69 at the same time. Nothing could curb the demand. We simply had to close our doors and ears to the riot and allot the cars as best we could.

This car took the country by storm. The very fact that a car of this size and power, a car of this magnificence, strength and comfort, a car so fully equipped with the very best of everything, could be had for $985 was beyond all belief.

Everyone said "Why that car is identical with lots of $1,200 and $1,500 cars I have seen." And so it is.

The self-starter, big wheel base, powerful motor, rugged rear system, the unusually large brakes, the beautiful finish, rich upholstery, and the complete equipment, which includes practically everything made for an automobile, are specifications that square up with cars that cost twenty and thirty per cent. more money. These specifications are all $1200 specifications.

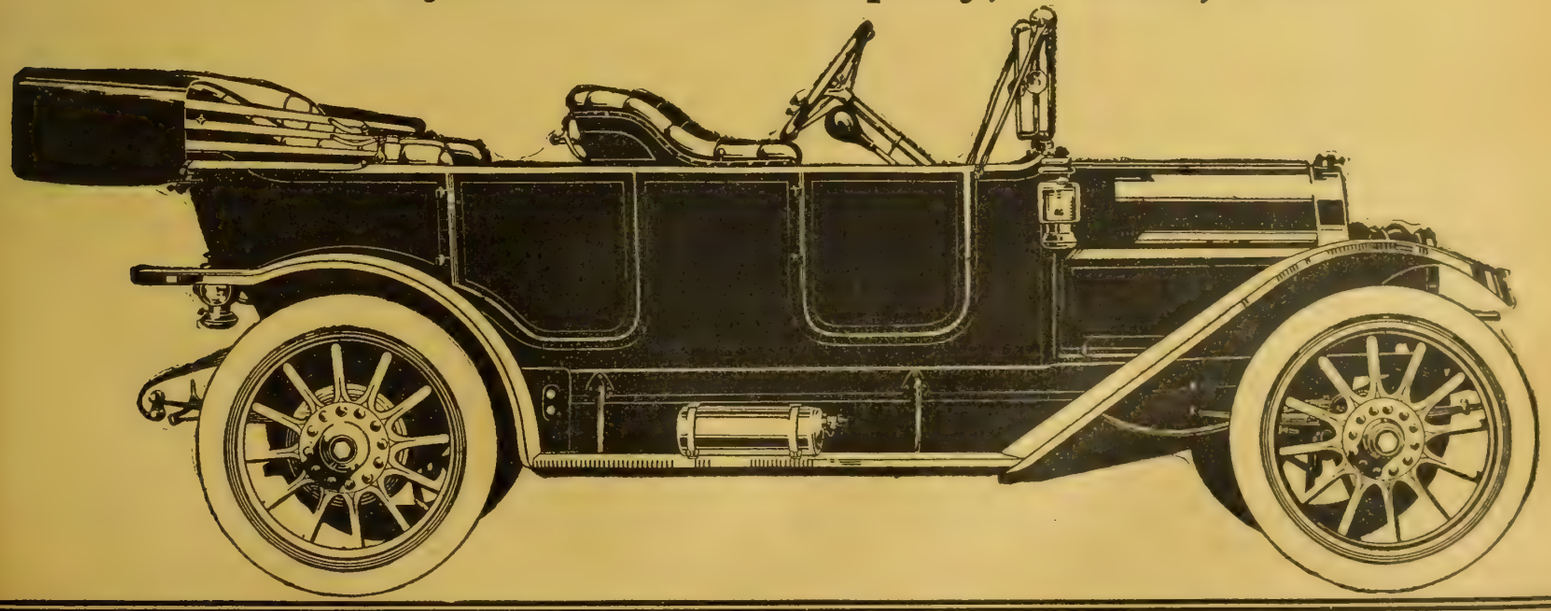
Then there is the cold rolled pressed steel frame, the selective transmission—three speeds forward and reverse, fitted with annular bearings; the well known Remy magneto; the I section drop forged front axle which is forged in one heat and is fitted with the famous Timken bearings; the three quarter floating rear axle fitted with Hyatt bearings. This car is finished in that superb Overland blue with gray wheels, trimmed in black and nickel plate, making a most striking and stylish car of rich design. You cannot duplicate this car from any other maker for less than $1200 and some want $1500.

We have but one suggestion to make. Get your "69" order in early. Don't delay, put off or stall. Just get busy. If you want to enjoy your automobile this fall you will have to step pretty lively. "First come first served," is an old expression but it fits. The demand right now is treble the supply. We never in the wide world will be able to catch up with the orders, so if you want one of these world's record cars, act quick.

Get in touch with our dealer in your locality. If you cannot find him, wire us. There are over 2000 of them delivering these cars right and left just as fast as we can ship them. Don't you get left.

Write us for a catalogue describing this model—the car that broke all preceding automobile values. Please ask for Book L 610.

The Willys-Overland Company, Toledo, Ohio



HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros.,Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O.,NATIONAL STOCK YARDS,ILL.

Don't Have a Blind One

"VISIO"

An Absolute Cure for
Moon Blindness

(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure(Liquid)
is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't imitate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser
describes and illustrates all kinds of blemishes and tells you how to treat them. Covers over 200 veterinary subjects. 192 pages, 69 illustrations. Write for a free copy.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone or similar trouble and gets horse going sound. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.00 a bottle delivered. Horse Book 9 E free.
ABSORBINE, JR., liniment for mankind. Removes Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Will tell you more if you write. $1 and $2 a bottle at dealers or delivered. Manufactured only by
W.F.YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Read about the Book of Live Stock Champions on page 22.

Texas and Oklahoma Cattle.

At the opening of the month of October, choice to prime corn-fed Oklahoma steers were quoted at $7.50 to $8.00 per 100 pounds on the St. Louis market; good to choice fed steers, $6.25 to $7.50; medium to good fed steers, $6.25 to $7.00; common to medium fed steers, $5.75 to $6.25; good to choice grass steers, $6.00 to $7.25; medium to good grass steers, $5.00 to $5.75; common to medium grass steers, $4.00 to $4.75; medium to good cows, $4.00 to $5.00; cutters, $3.50 to $4.25; canners, $3.00 to $3.50; bulls, $3.25 to $5.00; fair to choice heavy calves, $5.25 to $6.00; heretics, $3.50 to $4.50; yearlings, $2.75 to $3.50—all quotations being at the price stated per 100 pounds.

Advice to Eat Mutton.

"I see no hope of beef getting much cheaper," said Secretary Wilson, of the Department of Agriculture, Washington, D. C., October 1st. Fresh from a vacation in the West, Mr. Wilson declared there was a much greater scarcity of cattle than he had realized. "The breeding grounds of stock cattle," said Mr. Wilson, "heretofore sent to the corn field to be finished by fattening on corn, cannot furnish much more of that class of cattle. There is a supply of meat that people should become accustomed to eating—mutton. Mutton on the hoof is less than half the price of beef."

Because of the Scarcity.

"With prime heavy beeves up to $11 and fancy yearling steers and heifers mixed at $10.65, unprecedented prices on the open market, there is wonder where such high-costing beef can find outlet. Cattle of this class are conspicuous by their scarcity and command war-time prices for this reason. The outlet for such high-costing meats is limited to patrons of high-class restaurants, hotels and steamships, who do not object to paying $3.50 for a fine, thick, juicy steak."—Clay, Robinson & Co.'s Live Stock Report.

Shortage of Western Feeding Cattle.

Mr. John Clay, of Messrs. Clay, Robinson & Co., live stock commission agents at ten principal markets, on his return from his annual survey of the Northwestern range country said: "I have never seen more luxurtant growth of feed or better conditions for making beef. While the 1912 range beef supply will be short in a numerical sense, cattle will come to market in generally good killing condition, and much superior to that of last year. The hay crop of the Northwest is the largest in history, a condition calculated to expand hay-feeding operations and keep thin cattle away from Eastern markets. Sections that have never given winter feeding any attention heretofore are now considering it." Mr. Clay found a conspicuous shortage of good young cattle available for distillery and other feeding purposes everywhere in the Northwest.

St. Louis Horse Market.

At the St. Louis National Stock Yards, Holland, Nugent & Maxwell Bros. are doing a remarkable business selling a large proportion of the 15,877 horses and mules that arrived on the market in the month of September. This firm sells at auction Monday and Tuesday of each week, and the first auction in October was remarkably successful, the market being extra good for big horses, medium-weight work horses and top Southerners. Shippers who are sending their horses to be sold at cold and dull markets should turn to St. Louis and get a touch of real life and activity. First write to T. H. Holland, National Stock Yards, Ill., and give him an idea what you generally expect to ship.

Range Cattle at Chicago.

On September 17th, 1912, Clay, Robinson & Co., at Chicago Ill., sold for Richards & Wilcox, of North Dakota, sixteen head 1,275-pound grass steers at $9.60 per 100 pounds, the highest price ever obtained for that weight and class of cattle. On the 18th ult., the same firm sold twenty head of double-wintered Texas steers, 1,287 pounds average, for $8.50 per 100 pounds, also the record figure for that class of cattle. See page 17.

The Shire Mare Sale.

Every year Trumans' Pioneer Stud Farm, of Bushnell, Ill., hold an important sale of mares of the English Shire Draft breed. This year the sale will occupy Thursday and Friday, December 12th and 13th. All who are interested should write for catalogue.

Western Range Horses.

Horses are going to be scarce, and first-class market horses will be hard to buy. The material out of which first-class market horses are made are the superior Western range-raised horses which are brought to St. Louis and sold at auction. Usually these horses range from colts to mature geldings, from light harness stock to the heaviest draft breeds, and from yearling fillies to mature mares. None of them are scrubs, and a majority of them are better bred than an equal number of farm-raised foals. Messrs. Campbell & Reid and Western Sale Stables Company will hold three more sales this season, 1,200 to 2,000 head at each sale. The dates are Thursday, October 17th and 31st, and Thursday, November 14th. Just come in and look at these horses and take a load home to prepare for the domestic market. They are not wild horses. J. J. Searcy, P. O. National Stock Yards, Ill., is Sale Manager.

St. Louis Wheat Receipts.

Wheat receipts in St. Louis during the month of September amounted to 4,345,494 bushels, or 3,058,657 bushels more than were received during corresponding month last year. A large portion of the grain was received during the early part of the month. September figures compare with 1,286,837 bushels in 1911, 2,514,202 bushels in 1910, and 2,421,268 bushels in 1909.

Rules For Measuring Corn.

There are many rules for measuring corn. Inquiries conducted by the Missouri State Board of Agriculture show the following in common use: Sixteen cubic feet of corn in the shuck (or, if extra well settled, fifteen feet) make a barrel. The number of cubic feet multiplied by the decimal .4 gives bushels. Multiply together the length, width and height of the pen or crib, in inches, and divide by 4,200 for old corn, or 4,300 for new corn, to get bushels. When it can be done, corn should be weighed, rather than measured.

Prime sorghum shipped in to the market is selling at 40 cents a gallon.

WESTERN RANGE HORSE SALES.

Horse raisers are advised that sales of the very best Range Horses in the country are being conducted twice each month by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.
There are three sales yet to be held.

Thursday, October 17th,
Thursday, October 31st,
—and—
Thursday, November 14th.

These are the last three sales of the season. We will have for sale the best Horses to be had from the Western ranges, Mares, Colts and Geldings. There are no other Range Horses to be had. The bulk are sired by fine Draft Stallions.

Please address,
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Hog Book Free.

Book of facts on care and diseases of hogs. Tells how to prevent and cure disease, and destroy worms. Greatest discovery known. Sent free. Write Dr. D. C. Snoddy Co., Dept. H, Nashville, Tenn.

TRAPPERS WE BUY FOR CASH

And pay highest prices for Coon, Mink, Skunk, Possum, MusKrat, and all other Furs, Hides and Ginseng. Best facilities in America. Send for Free Price List and Shipping Tags. No commission charged.
ROGERS FUR COMPANY
309 N. Main St. St. Louis, Mo.

TRAPS AT FACTORY COST

We pay highest prices for Furs and sell you Trappers' Supplies, etc., at factory cost. CATALOG, TRAPPERS' GUIDE, and Fur Price List FREE.
E. W. BIGGS & CO., 169 Biggs Bldg., KANSAS CITY, MO.

RAW FUR SHIPPER.

A postal card will bring you a trustworthy price list. Issued from November to March. Avoid shipping to commission houses and extremely high quoters. Thirty years' experience with best of references, personal assortment and cash for all shipments ought to be sufficient. All shipments held separate on request. A trial will convince you.
LEMUEL BLACK, Exporter Raw Furs,
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HUNTERS! TRAPPERS! BUYERS! Make More Money. Read Hunter-Trader-Trapper 128-200 page magazine about game, guns, dogs, furs, fish, roots, trapping secrets, 10c. Camp & Trail, 16-24 page weekly, same subjects, raw fur reports, prices, 5c.
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Don't ship anyone furs till you get *Our Free Bulletin* quoting cash prices we actually pay for *Coon, Mink, Oppossum* and other furs. We charge no commissions. Write today for Free Bulletin, it will pay you big.
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TRAPPERS!!
Don't Be Skinned

Prices this year will be higher than ever before. Send us your name and address and we will keep you posted the entire season, just what you should get for your Furs, absolutely free. Our confidential information will protect you. Remember it costs you nothing. You have nothing to lose and if you take our advice you will get more money for your Furs than you ever did in your life before. Address
I. ABRAHAM
295 N. Main Street, St. Louis, Mo.

CURE THAT SPAVIN

—or that Curb, Splint, Ringbone or other lameness with Kendall's Spavin Cure. Mr. Montgomery Sheppard of Richfield, N. J. writes this about

Kendall's Spavin Cure

"I have been using your Spavin Cure and have found it a sure cure for Spavins, Splints, Ringbone, Lameness, etc." Let us send you other letters. Get a bottle of Kendall's at once. You may need it any day. At your druggists $1 a bottle. 6 for $5. Ask for "Treatise on the Horse"—Free, or write to

Dr. B. J. Kendall Co., Enosburg Falls, Vermont, U. S. A.

SAVE-THE-HORSE

(Trade Mark Registered)

SPAVIN REMEDY

A retail druggist in a "live horse town" within 30 minutes ride from New York City, writes: "I am selling three times more Save-the-Horse than any other Veterinary remedy; when they want the GOODS that cures they come back for Save-the-Horse."

Whether on Spavin, Ringbone (except Low), Curb, Thoroughpin, Splint, Shoe Boil, Windpuff, Injured tendons or other disease, a perfect and permanent cure is guaranteed, no scar or loss of hair, horse works as usual. 16 YEARS A SUCCESS.

WE Originated the Plan of—Treating Horses—Under Signed Contract to Return Money if Remedy Fails. But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers).

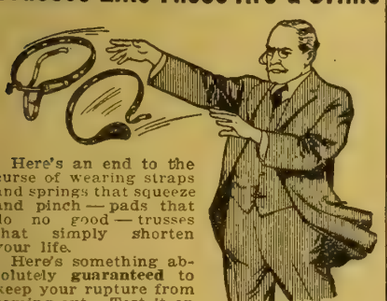
TROY CHEMICAL CO., 62 Commerce St., Binghamton, N.Y.

Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

The Horse High Jump.

According to the Spirit of the West, a good horse paper published weekly at Des Moines, Iowa, the Canadian high jumper Confidence, owned by the Hon. Clifford Sifton, is now the champion high jumper of the world. At the late Horse Show at Cobourg, Ontario, he cleared the bars at 7:10⅝ inches, breaking the record of 7:10 inches set by Heatherbloom some years ago at Norfolk, Va. If you think that isn't some jumping, just measure off that height on the wall and take a squint at it. So far as we have heard, there has never been but one jump to beat it, and that was when "the cow jumped over the moon;" but it was not an official performance, according to the rules, and so is open to doubt.

Trusses Like These Are a Crime



Here's an end to the curse of wearing straps and springs that squeeze and pinch—pads that do no good—trusses that simply shorten your life.

Here's something absolutely **guaranteed** to keep your rupture from coming out. Test it on 60 days trial and see. If it doesn't hold at all times, then it won't cost you a single cent.

Has overcome some of the worst cases on record. Doctors and surgeons who know of it recommend it instead of operation. No belt, no leg-straps, no springs. Is waterproof—will hold in bath.

Write for Free Book and find out all about it. Book is full of facts never before put in print. Cloth-bound, 96 pages. Explains why elastic and spring trusses cannot help you. Shows dangers of operation. Exposes the humbug "appliances," "methods," "plasters," etc. Will save you from wasting money. Shows why 60 days trial is the only safe way to test anything for rupture and how we offer you the only thing good enough to stand such a long test.

Book gives over 5,00 voluntary endorsements. Write for it to-day—it tells you things you could never find out by going to doctors or drugstores. Address:

Box 776—CLUTHE CO., 125 E. 23d St., New York City.

Kentucky's New Saddle Queen.

Hazel Dawn, the new saddle queen of Kentucky, is a chestnut mare under fifteen hands, is six years old, sired by Rex Peavine, out of Gladys T Wigg by Chester Dare. She won the Commissioner of Agriculture $1,000 stake at the Kentucky State Fair, when she defeated the richest array of saddle horses ever shown in Kentucky. Hazel Dawn is owned by Matlack & Shropshire, of Winchester, Kentucky.

The Horse Sickness.

In Kansas there is a horse disease which, if it was among stabled animals, would be known by the familiar name of "horse sickness." Without being a veterinarian, we can safely class the disease as a form of distemper that is caused by malignant germs taken into the stomach with the feed, the same as the Southern fever or tick fever was caused in the case of cattle that were not immune from the effects of the tick. All that professional skill has been able to do is to advise change of food and water as preventive measures, and the treatment to the sick is so complicated as to require the services of a veterinarian. The disease is attributed in the main to stagnant pools, moldy vegetation, caused by rank growth and fermentation. At last reports the situation is very much improved, and it appears also that the first alarmist accounts were very much in the nature of exaggeration. The disease and its extent indicate that it is not possible at times for individuals to prevent disease-breeding conditions, for it appears that the infected country through alternating rains and sunshine had rank grass that near the roots had molded and that could not be helped until it was discovered.

HORSE AND MULE NOTES.

On September 11th, in New York City, at a public auction sale by Van Tassel & Kearney, an average of $1,560 was obtained for a consignment of polo ponies placed on the market by Mr. E. S. Reynal, a crack polo player, who retired from the sport.

Acting for S. D. Riddle, a wealthy horse fancier of Glen Riddle, Pa., George Watson, of New York City, purchased from George Wallen, of New York, the chestnut saddle mare My Butterfly, champion of the Plainfield, Long Branch, Newport and Syracuse shows. The price paid for her was $5,000, which is close to the record for a saddle horse.

Cattle Receipts at St. Louis.

During the month of September, at the St. Louis National Stock Yards, total cattle receipts were 167,594 head, the heaviest run of the year to date and within a few hundred head of the biggest month's supply ever known at these yards. The record month in cattle at the St. Louis market occurred in September, 1910, when 168,346 head got in.

Native Steers at $10.60.

At the St. Louis National Stock Yards, on October 1st, Henry Heyton, from Callaway county, Missouri, was represented on the market by a consignment of steers that sold for $10.60 per 100 pounds. There were seventeen head included in the consignment and they crossed the scales for an average of 1,539 pounds. The cattle were fed on a ration of corn, blue grass and cotton-seed meal and were in a very good condition for the packer. This was the only load of heavy beef cattle on the market that day.

SOUTH OMAHA · CHICAGO · KANSAS CITY
SO. ST. JOSEPH · SIOUX CITY
At Ten Markets
CLAY, ROBINSON & CO.
Live Stock Commission
SO. ST. PAUL · EAST BUFFALO
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TOP MARKET PRICES

You want best possible price for your shipments of

CATTLE, HOGS and SHEEP

It's our business to get *just that* for our patrons. We've been doing it for twenty-six years.

For "Sales That Suit" Consign To

Clay, Robinson & Co.

National Stock Yards, Ill.

Chicago	Fort Worth	Kansas City
Denver	South Omaha	South St. Joseph
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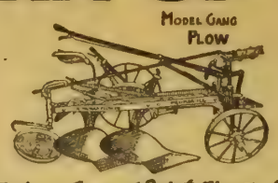
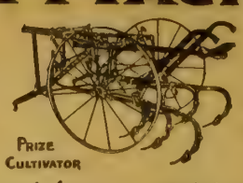
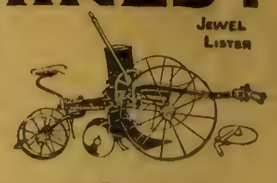
FINDERNE PIETERTJE JOHANNA—A RECORD-BREAKING HOLSTEIN-FRIESIAN HEIFER. At the head of the junior three-year class we find FINDERNE PIETERTJE JOHANNA, with the immense record for the age of 28.164 pounds fat from 637.9 pounds milk in seven days, and 113.26 pounds fat from 2,701.7 pounds milk in thirty days. Under verification test FINDERNE PIETERTJE JOHANNA produced on June 11th-12th 8.248 pounds butter-fat from 181.3 pounds milk. She breaks the record for her class in both the seven and thirty-day divisions. Owned by Bernhard Meyer, of Finderne, Somerset county, New Jersey.

KINGMAN UP-TO-DATE FARM MACHINES!







Enters Ground Point First-Single Bail Foot Lift. *Independent Gang Levers-Heavy Steel Discs* *Knives Have 2 Cutting Edges-No Neck Weight on Horses* *No Levers or Ratchets Perfect Balance* *Will Pivot in Ground Without Upsetting*

TELL US WHAT YOU NEED AND WE WILL GIVE YOU VALUABLE INFORMATION.
IF YOUR DEALER DOES NOT HANDLE THE KINGMAN LINE WRITE FOR CATALOG. (MENTION THIS PAPER)

KINGMAN PLOW CO. PEORIA ILLINOIS.

National Egg-laying Contest.

At Mountain Grove, Mo., the egg-laying contest is drawing to the close. There are 130 pens, five hens to the pen, and one hen in reserve to fill a vacancy, should there be any loss in the original five pens.

At the end of the tenth month, fourteen hens had passed the 200-egg mark, and there being sixty-one days yet to be heard from, it may be shown that the 200 or more eggs per hen in a year is by no means a rare production.

The leading individual record in ten months was 237 eggs, laid by No. 717, the White Plymouth Rock. Other top records are by a Barred Plymouth Rock, 216 eggs; R. C. Rhode Island Red, 215 eggs; S. C. Rhode Island Red, 215; and S. C. Rhode Island Red, 213 eggs.

The best pen records at the end of the tenth month were as follows:

	Eggs.
R. C. Reds, Missouri	899
White Wyandottes, Arkansas	871
S. C. White Leghorns, Georgia	856
Barred Plymouth Rocks, Illinois	843
Black Orpingtons, Indiana	823

The manager of the contest reported that most of the hens were in full moult August 31, at the end of the tenth month, which set back the laying considerably. August temperature was 95 to 101 in the shade for several days.

In regard to breed averages, the sixty S. C. Rhode Island Red hens averaged 139 eggs each; ten Black Orpingtons, 137 eggs each; ten Black Langshans, 137 eggs each; thirty Silver Wyandottes, 136 eggs each; twenty White Orpingtons, 135 eggs each; thirty Buff Orpingtons, 132 eggs each; thirty R. C. Rhode Island Reds, 132 eggs each; twenty Black Minorcas, 132 eggs each; and ninety White Leghorns, 127 eggs each.

The present contest ends October 31st, and a new contest commences November 15th. Mr. T. E. Quisenberry is Director, and his address is Mountain Grove, Mo.

About Eggs and Poultry.

Every person that raises fowls should be well versed in the troubles that are likely to come to fowls. This should be done from the standpoint of kindness to the birds subject to our care.

How many people know what "egg-bound" means? Yet the ignorance concerning that difficulty has caused much suffering among the dumb creatures. Every experienced poultry raiser knows that fowls sometimes die in the process of producing an egg. Perhaps these are generally first eggs. The writer has had several experiences with fowls so troubled. The remedy is to remove the egg by the help of a little lubricating oil. This will save the life of the fowl and at once relieve the pain. A man that did not know how to deal with this kind of a case lost a valuable pullet that he had very carefully raised. She died in the effort to produce her first egg.

The preservation of eggs is a matter that has been engaging the attention of many of our experts for a good many years. Extensive tests have been carried on in Germany, all of which seem to favor the immersing of eggs in water-glass. In some cases eggs varnished in vaseline have kept well. Eggs immersed in lime water have kept well in some cases and not well in others. Many methods proved of no value.

The simplest method of preserving eggs seems to be that of immersing in lime water. The solution is made by putting one pound of freshly-burned lime in two gallons of water and letting it stand till the lime is all slaked and the liquid has cleared. Then put the eggs in an earthen or glass jar and cover with the lime water. It is claimed that eggs will keep well for eight months if so treated, but it is safest to put them in a cool place.

Water-glass can be obtained at drug stores, and the solution should be what is known as a 10 per cent. solution. It must be remembered, however, that there are few fresh eggs, and that an egg several days old has progressed some toward the point where it is considered a spoiled egg.

The writer observes that confined fowls have generally too little space allotted them. This applies both to the farms and to the yards of the professional poultrymen. All kinds of common fowls are great foragers and grazers. The amount of land given to each flock should be determined largely by the character of the land and its productiveness. The area should be great enough so that the verdure will not be destroyed. The writer notices that in some good-size yards there is not a blade of grass to be seen, which means that the sod has been destroyed by the fowls. This is not profitable poultry raising. With enough land, the pasture for the fowls would be continuous, and there would be a large saving in feed.

In this day of high-priced feed it is advisable to make the grass land carry as large a burden as it will. Poultry pasturage must become a prominent factor in the raising of fowls. If not overstocked, it can be utilized from early spring to late fall, and the land will be constantly improving under the treatment, for it will have the droppings of the fowls to enrich it.

POULTRY NEWS AND ITEMS.

At the Missouri National Egg-laying Contest male birds were kept in the pens in order to test the fertility of eggs of high producers as compared with the fertility of eggs from low producers.

At the next Missouri National Egg-laying Contest to have an equal number of pens of each breed is the intention of the management.

At the Missouri National Egg-laying Contest, eight of the hens out of 625 have never laid an egg, and several others have laid less than half a dozen.

At the Missouri National Egg-laying Contest, in August, a pen of five Barred Plymouth Rocks, owned by Miss Lillian C. Adams, of Boonville, Mo., won the Golden Egg Silver Cup for August by laying 107 eggs.

We are clubbing the Reliable Poultry Journal and The National Farmer and Stock Grower—both publications one year for 50 cents. It is a magnificent proposition for our subscribers. Send in your money without delay.

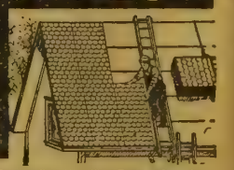
GREAT PHOSPHATE FIELDS.

Geologic Work has Added Many Millions of Tons to Known Reserve of this Necessary Fertilizing Element.

The largest known phosphate field in the world lies in the Rocky Mountain region in the states of Idaho, Montana, Utah and Wyoming, and most of the deposits belong to the United States, being on public land. Phosphate rock, as is well known, is the principal source of phosphorus, one of the three necessary plant foods. The exact boundary of this phosphate-bearing area is still undetermined, but each year as investigation has been pushed by the United States Geological Survey its limits have been more accurately defined by extension in some directions and retraction in others. Phosphate in this general region was first discovered in Northeastern Utah and Southeastern Idaho in the vicinity of the Idaho-Utah-Wyoming state lines. From this locality the deposits have been traced north, southeast, and west halfway across the states of Idaho, Utah and Wyoming, and northward to the vicinity of Helena, in West-Central Montana, until now the phosphate beds are known over an area extending approximately 220 miles in an east-west direction and 420 miles from north to south. Only a small part of this territory, of course, is underlain by phosphate deposits that are commercially valuable. In many places the phosphate beds, although present, occur at such great depths below the surface that they will probably never be mined; and in other parts of this completely folded area the phosphate beds have been entirely removed by erosion. However, the tonnage of high-grade phosphate rock in this region is enormous, the estimates running up into the billions of tons.

The rock phosphate itself can usually be recognized in the field by its oolitic texture—that is, by the fact that it is a mass of grains like small shot cemented together. The rock varies in color from coaly black—in some places it was originally mistaken for coal—to dull gray or iron stained. Most of the phosphate rock emits, when broken or struck, a fetid odor, which is supposed to be characteristic of these minerals. Its "float" is characteristically marked with a thin film of bluish-white bone-like coating, resembling chalcedony. This coating is useful is tracing the concealed outcrop in the field by means of scattered fragments to be found in the overlying soil.—From Press Bulletin of the United States Geological Survey.

Roof Your Building With Edwards "REO" STEEL Shingles



No Freight! No Repairs! No Painting! No Labor Cost! No Extras of Any Kind! Write for Low Prices!

A genuine "REO" Steel Shingle roof at the bare cost of factory making, plus one small profit!

Send roof dimensions and get low price on completed job. You will be amazed at how cheaply, easily and quickly you can have a No. 1 roof.

Outwear Four Ordinary Roofs

Edwards "REO" Steel Shingles far outwear best cedar shingles, corrugated iron or composition paper roofing. The Edwards "Tightcote" process of galvanizing and the Edwards Interlocking Device do the trick. They multiply the life of a roof by four. And remember, no freight to pay, no extra materials to buy, no workmen to hire, no tools to borrow. Just nail "REO" Shingles on yourself with a hammer—right over sheathing or old roof.

Our $10,000 Guarantee Against Lightning

Edwards "REO" Steel Shingles are not only rust-proof, rot-proof and weather-proof, but are also fire-proof. You get a signed guarantee against loss by lightning backed by $10,000 bond. We also guarantee safe, prompt deliveries any place in the U. S.

Postal Brings Catalog and Factory Prices

Don't buy roofing material of ANY kind till you've had our Factory Prices and Catalog, which explains our famous "Tightcote" Process. A postal brings all. Give roof dimensions if you can. But if you can't, send postal anyway for Prices and Catalog 1007 (84)

THE EDWARDS MANUFACTURING CO.
1007-1057 Lock Street, CINCINNATI, OHIO

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that should be accepted at once. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

What Good Care Will Do.

Almost anything on the farm may be made to pay at least wages if the proper attention is given to it; almost anything may be made to lose money through neglect or indifference. A striking illustration of this came to us recently in the different methods of beekeeping in vogue in a single neighborhood.

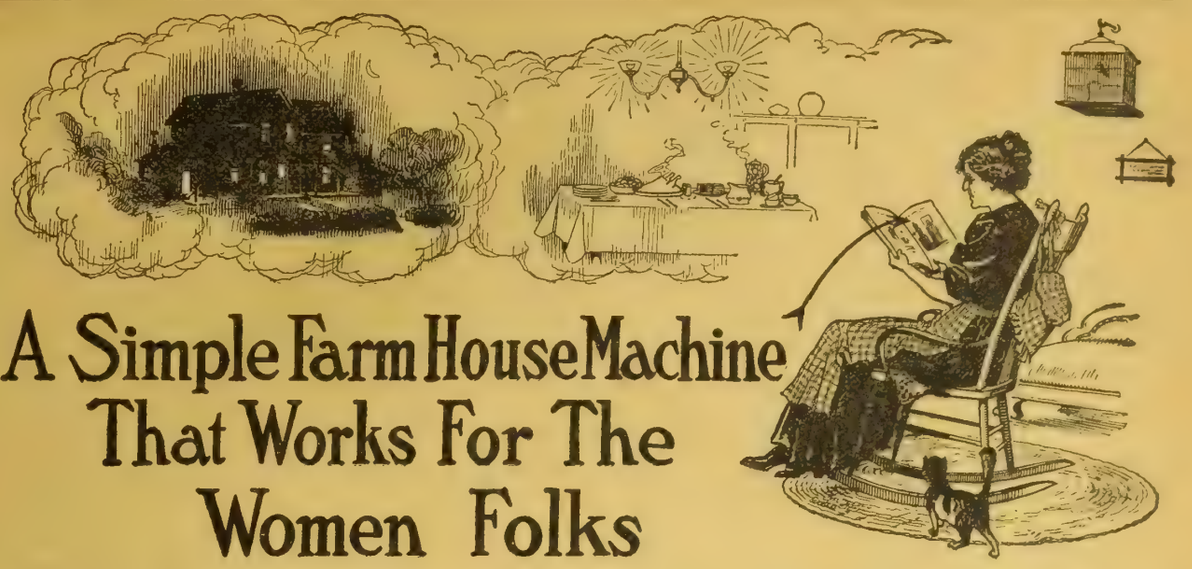
One swarm, purchased last autumn at a nominal price, was in the hands of one who had kept bees very little, though well versed in modern bee literature. The plan of forcing in early spring to have a strong swarm ready for the first real honey flow was cut short by sickness in the family, and the swarm started in the summer work with no special preparation.

The year before there had been a generous sowing of alsike and timothy mixed, and the clover soon proved a drawing card for the bees. Alfalfa would have been better, but the location was not in the zone for this crop, and so the alsike was chosen. Ordinary Italian bees cannot reach the nectar in red clover with their short tongue, but that of the alsike is as readily accessible as the small white clover. The bees worked hard, and the swarm grew almost too large for its quarters, but the owner was working for honey rather than new colonies, and so added more section boxes until there were at one time seven tiers of twenty-eight-pound boxes each, and extra ventilation was given by raising the hive a little from the ground. Over a hundred pounds of first-grade clover honey was the result of this pasture near the hive, aided by the precautions to discourage swarming.

After this came the buckwheat, which was also comparatively near, thus saving the bees much work in the garnering of the harvest. At the present time over fifty pounds of dark honey have been taken off and there is as much more filled and practically finished save the capping over, which the bees know how to defer until their sweets are properly ripened. Some twenty new sections were added to give more room for work, for the hive is actually packed with bees, and the way they are piling in with honey promises that these and perhaps more will be filled before the buckwheat blossoms are gone. Then there will be the golden-rod, perhaps a short crop so far as the owner is concerned, but a most useful one to keep the bees supplied with food for a month or two, when they would otherwise be forced to depend upon the stores already garnered.

And now as to the lessons. Others with from five to ten colonies report an off-year, with perhaps some swarming, but only a few pounds of honey taken off. Clearly, the enormous honey yield of the one man who knew every week and during the busy season almost every day what was going on in the hive several times balances the increase in colonies. The bees have paid for themselves several times over in cash returns besides supplying the family with one of the choicest of sweets. And it is doubtful if another beekeeper in the vicinity, though some have from six to a dozen colonies of bees, will have as much honey as this single swarm, worked for all there was in it, has yielded.

It would have swarmed, no question about that, had not the extra precaution been taken. And then there would have been a division of labor, with correspondingly less results. There were times when a moth miller, unless discovered and removed, would have done serious mischief in the hive; times when the entrance needed enlarging to meet the increased number of workers. And the newly-seeded field, which in the making seemed almost extravagant, considering the enormous price of seed, paid for the seed in the bountiful honey crop.—Bessie L. Putnam.



A Simple Farm House Machine That Works For The Women Folks

Why Not Put This One Small Machine In the Farm Home—To Make Mother's Work Easy? = When Father Has a Dozen Or More Bigger Ones to Lighten His Labors.

Why not present Mother with a "Pilot Country Home Carbide Machine?" A machine that will cut the good woman's work in half and make the old farm house a better place to live in.

Father has his riding plows, cultivators, binders, mowers, corn cutters and manure spreaders—he needs them all to make the farm pay—incidentally they make farm work twice as easy as it was a generation ago.

In the meantime the woman's end of it—the house work—is every bit as hard as it ever was. It is certainly mother's turn. She is clearly entitled to anything in the way of machine help to lighten her labors as much as one of these little gas plants will.

With less than fifteen minutes' attention once a month one of these Pilot machines will provide all the gas necessary for light and fuel in a big house. And in every such home the housewife will be forever relieved from the trouble and labor of handling coal, fire-wood, ashes, kerosene and greasy, smelly oil lamps.

Already over two hundred thousand farmers' wives are enjoying this wonderful convenience. For fully that many Carbide machines have been sold and installed in farm homes to date.

We ship with these Pilot light and fuel plants, the light chandeliers and the gas cooking range, all ready to set up. And this outfit can be installed in three days without injuring walls or floors.

The Pilot machine will set in your basement or an out-building. The iron pipes will run inside your walls just as in all city houses. The chandeliers, in brass or bronze, you can select from a catalogue of a hundred beautiful designs.

The lights you can have fixed to light up without matches—by simply pulling a chain that hangs from the burners in every room, barn, shed and out-building.

Every light will be as white and brilliant as sunlight itself. So clear and soft that it is often referred to by scientific writers as "Artificial Sunlight." No other light will add half so much to the beauty of a room. And no other light can equal it for reading purposes.

The cooking range will be just like the "Gas Ranges" used in millions of city kitchens. The ever-ready fire can be turned on or off with a thumb screw. Like the city gas range this Carbide Gas Range insures a cool kitchen in hot weather and cuts the work of cooking meals in half at all seasons of the year.

If you will write and ask us for it, we will be glad to send you our free wonder book.

It tells about the magical gas producing stone, "Union Carbide"—how the Pilot machine releases the gas from this stone automatically—just the amount you use, no more, no less. It tells why the Union Carbide can't burn or explode. It tells why it can be kept for years. It tells how the light can be used in barns and other farm buildings. It tells why it is better than electricity and cheaper than kerosene. It tells why it is not poisonous to breathe. It tells why insurance authorities pronounce it the safest of all available illuminants for country homes. It tells what sized and priced machines different sized farms use.

All these facts are explained in the book in a manner that will make it perfectly clear why this HOME MADE GAS is now used by over two hundred thousand farm families.

Send us your address NOW, before you forget it, and we will mail you the book and full particulars promptly.

Just write to THE OXWELD ACETYLENE CO.—68 Adams St., Chicago, Ill.

Large Yield and Sale of Apples.

On September 14th, from St. Joseph, Mo., it was reported that Mr. Cal Hyde had sold a crop of apples from an orchard of 400 trees for $2,850, which is a fraction more than $7.10 a tree. The buyers said it was the most productive crop of its size known. The orchard is a part of the Hyde farm, and the fruit consists of Jonathan, Gano, Ben Davis and Black Twig varieties. The trees are seventeen years old and in the nine years they have borne Hyde has realized more than $10,000 from the sale of the fruit.

Alfalfa a Bonanza.

Those farmers who have not yet determined to have a first-class stand of alfalfa should read about the C. M. Gregory farm, in Chase county, Kansas. On an early cutting $25 an acre was obtained in seed. The next cutting produced six and one-half bushels an acre, which sold for $7.00 a bushel. The final cutting will produce about three tons of hay to the acre. No matter how this is figured, it amounts to a bonanza crop.

St. Louis Record Wheat Receipts.

In the month of August the St. Louis market received 8,288,393 bushels of wheat, which surpassed all previous records for that month. Last year the August receipts were 1,752,319 bushels, and in August, 1910, the figure was 4,327,111 bushels. The previous high record of wheat receipts for a single month was 6,243,347 bushels, in August, 1902. The gain in favor of August, 1912, is over 2,000,000 bushels.

The September edition of the Reliable Poultry Journal contained a picture of six roasting chickens weighing in all 57½ pounds dressed, that sold in Boston for $3.64 each. They were 7½ months old and brought 38 cents a pound during the first week in May. They were crossbred White Plymouth Rocks and Light Brahmas.

Lady Showyou, the White Plymouth Rock hen that lay a total of 237 eggs in ten months, weighs six pounds, and has laid five times her own weight in eggs in ten months. She was not broody in that time, neither has she moulted. Her owner is J. A. Bickerdike, of Millersville, Ill.

The gold medal cheese award at the New York State Fair went to F. W. Weatherup, Rensselaer Falls, on a score of 99.

LIVE STOCK BREEDERS' CARDS.

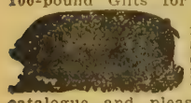
POLAND-CHINA HEADQUARTERS.

Write for prices and you will receive an actual photograph of MASTER KEEP ON, the best Boar we ever owned. Satisfaction guaranteed in all sales.

KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S POLAND-CHINAS.

Ten fancy 100-pound males and ten fancy 100-pound Gilts for sale. Also five fancy 200-pound Bred Gilts for sale. Forty fancy 50-pound Pigs marked down so any farmer or breeder can buy them.

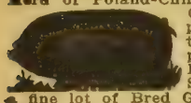


Write for prices and catalogue and please mention this paper.

WILDER CARPENTER & SONS, Grand View Breeding Farm, Marmaduke, Ark.

NINETY DAYS SPECIAL BARGAINS IN POLAND-CHINAS.

Special Bargains, and prices cut to the bottom. We are closing out the Blue Ribbon Herd of Poland-China Hogs, including the Great Missouri Champion, Hutchinson Sensation, 53,000; also a prize-winning son of Royal Meddler, 50,111. Several matured Sows, a fine lot of Bred Gilts and several choice Pigs from four weeks to five months old, sired by as good Boars as the breed affords. This herd is rich in the blood of the most noted families in the world. Nothing reserved. Everything goes at private sale. Write for circular, description and prices.



JOHN McLAUGHLIN, Marmaduke, Ark.

EXTRA GOOD POLAND-CHINAS.

Pedigreed Poland-China Pigs, the best of breeding, big bone, fancy show stuff, $15 to $25. Write your wants to

D. F. BEAUCHAMP, Meredosia, Ill.

OUT OF STRETCHY SOWS sired by 1,000-pound Boars. Buy them and win. **J. P. VISSERING, Box 1, Alton, Ill.**

TRUMANS' PIONEER STUD FARM,

Ameica's Largest and Oldest.

Importers of

SHIRE,
PERCEHERON and
HACKNEY
STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

PURE-BRED REGISTERED ANGORA GOATS.

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

HOLSTEIN BULL CALVES FOR SALE.

We have some fine pure-bred Holstein Bull Calves for sale, six weeks to eight months old, that will be sold at right prices if taken soon. Write at once for particulars in breeding and price to

JOHN MITTMANN & SONS, Muscatine, Iowa.

PURE-BRED SHROPSHIRE RAMS.

Registered Shropshires. Come, and if you are not more than pleased I will pay your car-fare both ways. Or shipped subject to your approval upon arrival, or money refunded.

HOWARD CHANDLER, Chariton, Iowa.

"THE PINES" HERD OF HOLSTEINS.

Breeder and shipper of high-grade HOLSTEIN CALVES.

Prices reasonable.

J. W. FARRELL, Prop., R. F. D. 8, Elgin, Ill.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

50 Pedigreed Duroc Red Pigs at $8.00 each. **CHAS. DORR, Osage City, Kansas.**

FERRETS FOR SALE.

10,000 Ferrets for sale. Write for price list and catalogue. It's free. **DeKLEINE BROS., Box 9, Jamestown, Mich.**

REGISTERED LARGE YORKSHIRES

THE BREAKFAST BACON HOG.

That's the meaning of those long, deep sides—choicest, sweet, tender, fresh pork.

HEALTHY. EARLIEST TO MATURE. PROLIFIC.

Splendid hustlers; relishes all kinds of feed, pasturage and cured forage.

THEY CROSS OUT GREAT ON LARD TYPE.

Write for descriptive booklet.

T. C. KIMBER, Box 1212, St. Louis, Mo.

POLAND-CHINAS OF LEADING STRAINS.

A lot of nice, growthy, Spring Pigs at $15 each, by Size and Quality, 47,389, Master Meddler, 2d, 55,000, and Siefker's Mastodon, 2d, 62,072, and out of my best Sows. Have many satisfied customers in thirty-seven states. Circulars free.

A. F. SIEFKER, R.F.D. No. 1, Defiance, Mo.

SCOTCH COLLIE DOGS.

For anything in Scotch Collies, Pups, Trained Bitches, all ages, prices right, quality considered, write to **R. FLEMING, Cuba, Kansas.**

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

DICKINSON MERINO RAMS AND EWES.

For sale: Dickinson Merino Rams that have the constitution and size for wool and mutton. Write for further particulars. **ALEX. TAYLOR, Moundsville, West Virginia.**

Scientific Meat Curing.

There is a book on meat curing. It is descriptive of the methods used by the most expert of all the butchers and packers. It is actually a text book for the curing of all meat products. It includes elimination of animal heat, difference between weight alive, dressed and cold, with shrinkages; tables for making different strengths of pickle, mild and strong cured meats The book includes table giving average weights of the various cuts of pork, veal and mutton, lists of the different standard brands of sausages, giving per cent. of beef and pork used, parts of the carcasses and the amounts of cereal used, and the constituents of the cereal used in sausage, etc. There are but twenty-four pages, but each page is full of good value in practical instruction.

Our Subscription Proposition.

We have adopted the booklet "Scientific Meat Curing" as a subscription premium to be furnished subscribers to The National Farmer and Stock Grower. Send us sixty (60) cents by money order and we will send you The National Farmer and Stock Grower for one year and you can select one copy "Scientific Meat Curing" as a premium, to be sent postpaid, safe delivery guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

BLOODED STOCK NOTES.

Look up the advertisement of Chas. Dorr, Osage City, Kas., one of the oldest breeders of Duroc-Jersey red hogs in the state, offering pigs at $8.00 a head, pedigree with each one. As well bred herd as there is in Kansas.

Mr. R. Fleming, of Cuba, Kas., has a few more of his fine Collie pups for sale. They are the rough-coated, useful kind.

Right in the heart of the Illinois milk-producing district is Mr. J. W. Farrell, owner of "The Pines" Herd of Holstein Cattle, and he will furnish pure-bred and high-grade Holstein calves at reasonable prices. His card is in our breeders' columns.

Reliable Seed House.

We take pleasure in recommending the A. W. Schisler Grain Company, of St. Louis, as a buyer of seeds direct from seed-growing farmers. The firm also sells direct to farmers all seeds they need. The way to get acquainted with this firm in the first place is to write for their Golden Arrow Seed Catalogue. Address, A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo.

A WONDERFUL HORSE—THE JEW.

Dr. W. F. Young, of Springfield, Mass., owns a remarkable horse belonging to the High School branch of the saddle horse family. THE JEW was raised in Kentucky, sired by "Monte Cristo," trained and exhibited by Mat Cohn, of Jacksonville. He won in High School class in three exhibitions in Kentucky, Lawrenceburg, Sheldonville and Louisville. He was the best horse among a bunch of forty at Wabash, Ind., at the time Dr. Young bought him in 1906. THE JEW was foaled in 1890 and is now twenty-two years old. He weighs a little over 1,100 pounds and stands sixteen hands. Dr. Young says of THE JEW: "I think he can do more useful things, including more tricks and gaits under saddle, than any horse that I have ever been acquainted with. He is a straight-away, beautiful driver, animated, good life. Under saddle THE JEW will take any gait at signal, doing it promptly without protest. Likes to carry you in saddle apparently as well as a boy likes to play base ball. Mrs. Young and I both ride horseback, and when the saddles are on, we lead THE JEW out to the lawn and he kneels at signal for us to get on. Would do it just as well for Mrs. Young as for myself. At signal he will kneel down for the rider to dismount, and do it anywhere, out on the country road or at the accustomed place on the lawn after returning from a ride. Regarding his gaits, he will start away at signal with the step and pace or fox trot, the running walk, the straight walk, the Spanish march. Should you meet a friend on the road and feel like treating him to a bottle of wine, THE JEW will do the corkscrew act for you, make a bow to the lady by dropping on one knee, side pace either to the right or to the left, kneel on both knees with his nose in the dirt saying his prayers, do the pedestal mount. The picture shows him starting up the steps of my residence. I had just said to the photographer that this fellow would do the pedestal mount, and in looking about for a place for him to mount his forward feet, the steps caught my eye. I pointed him, and he started right along up. He would have gone right up into the house if I had not stopped him. He will sit up like a dog, lie down, and if you are feeling a little hilarious yourself and the hurdy-gurdy or street bands start to play, Mr. Horse will throw his ears and get a little chesty, and, at signal, will do the two-step, 'Hootche Kootche,' the high trot, the Spanish walk, go the high march, backwards, will apparently stay in his tracks and imitate a rocking horse, guides promptly and quickly by the neck or by swinging in the saddle."

The owner of THE JEW is Dr. W. F. Young, of 106 Temple street, Springfield, Mass., proprietor of Absorbine, the horse medicine advertised on page 16. He has just issued a horse booklet entitled "How to Remove Blemishes," which he will be glad to send free to readers of this paper on request.

CHAMPION SEED CORN PREMIUMS.

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

October is the month in which to select your seed corn from your own crop. Go out to the field and select your best ears and dry them and keep them for next year's planting. In selecting your ears of corn for seed, do not make size the first consideration. The best ear of corn at one of the greatest show contests was pure-bred Yellow Dent, only 10¼ inches long, 7⅞ inches in circumference at a line three inches from the butt, was 6⅞ inches in circumference at a point two inches from the tip. It weighed 19 ounces when thoroughly dry, and it carried twenty rows of kernels. The picture presented herewith will show that it had a good butt; that it had a good tip; that the lines between kernels were straight; the ear was splendidly proportioned, and it was bright with life and vitality. When you go out to the field, carry with you a stick 10¼ inches long and a piece of tape to measure around the ears of corn that at first glance look good to you. When you find fat ears of corn, be sure that the fatness is not an undue proportion of cob.

The picture presented herewith represents the ear of corn referred to, grown by Mr. D. L. Pascal, of Iowa, who with it won a trophy worth $1,500.00, and it was the best ear grown that year in Iowa, and it is the single ear of corn that was shown in a glass case at the first National Corn Show. Mr. Pascal has a strain of Yellow Dent corn, bought from the originator and kept pure for sixty-six years.

For several years The National Farmer and Stock Grower has purchased of Mr. Pascal a quantity of seed corn related to this grand champion ear, and we have distributed it in pound lots to our subscribers, who have started growing their own seed corn from the Pascal seed furnished by this paper. Furthermore, many of our subscribers have won prizes at their own State Fair with ears of corn grown from the Pascal seed we furnished them. Some of them were first prizes and one of them was the championship prize for an exhibit of ten ears at the State Fair of Louisiana.

We have again purchased Yellow Dent Seed Corn from Mr. Pascal and we intend to send it out as subscription premiums as near free as we can arrange to do so. The corn is absolutely free and our subscriber is simply paying the postage on it.

Our Subscription Proposition.

The postage on twenty ounces of seed is ten cents; therefore we make this proposition: Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal from his breeding corn that grew the grand champion ear. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

High Sale of Berkshires.

At a recent sale of Berkshire hogs held at Kinlock Farms, Kirksville, Mo., by Dr. C. E. Still, the highest average of the season was made. The great boar, Rival's Lord Premier, was purchased by Stanton & Sayers for $4,050; and Artful Belle, 30th, eleven years old, sold for $805, and an under-year daughter of hers, by Rival's Lord Premier, brought $1,075. These two purchases went to Thos. Stanton, Wheaton, Ill., who was the largest buyer, who secured thirty-three head for $8,287.50, the largest number and highest price ever paid by a Berkshire breeder at a public sale.

Top For the Year, Week and Day.

On Monday, September 9th, at the St. Louis National Stock Yards, Clay, Robinson & Co., live stock commission agents, sold for the account of J. D. McClure, of Cincinnati, Iowa, one load of hogs, averaging 191 pounds, that brought $9.30 per 100 pounds. This sale was remarkable for the reason that the price was the top of the market for the day, for the week and for the year, and for the day topping all the Western markets.

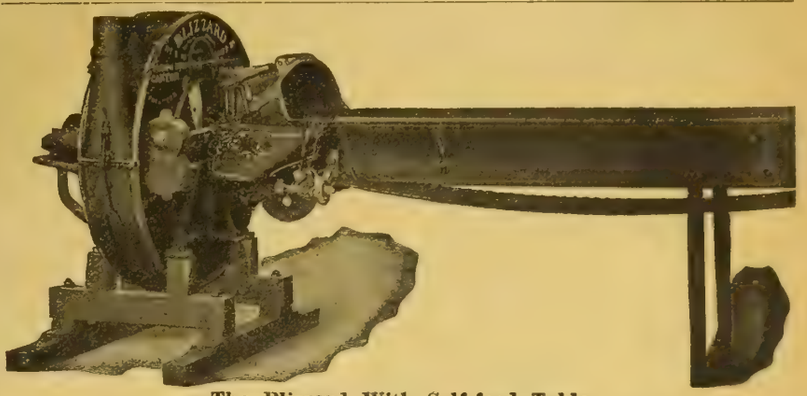
Government Land Report.

According to a statement issued by the United States Land Office on September 26th, a total of 14,574,688 acres of public land and Indian lands were opened to settlers by original entries during the fiscal year ended June 30, 1912. During the same period patents were issued by the Land Office to 10,135,475 acres, giving the landholders clear title to the properties.

Despite the fact that homestead tracts are steadily growing less suitable for cultivation, the Land Office shows that over 5,011,948 acres of public lands were patented under the homestead law. The total receipts of the Land Office for the last fiscal year were $9,973,048; expenditures and estimated liabilities $3,573,693, leaving a net surplus of $6,399,355.

THE BLIZZARD ENSILAGE CUTTER.

The picture presented herewith is an illustration of the Blizzard Ensilage Cutter manufactured by the Joseph Dick Mfg. Co. It is actually the most powerful forage cutter so far manufactured. The illustration shows "The Blizzard" with self-feed table, the end of table being cut off to bring the picture inside of two columns.



The Blizzard With Self-feed Table.

The Blizzard is made in several sizes, L 9 weighing 700 pounds, capacity four to six tons per hour of green ensilage; L 11, weight 1,100 pounds, capacity five to eight tons per hour; L 13, weight 1,300 pounds, capacity seven to twelve tons per hour; L 15, weight 1,500 pounds, capacity ten to fifteen tons of green ensilage per hour. The silage distributer will deliver the cut material at any height in any direction in silo desired. For special descriptive pamphlet showing all points of superiority over any and all other makes address Weber Implement and Auto Company, Sales Agents, 1900 Locust street, St. Louis, Mo.

St. Louis Sheep Market.

Secretary of Agriculture Wilson is telling the people that on the hoof mutton is half the price of beef. At St. Louis, October 1st, the best lambs offered brought $6.85 per 100 pounds, with other good ones at $6.35 to $6.75, but strictly choice ones would have sold a little higher and might have reached $7.00. Medium lambs went at $6.00 to $6.35; fair grades, $5.25 to $5.85; and the culls, $3.50 to $4.75. Southwest lambs sold largely at $5.85 to $6.35. Good Southwest lambs sold at $6.50 per 100 pounds. Most of the sheep that went to the slaughterers brought $3.75 per 100 pounds, with those that were not strictly good at $3.65. Stockers went largely at $2.50 to $3.00, with a few up to $3.35 and some of the poorer grades at $2.00 to $2.40. Bucks continue to bring $3.00. Most of the goats brought $2.85 to $3.00—all quotations being at the price stated per 100 pounds.

Special Hog Information.

Clay, Robinson & Co., live stock commission agents at the St. Louis National Stock Yards, reported on the 1st of October that $8.95 was the top of the hog market and the top load averaged 180 pounds. Good lights to medium weights sold at $8.75 to $8.95, averaging 160 to 210 pounds. Choice mediums to heavies, weighing 220 to 250 pounds, $8.85 to $8.95. Good heavies, 275 to 350 pounds, $8.75 to $8.95. Throw-out stags and sows, $8.00 to $8.25. The bulk of light-weights sold from $8.80 to $8.90; the bulk of heavies, $8.80 to $8.90—all quotations being at the price stated per 100 pounds.

Pigs Without Worms

I'll Stop Your Losses from Worms—I'll Prove It 60 Days Before You Pay

Little pigs only a few weeks old are often found loaded with worms. Hogs of all ages suffer from these deadly parasites. Then cholera, swine plague and other contagious diseases get in their destructive work. Stock troubled with worms don't thrive; they cough, have fever, act dull, and don't gain a pound. Your feed is wasted; your profits are stolen. Your animals frequently die, causing total loss of many dollars. I'll stop all this quick with Sal-Vet, the great worm destroyer and conditioner. I have done it for thousands of others. I'll do it for you, before you pay me a penny, if you will just send me the coupon.

Prices 40 lbs. $2.25, 100 lbs. $5.00, 200 lbs. $9.00, 500 lbs. $13.00, 600 lbs. $21.12. No order filled less than 40 lbs.

Read This Letter: "Have fed Sal-Vet to my hogs and lost none. Neighbors both sides of me, east and west, have had cholera bad. One west of me, on adjoining farm, lost about forty hogs and pigs with cholera; the one east, on adjoining farm, lost all he he had, excepting four."
A. J. HOFFMAN, Leipsic, Ohio.

SAL-VET

Send No Money—Just the Coupon

If you will fill out the coupon—tell me how many head of stock you have—mail it to me, I'll ship enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives, and when the 60 days are up report results. If it does not rid all your stock of the deadly stomach and intestinal worms, I'll cancel the charge—you won't owe me a cent. (72)

S. R. Feil, Pres. THE S. R. FEIL CO., Dept NF&SG Cleveland, Ohio

Also Shipping Points in the West and South To Save Our Customers Time and Freight.

SIDNEY R. FEIL, Pres. THE S. R. FEIL CO., Cleveland, Ohio
Ship me enough SAL-VET to last my stock 60 days. I will pay the freight and report results in 60 days and will then pay for it if it does what you claim. If it does not you are to cancel the charge.
Name ____ P. O ____ Shipping Sta. ____ State ____ Stock ____ Cattle ____ Hogs ____ Number ____ NF&SG 10-12

Forget It!"

There is something about that slang phrase which appeals to me. The people most to be pitied are those who do not know how to forget; those who carry about with them all the worries of the past, the burdens of the present and the possible problems of the future.

For instance, Mrs. Jones—no, let's ferget Jones, Brown and Smith and say Papadoupolos, for a change—Mrs. Papadoupolos and her two children, Petranella and Mehistopheles, are on a day's outing. Presumably it is a care-free day, and should be one of unalloyed pleasure. And so it would be for Petranella and Mehistopheles, could they have left their mother at home. But Mrs. Papadoupolos is a damper to every joy. She cannot forget anything that ever happened nor anything that ever may happen. Mrs. Papadoupolos never does thoroughly enjoy herself, because she once had a great-aunt who died of heart failure, and so she is continually worrying for fear she will be carried off in the same way. She has already lived half the allotted time of man and looks as though she might be good for the other half. She probably will die of heart failure, as that seems to be the common fate of all mankind. Suppose she just forgets all about death and enjoys the warm sunshine and the blue sky with white clouds scudding across it; suppose she becomes as one of her children in their untrammeled enjoyment, isn't there every likelihood that her heart will beat with renewed vigor and take a longer lease on life?

But that's only one worry. Mehistopheles' hair is red, and why must it fall to her lot to have a red-headed boy? And Petranella is skinny and awkward instead of plump and graceful like Grace Hammond; and she doesn't make any headway with her music; and this week's batch of bread is sour; there's sewing enough at home to keep ten hands busy for as many weeks, and she ought never to have taken this day off; and that cold that's been bothering Mr. Papadoupelos, suppose it should be something serious that would carry him off? The grapes must be done up and there's an awfully big wash for next week. Did Mrs. Graeme Hollenbeck really mean to slight her or did it just happen so, and—oh, forget it, forget it, Mrs. Papadoupolos. Do anything to make your mind stop wandering about in this silly, senseless, harmful way. Play hide and seek with the children, or base ball, if you are not too stiff. Look out on the ocean and up at the hills and draw strength and help from them. Lie under the trees and be just happy because you have this day for pleasure. Look deep into the heart of a flower and read its language if you can. Forget your dull, petty cares in the great things all about you—the great essentials which God has lavished upon even the poorest of His creatures.

Forget the gnawing jealousy, the withering slight, the hasty word, the feverish anxiety. Forget them by remembering the good, the merry, the true, the beautiful, the eternal. —Janet Thomas Van Osdel.

Fisherman's Luck.

The lady bather had got into a hole and she couldn't swim. Neither could the young man on the end of the pier, but when she came up for the first time and he caught sight of her face he shrieked:

"Help!"

A burly fisherman sauntered to his side.

"Wot's up?" he hoarsely cried.

"My wife! Drowning! I can't swim! Twenty pounds for you if you save her!"

In a moment the fisherman was in the sea. In another moment he was out of it, with the rescued lady bather. Swelling with expectation he approached the young man again.

"Well, what about the twenty quid?" he asked.

But if the young man's face had been ashen before, it was deadly pale as he gazed upon the features of the recovering dame.

"Y-e-s, I know!" he gasped. "But when I made the offer I thought it was my wife who was drowning, and now—now it turns out it was my wife's mother!"

The fisherman pulled a long face.

"Just my luck!" he muttered, thrusting his hand into his trousers pocket. "How much do I owe you?" Tit-Bits.

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912.

Now Ready For Delivery.

True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

ONE THOUSAND CHAMPIONS,

Winners in Annual Live Stock Contests at State and National Fairs and Expositions.

THIS is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in The Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special Inducements

To Paid-in-Advance Subscribers--To Old Friends and Patrons.

We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title.

This is An Extraordinary Offer.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of The Book of Live Stock Champions, cloth-bound edition of 1912.

Name.....

Address.....

My occupation is.....

IT IS THE RANGE THAT MAKES THE COOK.

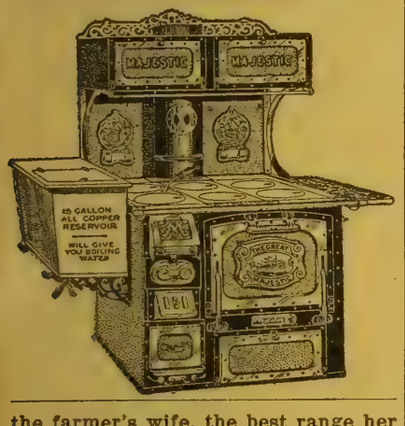
The Wise Farmer's Wife Chooses the Range With a Repuatation.

If it is indeed true that "the way to a man's heart is through his stomach," then it is very wise to look most carefully into the range question, for it is quite often the range that makes the cook—that makes or mars the cooking.

The perfect range is that one which meets every requirement. Whatever other good points it may have, it must be a perfect baker, not now and again, but 365 days in the year. Then it must be durable, giving a lifetime of satisfactory service.

It must be a good cooker and it must be economical in its consumption of fuel. Many housewives burn up the price of a new range repeatedly trying to get results from an old worn-out range or stove. This is poor economy.

These prosperous times warrant the best of everything on the farm. The best stock—the best implements—the best automobiles are none too good for the prosperous Twentieth Century Farmer—and for



the farmer's wife, the best range her money can buy is none too good.

Before deciding on the purchase of a range, the wise woman will examine closely into the merits of the Great and Grand MAJESTIC—it is indeed a "Range With a Reputation"—it is a perfect baker at all times.

The body of the Great MAJESTIC is made of Charcoal Iron, which gives it wearing quality that will outlast three ordinary ranges. All top doors and frames are made of Malleable Iron—they won't break, crack or rust, like a steel and cast iron range. Malleable iron is absolutely necessary for perfectly air-tight joints and on the MAJESTIC Range all joints are riveted perfectly air-tight—no heat escapes and no cold air can enter—it is completely lined with pure asbestos—thus the oven can be heated quickly with about half the fuel used in the ordinary range.

The Great MAJESTIC has a fifteen-gallon all-copper reservoir, that gives boiling hot water in a very few minutes.

The Great and Grand MAJESTIC is justly called "The Range With a Reputation," because it has a reputation of a reliable manufacturer behind it and because there are hundreds of thousands MAJESTIC Ranges in use all over the country, each one of which is giving perfect satisfaction. Some have been in constant use for more than twenty-five years and still give excellent results.

MAJESTIC Ranges are for sale in nearly every county in forty states. If your dealer doesn't handle them you will do well to write the Majestic Manufacturing Company of St. Louis, Mo., for their interesting booklet, "Range Comparison;" it is well worth reading. At the same time they will tell you where you can see and examine the MAJESTIC and settle the range question. Address, Majestic Manufacturing Company, Dept. 131, St. Louis, Mo.

Rag Rugs.

A local merchant advertised a special sale of rugs, and they proved to be of styles which were greatly admired. And this is what they were: The old-fashioned way of making rag carpet was followed, the warp being white and the ends left long enough to knot into a handsome fringe. The rags were cut not over an inch wide.

The conspicuous feature in the colonial rug is its simplicity. While the rag carpet of a generation ago showed all the colors of the rainbow, these rugs are inconspicuous in their coloring. One which was specially beautiful showed the main portion entirely of a dull, olive-green, which, if made in the olden times, might have been colored through the agency of oak bark. The border, probably a foot wide, was of a light, almost cream color, and there were a few inches of the olive green added to complete the ends.

On this plain cream was stenciled a quaint Japanese design in soft colors. The colors were all in perfect harmony, and they were very few. Other rugs appeared in different colors, but the general scheme was the same, a soft, dull color for the main portion, broken a few inches from the end by a stenciled stripe of a lighter color. Whether the pattern for the stencil work was Japanese figures or flowers, there was always harmony and a restful look. One or two of the rugs were bordered with plain or twisted stripes of white with the dominating color, a pattern which any old-fashioned carpet maker could readily imitate.

A rug a yard and a half long would require not over a pound and a half or two pounds of rags. If there are remnants, these could be easily combined into pleasing rugs which will make some cosy corner, or fill in over a worn piece of carpet. A light brown stenciled with dark brown would be in good taste for almost any room.

The rug for common use will be chosen of a dark hue, which does not readily soil. Some of the old brown-and-white calico dresses may be worked into it without coloring. If the border is to be stenciled it should be lighter in tone, and the pattern stenciled must be in colors which combine well. But for a more common room two or three narrow stripes of a dark brown, alternating with others of the main color, will make a neat border, a few inches at each end being always of the main color of the rug.

For the blue room, there are the combinations of light and dark blue and white. Or the main part may be "tea color," simply cold tea set with copperas, the blue being worked into the border. For a guest room done in white nothing would be more desirable than a rug entirely in white, with some dainty vine stenciled upon the border in oil colors.

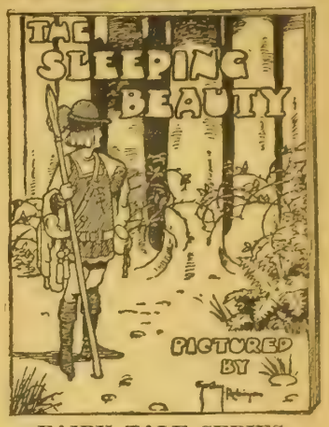
Cotton rugs make the smoothest work and wear the best when fine rags are used. Care should be taken that all rags are of uniform size and sewed to leave no unsightly ends. Select a weaver who makes a smooth selvedge, for this is quite an essential in the finished appearance. The weaving should not cost over a shilling a yard, the warp probably as much more. The rags count for practically nothing, as they are good for this purpose when practically useless for any other. And the time—one is glad to spend a few evenings in this way, since it is a means of making the home so much more comfortable and home-like.

After you have seen one you will know what to improve upon and the happy combinations will suggest others. But remember these rules: A ground color and a lighter border design are all the things to be considered; the soft, dull, restful colors are the ones which give the best results.—Bessie L. Putnam.

Universal Magazine Subscription Premiums For Children.

ANIMAL SERIES.
No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

A Premium That Will Delight the Hearts of the Little Ones. Four Fine, Beautifully Colored Toy Books.



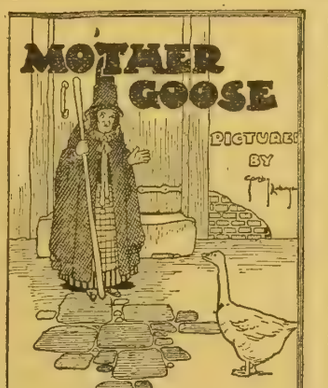
FAIRY TALE SERIES.
No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

The Universal Magazine

PUBLISHED MONTHLY.

3550 Vista Ave., ST. LOUIS, MO.

THE UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for twenty-five (25) cents we will send the UNIVERSAL MAGAZINE for one year, and we will send as a subscription premium any four (4) of the beautiful, colored Toy Books for children. Send us your orders. Order each book by number.



MOTHER GOOSE SERIES.
No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 116—Little Red Riding Hood.

LITTLE DARLINGS SERIES.
No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

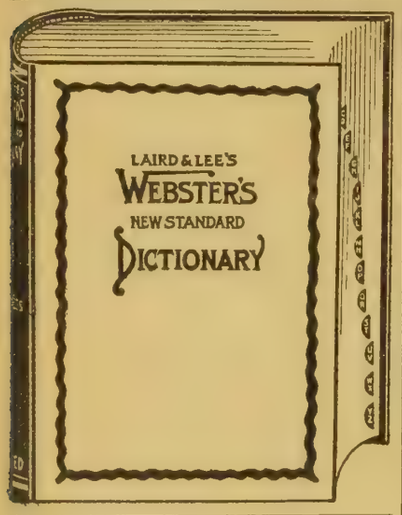
An Oilcloth Apron.

A much-appreciated apron is one made of oilcloth, large enough to amply cover the front and the sides of the dress. It is made after the fashion of a man's work apron. A rectangular piece of oilcloth is used and the two upper corners are turned back so as to make a triangular-shaped bib. A strip of the desired length is fastened from one corner to the other of the bib, which makes a slip-over for the neck. Strings are fastened a couple of inches below the waist line, so as to hold the apron close to the skirts. A big, circular pocket is attached to each side. Worn on wash days, this apron keeps the dress from getting wet and the big pockets provide convenient receptacles for clothes-pins. It is a handy apron to have on during the preserving or pickling season or at any time when mussy or sloppy work is to be done. It is also a good plan to have oilcloth aprons for the wee ones to wear at meal time and for the older children to wear when helping with the dishes.—Janet Thomas Van Osdel.

Read about the Book of Live Stock Champions on page 22.

WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 750 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography,



current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years and we will also send you, postage paid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Household Recipes.

While gasoline is very explosive, it is a great help in house cleaning and perfectly safe to use if carefully handled. Lace curtains that are not quite soiled enough to be washed can be freshened considerably by putting them in a tub with enough gasoline to cover them and allowing to soak for several hours; and curtain shades of any color can be cleaned and freshened by laying them on a table and going over them with a cloth dipped in gasoline.

The best way to clean straw matting is to go over it with a soft cloth and gasoline; and add a half cupful of gasoline to your hot suds when scrubbing the kitchen floor, and the floor will be much more easily and quickly cleaned and grease spots removed.

An excellent wall paper cleaner is made by adding half a cupful of gasoline to a quart of water and then stirring in enough flour to make a stiff dough. Take a ball of this dough, rub the paper with it, and as it removes the dirt, fold it inside and continue until the dough is used up and the entire surface of the wall cleaned.

To fill cracks in walls, mix plaster of Paris with vinegar instead of water, as this can be nicely smoothed over before it is hard.

To restore gilt frames, boil some flour of sulphur in a pint and a half of water and boil four or five onions in this water and strain. When sold, wash the frame in the wash with a soft brush.

To clean oil paintings, use about one teaspoonful of whisky and water mixed. Use a soft, clean sponge, and as soon as clean go over the surface with a soft piece of silk until perfectly dry.

A good way to clean oilcloth or linoleum is to use skim milk and a soft cloth. This keeps the colors from fading or the cloth from rot by moisture.

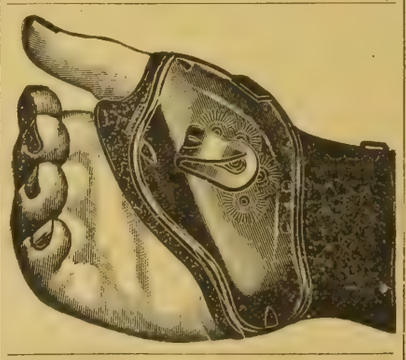
To remove grease spots from straw matting, cover them with a mixture of prepared chalk wet with turpentine, allow it to remain for two days, and remove with a stiff brush.

An excellent carpet cleaner can be made at home with very little trouble or expense, and it not only cleans well but brightens the colors. Cut up one bar of good laundry soap into one gallon of soft, water, then add four ounces each of powdered borax, alum and sal soda. Let boil fifteen minutes, then add four gallons of cold water. Have the carpet well shaken and stretched on a clean floor, then scrub with a brush, rinse with clear water and wipe up quickly and when perfectly dry the carpet can be lifted and the papers placed underneath. It is a good plan to wash the floor with strong borax water while the carpet is up, as this will kill disease germs and small insects, if there are any in the cracks and crevices, and then it purifies and disinfects.

Warm suds in which a little borax is dissolved is fine for cleaning very soiled woodwork, and there is nothing better than borax water without soap for wiping up light-colored straw mattings and for washing window panes, and after washing clean rub dry with soft cloths and polish with soft tissue paper and they will be shiningly clean.—A. M. H.

Favorite Corn Husker.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved hand husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The



strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Butcher's Calculation.

Lady Customer (pleasantly)—"I hear you are about to get married, Mr. Ribbs. I suppose I must congratulate you."

Mr. Ribbs (the local butcher, doubtfully)—"Well, I dunno so much about congraterlations, mum. It's costing me a pretty penny, I can tell you. Mrs. Ribbs as is to be, she wants 'er trousseau, you know; an' then there's the furnishin' an' the license, an' the parson's fee; an' then I 'ave to give 'er an' 'er sister a piece of joolery each. An' wot with one thing an' 'nother—she's a 'eavy woman, as you know, mum, 180 pounds—an' I reckon she'll cost the best part of $60 before I git 'er 'ome!"—New York Examiner.

Money in Making Sausage.

On page 31 will be found an advertisement of a meat and food chopper and sausage stuffer that is used in all the first-class butcher shops and packing houses and should be used on all farms where they mean business when they put up any meat products, and especially where they put up country sausage. When parcels post is in operation in good shape and farm products up to eleven-pound packages can be transported at reasonable rates, the first product to get the benefit of it will be country sausage, properly made.

Even now there are farms marketing their hogs as hams and country sausage, and they have agents in the cities selling hundreds of thousands of pounds of it at good prices. It is a trade that every farmer can engage in, and after samples have been sent by mail the larger trade can be followed up by packages to be sent by freight or express. But every pound of meat that is butchered and hacked to pieces and chopped up with a broadaxe, mixed with lumps of bread and seasoned with a lot of herbs, is not sausage, neither is it a fair imitation thereof. The people of the cities are tired of most of the so-called country sausage that appears on the bill of fare in restaurants and they are calling for the good packing-house sausage, that, with all its faults, is made by people who know how to make it. What the people live in hopes of getting is country sausage made by packing-house methods. Proper machinery for sausage making costs very little. See page 31. Furthermore, if you have no book on meat curing and sausage making, see page 20.

DON'T PAY TWO PRICES
Save $8.00 to $32.00 on
Hoosier Ranges and Heaters
Why not buy the Best when you can buy them at such low unheard-of Factory prices. Our new improvements absolutely surpass anything ever produced. Save enough on a single stove to buy your winter's fuel. Thirty days free trial in your own home before you buy. Send postal today for large free catalog and prices.
Address Hoosier Stove Co., 247 State St., Marion, Ind.

Stem Wind Stem Set
WATCH RING & CHAIN FREE
We give an American made, stem wind and stem set Watch fully GUARANTEED, and this Beautiful Band Ring, or any other premium you want, for selling 20 pkgs.
POST CARDS at 10c per package. Best you ever saw. Order 20 today, when sold send us the $2.00 and we will send you the WATCH and RING and also a CHAIN.
HERMAN & CO. 2430 N. Halsted St. Dept. 150 CHICAGO

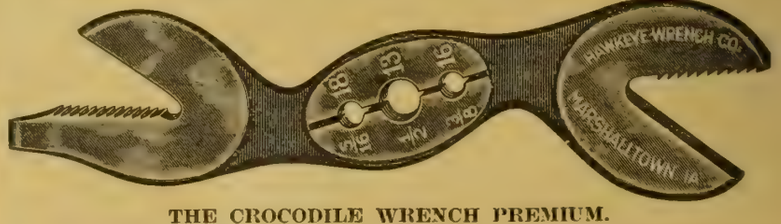
Rural Home Cook Book.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

AN ABSOLUTE NECESSITY ON A FARM.

Every Farm Ought to Have an Extra Wrench or Two, Especially When That Wrench is the Crocodile Wrench Premium—Actually Six Handy Farm Tools in One—A Pipe Wrench, a Nut Wrench, Three Dies For Cleaning or Cutting Threads and a Screwdriver.



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Every man and boy should own a library. It is easy to obtain a nice lot of books. A splendid book to begin with is "The American Government," by Frederick J. Haskin, which is a valuable book for any American between the age of nine and ninety years.

No other book explains so clearly what our government consists of. The articles upon the Presidency, the Senate, the House of Representatives are alone sufficient to place the book on the top shelf of the home libraries, and in the 386 pages there are thirty distinct articles, each one of them complete with information concerning a government department.

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MR. FREDERICK J. HASKIN,
Author of the valuable book entitled "The American Government."

We will recommend other books, but "The American Government" is a first-class book for No. 1 in a farm library. We have adopted "The American Government," handsome cloth-bound edition, as a subscription premium in connection with The National Farmer and Stock Grower. Anyone who will send One Dollar for two-years' subscription to The National Farmer and Stock Grower can select a copy of "The American Government" as a subscription premium, and we will send it postpaid, safe delivery and satisfaction guaranteed.

Child Culture by Mental Suggestion.

Editor The National Farmer and Stock Grower:

To many thoughtful minds the most vital problem in the world today is the moral education of the child. It is comparatively easy to mold aright the little mind and soul during the plastic, formative period, but if this is neglected the result is often a malformed brain that may rule to ruin in after years. Many parents and teachers, including the writer, have employed mental suggestion with remarkable success in character building. A brief outline of the method may prove helpful to some of the readers of The National Farmer and Stock Grower.

First win the child's love and confidence. Explain to it that you wish to help it develop a noble character, and that if it will work with you you will surely succeed. Every morning have it repeat after you these or similar words: "This day, God helping me, I will be kind, good, pure and true. I will do all I can to make others happy. I can and will do right." If it has any fault to overcome, earnestly and impressively repeat to it affirmations adapted to its need, and have it also repeat them several times each day and at bedtime every night, but always when it is in a passive, receptive mood. For instance, if it is selfish, say to it: "Deep down in your little heart you are kind and loving. You will always do unto others as you would have them do unto you." Embrace every opportunity to praise it for the desired virtue. If you put your whole soul into these affirmations, believe them yourself and repeat them a sufficient number of times to make a deep, abiding impression on the child's mind and heart, experience proves that they will almost invariably become controlling factors in its character.

Every true life and every noble need is inspired by an enlightened intellect, conscience and love. To develop these qualities in the child they must be constantly appealed to and made the ruling motives or conduct. Teach what is right and wrong, and why, and urge it to do right for right's sake, not from fear of punishment or hope of reward. Seek to have it obey its conscience as the voice of God in its soul. Encourage it to do acts of kindness and helpfulness. Teach it the laws of personal purity. Impress upon it that every good thought and act help to develop a beautiful soul—that one absolutely essential condition of highest happiness in this life and that to come; that every evil thought and act deform its soul and must invariably result in misery and unhappiness. Above all, exemplify in your own life what you would have the child become. "Like begets like." Love awakens love; anger excites anger. Scolding and harsh treatment aggravate the worst elements in its character. By always living, thinking and desiring the pure, the good and the true, you may most surely create these conditions in the child.

When the little mind is unfolding beneath the mother's heart, then is her golden opportunity to implant noble talents and tendencies, if she will. According to the new psychology, every absorbing thought and earnest desire she entertains during the prenatal period is telepathed to the forming brain cells of her babe, leaving there its impress of good or ill—"a chisel that cuts to mar or beautify the statue of a soul." All that is best and purest within her should awaken to meet the needs of her little one. She should cherish only beautiful, kindly, happy thoughts and aspirations, and pray silently, earnestly, every waking hour that it may be lovely, pure and good. She thus attunes herself to all holy influences, and the Power of the Highest will overshadow her and fashion a beautiful soul—may we not hope a great spiritual genius?—that will ever prove a joy to the parents and a blessing to mankind.—Frank M. Craig, Denver, Colo., September 4, 1912.

The choice Missouri and Illinois medium wools are selling at St.Louis at 26 to 26½ cents per pound; middle to good grades, 20 to 25 cents; and inferior at 16 to 19 cents. Other wools are variously quoted at a shade less. Angora fleece is quoted at 14 to 30 cents, according to quality.

Burbank's Crimson Winter Rhubarb.

A PREMIUM worth a fortune. A plant that can be grown in paying quantities on any small piece of ground, also in the house cellar. Returns $1,000 profit per acre. This is a creation by the famous plant specialist, Luther Burbank, of California. Rhubarb is a universal plant, and this Burbank's Crimson Winter Rhubarb is the King of the entire species, producing stalks of medium size, twelve to eighteen inches long, and producing them in all the fifty-two weeks of the year, whereas the productive life of common sorts is twelve weeks.

Burbank's Crimson Winter Rhubarb—Improved by Wagner.

A few roots of Crimson Winter Rhubarb will supply a large family and at the same time increase roots to enlarge the crop. We have decided to use a few roots of Burbank's Crimson Winter Rhubarb in connection with the Subscription Department of The National Farmer and Stock Grower.

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THIS IS A DOLLAR PROPOSITION.

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The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Making a Rag Carpet.

The necessary requirements for a pretty and serviceable home-made carpet are good colors, stout warp and smooth weaving, and the carpet cannot be smooth unless the balls have been very carefully prepared for the weaver; and it certainly pays in the end, for a carpet with a smooth surface will wear twice as long as a coarse one, and, above all, have all the pieces perfectly clean before cutting into strips. In estimating the amount of rags needed, remember that one and one-fourth pounds will make a yard of carpet, and a pound of chain will be enough for three yards. All pieces should be cut straight, as far as possible, as cutting back and forth and round leaves corners to stand up on the woven surface, and the finer the sewing the smoother the carpet and the better it wears. Cut out all seams and other rough places in the goods, as they not only make ugly places in the carpet, but a knot in the filling will soon cut out the warp and leave a hole in the carpet.

The hit-or-miss pattern is decidedly the prettiest way to arrange the colors, and to make this kind of a carpet some housekeepers mix the rags thoroughly before any sewing is done; but an easier way is to put each color into a small pasteboard box. After filling the boxes, begin with black; then take a strip from each of the other boxes in regular order. Try to have the same colors in each ball, and if every ball weighs one and one-half pounds it will represent one yard of carpet, if the rags are cut fine and of equal width.

Only the best warp should be used, as it is always the warp that wears out first, and white warp makes the cleanest-looking carpet and wears better than any other.

When sewing the strips together, sew woolens with woolens and cottons with cottons and never mix fine rags with coarse, as it is impossible to pack them well.

One economical housekeeper who made a handsome hit-and-miss carpet gathered together a lot of faded woolen pieces and colored them pretty shades of red, green and blue with the Diamond dyes for wool and by weakening the dye she obtained several shades of the same color, and these colors made the necessary variety for the carpet. Another lady colored all of her old white and faded woolen pieces a dark shade of blue with the dyes for wool and her carpet was made hit-or-miss and entirely of blue and white rags and the carpet was woven with dark blue warp, and this made a nice carpet for a spare bed room furnished in blue.

In making a hit-or-miss carpet, none of the strips of each color should be over two feet long, as this will give the carpet the strangely mixed-up effect that is very pleasing, and in the warp use two colors—one thread of black and one of red alternately throughout and you will have a very neat-looking carpet.—M. H.

Flowers in October.

The frosts are fast threatening the tender plants, and those designed for the window garden must be protected before they are injured if satisfactory results are expected. The cosmos is a beautiful plant, both in flower and in foliage. You have now tested each plant and found some of the blossoms extremely beautiful in color, others less desirable. Select two or three of the favorites for indoor decoration. A few hours before potting thoroughly drench the soil around the roots with water and thus allow the plant to drink up the moisture. Then carefully reset in a large pail, water well and keep in the shade for a few days. With this precaution the plant will scarcely notice the change and will remain a source of beauty for weeks.

Try planting hollyhock seed in various colors this fall and the plants will be ready for blooming next season. Some of the colors are superb, and while the plants are too stiff to adapt themselves to all situations, as a screen for some unsightly spot they can scarcely be excelled. They are a busy woman's plant, as the roots, when once started, will continue to grow for years, becoming stronger with each year, as well as sowing seeds without the aid of human hands. Some of the double ones are almost as beautiful as roses.

The dahlias should be left in the ground until cut down by frost. Then choose a sunny, drying day for their care. Lift them and let dry for the day, shaking off any loose dirt which may cling. When the roots are well dried they may be packed away in a dry cellar or closet, where they will not freeze. Do not detach them from the stem. When ready to plant in the spring, each tuber should be carefully detached with a piece of the stem.—Bessie L. Futnam.

Doctor of Agriculture.

The "World's Work," a magazine publication, advances the idea that the time is coming when every rural community of sufficient size will have one or more agricultural experts—men professionally trained to serve in an advisory way all the farmers of the community for a fee.

These men will understand the chemistry of the soil and of plant growth, their laboratories will be busy with soil analysis and the study of local plant diseases; they will be entomologists and bacteriologists, and their value will be obvious to the enlightened farmers of a new age.

Then farmers, no longer content to depend on the free clinic of the State Experiment Station, will seek the advice and prescription of the local Doctor of Agriculture. The dignity and the rewards of this profession are bound to increase, for it is founded upon the basis of our greatest industry.

The State Board of Horticulture at Columbia, Mo., is endeavoring to find an enlarged market for the apple crop and will assist growers who write to the Secretary, saying what they have for sale.

The Interstate Commerce Commission does not believe in advancing live stock rates, which are high enough already.

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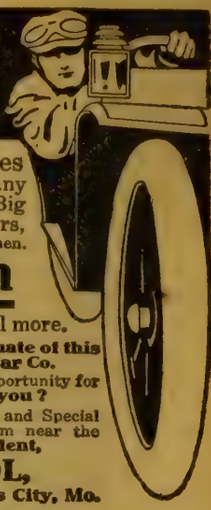

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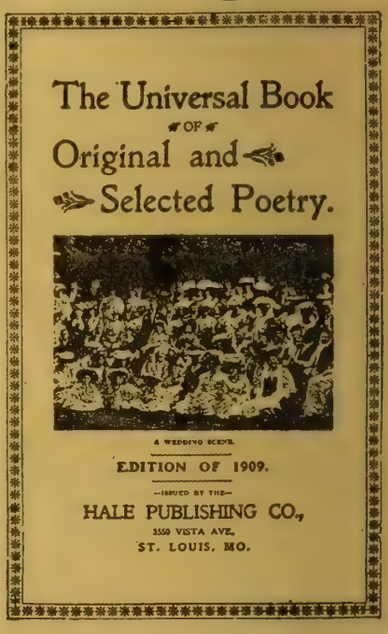

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is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the UNIVERSAL MAGAZINE is, that it is not loaded down with advertisements. Notwithstanding it is a cheap magazine, the subscription price being 25 cents a year, it was supported by subscriptions alone for 5 years.

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Anyone who will send 10 cents to pay for four-months' trial subscription to the UNIVERSAL MAGAZINE can select one copy of the UNIVERSAL POETRY BOOK as a free premium, and we will send it by mail, prepaid, safe delivery in good order guaranteed.

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Closed Windows.

A middle-aged woman appeared before a physician and complained of headaches almost all of the time, frequently colds and a generally depressed feeling. After asking several leading questions, the man said: "Do you sleep with your window open?" "No, sir," replied the woman confidently, "I never slept with a window open in my life." "Don't you leave it open even an inch?" the doctor continued. "No, sir," answered the patient, "nor the hundredth part of an inch. You can't lay any of these ailments to my sleeping with open windows."

"No, madam, I cannot," answered the physician. "I can only say that you must be a remarkably strong woman to have stood sleeping with closed windows all of these years. Had you thrown your window open as high as it would go, two windows or three windows, if you have that many in your room, you would very probably never have a headache, a cold, nor this feeling of general depression. Every night of your life you have been poisoning your system by taking into the body through the lungs poisoned air. All the medicine in the world that you need is fresh air in generous doses at all hours of the day and night. You need not sleep in a draught, you have plenty of covers, but you must have plenty of air, and it must be fresh and invigorating, not stale and enervating."

After a little demur, the woman agreed to follow the advice given her. Result, she soon slept like a baby, never had a headache and seldom a cold. Her complexion improved and so did her appetite.

All through the summer the windows have been thrown wide open. Now is the time when the chilly nights begin and it is so easy to pull down a window. Don't get the habit. Leave them just as they have been all summer. Pile on extra bed clothes and put a screen before the window, if that is necessary; but don't shut off the fresh air. What is the use of having colds and headaches and general ill feelings when they can so easily be prevented?—Janet Thomas Van Osdel.

Frightening Children.

A too frequent method of compelling obedience on the part of children is by frightening them. When little Fred demurs at being ordered to desist from play at twilight, his mother says: "Come in the house. Bogie man is in the dark. He'll get little boys who stay out."

The little fellow shrinks into the house and shivers at the thought of going upstairs to bed. And then he is soundly scolded and sometimes slapped and called a coward when he whines that he is afraid to go to bed. Why shouldn't he be afraid? The big, wise people whom he trusts tell him that there's a Bogie man in the dark. It's dark upstairs. There's probably a Bogie man there. Any child with reasoning powers would come to a similar conclusion.

A wise woman who deserves the name of mother will simply tell little Fred that it is time for him to come indoors. She will expect to be obeyed and she will be obeyed without making any foolish, wicked or false threats. Instead of peopling the dark with horrors, which the imagination of a child can make so vivid, she will speak to the boy of the beauty of the night, calling his attention to the darkness falling over the earth like a covering, so that birds and flowers and all nature may rest. She will point out to him the stars and other beauties which the night reveals. Her son will never be a coward through his mother's instrumentality.

Another threat made to children is that if they are naughty the policeman will get them and put them in jail. Instead, the policeman should be looked upon simply as a guardian of the law—one to be appealed to in time of difficulty. Once a little girl to whom the policeman threat had often been made wandered away from home and was lost in the streets of a city. She was standing at a corner whimpering, when she saw a policeman approaching. Instantly she thought that he was about to lock her up in jail and then perhaps she would be hung. With a hysterical scream of terror she darted away and ran almost under the feet of a passing team of horses. It was a miracle that a fatal accident was avoided. She ran for her very life, but in a few strides the policeman had overtaken her. Shrieking with terror she was caught up in his arms, and it was some moments before she was quiet enough to realize that the big, blue-coated man was whispering pet names to her, just as her own father did.

At last he found out where she lived and carried her to her home. But before he put her into the mother's arms the woman received a severe reprimand for teaching an innocent child to fear the guardians of the law, and a promise was exacted from the little girl that she would ask their help if ever she became frightened when out on the street.—Janet Thomas Van Osdel.

Dressmaking in Ten Weeks.

For several years we have been seeking something in the form of an instructor that was able to impart instruction in dressmaking that could be understood. We have seen charts and diagrams and had all kinds of methods explained, which all led up to personal instruction.

We have obtained a book at last that we can plainly see is a guide and a helper to the beginner, and with it an intelligent girl or woman may learn to be independent, to make her own clothes, to make clothes for others, to earn a living and to be able to enter one of the best-paid professions open to women.

MRS. EDITH M. CARENS,
Author of the book entitled "Dressmaking in Ten Weeks."

The book we have selected as the best known to us is by Mrs. Edith M. Carens, who is Principal of a College of Dressmaking. It is entitled "Dressmaking in Ten Weeks" and is a condensed course of twenty complete lessons, and especially arranged for home study work. Each line is the result of careful preparation and years of study by an expert. There is information found here that can be obtained nowhere else.

There is an entire lesson on hand sewing, which alone is a book within itself, dealing with all kinds of fancy stitches, different kinds of hems and seams, proper method of buttonholes, also the making of hand-made trimming.

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The size of the book is 5x8 inches, contains 127 pages, and has fifty illustrations.

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What we wish to do is to please every girl and woman on the farm. We wish them to say to husband, to father or brother and to uncle: "I would like you to subscribe for The National Farmer and Stock Grower. It pleases me and will please you. The price is 50 cents a year. It is full of good articles on general farming and stock and poultry raising in all branches. And besides all that, if you do subscribe, I will receive as a commission or premium a copy of the book 'Dressmaking in Ten Weeks,' postage free and safe delivery guaranteed. I need that book, and the best way to get it is to send 50 cents for one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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No. 7573.—Mackinaw or Belted Coat For Misses and Small Women. Sixteen and eighteen years. With or without hood and pockets, with sleeves drawn in at the wrists or plain.

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No. 7524.—Two-piece Skirt. 22 to 30 waist. With high or natural waist line.

No. 7552.—Fancy Blouse. 34 to 44 bust. With or without lining, with fancy or plain sleeves in three-quarter or full length.

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The price of each pattern is 10 cents.

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No. 7414.—Morning Jacket With Peplum. 34 to 44 bust. With short or long sleeves, round or square collar. 3½ yards of material 27 inches wide for the banding and ⅝ yard 27 inches wide for the piping, for the medium size.

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No. 7547.—Girl's Double-breasted Coat. Six to twelve years. In seven-eighths or full length or cutaway fronts. 4½ yards of material 27 inches wide for overcollar and cuffs, ⅝ yard 27 inches wide for undercollar, for the ten-year size.

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No. 7545.—Middy Costume For Misses and Small Women. Fourteen, sixteen and eighteen years. With six-gored skirt, with or without yoke on skirt and blouse, with blouse open at the front and joined to the skirt or made separate and drawn on over the head, with elbow or long sleeves.

No. 7543.—Long, Double-breasted Coat For Misses and Small Women. Sixteen and eighteen years. Six yards of material 27 inches wide, with ½ yard 44 or 52 inches wide for collar and cuffs, for the sixteen-year size.

No. 7554.—Child's Tucked Dress. Two to six years. With square or high neck, short or three-quarter sleeves, with or without shirring at waist line.

No. 7551.—Circular Petticoat. 22 to 32 waist. With or without yoke and frill, with inverted plait or habit back.

The price of each pattern is 10 cents.

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No. 7565.—High-neck French Corset Cover. 36 to 46 bust. Perforated for round, square and V-shaped necks, sleeveless or with two sleeves that can be made long or short. 2½ yards of material 27 inches wide, with 1 yard of beading and 3 yards of edging to make as shown in large view, 1⅛ yards of beading, 2½ yards of edging, to make as shown in small view, for the medium size.

No. 7560.—Boy's French Suit. Six to ten years. With or without sailor collar, with sleeves that may be tucked or gathered and joined to bands. For the eight-year size the suit will require 3⅛ yards 36 inches wide, with 1 yard 27 inches wide for the sailor collar and belt and 6 yards of braid, to make as illustrated.

No. 7564.—English Top Coat. 34 to 42 bust. With two-piece sleeves that can be made plain or in bell shape. With cutaway fronts, with or without underarm seams, or with straight fronts and underarm seams. 5½ yards of material 27 inches wide to make with seams under the arms; to make without seams under the arms, use material 54 inches wide and 2⅞ yards will be needed, for the medium size.

No. 7336.—Girl's Norfolk Costume. Eight to twelve years. With or without applied yoke on coat, with straight plaited skirt. 5½ yards of material 27 inches wide, for the ten-year size.

No. 7563.—Three-piece Skirt. 22 to 30 waist. With high or natural waist line. 3¾ yards of material 27 inches wide, with 1¼ yards of any width for panel.

The price of each pattern is 10 cents.

The foregoing patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each. Please address all pattern orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Anyone who will send us 25 cents to pay for one-year's subscription to the Universal Magazine can select the Dolly Dimple Series of Dressing Dolls as a subscription premium, and we will send the box postage prepaid, safe delivery guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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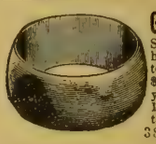
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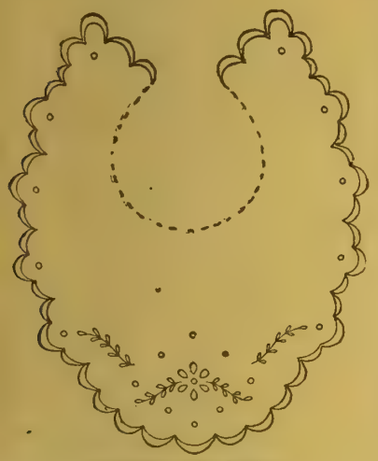
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.



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No. 681.—Design for embroidering an infant's bib.

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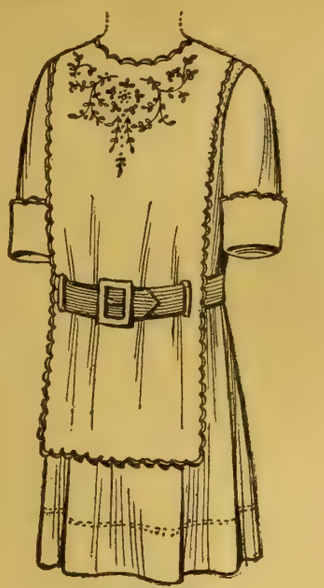
No. 684.—Design for an embroidered center cloth, twenty-two inches in diameter. The design can be obtained for doylies twelve inches in diameter (No. 648), nine inches in diameter (No. 646), and six inches in diameter (No. 644). Each number is a 10-cent pattern.



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No. 683.—Design for embroidering a girl's dress. Transfer patterns for the front of the blouse and scallops for tunic and cuffs are given. Especially adapted to May Manton's Pattern No. 7460.

Pillow Slip or Towel End.

No. 679.—Design for embroidering a pillow slip or towel end. One complete design, eighteen inches in width, and scallops for two yards are given.

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No. 682.—Design for embroidering a doylie six inches in diameter. Six transfers are given.

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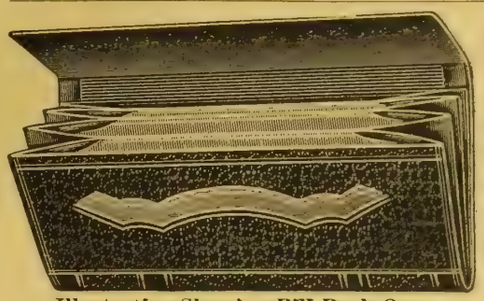

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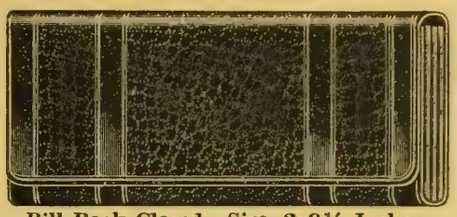

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is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

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Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

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New York Dressed Poultry.

At New York, October 1st, dressed poultry was selling as follows: Fresh-killed: Chickens, broilers, small boxes, milk-fed, 24 pounds to dozen and under, 26 cents; 26 to 30 pounds, 24 cents; corn-fed, 24 pounds to dozen and under, 22 to 23 cents; 26 to 30 pounds, 20 cents; milk-fed fryers, 31 to 36 pounds and over, 21 cents. Chickens, barrels, Western, dry-picked, milk-fed, 20 cents; corn-fed, 3½ pounds each, 18 cents; mixed sizes, 17 cents; scalded, 16½ cents; poor, 14 to 15 cents. Turkeys, old hens and Toms, mixed, 16 to 17 cents. Fowls, dry-picked, Western, boxes, 60 pounds and over to dozen, 17½ to 18 cents; 48 to 55 pounds, 17 to 17½ cents; 36 to 42 pounds, 16 to 16½ cents; under 36 pounds, 15 to 15½ cents. Other poultry, old cocks, per pound, 13 cents. Squabs—White, ten pounds to dozen, $4.00; nine pounds, $3.50 to $3.75; eight pounds, $3.00 to $3.25; seven pounds, $2.50 to $2.75; six to six and one-half pounds, $2.00 to $2.25; dark, $1.75.

Did Not Need a Cow.

"Do these people keep a cow?" asked one city girl.

"No," replied the other, "they don't have to. They have a fine patch of milkweed growing back of the barn."—Washington Star.

Trees and Lawns.

Trees and lawns are large factors in the beautifying of the country home, as well as of the home in the more thickly-populated locality. Where there is room for both of these, the home can soon be made a paradise, at least in outward appearance.

Trees do more than add to the beauty of the scene—they purify the air, and, in a measure, cool it, for trees are perpetually sending off moisture into the air.

So the grass on the lawn helps to purify the air because it prevents the soil from becoming dust and being blown about. The leaves of both trees and grass absorb injurious gases, like those arising from carbonaceous substances. The air is thus constantly being purified, both directly and indirectly.

The roots of trees and of grass perform another great service, which is seldom considered. They draw up water and change it into aqueous vapor, which water otherwise would go to swell the streams and the rivers and cause disastrous floods. But on the house lot, they by that much reduce the soil water and lessen the amount of water that gets into houses and causes dampness. This action is far greater than the thoughtless person would suppose.

Recently the New York County Medical Society adopted the following resolution:

"Resolved, That one of the most effective means for mitigating the intense heat of the summer months and diminishing the death rate among children is the cultivation of an adequate number of trees in the streets."

If that is true in the city, it is also true in the country, especially in those localities where the farm houses are surrounded by miles of corn fields, wheat fields and pastures.

Trees arrest the dust that would be blown into the homes. The moist leaves hold it fast more certainly than would any substance that does not give off moisture. It is asserted by foresters that the interiors of houses surrounded by trees are less dusty than those not so protected.

The home that is surrounded by trees and lawns is the home where the people in the summer time live much out of doors, for they have the cooling shade of the trees for a protection against the fierce heat of the summer sun.

This is another element making for health, for the people living in the houses exposed to the full heat of the sun remain indoors, that being the only place where they are safe from the heat.

Trees and lawns add real value to any place. The real estate man appreciates this, and can get more money for a place so beautified than for the place that is bare of all such adornment.

The lawn has another value, and that is its value as a playground for the children. Lawn tennis, croquet and other games are possible where a good lawn exists. Play is now recognized as having great value to the whole family. Health and happiness are thereby increased.

There are by far too many homes that have no delightful surroundings. Especially in the country, we still find numerous farm houses with neither lawns nor trees. Such homes will not be green spots in the memories of the children when they have grown into men and women.

Storing Potatoes.

In a dry climate and with a low temperature it is very easy to store potatoes so that they will keep well. But in a moist climate and with varying temperatures the keeping of potatoes for months at a time becomes a problem that is not easily solved.

If potatoes are properly stored, if the conditions of storage are perfect, the potatoes will remain hard until spring and they will not sprout. If they get soft and sprout, it is an indication that conditions for keeping have been bad and that the temperature has been favorable to growth.

The potatoes that are set aside for seed must be kept perfectly hard till they are wanted for planting purposes in the spring. It is more difficult to keep seed potatoes perfectly than it is to keep commercial potatoes, for the reason that seed potatoes need to be kept longer, on the average.

The practice in the North has been quite generally to keep potatoes in the cellars in open bins. So much has this been detrimental to the keeping of seed potatoes that many of the farmers living within a few miles of a cold-storage house now haul their potatoes to such cold-storage houses and pay for their storage rather than get along with a deteriorated lot of seed in the spring.

Where potatoes are kept in open bins, and the temperature of the cellar is that of most cellars, the farmer can expect at least two jobs of "sprouting potatoes" during the winter. Where the potatoes are not to be used for some months, they should be put in barrels or tight boxes, or the bins should be covered.

This will keep the air from circulating among the tubers, and will prevent the drying out of the potatoes. If the air is kept from moving, the temperature will also be easier to regulate, for the reason that the air in the bins, boxes and barrels, once brought to near the freezing point, can be retained at a low point with little trouble.

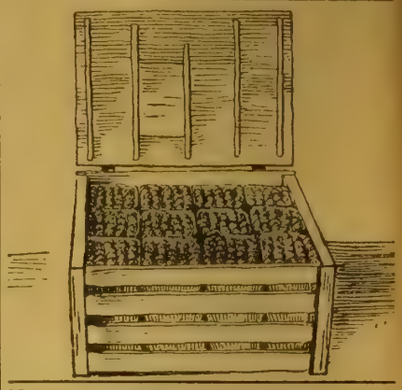
It is not a difficult matter to change the open bin to a closed bin and thus secure in the closed bin all the advantage of boxes and barrels. The bins will hold more potatoes per cubic foot of space than the barrels. The smaller the package the greater the loss of space, due to open packing around the sides.

The out-door cellar or pit for the storing of potatoes is good in the hands of a man that understands it. Such a pit or cellar needs to be well drained, so that it will be impossible for water to get in. Water makes the pit risky except in soil that is porous and can be perfectly drained. The covering with straw and dirt has to be complete enough to keep out the frost. When all things are properly adjusted the pit is an excellent keeper of potatoes, because it is almost impossible for the temperature to rise above fifty degrees till very late in the winter.

An ideal storage place for potatoes would be a separate building, partly under ground, with walls and roof so well supplied with air spaces that the temperature would be kept about that of the ground just below the frost line. This would permit of the house being visited every day, if need be, to make sure that all conditions were right.

The Strawberry Culturist.

This is a handy little jewel of a book. It is by Andrew S. Fuller, one of the greatest horticulturists. It contains all the necessary information to enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book contains that which a beginner should have to start on and an expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The



National Farmer and Stock Grower for one year for fifty (50) cents. This is a splendid opportunity to get a good farm paper and a valuable book as a premium. An average crop of strawberries is 1,701 quarts to the acre. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Fancy butter is scarce, and always will be scarce, for the reason that not one dairyman in ten can make fancy butter. There is plenty of room at the top in buttermaking.

At the New York State Fair, a big cheese, made by H. A. Reis, of Lowville, weighed 6,047 pounds, and it required 63,493 pounds of milk to make it.

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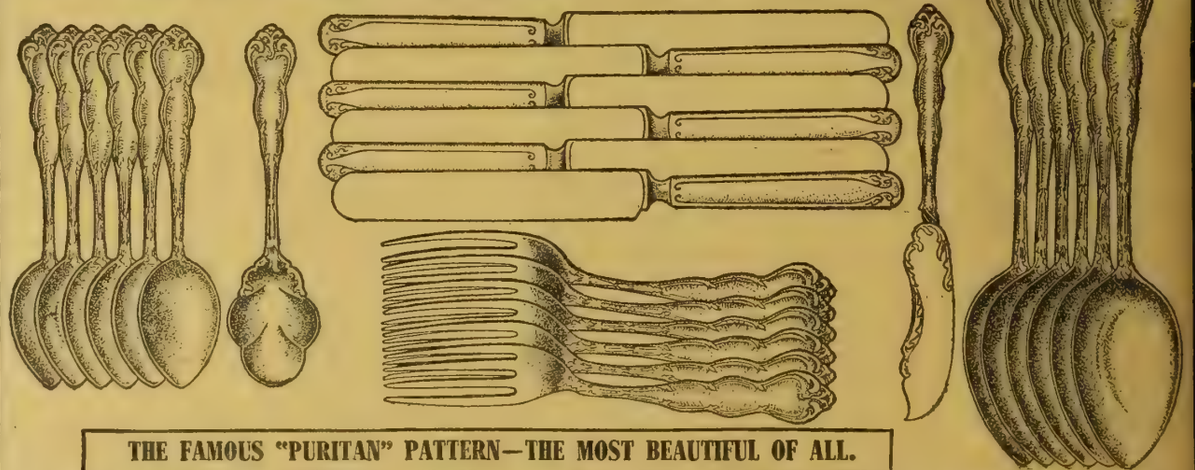

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We Want One of These Beautiful Silver Sets in the Home of Every Reader

Send No Money Just write us a letter or a postal card saying that you want one of these 26-piece **Imperial Silver Sets.** We don't even ask you to pay the express charges. **We pay all the express charges** and guarantee the set to reach you. This is a most unusual offer and we will give away many thousands of these sets before our offer is 30 days old. You do not want to miss this opportunity to own a complete 26-piece Imperial Silver Set without it costing you one penny. We are determined to place one of these handsome sets in the home of every reader of this paper who will write us at once. Every woman, girl or boy can get one of these sets, but only one will be placed in each family.

Guaranteed These Silver Sets are made by one of the largest silverware manufacturers in the United States. Every piece is full size and weight with an extra heavy plate of genuine silver upon a hard metal base. It will wear and last for years. The simplicity and beauty of the design is making this Puritan pattern one of the most popular silver sets ever offered to the public. There are 6 knives, 6 forks, 6 table spoons, 6 tea spoons, 1 butter knife and 1 sugar shell in each set. Both the handles and the blades are bright finish which is the height of perfection in silverware. When you possess one of these 26-piece Puritan Pattern Silver Sets, you will have the satisfaction of knowing that you will have one of the very finest of its kind ever given away. Remember we guarantee them.

Our Offer Just write us a letter and enclose 10c as evidence of your good faith. For your 10 cents we will mail you a fine book of needles, all sizes up to a big darning needle. These needles are really worth 25 cents. Now we ask you to send us the 10 cents to keep out curiosity seekers and children. All that we ask of you is that you help us among your friends and neighbors on our great introductory offer. Something you can do easily and quickly. Write us today enclosing 10 cents to convince us that you really want one of these 26-piece silver sets and that you are not a mere curiosity seeker. We will then send you the book of needles and our wonderful free offer of a **26-piece Silver Set in your home, all charges prepaid.**

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SELECTED POETRY.

APOSTROPHE TO $1.00 BILL.

In my inside pocket, Bill, you're snugly hid and lyin',
You'll never get away from me—'tain't no use a-tryin';
I may trade you for an aeroplane for an airy spin;
Maybe it'll be an automobile—it's a shame an' sin
To blow in all that money—yes, it is a bitter pill
To bid you "good-by," my honey, so much against my will;
It will make me holler when I say: "Farewell," old dollar"—
My last old dollar bill.

You stood by me last winter, Bill—an' Bill, I clung to you,
Tho' your face is rather grimy, you're a friend that's ever true;
You have got an education—all languages you speak;
I understand your English, Bill, so never mind the Greek;
You're friend to everybody, in palace or in cot,
They're very glad to know you, for you're Johnnie-on-the-spot;
Dear Bill, I hate to use you, 'twould pain me, Bill, to lose you,
My chummy dollar bill.

You're are high with Rocky fellows, to me you are a boon,
Sometimes your notes are crispy, but you always are in tune;
I hustled long to win you, Bill—'twould be a cruel blow
To lose your sterling friendship—grieves my soul to see you go;
Thou dear old faithful dollar, Pal, to me both drink and crust,
Image of your silv'ry brother, his name's "In God We Trust;"
"Here our pathways part," you say—Ah! we'll meet again some day—
Thou fleeting dollar bill.
—Henry June Patee.

THE WISE DAIRYMAN.

There was a man in our town,
And he was wondrous wise;
He knew, if he produced clean milk,
He must all dirt despise.
He knew the feeds that made milk
And how to weigh and test,
And all the cows that he did own
Were of their breed the best.

"It's clearly very wrong," said he,
"To keep cows on a nasty floor;
So, if I would clean milk produce,
I must bed the cattle more.
And this will help to keep them clean
On hips and flanks and side,
For this is the very place, you know,
Where the little germs reside."

"Now, it's quite impossible," said he,
"To make good milk in a dingy stable,
And so I'll let the sunshine in
As much as I am able."
So he put in windows, large and many,
To help him in his fight,
For he knew that his best weapons
Were pure air and sunlight.

Now, when he'd finished all these things,
To make success more sure,
He built a shed outside the barn
For storing the manure.
"This," said he, "is the most important
Of all the things to do,
For, besides being more clean,
It saves manure, too."

And then, with care to keep the pails
And all utensils clean,
That man produced the cleanest milk
That e'er the town had seen.
—Prof. E. D. Waid, Massachusetts Agricultural College.

THE COURT RUN.

"Good morning, judge," the culprit said,
"Good morning," said hizzoner.
"Now speak the truth," the jurist spake,
Or else you are a goner."

"'Twas just like this," the culprit quoth,
"My wife, the timid creature,
Became annoyed at my remarks
And smote me on the feature."

"Methinks," the wise old judge remarked,
"You need a long vacation
To swing a sledge and shatter stones,
Or some such occupation.

"Or maybe you would rather meet
Your wife in deep repentance."
"Oh, nix!" the prisoner replied;
"I'd rather take a sentence."
—Milwaukee Sentinel.

HUSHABY.

Awful tired baby,
All-a-lone in bed.
Muvver comin', maybe,
When I sleep, she said.
Wis I had my Teddy,
Guess I suck my fum'—
If the san' man weady—
Why he doesn't come?

Light goes "twinkle, twinkle,"
"Lord, my soul to take"
Nightie in a w'inkle—
All my piggies ache.
Now I los' my cover—
Froat is gettin' dry—
Muvver, Muvver, Muvver!
Put me hushaby.
—Ethel M. Kelley, in Harper's Bazar.

Why the Sky is Blue Explained by Professor Ingersoll.

Why is the sky blue? has been asked so often of Prof. L. R. Ingersoll, of the Physics Department of the University of Wisconsin that he has prepared the following brief explanation of the phenomena:

"It would seem as if the explanation of such a universally observed fact should be generally well known, but the truth is that the real reason for our sky colors and beautiful sunset tints has been known even by scientists for only a comparatively few years, although the general principles of color have been understood for a long time.

"A leaf appears green because it reflects or sends back to use more of the green than of the other colors which go to make up the white light with which it is illuminated. White paper or paint appears white because it reflects all colors equally well, and black looks black because it absorbs all colors, sending back none.

"All these facts have been known for many years, but they apparently led to no explanation of sky color for the simple reason that the air itself is colorless. Lord Raymond, the English scientist, finally attacked the problem from a somewhat different standpoint and so discovered the true reason for the sky color. Realizing that even the purest air always contains more or less of fine dust suspended, he studied the effect of such particles on a beam of light and found that they could turn aside or shatter in all directions a certain small share of this light, and that the finer the particles were the more blue would be the shattered light. The general blue of the sky is due, therefore, to this shattered light turned aside in all directions by these fine particles of dust in the atmosphere. The higher we go the finer the dust we should expect to find, and consequently the deeper the blue color. This is the reason for the deep blue or even the indigo blue sky seen from high mountain tops. Conversely, the lower levels of the air have relatively larger dust motes, and these turn aside all colors equally, hence the whitish appearance of the horizon sky.

"The sun and the surrounding clouds at sunset appear red because the light has been robbed of so much of its blue color by its passage through the great thickness of air through which we see the rising or setting sun. Anything that tends to increase the amount of fine dust or smoke in the air enhances the beauty and brilliancy of the sunset, as was illustrated in the years 1883 and 1884, after the eruption of Krakotoa, which literally filled all the air in the world full of very fine dust.

The Muse in the Claim Office.

A North Missouri farmer, whose hog was killed by a train, wrote to the company's claim agent for a settlement, says a writer in the Columbia Statesman. He penned his communication thus: "Dear Sir: My razorback strolled down your track a week ago to-day. Your 29 came down the line and snuffed his life away. You can't blame me, the hog, you see, slipped through a cattle gate; so kindly pen a check for ten, the debt to liquidate." He received the following reply: "Old 29 came down the line and killed your hog, we know, but razorbacks on railroad tracks quite often meet with woe. Therefore, my friend, we cannot send the check for which you pine. Just plant the dead, place o'er his head: 'Here lies a foolish swine.'" —Linneus (Mo.) Bulletin.

More Money in Making Sausage than in Selling Hogs on the Hoof —Use Enterprise Machines

Market conditions for farm-made pork products were never better than right now. Don't lose several dollars per hog by selling them alive. Cut them up yourself. Use an **Enterprise Meat AND Food Chopper**—and a combination **Enterprise Sausage Stuffer and Lard Press** and realize the most money out of your hogs.

The ENTERPRISE Meat AND Food Chopper

enables you to make the sweetest, juiciest and most nourishing sausage meat you ever produced.

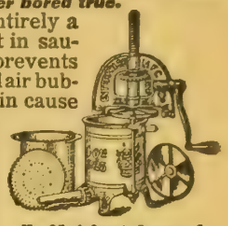
The big use for a chopper is to cut meat, less frequently to cut other food. But both are important. Therefore, be sure you get a *Meat AND Food Chopper.* It's useful not only at hog-killing time—but always useful in the kitchen. The exquisite dishes you can prepare from left-overs and bits of food that otherwise would be wasted are a source of delight to the family that lives well. It also contributes so much to economy in furnishing the table that it is really indispensable. It repays its cost almost every week in the farm home.

There are lots of choppers that cut meat by crushing and mangling it, but only one that really cuts—the **ENTERPRISE Meat AND Food Chopper.** Has four-bladed knife—four *cuts* at every turn of the handle.

"ENTERPRISE" Meat AND Food Choppers are made in 45 sizes and styles for hand, steam and electric power. We also make *cheaper* food choppers, but recommend the above.

No. 5.	**Family size**	.	.	**$1.75**
No. 12.	**Farmers' size**	.	.	**2.25**
No. 22.	**Farmers' size**	.	.	**4.00**

The ENTERPRISE Sausage Stuffer and Lard Press
Cylinder bored true.



No. 25, 4-Quart, Japanned
Price, $6.50
Tinned and Japanned

makes failure entirely a thing of the past in sausage making. It prevents air bubbles—and air bubbles are the main cause of sausage spoilage. To have good sausage *always*—keep out the air. It can be done surely and easily *only* by using an **Enterprise Sausage Stuffer** with the patented corrugated spout. Other machines offer corrugated spouts—but such corrugations are more for looks than for any practical purpose, for the corrugated spout of the **ENTERPRISE** is *patented* and cannot be used or imitated by any other machine. It can be had only with the **Enterprise Sausage Stuffer and Lard and Fruit Press**—three machines in one. The change to either use is instantly made. They can be had in 9 sizes and styles—up to eight-quart capacity. All are accurately machined. Plate fits closely without binding. Meat does not squeeze out. These presses are an absolute necessity at butchering time. Illustrated catalogue on request.

"The Enterprising Housekeeper," 200-Recipe Cook Book, sent for postage, 4c.
Enterprise specialties are for sale at hardware and general stores everywhere.

THE ENTERPRISE MFG. CO. OF PENNA.
Dept. 87, Philadelphia, Penna.

Universal Salt and Pepper Shakers.

The Universal Magazine ought to be known to all our readers, for the reason that it is a nice publication that is very good company on a farm.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the Universal Magazine is, that it is not loaded down with advertisements.

When we send out the Universal Magazine we also like to send out a useful and meritorious subscription premium with it.

Universal Salt and Pepper Shakers—Reduced Size.

To this end we have adopted a pair of Aluminum Salt and Pepper Shakers, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents we will send the Universal Magazine for ten months, and we will send the pair of Universal Aluminum Salt and Pepper Shakers as a premium, postage paid, safe delivery and satisfaction guaranteed.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find Twenty-five (25) Cents to pay for ten-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a subscription premium, post free, safe delivery guaranteed, one pair of Universal Salt and Pepper Shakers.

Name.. .....

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FREE TO GIRLS

We want to send to every little girl a **Talking and Sleeping Doll** She is the prettiest, daintiest and sweetest dolly you ever saw. She closes her pretty eyes and goes to sleep. She will say "Papa" and "Mama" as plain as a real little girl, whenever you want her to. Stylishly dressed with lace trimmed hat and gown, shoes and stockings; a foot and a half tall.

Send No Money Just your name and address and say you want a "Mama" and "Papa" Talking Doll and I will tell you how to get her.

Not One Cent of Your Money is Required

UP-TO-DATE, Dept. 10 Indianapolis, Ind

After 60,000 Cars

By R. E. Olds, Designer

I have built to date over 60,000 cars.
For 25 years I have watched their performance. I have found out and corrected a myriad shortcomings. I've acquired a world of caution.
Some say I'm "old-maidish"—too careful, too slow. But I call these things standards. I've made them my code.

My Latest Extreme—Big Tires

The new Reo the Fifth—out Oct. 1—is equipped with 34x4-inch tires.

That is 22 per cent. greater tire capacity than I have ever used on a car of this size. Yet this car was always much over-tired, compared with usual standards.

These oversize tires add 30 per cent. to my tire cost. But they add 65 per cent. to the average tire mileage. They should save you in tire waste some hundreds of dollars during the life of the car.

Remember this fact when you come to compare cars. The tires on Reo the Fifth are now 34x4.

Make Some Other Comparisons

In judging cars, in these days of close prices, it is very important to make other comparisons.

There are dollars saved sometimes which cost buyers ten dollars. What you want is final economy.

Watch points like these:

Reo the Fifth has *190 drop forgings*. All makers use some of them to get lightness and strength. But Reo the Fifth has 190. And its racy lines, its lightness and strength are due largely to those costly forgings.

My springs are *two inches wide*. Each spring has *seven leaves*. The front springs are 38 inches long—the rear are 46.

I use *fifteen roller bearings*—11 of the Timken, 4 of the Hyatt High Duty.

Every important bearing has *bronze bushings*—even the smallest of them.

For safety's sake I use *14-inch brake drums*. I use a centrifugal pump.

I use a $75 magneto, to insure a hot spark when the car runs slowly. You can start on this magneto.

My carburetor is *double heated*—with hot air and hot water. So poor gasoline can't give trouble.

For big margin of safety, every driving part in this car is built for *45-horsepower requirements*.

No Chances

I take no chances on any part of this car, for chances sometimes cost dearly.

Each lot of steel is *analyzed twice*. Gears are tested in a crushing machine, to stand 75,000 pounds.

Each engine gets *five tests*—about ten hours each. It is run for 28 hours in the chassis.

I limit my output to an easy capacity of 50 cars a day. So the cars are built slowly and carefully—no man is ever rushed.

Parts are ground over and over. Our factory system insures a thousand inspections.

Petty Savings

I abhor petty savings. I could save, perhaps, $50 to $75 per car in the finish and upholstering if I cared to skimp.

But I put on this car a special body which costs more than wood or metal. I save by this 50 pounds in weight, and the body takes a wondrous finish.

I give 17 coats to each body. The fenders, radiator, hood, etc., have two coats of rubber enamel baked on.

The upholstering is deep, and of genuine leather. It is filled with the best curled hair. The backs as well as the seats are filled with springs, to give you the utmost comfort.

Every part shows the final touch. Even the engine is nickel trimmed. I believe that folks like these perfections.

Center Control

Reo the Fifth has my center control—a single light handle, out of the way, which does all of the gear shifting by moving *three inches* in each of four directions.

Both brakes are operated by foot pedals. So there are no levers to clog the front doors.

The driver sits on the left side, as in electrics, close to the cars he passes. Yet the gear-shifting lever is at his right hand. Note how many great cars are following me in this. The old way of driving will be soon out of date.

Do These Precautions Pay?

The result of all this is that Reo the Fifth sells on a mighty small margin. I am keeping the price under $1,100, with all the new features, including these big tires.

Our profit per car is now a very small item, despite the fact that we make every part ourselves.

Yet there are cars which, at passing glance, seem to undersell this car.

I have told you the facts, so you may judge for yourself if these are things which you care to go without. Would you wish me to save you a little on price by trebling your cost of upkeep?

I am sure you'll say no. I am also sure that the time is coming when most cars must be built like this. Men won't have them otherwise.

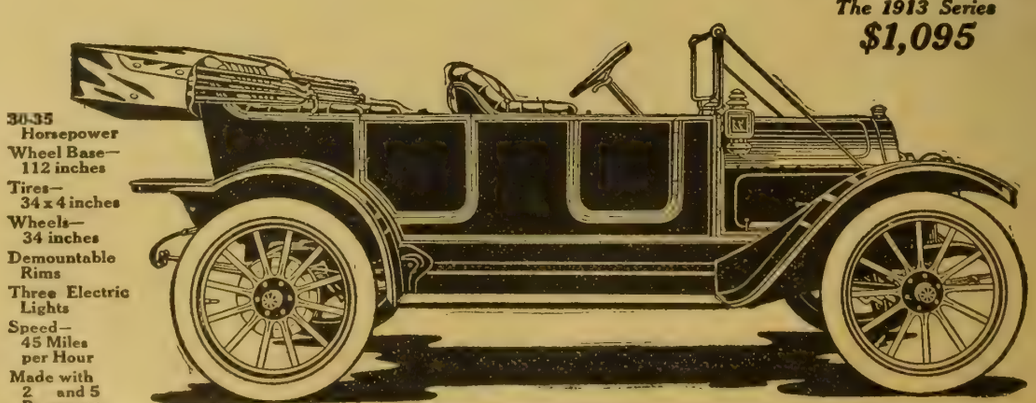
Here's the greatest value any man can give you in a car. If you want such value I want your trade. And you'll be very glad, in years to come, that you picked a car like this.

In 1,000 Towns

A thousand dealers in a thousand towns now offer this new type of Reo the Fifth.

Our 1913 catalog pictures all the details, and shows styles of bodies. Write us for it now.

Reo the Fifth
The 1913 Series
$1,095



30-35 Horsepower
Wheel Base—112 inches
Tires—34 x 4 inches
Wheels—34 inches
Demountable Rims
Three Electric Lights
Speed—45 Miles per Hour
Made with 2 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank for headlights, speedometer and self-starter—all for $100 extra.

R. M. OWEN & CO., General Sales Agents for **Reo Motor Car Co., Lansing, Mich.**

Canadian Factory, St. Catharines, Ont.

National FARMER

Vol. XXVIII. St. Louis, Mo., November, 1912. No. 5.

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GREATEST AND BEST

Live Stock Show

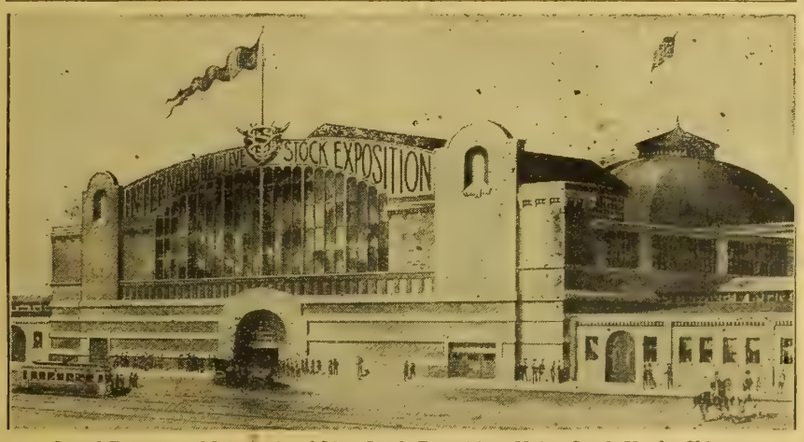
OF THE YEAR,

November 30th to December 7th, 1912,

AT

Union Stock Yards, CHICAGO, ILL.

THIRTY NATIONAL LIVE STOCK ASSOCIATION CONVENTIONS.
PREMIUMS OVER $75,000. ENTRIES MORE THAN 11,000 ANIMALS.
GRAND CAR-LOAD EXHIBIT. NUMEROUS NEW ATTRACTIONS.



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Daily Auction Sales of Pure-bred Live Stock.

A Season of Learning, Entertainment, the Grand Round-up For All Stockmen, Farmers and Allied Interests.

BRILLIANT EVENING SHOWS AND A TRIP TO CHICAGO.

LOWEST RATES ON ALL RAILROADS.

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5 Cents a Copy. Published Monthly by The Hale Publishing Co. 50 Cents a Year.

and Stock GROWER

FEEDING DRAFT HORSES.

Three Rations Used—The Results of the Experiment—Interesting Individual Comparisons.

Bulletin No. 117 of the Pennsylvania State College Station, by W. A. Cochel, is on the above subject.

Taking town and country together, horses are more widely distributed than any other species of live stock; hence their economic care and feeding are of almost universal interest.

Horses are more liable to loss or depreciation because of sickness or injuries that produce blemishes than any other species of live stock, and prices of horses fluctuate more than those of any other domestic animals. Therefore good judgment in the selection and ceaseless vigilance in the care of horses count for much.

The primary object of the experiments of which this bulletin treats was to test the relative efficiency of three different rations for fattening horses of draft type; all feedstuffs used being home-grown, excepting cotton-seed meal. Secondary objects of the experiments were to test the relative economy of oats and cotton-seed meal as sources of protein, and whether silage could be fed to horses in considerable quantity without injuriously affecting their health.

Twenty-one horses, four to eight years old, mostly of Percheron and Belgian blood, were divided into three lots of seven horses each, so distributing the old and the young and the smoother and the rougher as to make the three lots as nearly equal in general merit as possible. They were fed for a period of eighty-four days, November 3 to January 26, the following rations:

Lot 1.—Corn, cotton-seed meal, corn silage, mixed hay.

Lot 2.—Corn, cotton-seed meal, mixed hay.

Lot 3.—Corn, oats, mixed hay.

All feedstuffs used were of good quality, the hay being clover and timothy, about half and half; and their market values were as follows: Corn, 50 cents per bushel; oats, 35 cents per bushel; cotton-seed meal, $32 per ton; hay, $12 per ton; silage, $2.50 per ton.

All were fed grain three times a day and were watered and given roughage night and morning, Lot 1 being given silage in the morning and hay at night in order that any digestive disturbance produced by the silage might be quickly detected.

At the beginning each horse was given eight pounds of grain daily, and this was gradually increased till each received all it would eat up clean. Those receiving silage were commenced on five pounds daily, and this was gradually increased to twenty, which was all they would eat without waste. Each had throughout as much hay as it would clean up.

The following facts were ascertained:

The average cost per 100 pounds from each ration was as follows:

Lot Not 1	$13.40
Lot No. 2	13.90
Lot No. 3	17.77
Average	15.62

Also that the horses fed silage ate less grain, kept in good health and were sleeker and fatter finished than the others.

Also that owing to difference in age, temperament, smoothness, etc., the cost per 100 pounds of gain between individual horses in the same lot varied from $9.54 to $19.83 in Lot 1; from $10.83 to $19.05 in Lot 2; and from $11.53 to $29.63 in Lot 3.

From these ascertained facts the following deductions are made:

That cotton-seed meal is a cheaper source of protein than oats; that silage may profitably and with decided advantage be substituted for hay in the morning ration of horses, and that the most profitable horse to feed is a young, smooth draft horse having clean, short legs, wide cannons and deep and wide in the chest and middle, and of quiet, kindly temperament.

Measurements showed that the fattening process added little to the depth or length of the body but much to the width of the body and the height of the croup, the additions being on those portions of the body where the natural covering of muscles is thickest.

IMPROVEMENT IN HORSES.

Pure-bred Animals Displacing Grades and Scrubs in Wisconsin—An Example For Other States.

A decrease of two per cent. in the number of grade and scrub stallions used for public service in Wisconsin is shown by the records of the Department of Horse Breeding of the College of Agriculture of the University of Wisconsin for the horse breeding season of 1912.

In 1907, when statistics were made available for the first time as a result of the enforcement of the stallion enrollment law, it was found that 65 per cent. of the public service stallions were of grade or scrub breeding. In 1910 the percentage of these undesirable stallions had fallen to 55.5 per cent., and in 1911 to 53.6 per cent. For 1912 the figures are 51.5 per cent. for grade and scrub stallions and 48.5 per cent. for pure-bred stallions. The number of new pure-bred stallions enrolled in Wisconsin during 1912 was 256. A great many pure-bred mares have also come into the state. During the year 194 grade stallions and 190 scrub stallions were retired from service. Of the new pure-bred stallions 143 are Percherons, 21 Belgians, 13 Clydesdales, 12 French Drafts, 7 Shires and 49 Standard Breds. Of the 1,554 pure-bred stallions in Wisconsin, 821 are Percherons, 103 Belgians, 80 Clydesdales, 59 French Drafts, 49 Shires and 326 Standard Breds. The total number of grade and scrub stallions in the state is 1,650. Nine county horse breeders' clubs have been organized during the year.

The College of Agriculture in Every County.

Not every county can have a great institution like the Missouri College of Agriculture located within its borders; but under a new plan devised by the College it is now possible for each county to have an agent or Farm Adviser located at the county seat and devoting his whole time to the agricultural interests of the county. The object of this plan is to bring directly to the individual farmer on his own farm the benefits of the investigations and discoveries made by the College of Agriculture.

Not only will the departments of the College be able to give instruction on soils, farm crops, orcharding, live stock farming, poultry keeping and saving hogs from cholera, but a demonstration farm will be conducted in co-operation with the County Court for the purpose of actually demonstrating the most profitable methods of farm practice.

This plan has been approved by the Missouri Federation of Commercial Clubs, the Missouri Bankers' Association and farmers' organizations. At present only a limited number of Farm Advisers can be appointed, but it is expected that in another year many counties can be organized under this new plan.

The College is now aiding Missouri farmers by holding Branch Short Courses in Agriculture, distributing hog cholera serum, conducting a soil survey, making soil investigations in seventeen different localities of the state, judging live stock at County Fairs, making educational exhibits at State and County Fairs and in many other ways, carrying directly to the farmer the practical work being done at Columbia.

Great Majestic
Malleable and Charcoal Iron Range

The Range With A Reputation

Buying a new range is a matter worthy of your most careful consideration. It is a mistake to buy from pretty pictures and glowing printed descriptions—very inferior ranges are plentifully applied with both. Before deciding upon a range, the wise woman will go to the local dealer handling them and examine closely into the superior points of merit of the *Great Majestic*—the range with a reputation, built on honor—of the best materials

Won't Break or Rust Like Steel—Outwears Three Ordinary Ranges

It is the ONLY range made of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break, and while the first cost of a ***Great Majestic*** may be more than others, ***it outwears 3 ordinary ranges.***

All Copper Movable Reservoir

Heated through copper pocket stamped from one piece of copper, setting against fire. Holds 15 gal. By turning lever, frame and reservoir—moves away from fire—patented feature only on *Majestic.*

Perfect Baker—Fuel Saver

The *Majestic* is put together with rivets—joints and seams remain air tight.

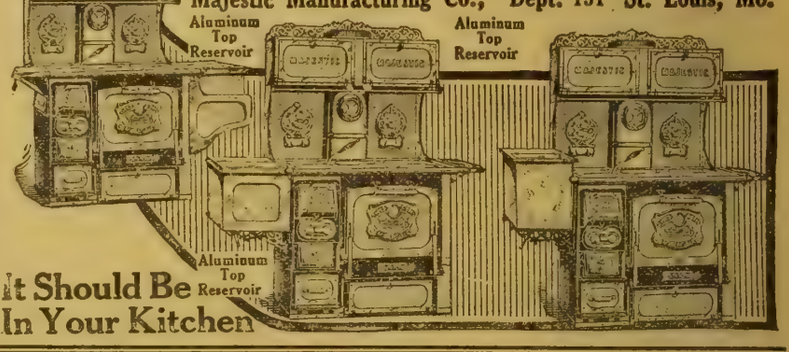
The oven is lined with guaranteed *pure asbestos board,* put there to stay covered with an iron grate—*you can see it.* Uses but half the fuel used in other ranges, gives an absolutely even dependable baking heat.

The *Majestic* is for sale by the best dealers in nearly every county in 40 states. Write for our booklet, *"Range Comparison."*

Other Exclusive Features

All doors drop down and form perfect and rigid shelves. No springs anywhere to get out of fix. *Malleable oven racks* slide out automatically, holding anything they contain. *Open end ash pan*—no more shoveling ashes out of ash pit. *Ventilated ash pit* prevents floor from burning. *Ash cup* catches ashes. It's the best range at any price, and should be in YOUR kitchen. *All Malleable front insures the Majestic 300% greater strength at a point where all other ranges are weakest. One piece body, no seams. It's worth your your while to investigate.*

Majestic Manufacturing Co., Dept. 131 St. Louis, Mo.



It Should Be In Your Kitchen

"And He Worried About It"—

Such things, if you remember, as the cooling of the sun, the drying up of the ocean, the exhaustion of coal.

If "he" still lives he probably worries about the giving out of the Chilean nitrate deposits. Some people do, although there is enough Chilean nitrate in sight to last 400 years at the average rate of annual consumption.

There are one billion tons (estimated) of nitrate deposits and the yearly demand is only about two and one-half million tons.

In recent papers there appeared an advertisement that very strikingly shows the different method that Chili pursues for disposing of her natural resources from that which we must believe is practiced in the United States.

This advertisement announces the auction sale, on December 2d, 1912, by the government of Chili, of certain nitrate deposits. A full description of the six tracts follows, with the estimated amount of deposits and the minimum bid that will be accepted on the nitrate of each lot.

Under such conservation we may be certain that the nitrate deposits of Chili will not be wasted and that there will be nitrate for the farmer of A. D. 2313. At any rate, let him, not us, worry about the nitrate deposits of Chili.

An Agricultural Course at Home.

Last year 645 Missouri farmers took a five-day course in agriculture without leaving their homes. Nine different communities in as many different counties received the benefit of these courses. They are known as Branch Short Courses in Agriculture and are given under the direction of the Missouri College of Agriculture by members of its regular staff. Probably no enterprise of the College has ever been received with greater enthusiasm. Every community which had a course last winter wants it back again.

The College of Agriculture is prepared to give a much larger number of Branch Short Courses this fall and winter than was possible a year ago. Every community in the state has an equal opportunity to secure one. Instead of hundreds there should be thousands of Missouri farmers getting the benefit of these five-day courses. Prompt action is necessary. Late applicants are likely to find a full schedule with every date filled. This is one of the finest opportunities that has come the way of Missouri farmers in a long time. Write to the College of Agriculture, Columbia, Mo., for full particulars. Other conditions being equal, applications will be considered in the order they reach the College.

FARM BOOKKEEPING.

A Discussion of the Principles Upon Which the Books of the Farm Should Be Based.

Farmers' Bulletin No. 511, issued by the United States Department of Agriculture, contains some interesting facts and recommendations in connection with bookkeeping on the farm. "That there are over six million farms in the country which utilize land, labor and capital as means of income making," gives the author the opportunity to discuss the subject of the value of the farmer keeping an accurate and systematic account of his farm management, the same as the business man or the railroad magnate.

This bulletin is not an attempt to outline a system of bookkeeping for the farmer. It is rather a discussion of the principles which are applicable to accounts on the farm. It is believed that any farmer who studies this bulletin sufficiently to grasp these principles will be able to devise a system suited to his particular needs.

Two important points must be considered in an attempt at farm bookkeeping. What does it cost to produce farm products? By selling at market prices, what profit is made on them?

"The problem of the farmer is to meet conditions on his own farm in a way which will give him the greatest net returns for his labor and the use of his capital. He should receive interest on his capital as well as wages for his labor, but owing to the lack of proper records few farmers know what wages they actually receive. There is reason to believe that the majority of farmers are really living on the interest of their investments rather than on the profits of their farms."

These suggestions are offered:

1. Consider as one unit all that may be termed real estate, as land, farm buildings, fences, ditches, etc., whether the farm is rented or owned by the operator.

2. Do not consider that the farmer or his family receive anything for their labor unless they are paid in cash, the same as hired labor. If there is a surplus at the end of the year, it is their compensation. In this way the accounts will not be confused with items not strictly cash.

3. Farm products used by the household should not be credited to the farm in the cash account along with the products sold, but should be taken care of separately.

The Farmers' Bulletin can be had by farmers who address the Hon. Secretary of Agriculture, Washington, D. C.

FORAGE FOR GROWING HORSES.

Interesting Conclusions Obtained From an Experiment in Nebraska.

Tests of different hays and pasture grasses were made at the North Platte, Nebraska, Station, and recorded in Bulletin No. 130 by W. P. Snyder and E. A. Burnett.

Thirty weanling colts, six of them mules, were purchased off a horse ranch twenty miles from the Station. The mules cost $55 each, fifteen geldings cost $45 each, and nine mare colts $65 each. The dams weighed 900 to 1,400 pounds, and the sire of the mules was a large jack, and of the colts a thoroughbred Percheron, weighing 1,800 pounds. To these were added a gelding and a mule raised at the Station.

From weaning time, October 1, to January 1, all these colts ran together on alfalfa pasture. Then they were divided into three lots of approximately even weight per head, the average weights of Lots 2 and 3 being within three ounces of the same notch, while the average weights of Lot 1 were 29 pounds lighter.

During the next three years these lots of colts were fed the same grain ration, and Lots 1 and 2 ran together and had the same ration of alfalfa hay in winter, but Lot 1 ran on alfalfa pasture in summer, while Lots 2 and 3 ran together on a native canyon meadow pasture. Lot 3 was kept separate in winter and fed a mixture of sorghum hay and native prairie hay.

During the last summer, when they were three years old, they were broken and worked and received grain during the time.

During March of the first year, Lots 1 and 2 suffered a severe attack of distemper, and three colts died. Lot 3 were promptly vaccinated, but they had a mild attack of the malady the next month. Whether the milder form was due to the vaccination or milder weather, or both, could not be determined.

The purpose of the tests was to determine the relative merits and economy for growing horses of alfalfa hay and mixed prairie and sorghum hay, and also of alfalfa pasturage and native pasturage.

The general conclusions reached are as follows:

The alfalfa pasturage put the colts in excellent condition and was profitable the first summer, but not thereafter, the native pasturage proving more profitable during the second and third summers.

During the first winter the gain of the colts fed alfalfa hay was about 50 per cent. more than the gain of those not fed alfalfa hay. After the first year the rate of gain depended largely on the condition of flesh of the colts at the beginning of the period under consideration. The colts fed prairie hay and cane hay in the winter made a faster gain during the summer than those which had been fed alfalfa during the winter. Also the colts that grazed on native grass pasture in the summer made more gain during the winter when fed alfalfa than the colts which grazed on alfalfa pasture in the summer and were fed alfalfa in the winter. This may be explained by the fact that an animal thin in flesh gains faster when given good conditions than an animal already in good flesh.

During the entire experiment the relative gains of the three lots were: Lot 1, 100; Lot 2, 90; Lot 3, 80. The colts in Lot 1 gained 70 pounds more per head than those in Lot 2 and 140 pounds more per head than those in Lot 3. The cost of growing the colts in Lot 1 was $65.30 per head; of those in Lot 2, $52.48 per head; and of those in Lot 3, $45.48 per head. The profit per colt was $27.46 after paying for all feed eaten, interest on the investment and loss. The labor of caring for the colts is not considered.

Confirming the general experience in feeding live stock of all kinds, it was found that the cost per pound of the increase in weight was greater as the colts increased in age.

Notwithstanding the death of three colts and the depreciation of others to amount of $200 by blemishes received during the three years the twenty-nine colts sold at the end of the tests, when they were a little the rise of three and a half years old, for a net profit of $793.38—not an excessive return for the labor and care bestowed upon them.

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Contains Bargains and Bargains

TWO great things in this beautiful, useful, FREE "NATIONAL" Style-Book. First, it gives pages and pages of very latest fashions. Second, it contains bargain after bargain for YOU—shows how you and all the family can be better dressed than most people at far less cost. Because there are lower prices at the "NATIONAL" this Fall—lower prices made possible by a larger business. For example:

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Ladies' Dresses,	$7.98 to $17.98	Misses' & Junior Suits,	$8.98 to $15.98
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CATTLE-FEEDING TRIALS.

Cleverly Arranged For Stockmen to See the Beginning and the End.

The sixth annual fall meeting of the Indiana Cattle Feeders' Association has been called by President J. P. Prigg, of Daleville, to meet in Lafayette, Ind., Friday, November 22, 1912. At that time the cattle-feeding trial at Purdue to test different rations will be started. The cattle will be fed until fat, when the spring meeting of the association will be called. Opportunity is thus afforded for cattle feeders to see the cattle before and after fattening. The difference in profits between some of the rations fed in the last trial was more than $17 per steer. An opportunity should not be lost to inspect, both before and after fattening, cattle fed on different rations.

A programme, consisting of addresses by some of the most prominent authorities on subjects of interest to cattle feeders will be rendered. Everyone interested in cattle feeding, whether a member of the association or not, is cordially invited to attend this meeting.

The headquarters of the Indiana Cattle Feeders' Association is at Lafayette, Ind., and the Secretary, Mr. F. G. King, has requested us to say that cattle feeders from any state will be welcome at the meeting.

To Sneak on the Oats.

A young chap of the city had been going the route, and his father resolved to correct him. He was shipped to his uncle's farm to work along with the hands.

He had been in the habit of going to bed at a couple o'clock and staying there until noon. His first night at the farm saw him in the hay at 9, and it was some time before he got to sleep. He had not been overpowered by work at that time.

Around daybreak he was aroused by his uncle, who came into the room and stood over the bed.

"Come, come, my boy," he said. "You've got to get up. You're on the farm now, you know."

The light was not secure, and the sleepy city chap raised himself on his elbow and rubbed his eyes.

"What's up?" he asked.

"We're going out to cut the oats."

"Holy mackerel! Do you have to sneak up on them in the dark?"—Chicago Post.

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Ask for very low prices and our Free SUPPLY BOOK. Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

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With Rubber Tires, $18.45. Your Wheels Rebushed, $10.30. I make wheels ¾ to 4 in. tread. Tops, $6.50. Shafts, $2.10; Repair Wheels, $5.95; Axles $2.25; Wagon Umbrella free. Buy direct. Ask for Catalog 67

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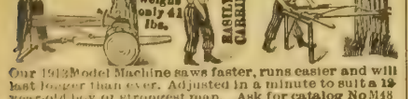

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G. M. DITTO, Box 39, JOLIET, ILLINOIS

WHEAT MARKET SITUATION.

A Monthly Review—From the Last Day of One Month to the Last Day of Another.

This being a monthly publication, we have fallen into the habit of making a monthly review of the grain market, and we date it from the last day of one month to the closing day of the other. This is the review of the wheat market, and it could be reviewed in very few words, but from the force of habit we will stretch it out a little.

Last May, St. Louis cash wheat was bringing $1.20 a bushel. That was on the closing day, an excitable day, and was the high day, because wheat did not sell within considerable distance of that figure since then. On June 29th, the closing day of that month, the high figure was $1.12; on July 31st the close was $1.03; on August 31st the price was $1.05½; on September 30th the best price was $1.06½; and our last monthly closing day, on October 31st, cash wheat was selling on the St. Louis market at $1.04 to $1.07 per bushel. And we may ask ourselves why not higher? The answer is, no scarcity and prices are above the normal and higher than the speculative market by 13 cents a bushel. We might also ask the question, why not lower? The answer is, plenty population to be fed, and that prevents prices going lower.

Turning to the market for wheat for future delivery we naturally shift the scene to Chicago. Our readers will remember that the September wheat option went to rest at 91½ cents a bushel, with the December option then quoted at 91 cents, and the next May quotation at 95½ cents. On October 31st we find the December quotation at 91¼ cents, the next May quotation at 96½ cents, and now comes in a quotation for next July at 92⅝ cents. All that is clear reading. The general expectation is that wheat will change but very little until next May, and then it will not advance in price. It is said that a farmer does not know what he will get for his crops, but many a man in other lines of business would be very glad to be as well posted in regard to the prices he is likely to receive for the fruit of his labors. Wheat is not selling high enough to pay a fair profit to farmers, but the future of the farmer, even for the wheat farmer, is likely to be far better than the past.

OATS MARKET SITUATION.

The Largest Crop Ever Grown, But No Reason For Low Prices.

According to the recent reports of the Agricultural Department, the oats crop amounts to 1,417,172,000 bushels, and farmers must remember that the crop looks twice as big in figures than the crop really is. A bushel of oats is only thirty-two pounds, and a bushel of wheat is sixty pounds, which means that the largest crop of oats is only equal to the very ordinary crop of wheat.

If there had been any disposition towards a lower market we have an idea that it would have shown itself in October, but the trade went stronger on October 31st than it was thirty days previous. The great crop of oats has all been discounted, and farmers have it in their hands to get better prices if they will just act as though the market would advance to 50 cents a bushel before next May.

On September 30th, cash oats at St. Louis were selling at 32 to 32½ cents a bushel, and thirty-one days later, on October 31st, cash oats were selling at 32½ to 33 cents a bushel. There was no slump, and according to traders' views oats have reached bottom. The September quotation was extinguished at 31 cents but on October 31st the December option was quoted at 32 cents. There was no slump there. On September 30th, the May quotation of next year was 33½ cents, and on October 31st the quotation was 33⅞ cents. The only quotation for the July option of next year was 33⅝ cents, not a bad quotation, considering previous prices. The market continues, for the time being, very much in the 32-cent groove, but farmers ought to hold their oats and wait for a higher market, and if they will but act together they can gradually put up the price.

Soil Fertility and Fertilizers.

There are two ways to handle the subject of soil fertilty.

One way is to make a chemical analysis of the soil and then supply any deficiencies.

The second way is to put on the land available fertilizer what you have taken off in crops.

The first way is obstructed, because the analysis will not tell how much of the material is available as plant food, but our good sense ought to tell us that what the soil does not contain is certainly not available and must be supplied.

The second way is open. It is easy to calculate what has been taken from the soil by the crops, and the fertilizer books generally show the tables by which calculations can be made.

For instance, 70 bushels of corn will take off 105 pounds of nitrogen, 42 pounds of phosphoric acid and 100 pounds of potash. These figures are considered in making up commercial fertilizers. All complete fertilizers are based upon the crops they are intended for, and the combinations are the result of studies by men who devote their lives to the business.

For instance, a little booklet issued by the Empire Carbon Works, 421 Locust street, St. Louis, Mo., contains a list of forty-seven separate and distinct formulas, each for a different purpose, and stating what crops the compound is intended for, and stating also what each bag is guaranteed to contain. It is a handy little booklet, free to our readers, and they are invited to write for a copy.

In future articles in this paper much will be published concerning available fertilizers.

Samples of City Life.

For a number of years a bitter feud existed between the Browns and the Perkinses, next-door neighbors. The trouble had originated through the depredations of Brown's cat, and had grown so fixed an affair that neither party ever dreamed of "making up." One day, however, Brown sent by his servant a peace-making note for Mr. Perkins, which read:

"Mr. Brown sends his compliments to Mr. Perkins and begs to say his old cat died this morning."

Mr. Perkins' written reply was bitter:

"Mr. Perkins is sorry to hear of Mr. Brown's trouble, but he had not heard that Mrs. Brown was ill."—Post-Dispatch.

Rye is quoted at 66 cents a bushel and straw at $7.50 to $8.50 per ton on the St. Louis market.

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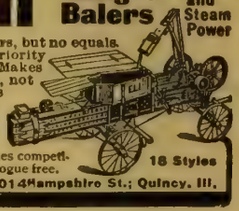

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CENTURY MANUFACTURING CO., Departmen 661, East St. Louis, Ill.

SILAGE FERMENTATION.

Necessity to Mix the Fodders in Order to Balance the Ration and Prevent Decay.

It has been found that the legumes make poor silage. Clover, alfalfa, cow peas, etc., when put into the silo unmixed with other crops, produce a black, ill-smelling silage which seems to be rotten. This fact led Drs. W. M. Esten and Christie J. Mason, chemists of the Storrs, Conn., Station, to make exhaustive studies of the fementation of silage of different kinds, and Bulletin No. 70 of that Station tells in some forty pages of the discoveries made and how they made them.

They ascertained that the fermentation of corn silage changes the sugar into acids by the operation of bacteria. Lactic acid bacteria convert part of the sugar into lactic acid, and yeast bacteria convert the remaining sugar into alcohol, and then the lactic acid bacteria convert the alcohol into lactic acid. Under the operation of these bacteria silage undergoes a ripening process not unlike the ripening of cheese, which softens the fibre, gives it an agreeable flavor and renders it more easily digested.

It was also ascertained that one of the chief functions of the lactic acid bacteria is to ferment the protein content of silage, and since the legumes contain very little sugar they do not produce enough lactic acid bacteria to ferment their high protein content. The result is that decay sets in, rotting down the legume silage.

Now, while corn and sorghum each makes a fine quality of silage, both are deficient in protein, and such silage should have cotton-seed meal mixed with it at the time of feeding it. But cotton-seed meal is expensive. Cow peas or soy beans are rich in protein and may be grown upon any American farm with decided benefit to the land, and either will supply the protein which the corn and sorghum so much lack.

Therefore, the authors of this bulletin recommend the mixing of corn or sorghum with cow peas or soy beans as they are cut and stored in the silo. They find that a mixture of one-third legume with two-thirds corn makes a good quality of silage, the corn supplying enough sugar for the proper fermentation of the entire mass. Since sorghum contains a large percentage of sugar, it may be mixed with the peas or soy beans in equal proportions.

In the same way and for the same reason wheat or rye may be mixed with the June crop of clover, and the second cutting of clover and third cutting of alfalfa may be mixed with corn in September in the Northern States.

The authors state that since writing the foregoing portions of this bulletin they ascertained that some progressive farmers of Connecticut had by actual trial, and without knowing the reason, successfully ensiloed mixtures of oats and peas and of clover and timothy; also corn and soy beans. And all of these experimenters agree that mixing a legume into the silage greatly improves its value, especially for the increase of milk production.

Cash Grain Prices.

These prices are the official figures at three markets on the last day of October, 1912:

CHICAGO.—Wheat—No. 2 red, $1.05 to $1.08; No. 3 red, 96c. to $1.05; No. 2 hard, 91¾ to 93½c.; No. 3 hard, 90¾ to 92c.; No. 1 Northern, 92 to 92½c.; No. 2 Northern, 90½ to 91c.; No. 3 Northern, 86 to 88c.; No. 2 spring, 90 to 91c.; No. 3 spring, 86 to 88c.; No. 4 spring, 80 to 85c.; velvet chaff, 85 to 91c.; durum, 85 to 92c.

CHICAGO.—Corn—No. 2, 59 to 59¾c.; No. 2 white, 60 to 60½c.; No. 2 yellow, 59½ to 60¼c.; No. 3, 58¾ to 59c.; No. 3 white, 58¾ to 60c.; No. 3 yellow, 59 to 60c.; No. 4, 58 to 58½c.; No. 4 white, 57¾ to 58½c.; No. 4 yellow, new, 51½ to 52½c.; old, 58 to 59¼c.

CHICAGO.—Oats—No. 2 white, 33½ to 34c.; No. 3 white, 31¾ to 32¾c.; No. 4 white, 31½ to 32¼c.; standard, 32¾ to 33c.

ST. LOUIS.—Wheat—No. 2 red wheat, $1.04 to $1.07; No. 3 red, 98½c. to $1.03; No. 4 red, 86 to 97c.; No. 2 hard, 90 to 94c.; No. 3 hard, 87½ to 88c.; No. 4 hard, 85½ to 86c.

ST. LOUIS.—Corn—No. 2 corn. 63½ to 64½c.; No. 3 corn, 56c., new; 62c. old; No. 4 corn, 60½c.; no grade, 45c.; No. 2 yellow, 64 to 65c.; No. 3 yellow, 63 to 63½c.; No. 4 yellow, 61c.; No. 2 white, 63c.; No. 3 white, new, 54c.; old, 61½c.; No. 4 white, 57¾c.

ST. LOUIS.—Oats—No. 2 oats, 32½ to 33c.; No. 3 oats, 32½c.; No. new; 62c. old; No. 4 corn, 60½c.; standard, 33 to 33½c.; No. 3 white, 32¾ to 33¼c.; No. 4 white, 31¾ to 32c.; No. 2 rye, 86½c.

KANSAS CITY.—Wheat—No. 2 hard, 87½ to 89c.; No. 3, 85 to 87½c.; No. 2 red, $1.00 to $1.01½; No. 3, 96c. to $1.00.

KANSAS CITY.—Corn—Unchanged to 1c. higher; No. 2 mixed, old, 57c.; new, 53 to 54c.; No. 3, old, 56c.; new, 54c.; No. 2 white, old, 59c.; new, 55 to 56c.; No. 3, old, 56c.; new, 52c.

KANSAS CITY.—Oats — Steady; No. 2 white, 34 to 34½c.; No. 2 mixed, 33 to 33½c.

UNCLE SAM'S CORN CROP.

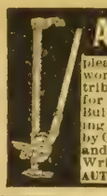
Review of the Market, Based on the Close of October Trading.

We have an idea that the corn crop comes near finding a free and open market. The crop is immense, placed by the Agricultural Department at 3,000,000,000 bushels, and yet the expectation is that the whole crop can be sold without the quotation being lower than 50 cents a bushel.

On October 31st, cash corn was selling at 63½ to 64½ cents at St. Louis, Mo., and that was a good 12 cents a bushel better than futures were quoted at Chicago.

The 69-cent quotation, at which the September option went out, was practically a cash quotation, because September was a delivery month, but the nearest future delivery date is December 31st. And on October 31st the December quotation was 52⅛ cents, against 49⅝ cents quoted for the same option thirty days previous. The May quotation for next year was quoted on September 30th at 50⅝ cents, and by October 31st the quotation had advanced to 52 cents; furthermore, a July quotation for next year was made in the trading at 52¼ cents. The outlook then for corn is not so bad, and it is expected that from December to next July the present figures will not go far astray.

"A plat of thrifty, well-established alfalfa, suitably fenced and used for pasturing swine of whatever age can scarcely fall short of being among the most profitable parts of any farm upon which swine husbandry is given attention." — From Coburn's "The Book of Alfalfa."



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WHEN VETERINARIES FAIL

A Letter That Explains Itself

The following letter is just an example of the many received by the Visio Remedy Co. of Chicago. The statements made by this Company that Visio will positively cure all eye diseases of horse is vouched for in this letter.

Chillicothe, Ohio, R. F. D. No. 8
September 10, '12

Dear Sir:-
Enclosed you will find a $2.00 bill for which send me one bottle of Visio. I have tried this remedy before and cured my horse when other Veterinaries have failed.
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No. 3064	Direct	Flue,	15 h.-p.	400

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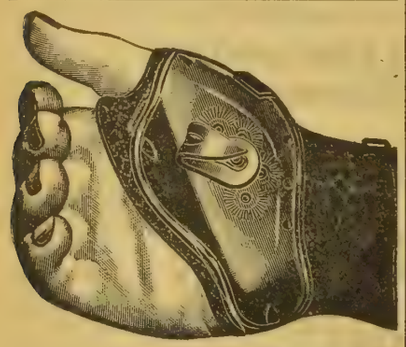
Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved hand husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The



strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring from the outer side. It brings the pulling strap underneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Misfit Efforts in Agriculture.

Much of the loss in farming comes from misfits. The worst misfit is trying to produce anything on a farm not suited to it, or in a locality not adapted to it.

Every farmer nearly has had expensive experience in trying to grow things that persistently refused to do well on his ground. The man that abandons such an attempt is wise, unless experimentally on a small scale.

With an annual crop the mistake is not so bad, for it means the loss of the work of one season only; but when things are grown that require years to bring to the point of bearing, the case is different.

The writer has in mind a small orchard of plum trees that has been growing on one piece of land for the past ten years and has never produced a bushel of plums. It is safe to say it never will, for the land for some reason is not suited to plums. The man has wasted his years of efforts.

In another locality, not suited to grapes, some people have been trying to grow grapes for a dozen years. The vines have never produced enough to pay for a tenth part of the care that has been given them. Most of the vines kill back every winter, just enough remaining to keep up the fight for existence. Every year the vines spend their time trying to make growth on which to bear grapes. In this same locality are many who are engaged in the same hopeless task. What is the use? The land will produce other things that are suited to the climate and soil.

In the same locality in which these grapes fail certain varieties of pears produce heavily and garden products generally thrive. Why waste time on trying to grow grapes when there are other localities so well adapted to the growing of grapes that they are produced without special effort?

We find misfits in agriculture also in the attempt to fatten cattle in localities where feed is scarce and high. The growing and fattening of any kind of stock must be done at the point where feed is comparatively cheap. There are some farmers who are actually putting feed into cattle under conditions where each $1.00 worth of feed will produce less than $1.00 in flesh. Such a process means loss.

The writer once lived in a locality where fogs are common and are frequent throughout the summer, often being of long duration. Such a locality is unfitted for the raising of bees, because the bees cannot work under such conditions as heavy fogs induce. Yet every once in a while the farmers in that locality get into the notion of raising bees. The result is that the bees, during some of the summers make only enough honey for themselves and none for the owner. Without doubt this error will be repeated over and over till the farmers of the locality wake up to the fruitlessness of their efforts.

Every misfit effort means effort taken away from something that will certainly produce profitable results.

Premium Fruit For Farmers' Week.

One day at the State Fair this year would have warmed the heart of any discouraged Missouri fruit grower. The display demonstrated beyond doubt that Missouri can grow apples and pears equal to the best the West produces. Winners at the Fair this year carried off two dollars where they got one last year.

The State Board of Horticulture got behind the horticultural display this year and made it possible to double the premiums. Although the average fruit grower of Missouri does not exhibit solely for the money, it makes him feel good to carry home cash as well as ribbons.

All of the premium plates of apples and pears, both first and second, were turned over to Secretary Boles, of the State Board of Horticulture. Each specimen of fruit was double wrapped in paper and marked with the grower's name. This fruit will be held in cold storage at Columbia until the 13th of January, when it will be unpacked and put on exhibition during Farmers' Week at the University. There are no premiums offered, but the fruit will be exhibited under the grower's name. There are over forty different varieties of the well-known types of apples and five specimens each of about one hundred other less widely grown varieties. This will make a splendid display of Missouri's best fruit and will be well worth going across the state to see.

AGAINST FREE MEAT.

That is, Against the Admission of Foreign Meat Without Paying the Present Rate of Duty.

A movement against the admission of foreign meats into the United States free of duty has been inaugurated by the Texas Cattle Raisers' Association. The duty on dressed beef is now 1½ cents a pound, being reduced a half cent by the last Congress. The customs duties amounting to 1½ cents a pound go directly to the support of the United States government, and if that amount is returned to the South American shipper on each pound of beef, it will be favoring the foreign meat grower at the expense of our own people. The people who raise and sell beef in this country have to pay all kinds of taxes, and there is no reason why the beef growers of Argentine, who expect to market their beef in the United States, should not contribute a little tax-money also.

After paying the duty, there is no good reason why foreign meats should not be admitted. The trifling duty is but a small protection to the cattle growers of the United States, and its removal will cause a decided decrease in home beef production.

We have always opposed the admission of foreign meats duty free and will continue to do so to the end.

Announcement has been made by the management of the Burlington Railroad that John B. Lamson has been appointed Agriculturist for the system. Mr. Lamson is a graduate of the Iowa College. The position of Agriculturist on the Burlington was created recently.

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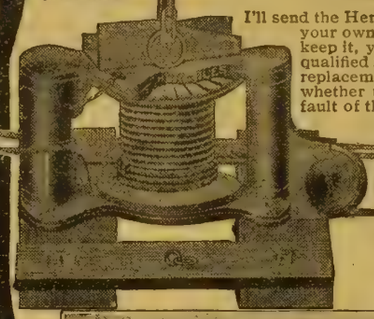

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No Limit to Better Farming.

Poor farming has always been the general practice and good farming the exception. The earth has been so responsive to man in the past that it has been partly true that "any fool can farm." Intelligence is not drawn on very heavily in those localities where the soil is good, the rainfall good and the climate suitable.

This condition has been good in the days when the population of the earth was sparse; but with the rapid increase in population has come a necessity for improving methods of farming. Everywhere the farming population is waking up to this necessity.

The Experiment Stations have spread through the world, till we find reports of them from every part of the world where agriculture is a business. The number of such stations must be in excess of a thousand, if we include the substations. These stations are dealing with numerous phases of agriculture, and in every line are finding that old methods have fallen short of giving maximum yields of anything.

There seems to be no limit to improvement in farming; at least, no limit is in sight. No crop has yet been grown on an acre of land that could not have been increased if conditions had been just a little different. At one station the yield of oats on a small plat would have been 170 bushels if the area comprised had been an acre. But the grower declared that yield could have been increased if the water supply could have been controlled. So the limit was not reached.

In some competitive tests of potato growers, in which a large prize was offered for the largest yield of potatoes on one acre, more than a thousand bushels of potatoes were grown on an acre in Maine, Montana and North Carolina. Yet in no case was the grower able to absolutely control the supply of water to the crop. So, though 1,000 bushels of potatoes per acre is a very large yield, it is certain that it does not represent the limit.

There is vast encouragement to the human race in this fact. With growing intelligence in matters agricultural there is no good reason why the supply of food for the race should not increase indefinitely. It is difficult to think of the world so thickly populated that food could not be produced for all the people.

There is not a farm anywhere that cannot be made to produce more than it is now producing. The human mind has in it too great resources to fail in the working out of such a problem. Someone has said that the best fertilizer for any kind of ground is brains. Brains constitute the principal requisite in successful farming.

Brainless farming belongs to the past, for which it was only partly sufficient. Better farming in the past would have prevented most, if not all, of the great famines which were such terrible visitants to many countries in the days that are gone.

The study of agriculture is doing more than anything else to increase the yields from our farms, and this study is being pursued with increasing interest. Little by little it is being carried onto the farms. The time is coming when every farmer will be an agricultural student and every farm an Agricultural Experiment Station.

Farm Ownership and Farm Tenantry.

The American nation has been up to the present time a nation of agriculturists principally. Now, however, it is becoming in large part a nation of traders and manufacturers. Its national health was obtained when it was devoted principally to agriculture and when most of its farmers were owners of the land they farmed.

Special neighborhoods were built up in the days when the men owned the farms they tilled. Every family was settled permanently and assumed the attitude of permanency. It felt itself independent and recognized a duty toward all the other families. A delightful country life was the result. The country church and the country school sprang into existence from the home conditions and prospered. That was the time when the country school had in it numerous pupils that had almost reached the state of manhood and womanhood.

In those days the family reunions were common occurrences. The "bees" for performing various kinds of work were common. There was the husking bee, where the neighbors came together to husk the corn and make merry at the same; the house-raising or barn-raising bee, where the men of the neighborhood congregated to raise into position the great timbers that constituted the framework of house or barn in those days; the paring bee, when the families came together to pare apples for drying and at the same time enjoyed a social evening; and other kinds of "bees" too numerous to mention here. These have vanished with the change in conditions.

One of the conditions for this kind of life was farm ownership. The coming of a system of tenantry has changed many things and has largely destroyed the intimacy that existed between resident families. The tenant on a farm does not feel that he is a fixture in the neighborhood and he does not act like one.

He does not take the interest in the schools the owner used to take, and he is not enough of a permanency to shoulder much responsibility in the building up of the country church. The writer was traveling through a part of Illinois where most of the farms are occupied by tenants. The question was asked: "How are the schools here?" The reply was: "Very poor; you see, most of the farmers are tenants and do not take much interest in the schools."

One cause of this is that the tenant, to make a living, must accomplish more than the owner of the farm used to have to accomplish, for the tenant really has to make a living for two families. He pays a rent that is supposed to be equal to a living, if the farm be a quarter of a section or more. This makes him too much of a drudge to be able to get much out of life except hard work.

With the incoming of tenantry has come a mixing up of the nationalities that militates very much against social conditions, such as were common in the past. In some neighborhoods the effect is far-reaching. The old friendships have been sundered by the removal to the city of some of the old families, and the newcomers are foreigners, having foreign notions of everything as well as a foreign language.

One of the things that must be brought about in the future, if we are to have ideal conditions in the country, is a greater percentage of farms owned by the families living on them. It is doubtful if the tide ever sets strongly again in favor of ownership by workers on farms unless some great system of encouraging such ownership is established.

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The Pacifier.

The harmless-appearing little rubber nipple which some mothers find such a comfort because it quiets the baby when stuck into his mouth is not so harmless as it appears. Physicians declare that growth of adenoids and the enlarging of tonsils are often due to the use of this pacifier. The sucking of the thumb has like evil results. If the pacifier is never given the child he will not form the habit of using it and so will not cry for it. The thumb-sucking habit seems to be born in some children, but it can be broken. Perhaps the best way is either to bandage the hand, making it too clumsy to put into the mouth, or to rub upon the thumb some harmless, bitter stuff, such as wormwood.—Janet Thomas Van Osdel.

Live Stock Exchange Meeting.

At the annual election of officers and directors of the St. Louis Live Stock Exchange at the National Stock Yards, East St. Louis, on October 26th, John W. Sanders, of Blakely-Sanders-Mann Company, was elected President; W. H. Keys, of the C. M. Keys Commission Company, was elected Vice-President; A. J. Milton, H. B. Carson, W. S. McBride and C. M. Rafferty were elected members of the Board of Directors. Mr. W. S. McBride was the retiring President.

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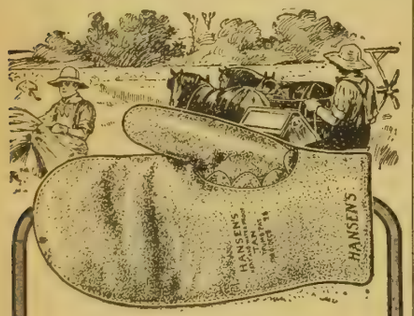
Secretary and Manager.

Sworn to and subscribed before me this 1st day of Ocober, 1912.
(Signed) Fred A. Blake, Notary Public.
(My commission expires February 3d, 1914.)

AFTER THE ELECTION.

The morning after the election it was known that Hon. Woodrow Wilson was elected President of the United States with plenty of electoral votes to spare. A day or two later they began to estimate the popular vote, with the following result: The vote of the United States was approximately 15,471,785, of which Woodrow Wilson received 6,422,398; Theodore Roosevelt, 4,290,374; William H. Taft, 3,668,109; Eugene V. Debs, 788,583; and E. W. Chafin, 302,321. Gov. Wilson's apparent plurality is 2,132,024.



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Suit every job—every man. For harvest work or lighter chores—for driving or motorcycling Hansen's give you the grip that *holds*, with "give" and softness. Price $1.00 up. At your dealers' or sent on approval. Write for the book *now*. It tells why Hansen's outlast the cheaper kinds; cost less in the end. Cannot stiffen or harden and easily cleaned to gasoline.

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You may send me free and postpaid your book showing Hansen's Gloves. I am most interested in the styles for following purposes.
Mention what kind of work, driving or cycling.
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WHAT WE HAVE DONE.

A Few Incidents in the History of The National Farmer and Stock Grower.

This is an age when all the good things of the past are overlooked and a younger generation is trying to do the same things over again. Directly the young generation begins to work assertion is made, claiming credit for the wonderful improvements that came to pass before they were born. THE NATIONAL FARMER AND STOCK GROWER instituted several beneficial movements which have borne fruit, and now, as usual, claims are advanced by other people for the fruit.

When alfalfa was a new forage plant and not one farm in a hundred had any positive knowledge on the subject and a car-load of alfalfa hay had not yet been seen upon the St. Louis market, the editor of THE NATIONAL FARMER AND STOCK GROWER undertook a line of missionary work to introduce alfalfa. He bought seed by the ton and distributed seed by the pound for experimental purposes, and he also furnished a copy of Coburn's Book on Alfalfa absolutely free to every paid subscriber of THE NATIONAL FARMER AND STOCK GROWER. Thus was alfalfa introduced on 20,000 farms in the United States in the nick of time, and it was not done with a government appropriation, but with subscription money picked up 50 cents at a time.

THE NATIONAL FARMER AND STOCK GROWER took the lead in corn improvement. At the First National Corn Show he met two distinguished corn growers; one was D. L. Pascal, of Iowa, who had won the Allee Trophy at the Iowa Agricultural College and had bred a strain of Yellow Dent Corn that he had obtained from the originator. The editor also met Mr. L. B. Clore, then winner of the grand championship and winner of championship honors wherever he showed his Johnson County White Corn. The editor bought corn from them by the bushel and distributed it by the pound and half pound. He secured corn from other champion corn growers and he distributed it to farmers who paid up their subscriptions. He did the same with oats that were a superior strain, and doing this year after year has given thirty to forty thousand farmers the start whereby they are able to raise seed corn and oats for their own planting, and some of them have developed into seed-corn growers, for sale to other farmers.

The editor did not stop with sending out a practical but small amount of seed corn; he also offered prizes at State, National and International Fairs and Expositions and duplicated the state prizes won by corn that was grown from the seed that he furnished. There were many prizes won, and he paid prizes from $5.00 to $75.00, until he found that the prizes were amounting to more money than the fifty-cent subscriptions amounted to. In the meantime the corn crop was increasing and THE NATIONAL FARMER AND STOCK GROWER was one of the principal factors in bringing it about.

Eight years ago THE NATIONAL FARMER AND STOCK GROWER ventilated the subject of the high rate of interest on farm loans and got up a petition to the Secretary of Agriculture to formulate a plan whereby banks could be established to take up the high-rate loans. The whole subject of co-operative credits and land banks in Europe was ventilated at that time. That work is well in hand now and some day in the near future the loans will be made with postal savings bank money and the end will be gained. It was THE NATIONAL FARMER AND STOCK GROWER that originated the idea and passed it along until now it is big enough to be aided and assisted by the Secretary of Agriculture and the President of the United States.

Quite a number of other movements were started by THE NATIONAL FARMER AND STOCK GROWER, the list being too long for publication in this issue.

MILITARY HORSES.

A Considerable Number Sold and Delivered to the Government at the St. Louis National Stock Yards.

Considerable interest is manifested by horse raisers and dealers in regard to the subject of military horses, especially when contracts are being filled.

At the National Stock Yards, Ill., quite recently a contract for 245 head was filled in sixteen days from the time it was awarded and including eighteen head of exceptionally good horses purchased for officers' use and forwarded to the headquarters of the United States Army at Washington. These horses in particular were a splendid lot, all trotting-bred and over 15-2 to 16-1 hands, and good for any kind of service.

Mr. T. H. Holland, of the firm of Holland, Nugent & Maxwell Bros., commission salesmen for horses and mules, was the contractor, and, notwithstanding he sustained a loss when the contract was held up because Congress held out the appropriation, he said that although the average price of $160 per head for cavalry horses was comparatively low, yet he was satisfied with the result.

Mr. Holland said the prevailing opinion that thoroughbred blood was necessary in the make-up of the cavalry horse was not justified by his experience. He said that army inspectors were fair in their examinations and received every horse that in his opinion they ought to have taken, and they showed a decided preference for horses that were related to the standard-bred trotter. Those with the trace of the blood of the thoroughbred were usually without substance, besides having defects in form and gait. The horses of the saddle-horse type were equally unfortunate in passing inspection, as the inspectors objected to the fancy gaits.

Mr. Holland appeared to be of the opinion that whenever any actual necessity arose and large numbers of military horses were wanted, that the general market would have to be the place to find them. In order to assemble horses that were suitable for the purpose it was necessary to have more than twice the number to select from, and it was necessary to find an outlet for rejected horses, and in the market it often happened that a sound horse not coming up to the military standard would find a better outlet for some other purpose. If no good outlet could be found for the rejects the government contracts would be more difficult to fill and prices would of necessity be correspondingly higher.

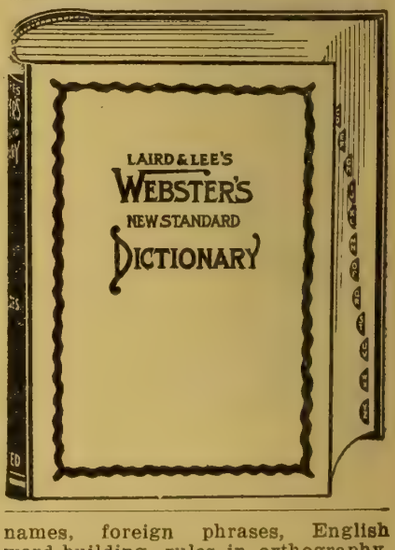
Mr. Holland also said that until some distinct and positive line of breeding could be depended upon to produce a cavalry horse without fail the only way that is economical in the purchase of them is to buy the horses at maturity and select those that fill the bill. To buy colts at three years old for $150 and pay $70 a year for two years to bring them in barrack depots to maturity and then as likely have a horse that would not come up to specifications is certainly not a favorable outlook. The market can sell the government cavalry horses under almost any circumstances from $175 to $225, and that looks a long way better than buying the colt and bringing it to maturity at a cost of $290 per head.

Mr. Holland handed the writer the specifications for military horses, which are too long to publish at this time. Mature cavalry horses should be five to eight years old, weigh from 950 to 1,100 pounds, and 15 to 15¾ hands. Light artillery horses are required to be from 15½ to 16 hands, and weigh from 1,150 to 1,250 pounds. The illustration with this article is a picture of a pair of artillery horses that were delivered under contract. It may be stated here that since his first bid went in Mr. Holland has filled all the contracts for cavalry horses.

WEBSTER'S DICTIONARY.

One of the Greatest Books Ever Issued—A Premium Offered by the Subscription Department of This Paper.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 750 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological



names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years, and we will also send you, postpaid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

THE LAND CREDIT SYSTEM.

A Subject That Originated in the Columns of The National Farmer and Stock Grower.

The land credit system, now widely advertised and advocated in order to place money within the reach of farmers, is an opportune subject, for the reason that there is a better prospect than ever of bringing it to a practical and successful conclusion.

The land credit system should be inaugurated by the government loaning the amount of deposits in postal savings banks to farmers who are in need of money for improvements upon the security of the improved farm lands at a rate as low as possible and not to exceed an interest charge of four (4) per cent. per annum.

The credit for originating this subject as an active issue does not belong to the President of the United States, or to the Southern Commercial Congress. They are entitled to the credit for the interest they have taken in it, but the whole thing was ventilated in the columns of The National Farmer and Stock Grower in 1904, and the subject was brought forward again and again. The National Farmer and Stock Grower printed and sent out petition blanks to be signed by farmers, requesting the Agricultural Department at Washington to find some way to furnish relief from the high rate of interest of farm loans. The petitions were collected, they were forwarded to the Honorable James Wilson, Secretary of Agriculture, Washington, D. C., and by him acknowledged.

It is not material to us who gets the credit, so long as the end is finally attained, and, if possible, without creating five or six thousand political officials to draw unnecessary salaries and feed at the public crib.

It is the common practice now under the name of some new and useless institution to claim credit for all the good that has been accomplished by farm papers these many years, and such claims are often used for the purpose of obtaining government appropriations and individual donations to create bureaus to do the work that has been always done and well done by the farm press.

The subject of co-operative credit is as simple as A, B, C. The postal savings banks receive ever-increasing deposits, which can be loaned out again to farmers, and the farmers ought to be able to borrow the money on good security at a low rate of interest. If necessary, it can be handled by the United States Depositaries. There is no reason why the people should be taxed to pay interest on postal bank deposits And no better use can it be put to than to loan it out to farmers who need capital very much more than they need instruction.

MUST RAISE ENOUGH CATTLE.

An Obligation That Stockmen Will Have to Assume or the Whole World Will be Called Upon to Do It.

That it is the duty of the live stock interests of the United States to keep the production of cattle to its maximum, thereby insuring ample meat food for the people, may not appear to be very important to the general farmer who is accustomed to think that it is nobody's business but his own what he may raise and what he may do with his land, but the extent of beef raising and meat raising in general is a matter of national importance, and the stock raisers and farmers cannot avoid the responsibility, neither can they avoid the consequences of a shortage in the meat supply.

So far as hogs are concerned, there is not much danger of farmers of the United States falling far from the maximum production, because wherever grass grows and corn is raised pork production follows, and if there is a shortage here no other country will be able to make up the deficiency. So far as mutton is concerned, people have to learn to eat mutton in larger quantities before there will be any acute question in regard to the supply; furthermore, in case of emergency, more mutton can be raised quickly. But with cattle it is different. The cry is now going up: "The high cost of living is due to the shortage in beef." That the high cost of living may be due to large margins in slaughtering, wholesaling and retailing, transporting, etc., cuts no figure. The shout still goes up that more beef is wanted, and the customs duties on meats should be taken off and there should be more taxes on our own people in order to let in meats free of duty; therefore it becomes necessary for farmers to raise enough beef to feed the people, and when associations go before Congress to insist on the retention of the small duties now imposed they should be prepared to say that the obligation to raise sufficient beef to feed the American people is recognized and assumed by the stock dealers' associations.

Furthermore, it is absolutely necessary to keep open the avenues of trade. Shortage in beef will lead to substitutes in getting the beef money. When the surplus comes again the demand has lessened. There will always be avenues of trade for beef sales, but there is an immense difference in the trade that is regular and ever-increasing and the trade that is irregular and ever-contracting. We do not wish to see the small duty on meat taken off and all meats put upon the list of articles admitted to this country tax free, and at the next meeting of Congress the only way to prevent a change will be for the influential men of the stock-raising associations to take upon themselves the obligation to increase the beef supply by means which are in their power to recommend to their fellow-men and to practice themselves. If the farmers of the United States do not look after their future interests they cannot expect a hundred millions of people to go hungry if there is relief to be had by the admission of beef duty free from anywhere in this world.

THE INTERNATIONAL.

The Greatest Live Stock Event of the Year in the United States.

We are always glad when the International Live Stock Exposition comes around, for then we know the holiday season is approaching, and we know also that we are going to see all the prize cattle, hogs, horses and sheep that are considered good enough to try for prizes at the International. All below third-prize winners at State and Interstate Expositions are left at home, because they have no show for fifth and sixth prizes at the Chicago International. It is a clearing-house of champions, and nothing but champions. In the Book of Live Stock Champions, advertised on page 11, there are pictures of 250 International champions, and they constitute a show of themselves.

We hope the attendance this year will be the largest ever known. The show will be worthy of it. The entries are the largest and very best. Breeders are using all their talents in order to improve the conformation of the various market breeds of cattle, hogs, sheep and horses, and sometimes in the arena there are a hundred thousand dollars' worth of stock in a single ring.

The International Live Stock Exposition will show champions at Iowa, Minnesota, Indiana, Ohio, Nebraska, Illinois, Missouri, and at the American Royal and at other great shows, all competing for a first prize at the highest court of live stock resort, the International at Chicago.

Farmers who wish to take a short course of stock judging can do no better than to spend the first week of December at Chicago with a daily journey to the Union Stock Yards, where the Fair is held.

There are auction sales held each day at the Fair. The consignments are from the best herds and flocks in the country. Thirty National Live Stock Conventions will be held during the Exposition week, and no one will be lonesome. It is well worth what it costs in time and money to attend the Chicago International, if it is only to see one beef steer, the grand champion beef animal of the American continent.

The American Poultry Association at its annual session at Nashville gave its endorsement to the Panama-Pacific International Exposition, and the interest being displayed in this department is intense. There will be international competition in every branch of the Poultry Division.

GOOD BOOKS AND PAPERS.

Lord & Thomas, advertising agents, corner Wabash and Madison, Chicago, Ill., have compiled their **1912 CROP REPORT,** obtaining their information from official sources, assisted by the editors of leading agricultural papers. The result as published is, that crops of 1912 are stupendous, and that agricultural conditions are the most wonderful in our history. The report in full can be had by application to Lord & Thomas, Wabash and Madison, Chicago, Ill.

JAMES MANUFACTUKING COMPANY of Fort Atkinson, Wis., have sent us several artistic, comprehensive and practical booklets relating to dairy construction, which have been added to our office exhibits. The firm manufacture sanitary barn equipment.

IMPORTANCE OF RAISING CALVES.—A small, handy pocket book, written by S. E. Barnes, formerly of the Dairy Division of the United States Department of Agriculture. The booklet tells how to raise skim-milk calves to be profitable cows. By mentioning The National Farmer and Stock Grower a copy can be had free by addressing De Laval Cream Separator Co., 165 Broadway, New York, N. Y.

TRAPPERS' GUIDE, SUPPLY CATALOGUE AND GAME LAWS.—THREE BOOKS IN ONE.—Issued by Funsten Bros. & Co. for free distribution. Contains list of all traps, baits and appliances for hunting and trapping; describes methods of preparing all skins and pelts for market and contains game laws in every state. Don't fail to write to Funsten Bros. & Co., 323 Funsten Building, St. Louis, Mo., and ask for free copy of Supply Catalogue.

THE MISSISSIPPI VALLEY.—A pamphlet so entitled is a work of art, a statement of fact and maps of the country illustrating the possibilities of Northeastern Arkansas and Southeastern Missouri. The enterprising Frisco Route is doing the work of investigation for those who are looking for homes and showing by photographs from life the grand possibilities of the new country. A copy can be had by writing to A. Hilton, G. P. A., Frisco Lines, 1418 Frisco Building, St. Louis, Mo.

THE SOUTHERN FIELD is a bi-monthly publication, issued in the interest of the development of the Southern States. It contains a list of low-priced farms that are worth looking into. Those farms will not be cheap five years from now. By writing to M. V. Richards, Land and Industrial Agent, Southern Railway, Room 71, Southern Railway, Washington, D. C., and mentioning this paper you can obtain a free subscription to the **SOUTHERN FIELD.** There are intensely interesting facts brought out in each number of the paper.

FARM POULTRY is a book by Prof. Geo. C. Watson, published by The Macmillan Company, 66 Fifth Avenue, New York City; at $1.50 per copy. It is a book of 355 pages, sixteen chapters and full of superior, practical, attractive illustrations. It is one of the Rural Science Series of books, edited by Prof. L. H. Bailey and a staff of the best writers and experts in agricultural specialties.

FARM AND RANCH LANDS.

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—Cotton Belt Route. Free descriptive books of productive lands. See page 14.

ARKANSAS.—FREE HOMESTEADS IN ARKANSAS under new three-year law. 500,000 acres good land vacant near railroads and markets. Our Homesteader's Guidebook tells just how to locate, acquire title, number of acres open in each county, and full text of new law. Price, 25c. **Farm Pub. Co.,** Little Rock, Ark.

FLORIDA.—I own a large tract of the very best land in Sunny Florida, just west of Jacksonville, and will sell you 160 acres or a section at bargain prces. Write me. **J. T. George,** 3725 Wyoming street, St. Louis, Mo.

KANSAS, MISSOURI, OKLAHOMA, TEXAS, NEW MEXICO, ARKANSAS AND LOUISIANA. Lands for sale on the Rock Island Route. See page 23.

MISSOURI.—8,080-ACRE STOCK RANCH far half its value for quick sale. Address owner for further information. **A. J. Johnson,** Merchants' National Bank Building, Springfield, Mo.

MISSOURI.—Farm Lands in Western Missouri, by far the richest section of the state, are for sale at prices that are more than reasonable, considering the income that can be made. Will be pleased to show a few tracts that are worth the money. **J. H. Lipscomb,** 306 Fidelity Trust Building, Kansas City, Mo.

OKLAHOMA.—Indian land sales; titles guaranteed by the United States Government. See page 11.

TEXAS.—Lands on the Cotton Belt Route. Free books descriptive of the country. See page 14.

FARM WANTED.—I am looking for a good Farm at a reasonable price. Give full description in first letter. Address, **CASH FARM BUYER, Box 7910, Cherry Valley, Ill.**

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property **FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago.**

Southern Farm Facts

Land at $10 an acre up

Alfalfa makes 4 to 6 tons per acre; Corn 60 to 100 bu. All hay crops yield heavily. Beef and Pork produced at 3 to 4 cents per lb.—Apples pay $100 to $500 an acre; Truck crops $100 to $400; other yields in proportion.

THE SOUTHERN RAILWAY

Mobile & Ohio R R or Ga. So. & Fla. Ry. will help you find a home in this land of opportunity. Booklets and other facts—free.

M. V. RICHARDS, Land and Industrial Agent Room 71, Washington, D. C.

YOUR OPPORTUNITY

is NOW In the Province of

SASKATCHEWAN Western Canada

Do you desire to get a Free Homestead of 160 Acres of that well known Wheat Land? The area is becoming more limited but no less valuable.

New Districts have recently been opened up for settlement, and into these railroads are now being built. The day will soon come when there will be no Free Homesteading land left.

A Swift Current, Saskatchewan farmer writes:—"I came here on my homestead, March, 1906, with about $1000 worth of horses and machinery, and just $35 in cash. Today I have 900 acres of wh at, 300 acres of oats, and 50 acres of flax." Not bad for six years, but only an instance of what may be done in Western Canada, in Manitoba, Saskatchewan or Alberta.

Send at once for Literature, Maps, Railway Rates, etc., to

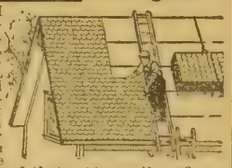
Canadian Government Agent, 125 W. 9th St., Kansas City, Mo.

C. J. BROUGHTON, Room 412, 112 W. Adams St., Chicago, Ill.

or Address, Superintendent of Immigration Ottawa, Ont., Canada

He Was Amazed

at LOW COST of Edwards STEEL Shingles



"In all my life I was never so surprised" writes Mr. D. Elzroth, of Fosters, Ohio, "as I am at my new *Edwards* STEEL Shingle barn roof. I wouldn't have believed it if I hadn't seen it with my own eyes. Your steel shingles cost *lots* less than wood and they sure beat wood shingles and that rubber roll roofing *forty miles*. The stuff got here in *good shape*, right *on time* and I done the work myself. I've got the best roof in the township. What a fool I was not to get your catalog 4 years ago when I roofed my *house*."

Factory Prices—All Freight Paid!

Fire-proof, rot-proof, rust-proof. Guaranteed against *lightning* by $10,000 Bond.

Never need repairs. Out-last *three* wood-shingle and *five* composition roofs. Lowest factory prices—all freight paid. Put them on yourself. Made of Open Hearth Steel, *finest quality*. Made absolutely rust-proof by our world-famous "Tight-cote" Process. Come in sheets, 24 inches wide, 5 to 12 feet long.

Nothing to do but nail sheets on old roof or sheathing. Edwards Patented Interlocking Device covers all nails, makes permanent water-tight joints.

Makes handsomest, most lasting roof in existence. Write us. If possible give size of roof and we will quote price, delivered to your station.

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The World's Largest Manufacturers of Steel Roofing (87)

FEEDING FOR THE MARKET.

Observations of a Cattle Feeder in Southern Illinois.

In feeding cattle for either winter or spring market there are several things to be closely observed which should not be disregarded any more than the laws of health. In the first place, if we take the cattle off the grass in the fall to be fed we are likely to cut off the green feed without substituting something in its place, and the cattle will hunger for something they cannot get. This will cause them to grow restless and thus lose flesh and cause a considerable amount of feed to be wasted in trying to hold them up.

Another cause of loss in weight of flesh is taking them away from other cattle they have been accustomed to run with in pasture. This causes a loneliness that causes them to run and bawl in their pens and thus they lose flesh. In fact, in many cases they will refuse to eat until forced to do so by hunger, and, of course, they run down during their period of discontent.

In feeding and handling cattle, water is a very important factor to be looked after; any change of water, unless it is for the better, may cause loss by their refusing to drink at all. There are many other things to be observed in this matter of feeding, but these mentioned are the most common. I find it is well to take what cattle I intend to feed from the rest of the herd, placing them in a good-sized lot or even in a field with some good pasturage in it—clover, red top, orchard grass or something equivalent. At convenient places in this lot or field I put feed troughs, being particular to cut each animal off to himself while feeding in a temporary stall erected for the purpose. I exercise care at first to give only a small allowance of dry feed to each animal and thus avoid overfeeding, which many of them will suffer from if fed in one common trough or even in one lot. After they have eaten, they are given the run of the field again. Especial care is taken that they have a plentiful supply of good water provided in troughs or in natural brooks, and they are never allowed to drink from ponds or other standing water in which they can wade or stand in the warm part of the day.

Large lumps of rock salt are put at several places in the field, so the cattle may lick when they so desire without all crowding to one place and worrying and pushing each other around. After all these things have been attended to I begin to increase the feed just a little each day until nearly a good feed is given. Of course, I use different kinds of feeds as I think best from day to day. At this time some shoats are usually allowed to follow the cattle, but I never allow hogs in the pen that are to be slaughtered soon.

When the cold rains and rough winds begin, the cattle are moved to the barn, where suitable stalls are provided for them. There are two rows of stalls with a narrow passageway between. The head of each stall is turned toward this passageway, and in each stall is a water basin and a trough placed near the walkway, and it is from here that the animals are fed and watered. The stalls are cleaned each day and new bedding provided for the animals. While this is being done the cattle are driven into a back lot, where they have plenty of warm water provided in large troughs. At the same time all their troughs and mangers are thoroughly cleaned, the clover hay and other roughage are thrown to some cattle that are not being fed for the market, while the grain and all other feed that have been left by the cattle are thrown into the swill barrel, to be fed to sows and young pigs.

Several different kinds of feed are used, such as corn, ground oats, oil cake, silage, as well as clover, pea hay and timothy hay cut together and moistened, then covered with wheat bran and middlings.

Each animal is thoroughly cleaned and rubbed off each morning with a brush and soft woolen cloth, and all voidings and other matter which will not rub off easily are removed by warm water and a cloth or sponge, and afterwards the animal is rubbed until he is thoroughly dry. By pursuing the above course I have been troubled little with scours or cattle getting off their feed for a few days. —William Hardy, R. F. D. 1, Tunnel Hill, Ill.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, **Profitable Dairying,** as a premium. Address,

HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

Apple Market Overstocked.

On October 16th it was reported that the St. Louis apple market was overstocked. The official report then said:

"St. Louis is overstocked with apples, and heavy shipments arriving on the St. Louis levee from Calhoun, Ill., and elsewhere, are finding slow sales, and the prices are weak. Heavy shipments have been made for the last several weeks, already having filled speculative as well as legitimate wants. Most of the apples offered for the local market in the last week are of the inferior or only fair Ben Davis variety that will not keep in storage.

"Scarcity of teams and laborers has been another factor in making the movement of the apples from the boats and away from the levee slow. Two boats arrived on the 15th with 3,500 barrels, which were added to several thousand barrels then unsold. Some of the choice varieties sold for $2.50 and even $2.75 per barrel, but most of the sales were of Ben Davis apples bringing $1.00 and $1.25, with an occasional price of $1.50 and $1.65 for choice lots."

Quality—or Price?

In buying tools, as in buying anything else, the temptation is strong to save something on the price at the expense of quality. Yet the *extra cost* of high-grade tools over inferior tools is *small.* And the difference in *results* is *great.*

Tool requirements on the farm particularly, call for the greater efficiency, ease in working and lasting qualities of

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SAWS TOOLS FILES

Sold by all Progressive Hardware Dealers

This is such an important subject that we have published a valuable and handsome book—"Disston Saws and Tools for the Farm". Every farmer should read it for helpful and valuable Tool information and suggestions, directions for the care of Tools and other data.

Simply write for the "Disston Farm Tool Book", and it will be sent free by return mail.

"There is no substitute for a DISSTON."

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Keystone Saw, Tool, Steel & File Works
P.O. Box 1537 M, PHILADELPHIA, PA.

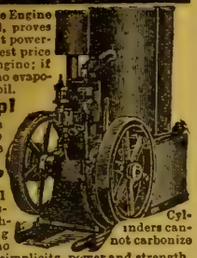
Japanese Stock Raising.

Dr. Issa Tanimura, Live Stock Commissioner of the Japanese government, has just returned to his home from a visit to this country, and prior to sailing he advised the Chief of the Live Stock Department of the Panama-Pacific International Exposition that it would be his purpose to induce his government not only to make a live stock display at San Francisco in 1915, but to purchase many of the best specimens of the various breeds of cattle, sheep, horses and swine. It is Dr. Tanimura's belief that Korea and Manchuria are especially adapted for the production of cattle, horses, sheep and swine on a large scale. He says that alfalfa grows naturally in those countries and that there are vast plains which are covered with good grass. He expects the live stock industry to play a prominent part in the food development of Japan.

Cattle to the Square Mile.

The United States has 23 cattle to the square mile; Argentina, 26; Great Britain, 97; Germany, 99; Denmark, 144; and Belgium, 164. There is room in the United States to raise 300,000,000 cattle.

Use KEROSENE Engine Free!



Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.

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Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

BUTTER AND CHEESE WANTED.

Population Increasing Faster Than the Supply is Increased.

No overproduction of butter and cheese in the United States need be feared, says Prof. G. H. Benkendorf, of the College of Agriculture of the University of Wisconsin. The population of the United States increased 46.8 per cent. from 1890 to 1910, yet the total production of farm and factory butter increased only 34.4 per cent.

Figuring the exports and imports, the butter actually consumed in the United States has increased 37.4 per cent. Since the population increased 46.8 per cent., the amount of butter eaten by each person is only 93.6 per cent. of the amount in 1890. The total cheese maufactured increased 24.9 per cent., or only about half as fast as the population. Greater increase in population than in the supply of butter and cheese accounts in part for the increased prices, while the higher prices probably account for the reduction in amount eaten per person.

BENEFIT OF CONTESTS

Results in a Gradual Improvement in Workmanship in Making Butter.

Buttermakers are not always responsible for the flavor of the butter that they send to the market or to the Scoring Exhibitions conducted by the Dairy Department of the College of Agriculture, University of Wisconsin. They are, however, directly to blame if the latter is not perfect in color or if the salt is too high or too low or gritty. There has been a marked improvement during the past three years in the workmanship of the butter.

At the State Fair, 30.3 per cent. of the butter made by men who have never sent butter to the Scoring Exhibitions was cut in score for imperfect body, color, or salt. Another 18.3 per cent. of the butter made by these men was criticised by the judges as being defective in workmanship, but not enough to warrant a cut.

Only 16.4 per cent. of the butter made by the men who have sent butter to Madison since May this year was defective in workmanship. It pays to exhibit butter and have it judged.

Tests to Detect Oleo.

Guy S. Ellis, of the Iowa State College, concludes an article upon oleomargarine by saying:

"Inasmuch as there are so many people unable to tell oleomargarine from butter, perhaps in closing this article it might be worth while to give a few means of detection of this product. These two tests can be performed by the housewife and are very simple but accurate tests. Oleomargarine and renovated butter boil noisily, sputtering like a mixture of grease and water when boiled, and they produce but little or no foam. Renovated butter produces usually a very small amount of foam, while pure butter boils with less noise and produces an abundance of foam.

"Another method is to put half a cup of sweet skim milk or distilled water in a dish and heat close to boiling, then add a piece of butter or oleomargarine about the size of a good hazel nut. Stir with a match until the butter or oleomargarine is melted, then cool as quickly as possible and stir until the temperature falls sufficiently for the fat to congeal. If oleomargarine, the fat can be collected into one lump by means of the small stick, while if pure butter or renovated butter, the fat will granulate and it cannot collect."

A Quality Butter Brand.

It appears that in Denmark certain creameries of established reputation have the right to apply what is called the "Lur-Brand" to their productions as a guarantee of quality, and the butter is sold with the support of that recommendation. A compulsory examination at stated times is necessary to insure the right to use the brand.

Recent regulations by the Danish Commissioner of Agriculture provide that if any butter does not reach a certain number of points as to quality, the dairy will be warned that it is in danger of losing the right to carry the brand and will be advised to call an expert to investigate the conditions in the dairy and help to improve the quality of the butter, when, after a time, the laboratory will again call a cask for examination. If quality is still below the fixed standard, the dairy will be deprived of the right to use the "Lur" until it has managed to improve the quality of the produce. Under certain conditions the dairies can be deprived of the right to carry the brand without any warning beforehand.

Be quick!—find out now about

Indian Land Sale in Oklahoma

Nov. 12th to Dec. 23rd

November 12th begins your opportunity to secure some of that rich land so long held for the Indians—*now* to be sold at *Public Auction* by the U. S. Government. Eight hundred and twenty thousand acres! —over 11,000 separate tracts. Never again will you have *so many* chances to secure, at *your own price,* a tract of land that in size, character and location will just suit you.

Title guaranteed by Government
25% down—balance in 2 years

and residence is *not* required. Its only a few days until the first sale begins. You must act *quickly.* You'll be *glad* that you got on the ground in time to bid.

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from Chicago, St. Louis, Kansas City and other points. The Frisco Lines have 1,500 miles of track in Oklahoma, reaching most every point of sale. Your ticket via Frisco Lines gives you the privilege to go one way and return another, so that—at no extra cost—you can attend *many more sales* than would be possible on a trip going and returning the same way. Don't fail to attend this sale; next year there may not *be any Indian lands left.*

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THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912—Now Ready For Delivery.

True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

This is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in the Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, mother of champions, or winner in the prize ring.

For example, at the St. Louis Horse Show just closed, in the great saddle horse ring, on the last day, Missouri King won the blue, Kentucky's Choice won the red, and Gingerbread Man the third prize. Well—Missouri King is on page 123; Kentucky's Choice is on page 328; and Gingerbread Man is on page 346 of the Book of Live Stock Champions. Uhlan, recently reducing the trotting record, is on page 334; and Astral King is on page 330. It is an up-to-date book for first-class stockmen.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special inducements to paid-in-advance subscribers, to old friends and patrons. We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title. This is an extraordinary offer.

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Seed Testing For Missouri Farmers.

A seed-testing laboratory for the benefit of Missouri farmers and seedsmen is being operated at the Agricultural College at Columbia, in co-operation with the United States Department of Agriculture. The tests of seeds are made free of charge, and it is to the advantage of both farmers and seedsmen to make use of this opportunity of having seeds tested.

There is a considerable number of pernicious weeds being distributed over the state in various kinds of grasses and clovers and some of these are very troublesome pests. The increase of dodder in clover seed samples in Missouri during the last few years is alarming. Great numbers of clover fields are infested with this plant, and it is one of the most dangerous pests with which farmers have to deal. The danger from dodder alone should be sufficient to warrant men having all clover seeds tested which they use upon their farms.

Seed for tests should be sent in care of the Seed Testing Laboratory, Columbia, Mo. For small seeds, like grasses and clovers, a tablespoonful is sufficient; for large seeds, such as wheat, oats, etc., three or four tablespoonfuls should be submitted. These samples should bear the name and address of the sender and a letter should accompany them, stating whether a purity test is wanted, or whether the seed is to be tested for both purity and germination. Where a purity test is desired, a report can usually be returned within a week. Where a germination test is desired, it takes a few days longer. Certain of the grass seeds, like blue grass, require approximately a month for a germination test.

It is to the interest of farmers to know exactly the character of the seed they are sowing. This information is at the disposal of the farmers of Missouri, through this laboratory, with no cost to them. The idea in maintaining this laboratory is to give both seedsmen and farmers an opportunity of knowing the character of the seeds they are handling and to educate all to the importance of using high-grade seeds.—M. F. Miller, College of Agriculture and Experiment Station, Columbia, Mo.

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SILOS AND SILAGE.

Instructive Article Based Upon Experimental Results.

Several Agricultural Experiment Station bulletins have just come to hand from different stations on these two subjects, and it will be well to consider them all in one article.

While the silo in the United States dates from 1875, and the first book on the subject was published in France in 1877, giving the author's experience for twenty-five years, many people think of the silo as something quite new, and thousands of American farmers have never seen a silo; hence it will not be amiss to state a few fundamental facts and principles.

Everybody is more or less familiar with canned goods—how the exclusion of the air and its germs of decay from fresh fruits and vegetables preserves them in their natural state for future use. Now, a silo may be regarded as a huge can, and silage as canned forage.

The Greeks and Romans preserved green forage in pits dug in the earth, and the first silos in Northern and Western Europe were of this type. Next, silos were constructed partly above the ground. But there is greater convenience in handling silage when the silo is built entirely above the ground.

In order to exclude the air, silage must be cut into short lengths so that it will pack close, and it must either contain enough juice to fill all the little spaces between these pieces, or enough water must be added to serve the same purpose. Machines of many kinds are on the market for cutting silage and elevating it to the top of the tallest silo with great rapidity—fast enough to keep six or more teams busy hauling the forage from the field to the cutter. For the purpose of excluding the air, the silo should be round, as air will get in at the corners of a square silo. The inner surface of the wall must be perfectly smooth, in order to facilitate the setting of the silage, and one or two men should be kept in the silo to distribute the silage evenly over the surface as the machine dumps it in, and to tramp it firm next to the wall.

Since the greater the depth of the mass of silage the firmer will its own weight pack it by settling, the silo should not be less than thirty feet high, and if more than forty feet high the expense of filling is too great. About thirty-six to forty feet is advisable.

Among the many advantages of storing feed in a silo rather than drying it and then stacking it or storing it under shelter are the following:

First, and most important, the silo offers the only means of preserving and utilizing the entire feeding value of the forage. For instance, it has been ascertained that when the corn plant reaches the state of maturity, when the grain passes from the milk state to the dough state, there is stored in the plant—stalk, blades, husk and ear—a greater quantity of digestible nutrients than at any other stage, and if it be cut and stored in the silo then, there is no loss; but when left to be handled in the ordinary way there is a loss of 25 to 40 per cent—equal to a loss of twenty-five to forty bushels out of every 100. When the points of the husk turn brown and the grains dent is the proper stage to cut corn for the silo. Sorghum should be cut when the seed are in the dough.

Second, a crop of corn or sorghum when ensiloed is harvested and stored away much more rapidly and economically, is stored in much less space, and is more convenient to feed out than when handled in the ordinary way.

Third, in the form of silage, the feed is much more palatable, more easily digested, keeps stock in better health and keeps up the flow of milk and the June grass color of the butter all winter, and even through a summer drouth.

Bulletin No. 70 of the Missouri Station, by C. H. Eckles, states that a crop of corn yielding thirty bushels to the acre will make six tons or silage to the acre, and that if the number of bushels per acre be divided by five the result will be the number of tons of silage per acre. Thus, forty bushels make eight tons, fifty bushels ten tons, sixty bushels twelve tons, and so on.

Mr. Eckles thinks that forty pounds of silage a day is as much as any animal should require, and at this rate ten cows would require thirty-six tons for six months, or 180 days; twelve cows forty-three tons, fifteen cows fifty-four tons, twenty cows seventy-two tons, twenty-five cows ninety tons, thirty cows 108 tons, and so on.

A round silo thirty-six feet high will hold the following number of tons according to inside diameter: Diameter of ten feet, fifty-seven tons; twelve feet, eighty-two tons; fourteen feet, 114 tons; sixteen feet, 158 tons; eighteeen feet, 194 tons.

While the silo may be constructed of wood, brick, stone, sheet iron or concrete, probably nine-tenths of the silos built within the last two years have been made either of wooden staves or reinforced concrete. If well constructed, one of these preserves the silage as well as the other. The concrete silo has the advantage of being fire-proof, less likely to be blown down, does not shrink apart when empty and dried out, and it is practically everlasting. The same remarks apply to silos of fire clay.

The stave silo lasts eight to ten years if made of untreated pine staves and fifteen years if made of cypress. If the staves be creosoted, they last longer and shrink less. The firms that advertise stave silos will send literature telling how to erect them, anchor them and care for them.

The concrete silo should be made with wall fifteen inches thick, using curved cores to make flues six by eighteen inches extending from the ground to the top and separated by four-inch walls, tying the outer and inner wall together. The outer wall should be five inches thick and the inner wall four inches thick; the outer and inner forms should be three to five feet high, so that a three to five-foot section of the entire silo can be constructed each day. These forms can be hoisted by block and tackle for the next section, and the cores can be hoisted by hand. Barb wire can be used for re-enforcing, imbedding several strands of it in the outer surface of that wall, every foot in height. Wire from an abandoned fence will do if not too much weakened by rust. Though a round wall fifteen inches thick is not likely to be blown over, upright steel rods may be used in the cross partitions between flues. When completed, both the outer and inner surfaces should be given a good waterproofing of cement and water about as thick as good cream applied with a wide stiff brush. The foundation and cement floor should be three feet under ground, and the floor at least six inches thick.

A silo thus constructed will be damp-proof and also frost-proof in the coldest climate, if on the south side of the barn. If the concrete mixture consist of one part good cement, two parts clean, sharp sand and four parts clean gravel or crushed stone, this sort of silo sixteen feet in diameter and thirty-six feet high should not cost more than $350—$200 for the material, $50 for the forms and $100 for the work—and it is good for all time and will hold 158 tons, which is enough to feed fifty cows for six months.

Minute directions, with illustrations for constructing the forms and for laying the foundation and erecting several types of silo will be found in Bulletin No. 214 of the Wisconsin Station, Madison, Wis., and Circular No. 15 of the Oklahoma Station, Stillwater, Okla.

EGG-LAYING CONTEST.

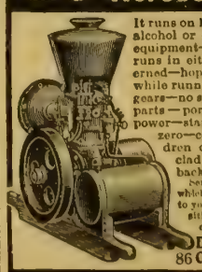
Splendid Results of Pens of five Hens —Record For Single Hen, 281 Eggs in the Year.

The Missouri National Egg-laying Contest at Mountain Grove, Mo., was concluded on October 31st, 1912. A White Plymouth Rock, Lady Showyou, lay 281 eggs in twelve months. The second record by a Rose Comb R. I. Red was 255 eggs; and the third record was by a Barred Plymouth Rock with 245 eggs. There were 656 hens in the contest and the average was 134 eggs per hen and a fraction over.

The best pen record, five hens to pen, was by R. C. Rhode Island Reds, 1,042 eggs; second, White Wyandottes, 1,015 eggs; third, S. C. W. Leghorns, 991 eggs; fourth, B. P. Rocks, 967 eggs. In egg laying, four months—March, April, May and June—were equal to all the balance of the year. Strange to say, the 991 eggs from the Leghorn pen, winning third prize, the eggs weighing 131 pounds 2 ounces, outweighed the 1,042 eggs of the winning pen. Fifty-nine hens lay 200 eggs or more and eighteen lay 220 eggs or more in the year. The pen containing the hen laying 281 eggs was thirteenth in the list of pens. The hen laying the most eggs was owned by J. A. Bickerdike, of Millersville, Ill., and the owner of the winning pen was D. E. Hall, of California, Mo. More of this in our December number. The next egg-laying contest, starting November 15th, is full of entries. Mr. T. E. Quisenberry is Manager.

Commercial furs sold on the St. Louis market include raccoon, mink, otter, beaver, gray fox, red fox, opossum, skunk, muskrat, bear, wolf, wild cat, house cat, civit cat, badger, fisher, marten, lynx, cayote, etc.

20 Reasons Why You Should Investigate the SANDOW Kerosene Stationary ENGINE



It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—throttle governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year iron-clad guarantee—15-day money-back trial. Sizes 2 to 20 H. P. Send a postal today for free catalog, which shows how Sandow will be useful to you. Our special advertising proposition saves you one-half cost of first engine sold in your county. (167)

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A MARKET FOR FURS.

St. Louis the Concentration Center For North American Trappers.

The civilized population of the world is increasing and the wild countries are being settled, or, as we might say, domesticated. The same influences that bring about the high cost of living, so far as food is concerned, also account for the high price of furs. And yet, astonishing to relate, the fur business is increasing, or at least is concentrating. Formerly small lots of furs and pelts collected by traders drifted eastward without any particular stopping place until reaching the Eastern coast. What became of them, how they were graded, where they all went to, did not appear on the surface, and what furs and pelts were really worth at the final market was not known outside of the select in the trade.

St. Louis was always a good fur market; in fact, was the center of the fur trade a hundred years ago. It was one of the few cities where quotations were published, where furs were concentrated. It was always a market to do business with the trader and trapper, and the Mississippi river was in olden days a considerable factor in concentrating consignments at St. Louis.

It is even stated that St. Louis handles to-day 60 per cent. of all the furs trapped in North America. It is certain that consignments are received from Alaska, Canada, and every state in the Union and from Mexico.

In recent years St. Louis has added to business facilities by establishing a Fur Exchange, and one influence of the movement is to bring to St. Louis the buyers representing the people who dress the hides and furs, thereby bringing the original fur trapper a step nearer to the gentleman who is called the "ultimate consumer," and one reason why St.Louis has been able to net more money for first-hand shippers is the step forward in selling to consuming buyers or to exporters, who now come to St. Louis and make sure of the grades and qualities desired, instead of as formerly, waiting at the seacoast for the furs to be sold over and over again before reaching them.

St. Louis is a quick cash market and indulges in no sleepy tactics. Public sales are held and sealed bids received. The furs are sold to the amount of ten to twelve million dollars a year. St. Louis is the leading fur market in the country and has reached the prominent position on good business methods and activity in pushing them. This article does not presume to say that St. Louis is the only fur market. The fur trade is larger than any one city can handle.

PELTS, FURS, WOOL, HIDES, ETC.

Every house engaged in the fur trade will send a list of prices they pay at the time. These lists make three territorial distinctions: Southern, Central and Northern, and nearly all furs are figured as large, medium and small.

Recent wool prices on the St.Louis market: Near-by growth at 25c. for low to 26½c. for choice; fine at 17c. for heavy to 22c. for light; lambs' at 20 to 22c.; burry at 16c. for hard to 22c. for slight; Southwestern at from 13c. for hard burry up to 25½c. for clear; fall clip or loose, 18 to 22c., and fine, 13c. for sandy to 20c. for light; Northern or Western at 22c. for dark to 25½c. for bright medium, 14 to 20c. for fine, and 14c. for hard burry, to 21c. for slightly burry; tub-washed at 25c. for burry to 36c. for clear; Angora goat at 15c. for burry to 30c. for choice.

Recent prices at St. Louis for hides: Wet salted—Round, 14¼c.; No. 1, 14½c.; No. 2, 13½c.; bull, 10½c.; glue stock, 8c. Dry stock—Flint, round, 25c.; salted, 22c.; flint, bull, 18c.; culls, 16c. Uncured, 1c. per pound less; part cured, ½c. per pound less. No. 1 horse hides, $3.25 each; No. 2 horse hides, $2.25; glue and pony, $1.50 to $2.00; hog hides, 30c. for average—glue and pigs half price. Sheep pelts—Green or dry late kill at 60 to 90c.; late kill or small, 10 to 60c. Goat skins at 20 to 35c. each; kids, 5 to 15c.

The wholesale market for feathers at St. Louis was quoted as follows on November 1st: Prime white live goose, 63c.; prime gray, 44c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck—White, 41c.; dark, 30c. Chicken—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c.

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by Andrew S. Fuller, one of the greatest horticulturists. It contains all the necessary information to enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book contains that which a beginner should have to start on and an expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The National Farmer and Stock Grower for one year for fifty (50) cents. This is a splendid opportunity to get a good farm paper and a valuable book as a premium. An average crop of strawberries is 1,701 quarts to the acre. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

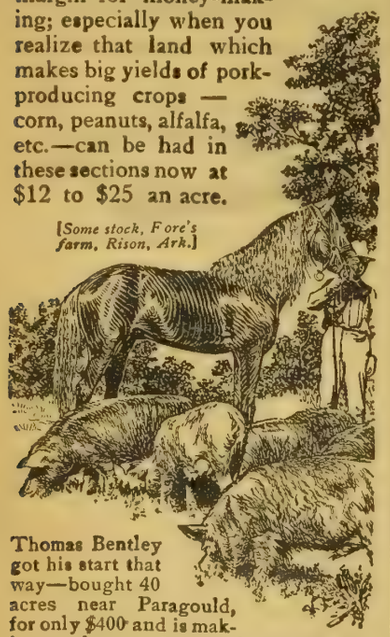
Hay Market at St. Louis.

Early in November a few hay sales on the St. Louis market were as follows: Sales on St. Louis Side: One car No. 2 clover-mixed at $12; one car do. at $13. Timothy—One car No. 3 at $11; one car, part threshed timothy, at $11 and part No. 2 clover-mixed at $13; one car and part car No. 2 timothy at $12; five cars do. at $12.50; three cars do. at $13, one r. c.; one car part timothy and part clover-mixed at $13.50; eight cars and part car scant No. 1 timothy at $14; two cars No. 1 at $14.50; one car do. at $15; two cars and part car good at $16. Prairie—One car common at $10.50; three cars No. 2 at $12.50; one car No. 1 at $13.50; one car at $14; one car at $15; one good car at $15.50. Clover—One car common at $12; one car No. 3 at $12.50; one car No. 2 at $14; one car at $15; one car choice at $19. Alfalfa—One car No. 1 at $16.50; one car choice at $18. On East Side: One car No. 1 light clover-mixed at $15. Timothy—Two cars No. 3 at $10.50, delivered; two cars No. 2 at $11.50, delivered; one car at $12; one car scant No. 1 at $14; two cars at $14.50, delivered; one car at $15; one good car at $16; one good car at $16, delivered. Clover—One car No. 2 at $15. Alfalfa—One car choice at $18.

FUNSTEN Pays CASH for FURS!
We Want Ten Million Dollars' Worth of Furs
Biggest Prices! Better Grading! Most Money by Return Mail!
Those are the advantages you have in sending your furs to Funsten. We are the largest in the world in our line. The biggest American, Canadian and European buyers are represented at our regular sales. Competition for Funsten Furs is greatest. As we sell furs in larger quantities and get more spot cash, we can pay you more cash for yours than you can get anywhere. We count on large volume of business and small margin of profit. No traveling buyers—do all our business direct with you. We want ten million dollars' worth of furs. We want your shipments, anything—from one skin up.
Big Money in Trapping Do trapping during spare time. It's good sport and pays big. Mink, coon, skunk, muskrat, fox, wolf, lynx, white weasel and all kinds of furs are valuable.
Traps To accommodate trappers and shippers we furnish traps, including the famous VICTOR at factory cost. Largest stock in U. S.
Funsten Animal Bait Guaranteed to increase your catch or money back. Beware of imitations. Funsten Animal Baits won Grand Prize at World's Fair in 1904. U. S. Government uses Funsten Baits. One can of Funsten Animal Bait brought one man in St. Michaels, Alaska, $1,199 clear profit. Costs only $1 a can. Different kinds for different animals. Whether you are an experienced trapper or just a beginner, we can help you catch more furs—make more money. Write today for free Trapper's Guide, Game Laws and Trapper's Supply Catalog—three books in one—Fur Market Reports, Funsten Safety Fur Shipping Tags, etc. ALL FREE. (32)
TRAPPER'S GUIDE FREE
LARGEST IN THE WORLD
Funsten Bros. & Co., 323 Funsten Building, St. Louis, Mo.

You can produce pork at 1½c per lb.

in Arkansas and Texas; and with pork bringing 8¢ to 9¢, there's a big margin for money-making; especially when you realize that land which makes big yields of pork-producing crops — corn, peanuts, alfalfa, etc.—can be had in these sections now at $12 to $25 an acre.



[Some stock, Fore's farm, Rison, Ark.]

Thomas Bentley got his start that way—bought 40 acres near Paragould, for only $400 and is making good money from his hogs and cows. His place is worth more than $3000 today. T. B. Fore of Rison, Ark., has lifted a mortgage off a fine 157-acre farm through his profits from hogs, cattle and horses. Mr. Fore raises *all his own feedstuffs*. All along the

Cotton Belt Route in Arkansas and Texas

you'll find many a man who is getting more profit *every year* than his land cost him. Gus Palmer, who lives just below the Arkansas line, near Shreveport, La., sold $2100 of alfalfa from 30 acres—a profit of $70 per acre. J. E. Gandy paid $3000 for an improved farm near Mt. Vernon, Texas; and the local people thought he'd paid too much. Since then he's refused offers of $7500 for his place.

These lands won't stay cheap always. They have already doubled in value since 1905; but even this year you can buy at $12 to $25 per acre, as good land there as you are farming now. And you'd have *every* advantage of schools, churches, close neighbors, good local markets, phones, rural free delivery, etc. This proposition deserves serious thought.

On the 1st and 3rd Tuesdays of each month there are low round trip excursions to Arkansas and Texas via Cotton Belt Route, allowing 25 days' time and free stopovers. Go on the *next* one.

Get our free books!

Written by a farm man who knows farming from A to Z. He traveled over thousands of miles in these sections to learn where the *real* farm opportunities were—the kind he knew *you* would grasp if you saw them. He tells you, in plain words, all about them. 100 pages and farm pictures. Send a postal today for your *free* copies.

E. W. LaBEAUME
General Passenger Agent
1466 Pierce Bldg., St. Louis

COTTON BELT ROUTE

Fortunes in Pigs.

Fortunes have been made in pigs in the past, and more fortunes will be made in pigs in the years to come.

The population of the world is growing, and with that growth there is an increasing appetite for pig flesh. We might say with truth that the appetite for pig flesh is growing faster than the population. Every part of the world is now a market for pig flesh, for there is no meat in the world that can be kept fresh so perfectly as can smoked pork.

The demand for pork is so world-wide that the price will always be good. With an assured market, one-half of the problem is solved.

The shortness of the time in which pork may be produced is another factor in making fortunes from pork, increasingly numerous. While it takes years to produce beef, it takes but months to produce pork. The rapidity with which a deficiency in the supply may be made up is all in favor of the pigs. When the beef supply runs low, it requires years to re-establish the natural relationship between supply and demand, but not so with the pig.

The great fecundity of the pig is the principal basis for the fortunes that have been made in producing pig flesh. From six to ten at a litter, and that twice a year, means a production of vast numbers in a short time. Then, too, the pig begins to produce very early in life.

The pig is, in large part, a grazing animal, and is willing to eat almost anything. His support becomes a question of producing green feed, which the pig will harvest himself.

The man that can grow clover and alfalfa and corn is equipped for the making of pig pork at a cost that will yield a profit at any price likely to be paid for pork; that is, the price is not likely to ever again go low enough so that a man that can grow both his protein feeds and his starchy feeds cannot make money.

Next to the feed question comes that of protecting the pigs from disease. Up to the present time the surest method of keeping disease away from pigs is to keep them clean and protect them from the introduction of disease germs. Keeping them clean includes keeping away lice, which are means of inoculating pigs with disease germs.

The pig, like the chicken, can be raised almost everywhere, on the fifty-foot lot in the city (where the ordinances do not permit it) and on the great farm. It is observed that the solitary pig of the householder in the village seldom or never falls a prey to hog cholera or swine plague, probably because he is kept from contamination.

The larger the herd of swine the greater is the chance for a disease to get a foothold. Therefore many swine raisers are now dividing their swine into small groups placed in different parts of the farm.

The study of the raising and feeding of pigs is one of the most profitable branches of agricultural education that can be introduced on the farm.

A MEAT-MARKET RIOT.

Resisting Retail Butcher Monopoly in Berlin.

On October 3d, at Berlin, the capital city of Prussia, the retail butchers were given a touch of high life when hundreds of housewives joined in a wild riot at the municipal market because the retail butchers refused to handle imported and cheaper meats than the native German productions.

So far as we understand the situation, in addition to the tariff duties collected upon all meat imports, the German government has always imposed many restrictions, some of them proper regulations and some for the purpose of blockading the trade. In short, the government has protected German meat productions against importations by reasonable and unreasonable means until it is apparent that German farmers cannot feed the German people and now some foreign meats are admitted. It appears, however, that the butchers at the municipal markets had some ideas of their own, and they decided to boycott the foreign beef, thinking that without their consent it could not be sold.

But they made a mistake. The wives of the working people went by hundreds to the municipal market, hoping to profit by reduced prices for the cheaper quality meats, and found that the butchers had agreed not to deal in meats imported by the municipality. They stormed the butchers' stalls, seized all the native-raised meat, trampled it on the ground and fought with the butchers. The police were forced to close the market to stop the riot.

It appears as though the municipal authorities have taken a hand in the beef trade by importing meats and requiring the butchers in the public markets to handle it under certain conditions; but that has resulted in the butchers resisting the orders.

As the butchers cannot sell meats at public markets without a license, the controversy will end by their accepting the situation.

E. Myers, President, E. Myers Lye Company

How and Why Merry War Powdered Lye Makes Bigger Hog Profits

A well known authority on the subject of Hog Raising says; "Many hog raisers find it unprofitable to feed hogs after they weigh 200 pounds; the next 100 pounds costs too much. The secret of cheap production is first to grow strong frames on diversified grain and forage crops, *always keeping the hogs keen in appetite*, then giving them a high finishing feed to which they will respond."

How To Keep Hogs Always Keen In Appetite

The surest and cheapest way of keeping hogs so is by feeding *Merry War POWDERED Lye daily* with their rations. *Then* when ready for their topping off they will *quickly* put on *FAT* with the change of food—there is *no waste* of feed—every pound of corn is changed into *profit making pork*, because every bit of feed is fully digested—and instead of taking the usual 5 to 6 weeks to put on an extra 50 pounds of live weight, your *Merry War POWDERED Lye* hog will add that extra 50 lbs. in 3 or 4 weeks—a clear *saving* in time and feed.

Prevents Hog Cholera

Merry War POWDERED Lye not only keeps hogs *keen in appetite* from weaning till market time—healthy, strong and in prime condition for quickest and cheapest fattening—but it also *prevents hog cholera* and *protects* hogs from that dreaded disease. You need it as part of the *daily* rations of your hogs. *Costs only 5c per month*, per hog for complete *protection*. (*2 FEEDS PER DAY.*) *There are no substitutes. Merry War POWDERED Lye* is a *specially prepared, Powdered* Lye that *will prevent hog cholera*. The use of ordinary, old fashioned lye for hogs would be but a doubtful experiment—perhaps a most *dangerous* one. You can't afford to take chances. The actual *experience* of thousands of hog raisers has *proved* the real merits of *time-tried Merry War POWDERED Lye*—the greatest hog remedy the world has ever known.

"Merry War" Gave These Hogs Keen Appetites

"Our seventy head of hogs have fattened fine since feeding *Merry War POWDERED Lye*. They like the slop better with *Merry War POWDERED Lye*. My husband said: "It does our hogs good and helps digest the corn they eat."

MRS. EMMA WUTTKE, Richmond. Mo.

Make a Test For Yourself.

Sold at most dealers, 10c a can—full case of 4 dozen cans, $4.80. If your dealers can't supply you, write us, sending dealers' names—we will see that you are supplied and send you, FREE, a copy of our valuable booklet, "How to Get the Biggest Profits from Hog Raising." "YOU MAY ORDER DIRECT FROM US IN CASE LOTS, IF YOUR DEALERS WON'T SUPPLY YOU.

E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

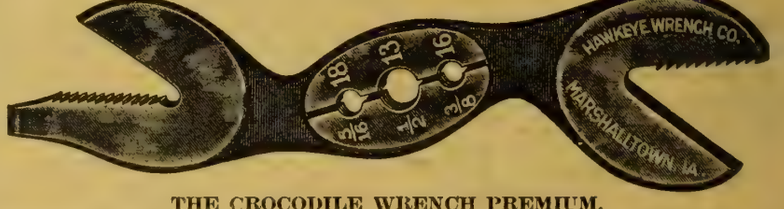
CURE THE HORSE'S COUGH.

At this season of the year every horse owner notes with solicitude any appearance of trouble with his horse. A cough is a usual beginning of more serious troubles, a trifling cause is often the beginning of a slight cold, and this with other slight exposures from time to time increase the severity of the ailment. Ninety per cent. of the horse owners have had experience with Frazier's Distemper Cure. It is the great germ destroyer which gives tone to the system of the horse, so that it will the better resist the approach of the irritation which occasions the cough. A dollar bottle holds three 50-cent size bottles. All druggists sell it on a strict guarantee to give satisfaction or return the money. Write for thirty-two-page horse booklet to the Binkley Medical Co., Dept. H, Nappanee, Ind.

At Springfield, Ill., October 16th, the State Anti-horse Thief Association decided to ask the State Legislature to pass a law which will make it an offense to trespass on property owned by farmers.

AN ABSOLUTE NECESSITY ON A FARM.

Every Farm Ought to Have an Extra Wrench or Two, Especially When That Wrench is the Crocodile Wrench Premium—Actually Six Handy Farm Tools in One—A Pipe Wrench, a Nut Wrench, Three Dies For Cleaning or Cutting Threads and a Screwdriver.



THE CROCODILE WRENCH PREMIUM.

Drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

SPECIAL INDUCEMENTS.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

$985 Overland 1913 $985

Completely Equipped

The Fastest Selling Car in America

BEFORE we announced this car we had signed contracts for over 39,000. Yet we had planned to limit our 1913 production to 40,000 cars. We are now shipping 150 cars a day. Yet we could ship 500 a day if we could make them. Right now we are over 3,000 cars behind our immediate shipping orders. We have been in this condition for the last 30 days. It is beginning to look as if we never could catch up.

Practically every important 1913 announcement has been made. A careful examination of these announcements will prove precisely what we have been claiming —that there is not a $1,200 car built that has any more practical value to offer than this one for $985.

And here are the comparative facts which support this seemingly bold statement.

Automobile values must be looked at from several different angles. You must consider not only the price, but what that price buys you. You must take into consideration the power, the strength, the beauty, the construction, the size, the appearance and the equipment of the car. You must judge a car by the material in it; the workmanship on it; the methods employed to produce it. and last but not least, the facilities behind the production methods.

Examine each one of these fundamentals in this Overland at $985 and you will find a car that is identical with any $1,200 car in the world. Go further and you find high-grade construction and painstaking care in finish that equal the production methods employed in the making of any $5,000 car you know of.

This car has the power of a $1,200 car; it has the strength of a $1,200 car; it has the size of a $1,200 car; it has the seating capacity of a $1,200 car. it has the wheel base of a $1,200 car; it has the chassis construction of a $1,200 car. it has the comfort of a $1,200 car; it has the beauty and finish of a $1,200 car.

Take the equipment item alone. It has a Warner speedometer—the best made; it has a fine mohair top and boot; it has a clear vision wind shield; it has a self-starter and Prestolite tank—every practical accessory made for an automobile. And all for the one price—$985. There are no "extras."

Then there are those important construction features which are only found on the very high-priced cars. This model has a drop-forged I beam section front axle, fitted with the famous Timken bearings; a three-quarter floating rear axle fitted with Hyatt bearings. a selective transmission, with three speeds forward and reverse, fitted with annular bearings, and a cold rolled pressed steel frame. It has the center control. The brakes are unnsually large for a a car of this size and power, and are ample for cars of much greater weight. There are two powerful sets of the drum type, internal expanding and external contracting. The great braking surface of these is indicated by their dimensions, 13 inches by 2¼ inches each. These are the brake dimensions you find on $1,500 cars. Pick up the catalogue of any $1,500 car and see for yourself. The springs are semi-elliptic front, three-quarter elliptic rear. Each spring has six leaves. Tires are 32x3½. Q. D.

This model is superbly finished. The striking body is in dark Overland blue. Battleship Gray wheels harmonize perfectly with the rich, dark body which is trimmed in black and nickel plate.

How can we market this car at this price? By making 40,000 cars a year. Increased production brings decreased selling prices. There is the answer in six small words.

If we could bring you fully to realize the size of our huge organization, you would more fully appreciate and understand the value of this car and why we can do what others cannot.

The demand for this car has already swamped the entire visible supply for the 1913 season. It has actually simmered down to a mere allotment proposition. So if you want an Overland "69" get your order in quick.

Any man who pays over $985 for a completely equipped 30 horsepower, five passenger touring car of this type and size is just wasting money.

See this model "69" at the Overland salesroom in your city at once. Order early if you want it early. Handsome catalogue on request. Write today, addressing Department 89.

The Willys-Overland Company, Toledo, Ohio

Self Starter

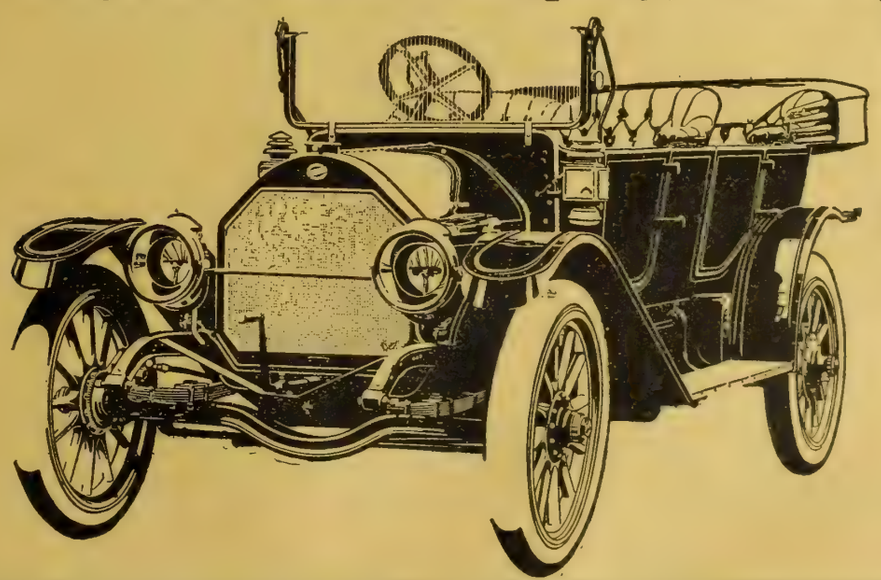
30 Horsepower

5-Passenger Touring Car

110-inch Wheel Base

Timken Bearings

Center Control



Warner Speedometer

Remy Magneto

Prestolite Tank

Mohair Top and Boot

Clear Vision Wind Shield

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

Don't Have a Blind One

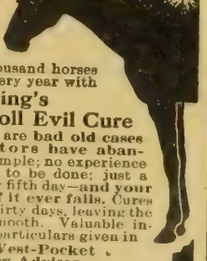
"VISIO"

An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Fistula and Poll Evil



Fully ten thousand horses are cured every year with
Fleming's Fistula and Poll Evil Cure
and many of them are bad old cases that skilled doctors have abandoned. Easy and simple; no experience needed; no cutting to be done; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. Valuable information and full particulars given in
Fleming's Vest-Pocket Veterinary Adviser
Best veterinary book for farmers; 192 pages, 69 illustrations. Copy mailed free.
FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

ABSORBINE

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Cures Spavin, Lameness, Allays Pain. Does not Blister, remove the hair or lay up the horse. $2.00 a bottle, delivered. Book 1 K free.
Before After
ABSORBINE, JR., liniment for mankind. For Synovitis, Strains, Gouty or Rheumatic Deposits, Swollen, Painful Varicose Veins. Allays Pain. Will tell you more if you write. $1 and $2 per bottle at dealers or delivered. Manufactured only by
W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Rock Sand Gone Home.

Rock Sand, the famous thoroughbred stallion, winner in England of the Triple Crown, and a sire of renown in the United States, returned to England on the Minnewaska on October 29th. August Belmont, the breeder of thoroughbreds, sold him to an English Syndicate for $150,000. Rock Sand is one of the many thoroughbred horses in the Book of Live Stock Champions advertised on page 11, and will be found on page 333 in the book.

MILITARY HORSES FOR THE ARTILLERY BRANCH OF THE SERVICE—Delivered by T. H. Holland, Contractor, at the National Stock Yards, Ill., to the Depot Quartermaster at St. Louis.

Canadian Cattle Cause Sensation in Chicago.

That Canada offers limitless opportunities for the cattle raiser was again proved recently by the arrival at the Chicago yards of a shipment of grass-fed Herefords from Alberta that caused a real sensation by bringing as high as $10.50 per 100 pounds, fully 75 cents higher than grass-fed Westerns ever brought before. These cattle were grazed in the High River country, south of Calgary, and at other points along the lines of the Canadian Northern Railway. Old-time traders at the yards proclaimed this as the finest lot of grass-feds that ever reached Chicago.

The early settlers in the Alberta region, as well as the newcomers, are more and more turning their attention to cattle raising, which is proving more profitable each year, especially in this region, where there is still so much land available for grazing purposes.

The Demand For Draft Horses.

Nothing shows the demand for draft horses better than the sales of pure-bred stock of the leading importers. Trumans' Pioneer Stud Farm, Bushnell, Ill., wrote as follows on the last day of October: "Dear Sir:—During October we have made the following sales: To our old customer, Hugh McCormick, of Sangamon county, Illinois, the imported three-year-old Shire mare, Pattie, winner of first at the Iowa, Minnesota, Wisconsin and Illinois State Fairs this year. He also purchased the two-year-old prize-winning filly, Crocus, and the dapple-gray aged Shire mare, Diamond, weighing over 2,300 pounds. We understand that these mares were very successful in winning prizes at the Sangamon County Institute. J. A. Burnhart, of McDonough county, Illinois, purchased an imported Belgian and an imported Percheron stallion. J. L. Gibson, of Johnson county, Iowa, purchased an imported Shire stallion. To Messrs. Munce & Son, of Logan county, Illinois, the champion American-bred stallion at the Illinois State Fair this year. To Frank Hurrle, of St. Cloud, Minn., an imported Percheron stallion. This gentleman had visited no less than ten importing barns before making his decision. He was looking for one of the extremely heavy-boned kind, which he had no trouble in finding here. To the Sandwich and Millington Horse Co., of Sandwich, Ill., an imported Percheron stallion. Messrs. Summy & Company, of Linden, Iowa, purchased the imported Shire stallion, Dunsmore Willington Boy, winner of first prize in the aged class at the Iowa State Fair. To Weaver & Rice, of Wibaux, Mont., three Shire stallions and one Shire mare.

"A telegram from New York today advises the safe arrival of our last importation. Shall be pleased to hear from any of your readers wanting a strictly high-class Shire, Percheron, Belgian and Hackney stallion. (Signed) J. G. Truman, Manager."

Horseradish at $3.50 to $3.75 per barrel was the latest quotation on the St. Louis market.

WESTERN RANGE HORSE SALES.

Horse raisers, feeders, dealers and stock farmers in general are advised that the sales of the very best Range Horses in the country will soon be over for the season of 1912. These sales are conducted twice each month in season by

Campbell & Reid and Western Sale Stables Co.,

NATIONAL STOCK YARDS, ILL.

There is only one sale yet to be held during the present season, and that is on

Thursday, November 14th.

Without question Messrs. Campbell & Reid and Western Sale Stables Company have made the National Stock Yards the greatest market in the United States for Range Horses and Mules. The equipment for handling the business is the best and the methods and guarantees protect the buyer in his purchases. Consignments are received from every Western State and consequently all classes of Horses are to be had at these sales.

At the final sale of the season there will be the best Horses to be had from the Western ranges, Mares, Fillies and Geldings, Colts, Yearlings, Twos, Threes and matured Horses. There are no other Range Horses to be had. The bulk are sired by fine Draft Stallions.

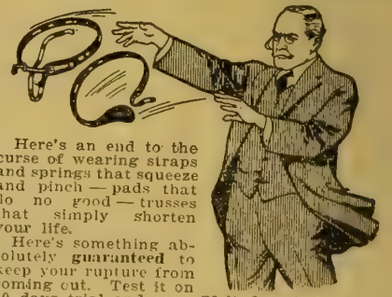
Please address,
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Hog Book Free.

Book of facts on care and diseases of hogs. Tells how to prevent and cure disease, and destroy worms. Greatest discovery known. Sent free. Write Dr. D. C. Snoddy Co., Dept. H, Nashville, Tenn.

KELLOGG'S CURE
For All Non-Breeding and Aborting Stock
A guaranteed remedy for cows, horses, hogs and sheep. Endorsed by thousands of breeders and dairymen as the only satisfactory treatment. On the market for 24 years. Write for descriptive 48-page book.
H. W. Kellogg Co., 970 Carroll Ave., St. Paul, Minn.

Trusses Like These Are a Crime



Here's an end to the curse of wearing straps and springs that squeeze and pinch — pads that do no good — trusses that simply shorten your life.

Here's something absolutely **guaranteed** to keep your rupture from coming out. Test it on 60 days trial and see. If it doesn't hold at all times, then it won't cost you a single cent.

Has overcome some of the worst cases on record. Doctors and surgeons who know of it recommend it instead of operation. No belt, no leg-straps, no springs. Is waterproof—will hold in bath.

Write for Free Book and find out all about it. Book is full of facts never before put in print. Cloth-bound, 96 pages. Explains why elastic and spring trusses cannot help you. Shows dangers of operation. Exposes the humbug "appliances," "methods," "plasters," etc. Will save you from wasting money. Shows why 60 days trial is the only safe way to test anything for rupture and how we offer you the only thing good enough to stand such a long test.

Book gives over 5,00 voluntary endorsements. Write for it to-day—it tells you things you could never find out by going to doctors or drugstores. Address:
Box 776—CLUTHE CO., 125 E. 23d St., New York City.

DR. LEGEAR'S ANTISEPTIC HEALING POWDER

Will Cure That Sore

The healing power of this splendid medicine has stood the test of 20 years. It soothes and cures old sores or fresh wounds permanently, prevents proud flesh, and keeps away flies. Sore shoulders, saddle and collar galls are instantly relieved and quickly healed.

Thousands of cures and not one known failure.

All sores on stock of any kind should be treated with this inexpensive remedy. It is easy to apply—you sift it onto the wound from the can here shown.

Sold by druggists and dealers everywhere in large size cans with sifting tops; price, 25c and 50c.

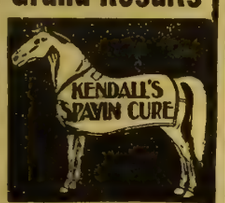
Dr. LeGear's Stock Book of 112 pages, containing a scientific treatise on the ailments of horses, cattle, sheep, hogs and poultry, will be sent free if you'll write for it.

DR. L. D. LeGEAR MEDICINE CO.
715 Howard Street ST. LOUIS, MO.

Sole Manufacturers of
Dr. LeGear's Stock Powders, Colic Remedy, Antiseptic Healing Oil, Dip and Disinfectant, Gall Remedy, Spavin Remedy, Liniment, Heave and Cough Remedy, Worm Remedy, Powdered Lice Killer and a full line of Poultry Remedies.

5 Years of Grand Results

dttell Ave., Buffalo, N. Y. Mar. 7, 1911.
tlemen: I have d your Spavin Cure twenty-five years h excellent results. T. M. Nolan.



Kendall's Spavin Cure

eeps legs sound and trim. It will add many lars to the value of your horse. The old reliable edy for Spavin, Ringbone, Splint, Curb, Swollen nts and Lameness. Equally reliable as household remedy. At druggists, **$1 a bottle.** Get free k, "A Treatise on the Horse," or write to— 12

B. J. KENDALL CO., ENOSBURG FALLS, VT.

AVE-THE-HORSE
(Trade Mark Registered)
SPAVIN REMEDY

etail druggist in a "live horse town" within 30 tes ride from New York City, writes: "I am sell- hree times more Save-the-Horse than any other eterinary remedy; when they want the GOODS cures they come back for Save-the-Horse."

ether on Spavin, Ringbone (except Low), Curb, oughpin, Splint, Shoe Boil, Windpuff, Injured ons or other disease, a perfect and permaent cure is guaranteed, no scar or loss of hair. e works as usual. 16 YEARS A SUCCESS.

E Originated the Plan of—Treating Horses— Under Signed Contract to Return Money if edy Fails. But write, describing your case, and ill send our—BOOK—sample contract, letters Breeders and business men the world over, on y kind of case, and advice—all free (to horse rs and managers).

CHEMICAL CO., 62 Commerce St., Binghamton, N.Y.
ggists everywhere sell Save-the-Horse WITH TRACT or sent by us Express Prepaid.

HORSE AND MULE NOTES.

From Topeka, Kas., October 15th, was reported that the plague that used the death of more than 000 horses in Kansas during gust and September had disappeared as mysteriously as it came. J. C. Mercer, State Live Stock Commissioner, did not have a single new case of this disease reported to him after the 10th ult.

The Anti-horse Thief Association of Illinois selected Springfield as the next meeting place. At the recent meeting the following officers were elected: President, C. L. Degen, Jacksonville; Vice-President, James Derry, Springfield; Secretary, John W. Cleary, Jacksonville; Treasurer, John F. Addlesberger, Dupo; Marshal, Henry F. Beckler, Arenzville. H. R. Terry, Virden; J. Pence, Morrisonville; William J. Cordier, Springfield; and J. G. Hill, Taylorville, were chosen delegates to the national convention at Keokuk, Iowa, in October, 1913.

The St. Louis Horse Trade.

On October 30th, Holland, Nugent & Maxwell Bros. issued a circular, saying: "We had a good run of horses this week and plenty of buyers. The class of horses were fairly good; quite a good many extra good draft horses that sold at strong prices. Medium chunks sold fairly well. Plain Southerners are off at least $25 a head to what they were sixty days ago; in fact, all Southern horses are selling cheaper. We had plenty of Southern buyers, but they would not pay the price that they have heretofore. Good, fat, smooth Southern horses, 15-2 to 15-3, that we were selling earlier in the season at $150 to $175 are selling from $125 to $135, and they have to have a lot of quality to bring $150. The plainer kinds are selling around $100, if they are young and sound. Good, young, sound Southerners, that are a little rough in the hair, 15 hands high, are selling from $75 to $90; smooth-mouth ones that are fat are bringing from $40 to $60. Plugs are any price, from $2.50 to $30."

The Last Range Horse Sale.

We are requested by Messrs. Campbell & Reid and Western Sale Stables Company, of the St. Louis National Stock Yards, to announce that their last Western range horse sale of the most successful season of 1912 will be closed by a grand round-up to take place on Thursday, 14th inst. These sales always bring together in large numbers the perfection of Western range horses, fresh from the healthy prairies where they have been raised from gentle stock mares bred to pure-bred stallions. Farmers with an inclination to handling these horses have made large money by preparing them for the domestic sale ring. This is the last sale of the season, and the only thing to do is to attend it and get some young stock or matured horses to take back to the farm.

THE NEW TROTTING RECORD.

The Gelding Uhlan Reduces the Trotting Mark to 1:58 and Becomes the World's Champion.

On October 8th, at Lexington, Ky., that most remarkable trotter, the gelding Uhlan, reduced the world's trotting record from 1:58½, held by Lou Dillon since 1903, to the even figure 1:58. Uhlan's previous record was 1:58¾.

Accompanied by only a runner as a pacemaker, he trotted the most remarkable mile the world has ever known, going to the quarter in 30 seconds, the half in 59 seconds, three-quarter in 1:28, and completing the mile in 1:58.

It was not only the greatest trotting mile on account of the record, but a cleaner transaction was never negotiated. Having started cleverly, he continued strong and finished with plenty of reserve speed.

Uhlan, 1:58, is son of the great trotting sire Bingen, 2:06¼, dam Blonde by Sir Walter, Jr. He is a black gelding and one of the most beautiful and exquisitely finished horses living. He is owned by C. K. G. Billings, of Chicago, and was driven to the championship record by Charles Tanner, of Cleveland.

In this connection we may state that magnificent pictures of Lou Dillon, Bingen, Uhlan, The Harvester, Dan Patch, and a hundred and fifty more trotting and pacing celebrities are to be found in the Book of Live Stock Champions, advertised on page 11.

Now that the election is over, we hope our patrons and friends will celebrate Thanksgiving by sending to The National Farmer and Stock Grower a new or renewal subscription. This is a good, serviceable paper and has done much good for the agricultural interests.

When Your Cattle Are Fat

SHIP 'EM TO

Clay, Robinson & Co.

National Stock Yards, Illinois.

By So Doing You Will Insure Receiving Best Prices Possible to Obtain.

A. J. MILTON is in general charge of our Cattle-selling Department, overseeing all sales and personally handling all consignments, except Quarantine Cattle, for which we have a Special Salesman, L. H. MILTON, who devotes his entire time to that class.

First-class Hog and Sheep Salesmen Also.

CLAY, ROBINSON & CO.

LIVE STOCK COMMISSION,

National Stock Yards, Illinois.

Chicago	Kansas City	Fort Worth
Denver	South St. Joseph	South Omaha
Sioux City	South St. Paul	East Buffalo

Most for Money

$1 size bottle of **FRAZIER'S DISTEMPER CURE** holds 8 ounces (other so-called distemper cures hold 6 ounces). We authorize your druggist to refund the purchase price if "Frazier's" fails to give satisfaction in all cases of Distemper, Influenza, Coughs, Colds, Shipping Fever, Catarrhal Fever and all nose and throat diseases. Two sizes, 50 cents and $1. Send for free horse booklet.

BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

INCREASE their PULLING POWER

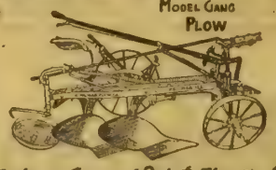
100 Per Cent Efficiency can be developed in your horse, regardless of icy streets or steep hills, if he is shod with **Neverslip RED TIP Horse Shoe Calks.** They are not only **Horse Insurance,** but they add Speed and pulling power when it is most necessary. By their use your horse is made safe, fearless and reliable. RED TIP Calks wear sharper and last longer than any others.

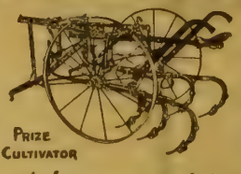
Remember all calks are NOT Neverslips.

There are many worthless imitations. All Genuine Neverslips Have RED TIPS. Without RED TIPS they are not Neverslips. Send to-day for Booklet L, telling about them.

THE NEVERSLIP MFG. CO., New Brunswick, N. J.

KINGMAN UP-TO-DATE FARM MACHINES!





Enters Ground Point First-Single Bail Foot Lift. *Independent Gang Levers-Heavy Steel Discs* *Knives Have 2 Cutting Edges-No Neck Weight on Horses* *No Levers or Ratchets Perfect Balance* *Will Pivot in Ground Without Upsetting*

TELL US WHAT YOU NEED AND WE WILL GIVE YOU VALUABLE INFORMATION.
IF YOUR DEALER DOES NOT HANDLE THE KINGMAN LINE WRITE FOR CATALOG. (MENTION THIS PAPER)

KINGMAN PLOW CO. PEORIA ILLINOIS.

Fall Notes in the Poultry Yard.

More yard space should be devoted to poultry. Enough ground should be included in each poultry yard to give continuous pasturage without destroying the roots of the grass. It is as profitable to give pasturage space to fowls as to larger farm animals. Land is still so cheap that on the farms there is no good reason for restricting the range. Yet it seems always to have been the custom in this country to make the poultry yard small, no matter how much waste land might be lying around it. This custom grew up in the days when feed was cheap and fencing material quite expensive and hard to put in position. But with cheap wire netting and cheap posts, with no top board required, a large space may be inclosed at little cost.

Winter is coming, and the comfort of the fowls in the long winter nights should be considered. The sleeping cabinet for fowls has proved a great help in keeping the fowls from discomfort during cold nights. The principle of the sleeping cabinet is, that common white muslin will permit enough air to pass through to give the fowls all the air they need, but will interfere with the passing off of heat waves and keep the air around the fowls many degrees higher in temperature than is the air in the poultry house. A cloth curtain, as long as the roosts, is fixed on a roller working automatically. After the fowls have gone to roost at night this curtain is pulled down till it touches the floor and entirely incloses the small space in which the fowls are roosting. To have the arrangement effective, the part of the poultry house forming part of this sleeping chamber must have no cracks through which cold air can enter. It is the lack of motion in the air that keeps the heat from escaping, but at the same time the carbonic gas being thrown off from the lungs of the fowls is escaping and oxygen is passing in through the cloth to take the place of the oxygen being consumed in the breathing of the birds. Especially in the colder states these sleeping cabinets are of great utility.

Make the foundation of the new poultry house secure against all kinds of prowling animals. A good foundation may be made by the use of cement and the loose stones to be found on many of the farms. Dig a trench deep enough so that the frost will not heave the wall. Have the trench as wide as the foundation wall is to be thick. Fill the trench with the stones and the cement. Place parallel boards above the wall and fill in, keeping the boards close enough together so that the wall will be of the desired thickness. As fast as the cement hardens the boards may be raised and the process continued to the completion of the wall Where the wall is to be carried high up and be quite thin, iron or steel rods placed in the cement and stones will bind the whole into one compact mass. This is called reinforcing the cement work. Such walls are very serviceable where a poultry house cellar is desired. Such cellars are useful for keeping green feed for the poultry as well as other kinds of food. They provide also a place in which to keep the incubators and brooders when they are being used in the cold months.

Difference in Egg Grades.

The New York Produce Review and American Creamery, published in New York City, in a recent issue made mention of the egg grading in the establishemnt of C H. Brownell & Sons at Washington Court House, Ohio. That firm receives eggs from farmers and dealers and ships immense numbers of them for sale on the Eastern markets.

They pay according to quality, and the actual difference in value is good information for farmers.

Each lot of eggs received is sent separately to the candling room for assortment and grading. Four grades are made, called A, B, C and D. The first includes only fresh eggs of good size, clean, full, strong-bodied and practically new laid. The second grade includes good, useful eggs; these may be more or less shrunken but not seriously defective; the third includes seriously defective stock, dirties, stains, etc.; and the fourth comprises worthless stock.

When the article was written on October 4th, Messrs. Brownell were paying 31 cents a dozen for A grade; 26 cents for B grade; 20 cents for C grade; and nothing for grade D. These differences and grades are worth considering and show that after throwing out all worthless eggs there is a difference of one-third in value of high and low grades of the eggs that are merchantable.

PARCEL-POST PACKAGES.

How Butter and Eggs Are Shipped Through the Mail in Germany.

The United States Consul-General at Hamburg, Germany, reports that the parcel-post service of Germany is used to a very large extent by farmers in their dealings with city customers, and especially for delivery of butter and eggs.

Butter thus shipped is wrapped first in parchment paper and then packed in a cardboard box. As a rule, shipments under ten pounds are not made, each pound being separately weighed, the total shipment including nine pounds of butter, net. These pasteboard butter boxes come with an upper and lower part and are folded together and fastened with metal clamps to make the finished box. In knock-down condition these boxes can be had in Germany for $23.20 per thousand for the best quality and $21.42 for the second quality. The boxes can be saved and used over again. The clamps cost 33 cents per thousand.

Eggs are shipped either in strong cardboard or wooden boxes, the inside of which contains corrugated cardboard partitions forming squares large enough to receive one egg. Between each layer of cardboard partitions a sheet or cardboard is placed. The wooden boxes are rather attractively finished and cost at retail 95 cents each. They are provided with a padlock and neat cover, and can be used for an indefinite period. Pasteboard egg boxes containing partitions for ten eggs can be had for $45.22 per thousand, and boxes to contain twenty-four eggs for $71.40 per thousand.

St. Louis Poultry Show.

The show of the St. Louis Poultry Association in the Coliseum, Thanksgiving week, will include an exhibit of Single-comb White Leghorns, a breed of chickens attracting much attention because of their wonderful egg-laying proclivities. Dan W. Young, of Monroe, N. Y., President of the National Single-comb White Leghorn Club, will be the judge of this breed. E. W. Grove, Jr., of Hampton Park, has donated a $500 silver cup for the prize winner. There will be $250 in cash prizes. Grove won his cup in the St. Louis Show last year.

The entrance fee has been raised to $2.00 a bird. The number of entries is limited to 2,500. There were more than 3,000 entries last year. Applications for entries should be sent to Secretary T. W. Orcutt, 821 Security Building, St. Louis, Mo.

The American Silver Wyandotte Club, the Buckeye Red Club and the American Ancona Club will be represented at the show. Two silver cups and $250 cash prizes are offered in the Silver Wyandotte class.

POULTRY NEWS AND ITEMS.

Circular No. 27, by W. A. Lippincott, Poultryman in charge, Kansas State Experiment Station, is upon the subject of capons and caponizing and contains a splendid line of practical illustrations.

Farmers in the vicinity of Euston, W. Va., have organized an "Egg Circle" in order to market their eggs together.

BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.

The American Swineherd — issued monthly — a leader in its class. The hog paper, the pig paper, the brood-sow paper and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegantly poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave, St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

Name.. .....

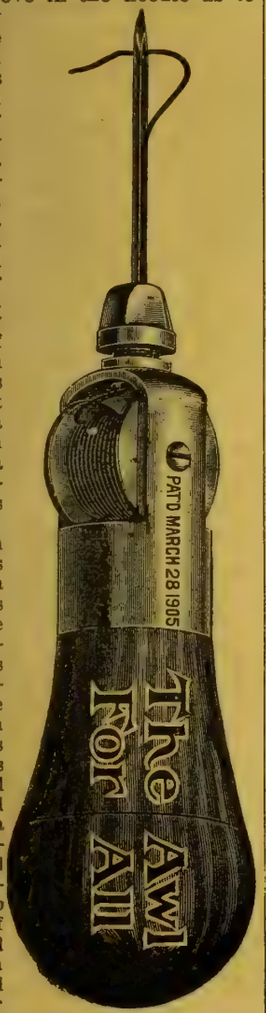
P. O. Box..... R. F. D.....

Postoffice.. .....

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screwdriver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St Louis, Mo.**



The Most Useful College.

Our readers are reminded of the card of Highland Park College on page 26. This is no ordinary college. It turns out capable men who can earn large pay and fits them to be heads of manufacturing enterprises. Willing youths with an aptitude for mechanics are soon put through the necessary course that in older countries require a four-year apprenticeship.

The Perfection of the Automobile.

"Never will the automobile be better made than it is to-day," says President John N. Willys, of the Willys-Overland Company. "Motor cars are as near perfect as mechanical genius, human brains and automatic machinery can make them. They will never be made any better because new wood will not be grown, because the earth will never yield up better ores, because cattle will not produce better hides for upholstering, and because human brains and energy will never be at a higher development than now.

"When I say cars will never be better, I naturally am referring to those standard makes which have been thoroughly tested by the public and which have stood the acid test. Of course, there are many makes on the market that could be greatly improved, but the honest cars at honest prices are as near perfect as is possible to produce them.

"Future buyers of motor cars who are waiting for standard makes to be cheaper in price will never be motorists, as there is much more likelihood of prices going upward rather than down.

"In the 1913 thirty-horse-power fully equipped Overland touring car for $985 I honestly believe that even with our huge plant, high standard of efficiency and distributing system, we have reached the limit in motor car value."

Mr. John W. Willys is President of the Willys-Overland Company, makers of the car advertised on page 15.

PROMOTERS OF FARMING.

Railroads Recognized as Doing Good Work.

For a generation or more the railroads of this country have been making efforts to increase the number of farmers in certain regions, thus trying to promote agriculture and through greater agricultural prosperity to increase their revenues derived from hauling farm products. Within the past decade these efforts to encourage agriculture have been extended to include instructions in methods of farming, investigation of the farming possibilities of a region, assistance in organizing agricultural associations, co-operation with State and County Fairs, employment of farm labor, aid in finding markets, and other helpful lines of work. These projects are not confined to railroad companies; they are, however, the most prominent of the several classes of business concerns engaged in similar work.

Therefore the summary of recent developments in the agricultural promotion work of railroads issued by Secretary Wilson in a recent bulletin of the Bureau of Statistics of the Department of Agriculture, entitled "Railroads and Farming," is of timely interest. This publication reviews briefly some historical features of the subject, giving instances of efforts made for the settlement of farm lands in Kansas, Texas and Louisiana during the two decades from 1870 to 1890. The principal features of present-day promotion work are described and an analytical outline shows these features in detail.

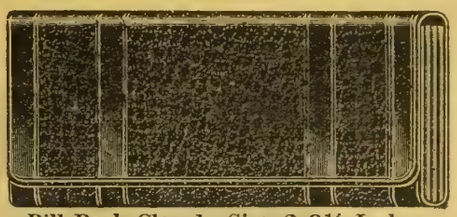
More than three-fourths of the railroad mileage of the United States is operated by companies which engage in special efforts to promote agriculture. A list of these companies is given at the end of the bulletin. These railroads enter counties whose total area is almost nine-tenths of the total land area of the United States and whose farms compose more than nine-tenths of the farm area in the entire country.

This promotion work on the part of the railroads is a business proposition. Improvement in agriculture means more traffic, and for this reason large sums of money are being expended systematically by numerous companies.

A Pocket Book Circulation Premium.

THE NATIONAL FARMER Folding Bill Book.

Illustration Showing Bill Book Open.



Bill Book Closed—Size, 3x8½ Inches.

Convenient to carry Currency, Bills, Notes, Receipts, Railroad Tickets, Lodge Identification Cards, Stamps, Etc.

BEST VALUE AND MOST SERVICEABLE PREMIUM EVER OFFERED.

Every Prospective Subscriber Wants One and Needs One.

National Farmer Folding Pocket Bill Book, Genuine Seal Grain Leather Cover, Very Fine Finish, Fancy Embossed, Good Quality Throughout.

Our Subscription Offer.

WE have adopted THE NATIONAL FARMER FOLDING BILL BOOK as a subscription premium with the best monthly farm paper in the United States.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Cattle of British India.

According to recent statistics, the cattle in British India amount to 108,000,000, or 24 per cent. of the total in the world; but they are mostly water buffalo and kept as work animals.

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.

KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S BARGAINS.

150 Hogs. 2 Stallions. 1 Jack.

Registered Poland-Chinas and Duroc-Jersey Hogs.

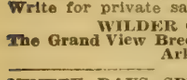
TWO STALLIONS AND ONE JACK.

Write for private sales. It will please you.

WILDER CARPENTER,
The Grand View Breeding Farm, Marmaduke, Arkansas.

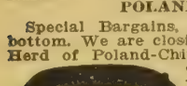
NINETY DAYS SPECIAL BARGAINS IN POLAND-CHINAS.

Special Bargains, and prices cut to the bottom. We are closing out the Blue Ribbon Herd of Poland-China Hogs, including the Great Missouri Champion, Hutchinson Sensation, 53,000; also a prize-winning son of Royal Meddler, 50,111. Several matured Sows, a fine lot of Bred Gilts and several choice Pigs from four weeks to five months old, sired by as good Boars as the breed affords. This herd is rich in the blood of the most noted families in the world. Nothing reserved. Everything goes at private sale. Write for circular, description and prices.



JOHN McLAUGHLIN, Marmaduke, Ark.

EXTRA GOOD POLAND-CHINAS.



Pedigreed Poland-China Pigs, the best of breeding, big bone, fancy show stuff, $15 to $25. Write your wants to

D. F. BEAUCHAMP, Meredosia, Ill.

POLAND CHINAS

OUT OF STRETCHY SOWS sired by 1,000-pound Boars. Buy them and win. **J. P. VISSERING, Box 1, Alton, Ill.**

TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of

SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

CLOVERDALE FARM.

Thirty big-bone, Kentucky, registered, Mammoth Jacks, from yearlings to six-year-olds. We have some nice Percheron Stallions and a choice lot of registered Tamworth and Hampshire Swine. We would be glad to have you write for circular and testimonials or visit our farm.

H. T. BROWN & CO., Lexington, Ky.

PURE-BRED SHROPSHIRE RAMS.

Registered Shropshires. Come, and if you are not more than pleased I will pay your carfare both ways. Or shipped subject to your approval upon arrival, or money refunded.

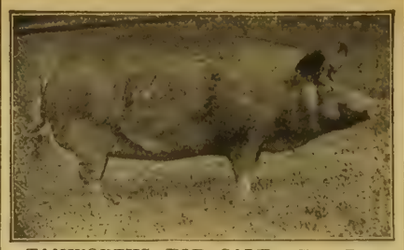
HOWARD CHANDLER, Charlton, Iowa.

"THE PINES" HERD OF HOLSTEINS.

Breeder and shipper of high-grade HOLSTEIN CALVES.

Prices reasonable.

J. W. FARRELL, Prop., R. F. D. Elgin, Ill.



TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1911, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

50 Pedigreed Duroc Red Pigs at $8.00 each. **CHAS. DORR, Osage City, Kansas.**

FERRETS FOR SALE.

10,000 Ferrets for sale. Write for price list and catalogue. It's free.

DeKLEINE BROS., Box 9, Jamestown, Mich.

REGISTERED LARGE YORKSHIRES

THE BREAKFAST BACON HOG.

That's the meaning of those long, deep, sides—choicest, sweet, tender, fresh pork.

HEALTHY, EARLIEST TO MATURE, PROLIFIC.

Splendid hustlers; relishes all kinds of feed, pasturage and cured forage.

THEY CROSS OUT GREAT ON LARD TYPE.

Write for descriptive booklet.

T. C. KIMBER, Box 1212, St. Louis Mo.

POLAND-CHINAS OF BEST STRAINS

For size with quality. Registered Spring Boars and Gilts, $17; registered Summer Pigs, $14, and Sows bred for spring litters. Also Barred Plymouth Rock Cockerels, Thompson Ringlet Strain, $2.00 each. Many satisfied customers in thirty-seven states. Catalogue free.

A. F. SIEFKER, R. F. D. No. 1, Defiance, Mo.

TAMWORTH BOARS—ALL AGES.

Also S. C. B. Leghorn Cockerels. Prices right.

W. J. WHITE, R. R. 1, Butler, Mo.

SCOTCH COLLIE DOGS.

For anything in Scotch Collies, Pups, Trained Bitches, all ages, prices right, quality considered, write to

R. FLEMING, Cuba, Kansas.

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

DICKINSON MERINO RAMS AND EWES.

For sale: Dickinson Merino Rams that have the constitution and size for wool and mutton. Write for further particulars.

ALEX. TAYLOR, Moundsville, West Virginia.

CHAMPION SEED CORN PREMIUMS.

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

The subject of seed corn is of the utmost importance, especially at this time. Pretty good seed corn is easy to get, but superior seed corn is scarce. Even the best seed corn growers have good and bad seasons, and there is great variation, one year with another, in vitality and quality of their seeds.

Only one thing can be guaranteed, and that is the strain or breed. Pure-bred seeds, like pure-bred animals, produce true to type, and sometimes there is worked out an almost imperceptible improvement. The road to improvement is rough and rocky, and upon it there are many obstacles; but ultimate success is possible, and only possible by using seeds of the right breeeding and quality. The backward road is easy to travel by using seeds of no strain and only containing the qualities that even negligence cannot destroy. Promiscuous seeding of unknown corn results in smaller crops of low-grade corn. Nature may save the crop by an excellent season, but the general result is bad.

As a step towards general improvement, every corn grower should have one or more experimental plots each year, using small quantities of different seeds. The National Farmer and Stock Grower has furnished opportunities for farmers to obtain such seeds for the past five years.

The very best ear of corn at one of the greatest show contests was pure-bred Yellow Dent, anly 10¼ inches long, 7⅞ inches in circumference at a line three inches from the butt, and was 6⅞ inches in circumference at a point two inches from the tip. It weighed 19 ounces when thoroughly dry, and it carried twenty rows of kernels. The picture presented herewith will show that it had a good butt; that it had a good tip; that the lines between kernels were straight; the ear was splendidly proportioned, and it was bright with life and vitality. When you go out to the field or to the crib to select corn for seed, carry with you a stick 10¼ inches long and a piece of tape to measure around the ears of corn that at first glance look good to you. When you find fat ears of corn, be sure that the fatness is not an undue proportion of cob. Judge your own corn by a comparison with this ear of corn.

The picture presented herewith represents the ear of corn referred to as in all probability the best ear of Yellow Dent corn ever exhibited, grown by Mr. D. L. Pascal, of Iowa, who with it won a trophy worth $1,500.00, and it was the best ear grown that year in Iowa, and it is the single ear of corn that was shown in a glass case at the first National Corn Show. Mr. Pascal has a strain of Yellow Dent corn, bought from the originator and kept pure for sixty-six years.

For several years The National Farmer and Stock Grower has purchased of Mr. Pascal a quantity of seed corn related to this grand champion ear, and we have distributed it in pound lots to our subscribers, who have started growing their own seed corn from the Pascal seed furnished by this paper. Furthermore, many of our subscribers have won prizes at their own State Fair with ears of corn grown from the Pascal seed we furnished them. Some of them were first prizes and one of them was the championship prize for an exhibit of ten ears at the State Fair of Louisiana.

We have again purchased Yellow Dent Seed Corn from Mr. Pascal and we intend to send it out as subscription premiums as near free as we can arrange to do so. The corn is conditionally free and our subscriber is simply paying the postage on it. The amount of corn is plenty for the purpose of experiment.

Our Subscription Proposition.

The postage on twenty ounces of seed is ten cents; therefore we make this proposition: Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send as a premium a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal from his breeeding corn that grew the grand champion ear. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

BLOODED STOCK NOTES.

Mr. A. F. Siefker, whose address is R. F. D. No. 1, Defiance, Mo., has ordered his advertisement continued in our November number. He is a good breeder of Poland-China hogs and Barred Plymouth Rock chickens, but he sells stock at farm prices. His card will be found on the breeders' page.

The Breeders' Sale Company will hold their annual sale in the Coliseum at Bloomington, Ill., on January 28th, 29th, 30th and 31st, 1913, and will sell about 750 head of imported and native-bred Percherons, Belgians, French Draft, Shire and Clydesdale stallions and mares. The last day, as usual, will be devoted to trotting and pacing horses and Shetland ponies. Breeders who have horses to sell may find it to their advantage to communicate with Mr. C. W. Hurt, Manager, at Arrowsmith, Illinois.

Mr. J. P. Vissering, of Alton, Ill., desires us to mention his large-type Poland-Chinas, that at maturity will weigh a thousand pounds, and have the bone to carry it. They have easy feeding qualities, and he says will make sixteen pounds gain on a bushel of corn as easily as some hogs will make eight pounds. Mr. Vissering will send those who inquire a copy of a history of Poland-China swine.

Mr. Wilder Carpenter, of Marmaduke, Ark., has a lot of other interests to look after and appears to be dispersing his pure-bred Poland-Chinas, his Duroc-Jersey swine and his horses and jacks. Mr. Carpenter has some very fine show stock, and he can be depended on to describe his stock exactly as it is. We advise our readers to obtain the sale catalogue and see if they need anything on the list.

Mr. J. H. Truman left London, England, on October 19th with an importation of horses on the Minnewaska. Included in this shipment are sixteen two-year-old stallions and fillies from the noted Wrydelands Stud and a large number of mares that will be included in the annual Shire mare sale on December 12th. Remember to write for catalogue of this Shire mare sale, addressing Trumans' Pioneer Stud Farm, Bushnell, Ill.

Book of Live Stock Champions on page 11.

SOUTHERN CATTLE AT ST. LOUIS.

Prices Very Good and a Splendid Prospect For All Handy, Fat Butcher Cattle.

Mr. L. H. Milton, who sells quarantine cattle received at the St. Louis National Stock Yards that are consigned to his firm, Messrs. Clay, Robinson & Co., is enthusiastic in regard to the prospects for cattle raising in the states of Alabama, Louisiana and Mississippi. Those states have been furnishing more cattle than ever before, and St. Louis is out-and-out the best market for them. From Mississippi alone in nine months of the present year the St. Louis market received 31,000 cattle, an increase of 8,000 over the receipts during the same period last year. Said Mr. Milton: "Our firm is doing a very nice business with the Southern States that are tributary to the St. Louis market, and in all our literature sent out to buyers we ask them to come and look at these Southern cattle, and the buyers are unanimous in saying that with a little more quality to be obtained by using good bulls of the beef breeds and a little more weight to be obtained by more corn and cottonseed feeding, those particular states will turn out cattle that will cause buyers to lay in wait for them, just as they do for Kentucky spring lambs. A few buyers are still looking for heavy cattle to suit the Eastern trade, and all the heavy cattle will be in demand; but the mission of the Southern States is to quickly raise young, handy, fat, light cattle, that will range from 800 to 1,100 pounds, and in reasonable time a competition will spring up for them that will include every packing-house buyer, every buyer on Eastern account, and every butcher now slaughtering cattle."

Speaking of these cattle, the Clay, Robinson & Co. circular, dated October 31st, said:

"All classes of Southern cattle have been in strong demand, and the week is closing with a 10 to 15-cent advance on everything. Yearlings, with a top to-day of $3.75 per 100 pounds, are selling higher than they have sold this year. We obtained this price to-day for twenty-five head, averaging 344 pounds, belonging to J. W. Carr, of New Decatur, Ala. Canners are selling up to $3.50; cutters, $4.00, with Arkansas cows topping the week at $5.00 per 100 pounds, averaging 980 pounds. We sold some Mississippi vealers at $7.00, top for the week. One of our Mississippi customers had an ox in his shipment this week, averaging 1,480 pounds, which we sold for $6.50 per 100 pounds, the highest price ever paid for this class here."

Sales of Southern cattle on the St. Louis market during the last week in October included: From Coldwater, Miss., twenty cows, 635 pounds, at $3.90; seven calves, 200 pounds, at $5.00; seven yearlings, 337 pounds, at $3.75; five bulls, 580 pounds, at $3.75; eight cows, 571 pounds, at $3.40; five calves, 214 pounds, at $5.00; fifteen calves, 365 pounds at $3.55; eight cows, 531 pounds, at $3.35; seven bulls, 564 pounds, at $3.60.

From Inverness, Miss., six cows, 671 pounds, at $4.00; nineteen mixed, 593 pounds, at $3.50; thirteen yearlings, 369 pounds, at $3.65; nine calves, 204 pounds, at $5.00.

From Goodman, Miss., twenty-nine mixed, 575 pounds, at $3.60.

From Winona, Miss., twelve mixed, 528 pounds, at $3.40; seven mixed, 598 pounds, at $3.75; seventeen calves, 307 pounds, at $3.55.

From Durant, Miss., twenty-eight yearlings, 378 pounds, at $3.60; five calves, 210 pounds, at $5.10; twenty-six steers, 638 pounds, at $3.95; fifty-nine yearlings, 295 pounds, at $2.70; thirty-five cows, 534 pounds, at $3.50; thirteen cows and heifers, 570 pounds, at $4.00; thirteen calves, 127 pounds, at $4.50; six bulls, 741 pounds, at $4.05.

From Brookville, Miss., eight heifers, 525 pounds, at $3.65; five calves, 220 pounds, at $5.00; ten yearlings, 374 pounds, at $3.60; six heifers, 631 pounds, at $4.10.

From Lexington, Miss., ten bulls, 864 pounds, at $4.25; sixteen cows, 612 pounds, at $3.60.

From Jackson, Miss., twenty cows, 607 pounds, at $3.85; fifteen yearlings, 368 pounds, at $3.80; thirty-five steers, 554 pounds, at $3.85.

From Crenshaw, Miss., thirteen cows and heifers, 638 pounds, at $4.20; six steers, 688 pounds, at $4.50.

From Morton, Miss., forty-one yearlings, 344 pounds, at $3.75; and fifteen cows and heifers, 570 pounds, at $3.60.

The yearlings from Jackson at $3.80 was the top price for that class for the year. All quotations are at the price stated per 100 pounds.

In a later report by Messrs. Clay, Robinson & Co. they said: "We sold nine car-loads of Mississippi cattle to-day, shipped from Oxford, Winona, Terry, Morton, Russum and Inverness, Miss. Mr. B. L. Hanna, of Inverness, Miss., had in his consignment fifteen steers, averaging 833 pounds, which we sold at $5.15 per 100 pounds, the top of the market. Other steers from Terry and Russum brought $5.00 per 100 pounds, averaging 717 and 812 pounds. Some 717-pound cows belonging to G. H. Jones, of Terry, brought $4.15, the top for that class. Following are other sales: From Oxford, Miss., nine cows, 634 pounds, at $3.85; five bulls, 564 pounds, at $3.75; twenty-three yearlings, 385 pounds, at $3.75. From Winona, Miss., twenty-three canners, 378 pounds, at $3.55; fourteen yearlings, 319 pounds, at $3.75. From Inverness., Miss., eight calves, 171 pounds, at $5.00, and twenty-six yearlings at $3.75." The last sales mentioned in Clay, Robinson & Co.'s report included steers averaging 821 pounds that put another top on the market at $5.30 per 100 pounds. Mr. M. K. Harrington, of Goodman, Miss., was the shipper. R. F. Beck, of Vaiden, Miss., and Cunningham, Tate & Co. were also shippers to the St. Louis market.

St. Louis Apple Market.

Early November prices at the St. Louis market: River receipts of Ben Davis range from $1.00 to $1.25 for overripe, worm-stung, specked, rough, small, of poor color, etc., to $1.35 to $1.70 for good, and $1.65 to $1.75 for No. 1; Willowtwig at $1.25 to $1.50 for poor to $2.50 for choice; Winesap or Roman Beauty from $1.50 to $2.75; Geniting at $1.50 to $2.40; other varieties from $1.25 up to $2.75, as in quality. Bulk apples dull; Ben Davis quotable at 60 to 65 cents per 100 pounds, and No. 2 at 70 to 75 cents per barrel measure, delivered. New York Greening at $1.75 to $2.10 per barrel measure, delivered. Sales on levee: Ben Davis—Twenty barrels at $1.50; forty No. 2 at $1.20; six at $1.35; forty-one at $1.40; forty-eight at $1.42½; thirty-seven at $1.75; twenty-four barrels, including Ben Davis and Gano, at $1.40; and Blacktwig at $1.75; 117 barrels, including Willowtwig, at $2.25; and small Geniting at $1.75.

St. Louis Market For Pears.

Recent quotations for pears on the St. Louis market: Bulk Missouri Keifer at $1.00 to $1.25 per barrel measure, delivered; bushel boxes and baskets Keifer at 40 to 50 cents and barrels at $1.25 to $1.75. Home-grown Keifer pears at 30 to 60 cents per bushel box, as in quality.

We are informed upon very good authority that the Chilian nitrate deposits are not likely to be exhausted in the life of anyone now living. The supply is abundant for all purposes.

S. R. FEIL, Pres.
Registered Pharmacist

I want to show you how quickly Sal-Vet will rid your stock of deadly worms, which are the cause of 90% of the sickness and death among farm animals. I want to show you how it will improve your stock—how it will make them thrive faster, look better, and make you more money. I'll prove it before you pay me a single penny.

Read These Letters

SAL-VET
TRADE MARK
REG. U.S. PAT. OFF.

The Great Worm Destroyer and Stock Conditioner

The change in my hogs is simply wonderful. I will never allow any of my stock to be without Sal-Vet in the future. CHAS. DUNLAP. Hudson, Ind.

Sal-Vet does all you claim for it. I know of nothing as good, as reliable or as cheap. E. C. STONE, Peoria, Ill. Sec. Am. Hamp. Swine Record.

Sal-Vet is all right. My hogs are doing finely, although there are a lot of hogs dying throughout this neighborhood. H. C. HANCOCK. Narka, Kas.

Sal-Vet is a great remedy. Farmers all around me have been losing hogs since last fall, while I did not lose any, nor did I have one that showed any signs of sickness. Box 12, Newport, Ia. (Signed) G. R. PONTZIUS.

I sold one lot of hogs before I got the shipment of Sal-Vet, but kept an equal number. I fed Sal-Vet to the latter for two weeks and, while they were not as old as the first lot, I sold them and they weighed 250 pounds more than the oldest, which had not had Sal-Vet. Savannah, N.Y. JOHN E. SEVERENCE.

I am greatly pleased with your Sal-Vet. My hogs are doing just fine, but my neighbors all around me, who have not used Sal-Vet, have had heavy losses. (Signed) JERRY C. SMELTZER. Box 33, Canalou, Mo.

Send No Money—Just the Coupon

Tell me how many head of stock you have. I'll ship you enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives and, when the 60 days are up, report results. If it does not prove satisfactory, I'll cancel the charge—you won't owe me a cent. Fill out and mail the coupon today.

PRICES: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12. No orders filled for less than 40 lbs. Never sold in bulk; only in Trade-Marked Sal-Vet Packages.

SIDNEY R. FEIL, President
THE S. R. FEIL COMPANY
Manufacturing Chemists
Dept. NF&SG CLEVELAND, OHIO

Shipments also made from our Western and Southern Warehouses to save our customers time and reduce freight charges.

Sidney R. Feil, Pres. THE S. R. FEIL CO., Cleveland, Ohio
Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives and will report results in 60 days and will then pay for it, if it does what you claim. If it does not you are to cancel the charge.
Name
P. O.
Shipping Sta.
State
Sheep
Cattle
Horses
Hogs
NF&S 6 11

Housing the Plants.

As the days grow chill and there are frosts outside, gather the plants into the porches and sheltered positions, but avoid, if possible, the sudden change from outdoors to the window of the living room. If safety demands that they be taken indoors at once, strive to place them in a room with no fire, and thus gradually accustom them to the winter home.

Salvia, cosmos and the chrysanthemums may be potted if they are first thoroughly watered and allowed to stand a few hours and become thoroughly saturated with the moisture. Then, if carefully potted, they will scarcely wither and will continue to bloom for some weeks.

Choose a sunny day, if possible, for taking up gladiolus and dahlia bulbs, and dry them so that most of the dirt can be shaken off. Then pack away for winter, either in sand or dry in paper sacks. If the cellar is inclined to be damp, a frost-proof closet will be preferable, and by packing several thicknesses of paper around them there will be little danger from cold, even though the temperature does at times run low.

Agave and some of the cereus types of cacti may be kept in a warm, dry cellar; but if there is much dampness it is better to give them space in the living room or they will incline to rot. They need very little water until the spring growth commences, when they should be given the same amount accorded to the geranium.

Most of the fuchsias will not bloom through the winter and may just as well be consigned to the cellar. Fuchsia speciosa is about the only exception to this rule. Geraniums not expected to bloom through the winter may also be kept in the cellar, the roots coming out in good condition for bedding, even if the tops do not look promising.

Strive not to overcrowd your windows. A few well-grown plants are very much more satisfactory than double this number of half-stunted or diseased specimens. And if they do not receive a moderate amount of light they are sure to tell it in their faces.—Bessie L. Putnam.

A Plea For Pure English.

A mother, on being complimented for the excellent language used by her little one, explained that he had never heard any other. There were no child playmates and the language in the home was always good. No studied effort had been made to teach him; the good had been assimilated, with the absence of the objectionable.

Not all mothers are situated as was this one, nor is it desirable that they should be. Child companions are an advantage in many ways, if they are suitable associates, and we cannot expect all children to speak grammatically at all times. However, a child who grossly violates the principles of our language or whose words are objectionable in other ways, is not a fit playmate for the little one.

But if the words heard in the home are well chosen they will be sure to be reflected in the child's speech, even though others do sometimes blend unpleasantly with them. Strive when talking to or in the presence of the little one to make your speech the best possible. The simple words are always best. Keep within the child's range of understanding, at the same time striving to widen his vocabulary through pure words. If your English is defective, strive to improve upon it by reading from standard authors; or, if you have no time for this, at least watch your speech, remembering that though it may not be a critic, baby is the best of imitators.—Bessie L. Putnam.

Hard Work.

"I'd just like to take time to tell you a little story," said a busy man. "Sometimes I think my work is hard, but yesterday I saw something that was hard work. A woman came to our house to do the washing, and with her she brought a babe in arms and a two-year-old boy. In order to take care of them she had to take them down to the laundry in the basement and there she did the washing and cared for the children. The basement at best is not a fit place for a baby, but on washday it is especially damp and unwholesome. Yet the woman went cheerfully to her task, managing in some way to keep the two babies quiet and fairly contented. And as I watched her I thought of all the women in this country who complain if they must do their own work and some who must have a dozen servants at their beck and call."

But, after all, just another instance of the brave ones who shoulder the burden of life and go steadily on, always hoping for some turn in the road which may show them relief. The heroes and heroines are not all bound up in volumes of history or tomes of history.—Janet Thomas Van Osdel.

What Will 5 Years Do?

By R. E. Olds, Designer

Any car will run well when you buy it. But the question is: What will five years do?

I've watched automobiles for 25 years, and I know what the years will do.

And, because I know, I build Reo the Fifth to meet that test of time.

$200 Extra

I could easily save at least $200 by skimping on this car. And, for a year, you might not even know it.

But you would probably lose, in upkeep cost, three times that saving, in the course of time.

Let me tell you some of my careful ways which cost me this $200.

Things That Cost

On Reo the Fifth the tires I use are 34 x 4. On my new model, out Oct. 1, I added 22 per cent to the tire size. I did that because this extra cost will add 65 per cent to the average tire mileage.

I use in this car 190 drop forgings, which average twice the cost of steel castings.

I use 15 roller bearings—11 of them Timken. They cost five times as much as the common ball bearings, but they stand the strain.

I use chrome nickel steel for the axles, vanadium steel for connections, manganese steel for the crankshaft.

Every driving part, for big margin of safety, is made sufficient for a 45-horsepower car.

The centrifugal pump, to give positive water circulation, costs nearly $10 extra.

I use 14-inch brake drums for safety. I use wide, long, seven-leaf Sheldon springs.

Costly Care

I test my springs to stand 100,000 vibrations.

My gears are tested in a crushing machine, to prove that each tooth will stand 75,000 pounds.

My steel is twice analyzed, before and after treating.

Each engine is tested 20 hours on blocks, and 28 hours in the chassis.

My carburetor is doubly heated, and I use a $75 magneto. Thus I save engine troubles.

There are fully a thousand tests and inspections applied to every car, so no errors can creep in.

Center Control

I use on this car a new center control. All the gear shifting is done by moving a handle only three inches in each of four directions.

I use the left-side drive.

The body finish is 17 coats. The deep upholstering is of genuine leather, filled with the best curled hair.

Thus I give you a car which is roomy, exquisite, safe, comfortable and strong.

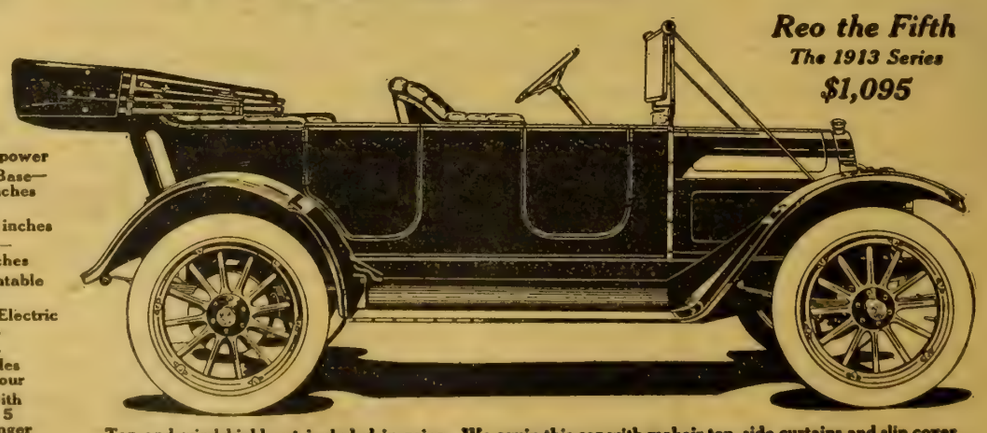
Men who know best look for cars of this class. I had contracts from dealers for over 10,000 before we shipped the first car of the 1913 series.

Write for our fall catalog, and the name of our nearest dealer.

R. M. OWEN & CO. General Sales Agents for **REO MOTOR CAR CO., Lansing, Mich.**

Canadian Factory, St. Catharines, Ont.

Reo the Fifth
The 1913 Series
$1,095



30-35 Horsepower
Wheel Base—112 inches
Tires—34 x 4 inches
Wheels—34 inches
Demountable Rims
Three Electric Lights
Speed—45 Miles per Hour
Made with 2 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank for headlights, speedometer and self-starter—all for $100 extra.

(114)

Big Profits in Stock Feeding

A tremendous crop this year in the Southwest but not enough hogs or cattle to feed it to, with a high market begging for beef and pork—that is the condition at present. Raising hogs at less than 2c per pound, cheap pastures, cheap fattening grain, millions of acres of forage for the silos, dry winter feed lots—such conditions prevail in the Southwest and stock feeders are growing wealthy. Along

Rock Island Lines

in Kansas, Missouri, Oklahoma, the Panhandle Country, Texas, New Mexico, Arkansas and Louisiana land can be bought for $10, $15 and $25 per acre, as good land as you are now farming.

Prof. H. M. Cottrell, Agricultural Commissioner, has made an exhaustive study of agricultural conditions and knows in just what sections the stock feeder will find conditions best for making money.

Write Today
Low Priced Land
Low Fares to See the Land

Rock Island

L. M. ALLEN
Passenger Traffic Manager
513 La Salle Station
Chicago

John Sebastian, Third Vice President

Your Own Recipe Book.

In these days, when every paper and magazine contains recipes good, bad and indifferent, we are apt to depend upon some of them when the call comes for a new one. Or perhaps one which has been tested and found true is preserved in the drawer on the small sheet upon which it was originally written. Of course, you are choice of that slip of paper, and yet how easy it is for this to get mislaid and lost. Then there will soon be gathered quite an accumulation of these favored recipes, and to look them through every time a certain one is wanted means the loss of many valuable minutes.

When clippings are saved, a convenient method is to take a certain number of large envelopes, as many as the subjects you care to cover; label one "Meats and Soups," another "Bread," and so on. These are fastened together by making a small perforation in one corner and tying with cord or ribbon; when a new recipe is found which sounds good, test it and if worthy to be preserved, it may be slipped into its proper envelope.

But there are often magazines which we do not care to mutilate, or the clipping may contain valuable information on the reverse side, which would place it in an entirely different envelope. To obviate this, a convenient way is to purchase a blank book for the purpose of recording all favorite recipes. This may be as simple or as elaborate as you wish; large enough to last a lifetime, or one which can be procured from the five-cent counter. If the latter is chosen, our own preference is the form known as a composition book, with ruled lines for writing with ink and opening like a book. The records should be made permanent, and while the lead-pencil writing, especially if the pencil is an "indelible" one, may prove adequate for a time, it soon becomes indistinct, for the book will be subjected to some wear if you use it, no matter how careful you may be.

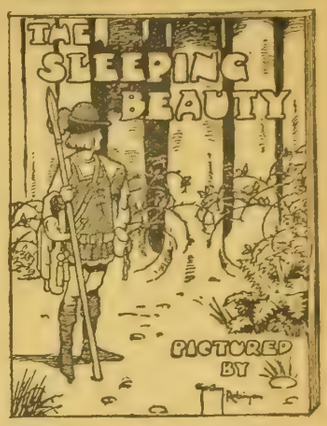
Write distinctly with ink, and it is well to give the source of the recipe, for as the months pass you may forget certain ones and the exact result from them. But "Aunt Hannah's Catsup," or the brown bread made like Mrs. B.'s, will recall the exact nature of the combination; page the book and make an index at the beginning, being sure to make provisions for all the sub-heads necessary, not omitting a "Miscellaneous Department." What if you only have one of two choice recipes to put into certain divisions at the time; others will be added later, if you have left sufficient room.

When you find a recipe in the current paper which sounds as if it would suit your taste, test it, and, if found successful, copy it into your blank book. It may be that you will find some changes which can be easily made, adapting it more perfectly to your supplies or taste. Make note of all such variations. If you trust them to memory the chances are that it will fail you just at the critical moment. It is easy now to bear in mind the fact that you can use three or four eggs in a certain recipe and gain good results, but if the rule is not followed for some time you may lose sight of it or wonder in which kind of cake it was proved true. Make a note at the time and trust to no guesswork.

When a tempting dish is presented by a friend, find out how it is made. Any peculiar manner of preparation should be especially noted. In this may be found the secret of excellence. Keep a sharp look-out for common-sense directions along the line of your own tastes and means. The majority of the fancy dishes described in some of the leading class publications are about as practical for the farm home as the evening gowns depicted on other pages of the same magazine. Make your collection a choice one for your own individual needs. And when ready to go to work, no time will be lost in hunting through various sheets for some desired directions.—Bessie L. Putnam.

Universal Magazine Subscription Premiums For Children.

A Premium That Will Delight the Hearts of the Little Ones. Four Fine, Beautifully Colored Toy Books.



ANIMAL SERIES.
No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

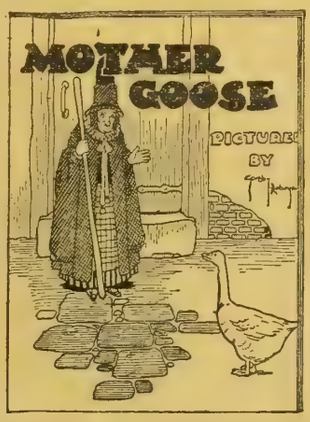
FAIRY TALE SERIES.
No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

The Universal Magazine

PUBLISHED MONTHLY.

3550 Vista Ave., ST. LOUIS, MO.

THE UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for twenty-five (25) cents we will send the UNIVERSAL MAGAZINE for one year, and we will send as a subscription premium any four (4) of the beautiful, colored Toy Books for children. Send us your orders. Order each book by number.



MOTHER GOOSE SERIES.
No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 116—Little Red Riding Hood.

LITTLE DARLINGS SERIES.
No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

CONCRETE HIGHWAYS.

Good Roads and How to Make Them —An Instructive Booklet Free.

Every person interested in the good-roads movement is aware of the latest development in this important work through the use of concrete. This new type of road is now the subject of extended experiments by the United States government. It has met with such pronounced success in Wayne county, Michigan, as to give that locality national celebrity. In brief, a concrete road is akin to our cement sidewalks, a water-shedding, indestructible and monolithic mass that defies disruption.

The Association of American Portland Cement Manufacturers has published for free distribution a comprehensive book entitled "Concrete Highways," which will interest road supervisors, contractors and taxpayers in every section of the country. The book, which is handsomely and profusely illustrated, contains nearly a hundred pages. It was prepared by expert road engineers and goes into every detail of construction, concluding with a tabular digest of concrete pavements in all sections of the country. The various chapters include discussion of bituminous compound wearing surfaces, grouted pavements, reinforced concrete pavements and specifications for the one and two-course types. In fact, the book covers the entire subject in the most reliable and authentic way. Road supervisors, especially, will find it of inestimable value and the tax-payer will be extremely interested in the economical results obtained by the introduction of these durable concrete highways. Free copies of the book may be had upon application to the Association of American Portland Cement Manufacturers, Land Title Building, Philadelphia, Pa.

Reliable Seed House.

We take pleasure in recommending the A. W. Schisler Grain Company, of St. Louis, as a buyer of seeds direct from seed-growing farmers. The firm also sells direct to farmers all seeds they need. The way to get acquainted with this firm in the first place is to write for their Golden Arrow Seed Catalogue. Address, A. W. Schisler Grain Company, 708 North Fourth street St. Louis, Mo.

On the St. Louis market, on October 25th, the best native cattle, 1,237 pounds average, sold at $11 per 100 pounds; the best selling hogs, averaging 272 pounds, sold at $8.65 per 100 pounds, and the best sheep, averaging 94 pounds, sold at $4.10 per 100 pounds. The best calves sold at $9.50 per 100 pounds, and the best lambs at $6.85 per 100 pounds.

GRAND INVENTION!

NO MORE WASH DAY!

EASY METHOD Of Cleaning Clothes

Cleans Family Wash in 30 to 50 Minutes—Woman's Hardest Work Made Easy—No Motors! No Chemicals!

NOT A WASHING MACHINE

DOES THE WORK IN ONE OPERATION.

SEE HOW SIMPLE—DIFFERENT. EASY. Put on any stove—add water, then soap, then clothes—**move knob occasionally.** In 5 to 8 minutes first batch washed—next batch same way, same water—in 30 to 50 minutes family wash clean. **No labor, no injury to clothes.**

Cleans woolens, flannels, blankets, or colored clothes, as well as white goods, finest laces, curtains, bed clothes. **Saves time, fuel, labor.**

EASY WAY in 30 to 50 minutes cleans washing which before took entire day. All metal, strong, durable, sanitary, light in weight. Easily used, cleaned, handled—always ready. Child or weakly woman can use it. Saves washday drudgery.

Users Praise the "Easy Way."

J. McGee, Tenn., writes:—"One young lady **cleaned day's washing in one hour** with Easy Way—another in **45 minutes.**" Mrs. T. Bullen, Canada, writes.—"I washed **bedding, heavy quilts, curtains, etc., without rubbing.**" Lauretta Mitchell, O., writes:—"Done a **big washing in 45 minutes—sold 3 already.**" A. D. Poppleton, N.Y.:—"Gives perfect satisfaction. Washed bed quilts, **greasy overalls** and **fine clothes.** Greatest thing on earth. F. E. Post., Pa., writes:—

TWO WEEKS WASHING IN 45 MINUTES.

Clothes cleaned **without rubbing."** J. H. Barrett, Ark., after ordering 38 Easy Ways, says:—"You have the grandest invention I ever heard of." J. W. Myers, Ga., says:—"Find check for 12 Easy Ways. Greatest invention to womanhood, forever abolishing miserable wash day. **Sells itself."**

AGENTS GETTING RICH

R. O. Cowan, N. Y., placed 13 in 6 hours—(profit $39.00.) Mrs. J. Brown sold 10 in 3 days—(profit $30.00.) K. J. Blevins, O., writes: "Made 7 calls, sold 5 one day." (profit $15.00.) R. H. Latimore, Pa., writes: "Sold 4 this morning. **Never yet turned down."** A. G. Witt, Pa.: "Received Easy Way yesterday; sold 4 today—not out for orders." Mrs. Gerrish, Mont., ordered sample, then 1 dozen—then 100—**(profit over $300.00.) Just made one shipment 1000 Easy Ways** to Russian agent. N. Boucher, Mass., orders 75 more, says: "Everybody wants one, **best business I ever had."** A. S. Verrett, La., sold 8 in one day—(profit $24.00.)

FREE SAMPLE To Agents

We want managers, agents, men or women, home or traveling, all or part time, to show, take orders and appoint agents. **Easy Way new article,** not worked to death. Best seller out. Every family wants one. People glad to see it demonstrated; buy without being asked, and throw away costly washing machines to use it. **Only 2 sales a day means $36.60 a week profit.**

Price only $6.00 ready for use. Sent anywhere. Not sold in stores. ☞ **Order one for your own use.**

Send for Free Sample offer, special agents' proposition, etc. Costs nothing to investigate. Send name and address anyway for full description. Write today. **Harrison Mfg. Co.,** 2183 Harrison Building, **Cincinnati, O.**

Cleaning Furs and Woolens.

A good way to freshen up furs that are not quite soiled enough to be cleaend is to dampen the fur thoroughly with a wet brush, then comb out carefully with a clean, coarse comb, working always in the direction that the fur naturally takes, then shake well and hang up and allow to remain until the fur is perfectly dry.

To clean light-colored furs, use white corn meal, and use hot bran for cleaning dark furs. Lay the garment upon a table and sprinkle plenty of meal into the fur and with the hand rub it well through the fur and make a thorough piece of work by rubbing briskly every square inch of fur, then shake and brush until all the meal is removed.

White furs are cleaned by first rubbing with plaster of Paris and then shaking this out and rubbing with corn starch put on in the same way and shaking and brushing out.

To clean white Angora hoods and furs, put the article to be cleaned in a small sack and use about half a pint of flour for one hood, then fold the sack and squeeze with the hands until the article is clean, then remove from the sack and shake and brush.

Wrinkled woolen goods can be effectively freshened by holding over a steaming tea kettle; and velvet collars and trimming respond quickly to steam, which raises the nap to look like new. A plentiful application of powdered French chalk will clean any woolen article, such as light cloth jackets or coats and light-colored dress skirts. Spread the garment on a table and sprinkle the chalk over as much of the garment as can be cleaned at one time, then brush the powder well into the goods with a fine brush, and when the whole garment has been cleaned in this way, shake and brush it well, then give it a good pressing and it will look fresh and new.

The best way to keep the flannels soft and clean is to wash them repeatedly and not hurry them through the weekly washing, and they can be kept soft and of good color as long as they last by washing them through suds made with borax soap chips, as this suds is very soft, and a good squeezing and pressing between the hands in the suds gets them perfectly clean and leaves them as soft as when new.

There is nothing better than the Twenty Mule Team Soap Chips for washing all kinds of woolen articles, such as sweaters, and caps, and fine baby blankets, and flannels, and the best way to use the chips is to dissolve them in hot water and then stir enough of this soap solution in the warm, soft water to make a good suds before the garments are put in.

To keep flannels from shrinking, they must be kept pulled into perfect shape while washing, drying and pressing. All the changes of waters must be of the same temperature, and they must be dried in a warm atmosphere and ironed on the wrong side before they are quite dry with moderately hot irons.—M. H.

Neverslip Horse Shoe Calks.

At this time of the year the subject of shoeing of horses is in order. The Neverslip Red Tip Horse Shoe Calks have gained such a reputation for value, usefulness and humane conditions it is hardly necessary for the manufacturer to advertise them. Yet there is an advantage in reading about them, as will be seen on page 17. The Booklet L which describes them should be in the hands of all who work horses in winter. A copy can be had by writing to Neverslip Manufacturing Company, New Brunswick, N. J.

The latest Elgin butter quotation was 31 cents a pound.

DOLLY DIMPLE DRESSING DOLLS.

A Subscription Premium With the Universal Magazine, Published at St. Louis, Mo.

The Dolly Dimple Dressing Dolls are furnished in a cardboard box, and each box contains a cut-out doll with easel back, four dresses and four hats. The dolls are nine inches high. The names of the dolls are "Affectionate Alice," "Baby Betty," "Chubby Caroline" and "Dainty Dorothy." Nothing more satisfactory has ever been offered as a subscription premium with a publication. We have adopted the Dolly Dimple Dressing Dolls as a subscription premium. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication for the money.

In offering such a premium we are actuated by a desire to place in rural homes these delightful Dolls, which gratify the children, besides having a good influence upon them.

Anyone who will send us 25 cents to pay for one-year's subscription to the UNIVERSAL MAGAZINE can select the Dolly Dimple Series of Dressing Dolls as a subscription premium, and we will send the box postage prepaid, safe delivery guaranteed.

If you don't care to obtain the set of Dolly Dimple Dressing Dolls by subscribing for the UNIVERSAL MAGAZINE, you can obtain a set by sending in 25 cents for six-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, which will serve the purpose equally as well. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

RURAL HOME COOK BOOK.

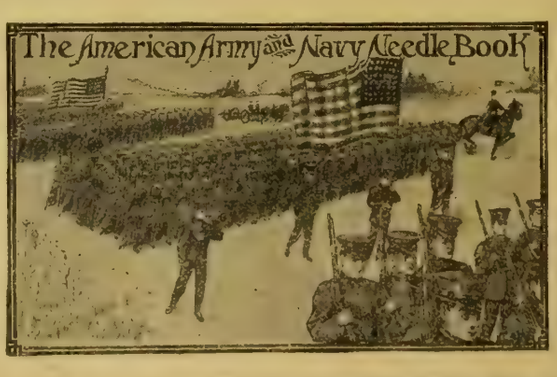
A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine,** our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** **TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Escaped the Horse Plague.

When the horse plague in Kansas disappeared the veterinarians, as a rule, were as wise at the end as they were at the beginning; but even in the stricken country many farms escaped from loss altogether by taking precautions to have on their farms the conditioner necessary to keep horses and other stock healthy.

H. H. Avery, Clay Center, Kas., writes: "We have a lot of sick horses in this county. Our horses are being fed Sal-Vet, and up to this writing have not contracted the disease."

J. G. Melchert, Lorraine, Kas., writes: "The several thousand pounds of Sal-Vet ordered by telegram last week has been sold to horse owners. Lots of horses dying, but none of those that have been fed Sal-Vet."

Geo. H. Clark, Kensington, Kas., writes: "I am using Sal-Vet to prevent the horse plague, and believe it is the remedy for it."

While the manufacturers do not claim it is a cure for the horse plague, the above actual evidences indicate it acts as a splendid preventive, and we urge our readers to give it a trial, knowing as we do the success Sal-Vet has attained as a worm exterminator and conditioner. In ordering, please mention this paper. See page 21.

BLOODED STOCK NOTES.

The sale of Hereford cattle by O. Harris & Son, of Harris, Mo., on October 22d, was an event in Hereford cattle history. Thirty-eight females averaged $311.60 per head; twenty-six bulls averaged $464 per head, and the general average for sixty-four head was $314. Included in the sale were four bulls, sold at $1,000 and upward, the top being Gay Lad, 2d, a calf of 1911, sold to W. M. Braddock, of Chadron, Neb., for $1,500. The females sold from $160 to $330, and most of the offerings were heifers.

Messrs. Gudgell & Simpson, of Independence, Mo., held a sale of their pure-bred Hereford cattle at Kansas City on October 24th. Fourteen bulls averaged $254.30, and thirty-six females averaged $147.80. The top-priced bull was Bright Lord, a calf, sold to J. A. Shade, of Kingsley, Iowa. The top-price heifer was Lovely, 6th, calved in 1910, and sold to Eggleston & Hill, of Denver, Colo. There was nothing older in the sale than calves of the year 1910.

Mr. C. S. Smith, of Fayette, Mo., held an auction sale of Hereford cattle at the home farm on October 25th. Fifty head were sold for $6,375, which is an average of $127.50. J. S. & J. A. Davis, of Atwater, Ill., bought the top-priced bull, March On, 7th, for $225; and J. J. Early, of Baring, Mo., bought the highest-priced cow for $200.

At Woodlawn Farm, Sterling, Ill., October 24th, a very good sale of Holstein cattle took place. Sixty-eight females brought an average of $183, and eight bull calves and yearlings averaged $113. The top price for a bull was $315, paid by Western College, Oxford, Ill. Mr. A. L. Goodenough, of Morrison, Ill., paid $500 for Woodlawn Orpha, calved in March, 1910. Woodlawn Farm is in Whiteside county, in the northwest portion of the state.

At the sale of Percheron horses held by T. H. Weil, of Blairstown, Iowa, on October 25th, there were forty-nine head sold at an average of $445 per head, and twelve of them were weanlings, sold for an average of $292. The mare average for thirty-five head was $471, and fourteen stallions averaged $380. The mare Imprudente, a first-prize winner and champion at several State Fairs, sold to W. V. R. Powis, of Wayne, Ill., for $1,400. Her picture occupies a half page in the Book of Live Stock Champions, advertised on page 11 of this paper.

There will be a combination sale of Shorthorns, Herefords and Aberdeen-Angus cattle held at the St. Louis National Stock Yards, East St. Louis, Ill., on November 19th, 20th and 21st. It will be held under the management of Mr. Sidney B. Smith, whose postoffice address is Springfield, Ill. Mr. Smith will get together a nice lot of cattle, and the catalogue will be sent to stockmen in advance of the sale if they will write for it.

A Bottle Social.

A unique and profitable affair for a church in need of money to give is a bottle social. Empty bottles have a money value, a fact of which some housekeepers are unaware. They can be disposed of to bottle dealers for a fair price and the number which might be collected from all over the countryside would bring in a neat sum. In advertising the social, announce that a certain number of bottles will be the admission fee, perhaps ten for adults and five for children, or five for adults and three for children.

Arrange several booths at which to sell bottled goods. Stock one with perfumes, cold creams, toilet waters, bay rum, vaseline and other bottled toilet preparations; another with home-made grape juice, catsup, Chili sauce, pickled onions and similar home-bottled goods; a third with an assortment of corks, corkscrews, bottles of ink, mucilage and similar supplies; a candy booth may be arranged by using bottles of the tiny opera stick candy, bottles of mints, limes, chocolate buds, nuts and other confections.

By way of fun have a guessing contest of the number of bottles in the room and also of the number of beans in a bottle set out on display; award some small prize for the closest guesser. Pass around paper and pencil and allow five minutes for the writing of a telegram, the letters in the word bottle to form the beginning of each word in the telegram Here are several examples:

Be on time, Tom; lively evening.
Battle on; the Turks lose; escape.
Both of the turtles lost entirely.
Betty out to theater; let's elope.
—Janet Thomas Van Osdel.

Kaffir corn was selling at $1.00 to $1.06 per 100 pounds when this paper went to press.

OWN A BUSINESS

WE WILL HELP YOU

"I made $88.16 first three days," writes Mr. Reed, of Ohio. Mr. Woodward earns $170 a month. Mr. M. L. Smith turned out $301 in two weeks. Rev. Crawford made $7.00 first day. See what others have done.

LET US START YOU

in Gold, Silver, Nickel and metal plating. Prof. Gray's new electro machine plates on watches, jewelry, tableware and metal goods. Prof. Gray's New Royal Immersion Process latest method. Goods come out instantly with fine, brilliant, beautiful, thick plate, guaranteed 3 to 10 years. No polishing or grinding. Every family, hotel and restaurant want goods plated.

PLATERS HAVE ALL THEY CAN DO.

People bring it. You can hire boys to do the plating as we do. Men and women gather work for small per cent. Work is fine—no way to do it better. No experience required; **we teach you. Recipes, Formulas, Trade Secrets Free.** Outfits ready for work when received. Materials cost about ten cents to do $1.00 worth of plating.

Our new plan, testimonials, circulars and **SAMPLE FREE.** Don't wait. Send us your address anyway.

GRAY & CO. PLATING WORKS,
1348 Gray Building, Cincinnati, Ohio

New Invention SELF-HEATING IRON

The "Standard" Makes and Contains Its Own Heat

Works while it is heating, heats while it is working. Saves miles of walking.

Saves Its Cost Every Month

Economical, perfectly safe, convenient. The **"Standard"** is stove, fuel, heat—all in one. **Fire is Inside.** Carry it about, go where you please. Don't stay in hot kitchen; iron any place, any room. Go right along, one thing after another. All kinds of clothes

IRONED BETTER IN HALF THE TIME

No waiting. No stopping to change irons. Right heat. Easily regulated. No time wasted. Iron on table all the time, one hand on the iron, the other to turn and fold the clothes. The **"Standard"** is neat, durable and compact; all parts within radius of iron and handle. No tanks nor fittings standing out at sides or ends to hinder or be in the way. No wires or hose attached to bother. **Right size, right shape, right weight.** Cheapest fuel, one to two cents does ordinary family ironing.

WHAT USERS SAY.

Alex Stalker of N. Y. writes: "The Self-Heating Iron received sometime ago and will say right here it **is the most useful time and money-saving device that was ever made.** My wife has just finished a large ironing in two hours that usually took her half a day with the old stove heating irons, and the house is cool. **It is certainly just the only iron made.** We want the agency." W. P. Farnum: "After receiving your iron and giving it a thorough trial it **will be a perfect success. My wife is enthusiastic** over the work it does and the economy in its use." Mrs. J. E. King, Ill.: "Received iron yesterday in good shape. **Well pleased with it.** I want the agency." I. N. Newby, Ill.: **"Find it to be all you claim for it."** Mrs. Josephine Route, N. Y.: "Received the iron O. K. and did my ironing with it yesterday. **I like it very much."** A. E. Covert, N. Y.: "Have lighted it several times already and find **I can do ironing so much quicker and cleaner than in the old way.** Think it is the **best thing I have ever had in my house."** Miss Roxie Sheets, of N. C.: "The two irons received and am delighted. **Have turned off our regular ironer and will do the ironing ourselves now.** Sold the extra iron to the first lady I showed it to." Mrs. Watson C. McNall, N. Y.: **"I am more than pleased with it** and its work. **It is not a bit clumsy. It is a delight to use it."** Mrs. Cora Wright, Ill.: "I received the iron Saturday and **like it fine."** Mrs. C. M. Winstead, Ky.: "I received my iron about three weeks ago. **Like it better than anything I ever saw in the way of irons.**

"Standard."

So they go—hundreds and thousands of delighted customers—the work of ironing cut in half—the expense of fuel almost eliminated—a God send to every home. The poor can afford it—the rich can buy nothing better. Every iron tested before shipping—fully guaranteed—ready for use when received. Price low—$4.50. Sent anywhere.

AGENTS MAKE MONEY. Men or women. Quick, easy, sure. **All year business.** Experience not necessary. Sells on merit—sells itself. They buy on sight. Every home a prospect. **Every woman needs it.** Price low—all can afford it. **HOW THEY DO SELL!** Even 2 or 3 a day gives $27 to $40 a week profit; 6 sales a day is fair for an agent; some will sell a dozen in one day. Show 10 families—sell 8. Not sold in stores. Send no money. Write postal today for description, agents selling plan. How to get **FREE SAMPLE.**

C. BROWN MFG. CO.,
675 Brown Building, - Cincinnati, O.

98 cents

Post Paid

Guaranteed 5 Years

To advertise our business, make new friends and introduce our great catalogue of Elgin Watches we will send this elegant watch to any address by mail post paid for **ONLY 98 CENTS.** Regular gentlemen's size, open face, full nickel silver plated plain polished case, Arabic dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. Send this adv. to us with your name & address & 98c, and watch will be sent by return mail postpaid. Satisfaction guaranteed or money refunded. Send 98c today. Address

R. E. CHALMERS & CO., 538 So. Dearborn St., CHICAGO.

THE CLOVER FIELDS OF RECTOR, ARKANSAS.—Clover is one of the most prolific crops grown on the rich valley and ridge lands in the eastern portion of Arkansas. At Rector are to be seen some of the finest clover fields in the state. The clover acreage exceeds that of all other grasses and the success in growing it has fostered the stock-raising industry. In this section there is to be found some of the finest cattle and hogs, mules and horses in Arkansas. Wherever clover thrives the beef steer is in his element. Alfalfa and timothy are also important crops of the section about Rector, Arkansas. See page 14 for excursions on the Cotton Belt Route.

A Rousing Appetite Is a Keen Delight

And What Is of Greater Interest, Stuart's Dyspepsia Tablets Enable the Stomach to Digest Whatever Is Eaten.

We all like to see the way healthy children devour their meals. Would we could all do the same! Eating ought to be a delight. It is one of life's chief enjoyments. People who cannot relish a good meal are apt to fall into those ill-tempered moods from which they view the world as a sorry place to live in. So let us learn to employ the best means of harmonizing our existence and thus extract from our daily grind all the pleasure there is to be had. This we can do by keeping our stomachs in prime, active working order.

A majority of people have come to know the blessings which an occasional use of Stuart's Dyspepsia Tablets confer upon the stomach. They are unquestionably the most popular remedy known, for the reason that dyspepsia is the national disease, and these wonderful little tablets have long since acquired a national reputation as a thoroughly reliable and efficient cure for all forms of dyspepsia and indigestion.

No matter how great the excess of food taken into the stomach, one or two of these tablets will digest every particle of it. A package of Stuart's Dyspepsia Tablets should always be in the house. Many a person has saved himself from a serious attack of acute indigestion by using them after heavy meals, such as are eaten Christmas, New Year's, Thanksgiving and other holidays and festal seasons.

After attending banquets, late suppers, heavy fancy dinners, after-theatre parties, etc., where one has dined sumptuously and luxuriantly, Stuart's Dyspepsia Tablets should invariably be used, as they digest the food perfectly and prevent all possibility of dyspepsia, which, without their use, is more than likely to ensue.

Americans are exceedingly fond of the good things of life, and there is apt to be great excess of eating, and the only way to overcome its bad effects on the stomach is to employ a powerful and efficient digestive, such as Stuart's Dyspepsia Tablets, which always insure a good digestion.

Obtain a 50c. box from your druggist today.

Made-overs and Left-overs.

The girl who is just stepping over the line from little girl to miss will find her last-year's dresses unwearable in their present form. And yet from one of these a skillful maid evolved a handsome dress. It was originally made with the full pleated skirt and a wide hem. This was found to be wide enough to cut one of the narrow skirts which now prevail and still leave enough cloth for a peasant waist. The ripping out of the hem and putting on a facing made the necessary length to be added, a wide belt of black helping this a bit from the top. The red cashmere dress with the black trimmings was really handsome, especially when worn over a pretty white guimpe, and even those familiar with it in the original form found it necessary to look twice before recognizing it.

An antique princess dress made another girl happy with very little alteration. Strips of bias were stitched over the shoulder and down both back and front, leaving a space for the insertion of a belt. They may be of the material or of black patent leather, but in either case it must be loose. Since the Norfolk waist thus made is long, the skirt may be pieced down from the top, even with other material, and no one will be the wiser. The Norfolk is especially convenient for a school dress, since it is so quickly adjusted and so impossible to slip seriously out of place, no matter how strenuous the game.

Now is the time, if you have a dress of good material which needs remaking, for the scant skirt is more easily gained from it than any other style likely to come within a reasonable time. Combinations of colors, too, are allowed, and thus the silk which formed a part of the dress will harmonize nicely as the trimming of another. Shirt waist, dress yoke, peplum, all of these are possibilities to the one who is watching and ready to take advantage in every way.

One often has a yard or so of print or percale after making a dress, in addition to the pieces which will be certain to come useful in making repairs. This makes a very neat little apron for afternoon wear. Simply round off the corners, and either pleat into a belt or make the necessary gores to insure a neat fit. A bias ruffle around the bottom gives the necessary finish.

Those who must make everything do double duty so far as possible will find it profitable to take the best parts of the worn skirt for kitchen aprons. It may be that they are not worth a complete remaking, and yet with a hem at the bottom and a belt made new, a presentable one is evolved for doing rough work.

The dye tub suggests great possibilities for those who have more time than pennies. Study carefully the directions of the firm whose dyes you are about to use, and do not attempt impossibilities. If you have your heart set upon a certain color, better waive the wish than attempt it against the recommendation of the firm. They will tell you just what colors certain dyes will color over and yield good results, and their advice should overrule your own personal desires.

It has been remarked that the main reason that the Parisian woman is so much better gowned than the American one is that she never sacrifices personal traits to fashion. If a certain style of hat is becoming, she sticks to it, even though the vogue may for the time be along a different line. In short, the moral is to study your own peculiar needs and adapt the present styles to them. Though stripes are all the rage, the woman who has a rail-like figure may still adhere to the plain goods.

If you have spare time, punch work, Irish crochet and many other bits of fancy work will give the rich touch which it takes considerable money to replace. A ten-cent pattern, if well chosen, will fit into a dozen uses, and by working part in white and others with colors, the variety thus afforded is quite sufficient.—Bessie L. Putnam.

BANISHING "BLUE MONDAY."

Some Victories in "The Revolt of the Farmer's Wife."

Showing the changes that modern ideas have brought about on the farm, Mr. and Mrs. Bruere, writing in the new November number of Harper's Bazar, declare that: "You can even ask for hot biscuits Monday night and get them! Laundry machinery is to the farmer's wife what the self-binder and the thresher are to her husband, with the important difference that it saves her time and muscle and the spine of her back fifty-two weeks in the year instead of a few days at harvesting season."

The Bazar article is entitled "The Revolt of the Farmer's Wife." This is a picture of things where the "revolt" has not reached: "Wash Monday in the country is like nothing else in the living world anywhere. It scorns to consider the twenty-four-hour limit that sets bounds to the other days of the week. It begins before the darkness of the first day and ends when it gets ready. And it is far from obsolete; it flourishes and waxeth fat wherever the water system is still the human hand applied to the back-yard pump. The accepted practice is to put the clothes to soak on Sunday night in the kitchen. Next morning, the farmer's wife and her daughters and the help—when there is any—leap from bed before daybreak, and—so changed from the placid Sabbath people of the countryside procession that filled the roads with buckboard and surrey and platform wagon and buggy and democrat and phaeton from half-past nine to eleven, and again from half-past twelve to two—begin such a rubbing on boards and stirring with sticks, such a boiling and bluing and starching, such a rinsing and carrying-out in baskets and hanging on lines and taking in again, and ironing and folding and sorting and putting-away in drawers as never was! The better part of two days it takes—often three—during which the farmer, like the furtive cat, enters the house only on sufferance. If the farmer's wife had real gumption, she wouldn't let him enter at all until he had given her running water and power-driven laundry machinery. Once the geared washing-machine and its twin brother, the mangle, enter the house, Wash Day—that prehistoric monster—becomes as meek as a lamb."

Regular Winter Quarter commences November 26. No vacation during holidays except Christmas and New Year's Days. Special Winter Term for Short Course Students begins January 6, 1913.

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THE industrial world is calling for engineers of all kinds. Opportunities for good positions and good salaries for the young man fully equipped are greater to-day than ever before. Take your first job as a trained man—not as an apprentice. Start at a good salary. Our graduates are found in paying positions everywhere. Three-year courses of 48 weeks each are equal to the four years at other colleges.

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The Machinist Course is completed in 48 weeks, equivalent to 5 years' apprenticeship. Actual work on lathe, drill, shaper, chuck, milling machine, planes, grinder and vise. Special attention to accuracy and speed.

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Also Civil, Electrical, Mechanical, Steam and Traction Engine Courses, co-ordinate with others in the Engineering Department. Complete one year course in Mechanical Drawing.

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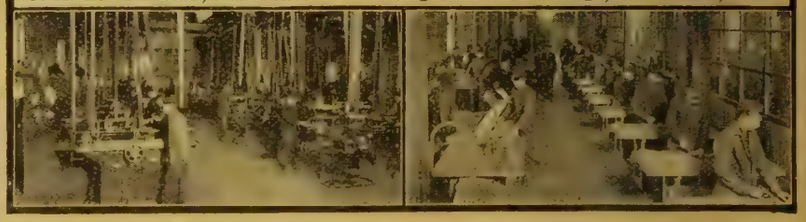
O. H. LONGWELL, President — **Highland Park College, Des Moines, Iowa**



SANTA'S GIFT TO YOU

Nearly everyone nowadays wraps attractively their Xmas gifts before sending, using fancy seals, name cards, and address labels for decorations. It is a pretty custom and adds greatly to the Xmas sentiment, but if purchased in a store these decorations are expensive. Here is an exceptional opportunity, however, to secure

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For several years we have been seeking something in the form of a book or chart that was able to impart instruction in dressmaking that could be understood. We have seen charts and diagrams and had all kinds of methods explained which all led back to personal instruction.

We have obtained a book at last that we can plainly see is a guide and a helper to the beginner, and with it an intelligent girl or woman may learn to be independent, to make her own clothes, to make clothes for others, to earn a living

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and to be able to enter one of the best-paid professions open to women.

The book we have selected as the best known to us is by Mrs. Edith M. Carens, who is Principal of a College of Dressmaking. It is entitled "Dressmaking in Ten Weeks" and is a condensed course of twenty complete lessons, and especially arranged for home study work. Each line is the result of careful preparation and years of study by an expert. There is information found here that can be obtained nowhere else.

There is an entire lesson on hand sewing, which alone is a book within itself, dealing with all kinds of fancy stitches, different kinds of hems and seams, proper method of buttonholes, also the making of hand-made trimming.

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The size of the book is 5x8 inches, contains 127 pages, and has fifty illustrations.

Our Subscription Proposition.

What we wish to do is to please every girl and woman on the farm. We wish them to say to husband to father or brother and to uncle: "I would like you to subscribe for The National Farmer and Stock Grower. It pleases me and will please you. The price is 50 cents a year. It is full of good articles on general farming and stock and poultry raising in all branches. And besides all that, if you do subscribe, I will receive as a commission or premium a copy of the book 'Dressmaking in Ten Weeks,' postage free and safe delivery guaranteed. I need that book, and the best way to get it is to send 50 cents for one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Becoming Dress For the Stout Woman.

While it is perhaps more difficult for a stout woman to dress becomingly than it is for a woman of the slender type, yet it is by no means impossible. There are a few general principles to follow, the observance of which makes a surprising difference in the appearance of a fleshy woman.

A good corset must be worn. This cannot be bought under three dollars. In the corsets selling at that price and above every make carries a special for stout figures. The corset is cut with a view to reducing the apparent size of the figure; it is comfortable, and a good, strong material is used in the making. It is better to sacrifice one new gown a year and put that amount of money into a corset than it is to have a variety of gowns to wear over a cheap, ill-fitting corset. After all, a woman can wear only one dress at a time.

Two mistakes in dressing which very fleshy people often make is that of going either to the extreme of wearing exceedingly tight clothes made in a severely plain style, or adopting the exact opposite style of dressing and wearing very fussy clothes. Those who adopt the former method do so with a view to making the figure look no larger than can be helped, while those who choose the latter believe that the fussy garments hide the uncouth outlines of their bulky figures and thus do not emphasize their largeness. The most satisfactory style is a medium between these two extremes, where no gown or outer garment which fits very closely to the outlines of the figure is worn, nor any garment that is fussed up so as to make its wearer look very bulky. This makes it necessary for a fleshy woman to adopt and adhere to a style of her own, which may vary somewhat, but very little, to conform to the changing styles. She must decide to wear what is becoming to her, regardless of the dictates of fashion. Whether the prevailing mode in sleeves is the skin-tight sleeve or the balloon affair, the fleshy woman must maintain the always becoming style of a medium full sleeve, for either of the two extremes is equally unbecoming to a very large woman.

An easy fit at the waist line makes the figure less pronounced. A dress drawn in tightly at the waist line emphasizes the large hips and the full bust. A tight-fitting basque should not be thought of. Instead the fleshy woman should wear a brasiere or a tight-fitting, boned corset cover. This confines the superabundant flesh and gives a good outline to the figure as well as does the lined and boned basque that some fleshy women still adhere to in the belief that it is impossible for them to wear anything else. The waist should be fitted easily with a plait over the shoulders, so arranged as to give extra fullness over the largest portion of the bust. If the waist is rightly made there is no need of the unsightly drawing at the armholes and across the bust. Scatter the fullness at the waist line to both the front and back of the waist, so as not to make unsightly v's of the gathers.

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A one-piece dress is more becoming than a waist and skirt of different materials, but where it is necessary to have the separate skirt and waist, harmonizing materials should be chosen so as to avoid a cut-off effect. Any trimming that is used (and a fleshy figure will stand but little) should be applied in up-and-down lines, never across. Tucks and pleats should likewise be up and down.

Whether the skirts are very full or very narrow, plaited or gathered, the fleshy woman who desires to have good lines must still conform to a medium style which gives just enough fullness, but never too much. If a jacket suit is worn, the style that cuts off at the waist or the hips must be avoided. It must cover well the curve of the hip, or the woman will look tubby.

Almost all, if not all, of the paper pattern companies to-day cut patterns with a special view to fitting extremely fleshy figures, and the woman who does her own sewing must order these. If she has a competent dressmaker, the seamstress will take care of the matter and will probably be able to offer many suggestions well worth heeding, provided she finds her customer desirous of listening to her.

The kind of material worn is another important factor, as is also the color. Smooth materials, closely woven and quiet in tone must be chosen.

Very fleshy women seem addicted to wearing extremely large, heavily-trimmed hats. This is probably due to the mistaken notion that, owing to a fleshy face, nothing but a very large hat can be worn. Here again extremes must be avoided, but a hat inclining to the narrow rather than the wide brim, and with a high crown, is the most becoming style that can be chosen. The wide hat with its load of plumes or flowers gives a squatness to the figure which is exactly what the fleshy woman desires to avoid.—Janet Thomas Van Osdel.

How to Make Peanut Butter.

Circular 98 of the Bureau of Plant Industry, Department of Agriculture, says:

The growing popularity of peanut butter as a food has led to many inquiries regarding the methods employed in its manufacture. Peanut butter is in reality a very simple preparation, consisting merely of fresh-roasted peanuts ground finely and salted to suit the taste. Several large factories and a large number of smaller ones are now devoted to the manufacture of this product with which to supply the rapidly-increasing demand. Some of the large factories are almost models in their construction, equipment and management, while many of the smaller establishments, which have no elaborate equipment, are turning out an excellent product.

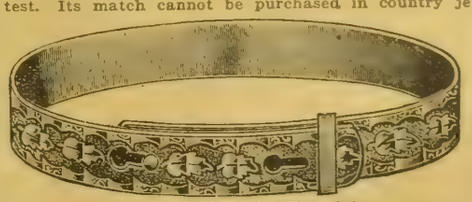
Peanut butter was first manufactured and offered for sale as a food for invalids, but the article was soon adopted by many persons who for one reason or another, such as preference for vegetable foods only, objected to the use of ordinary dairy butter. It soon outgrew this condition of limited use, and its development on a commercial scale has been a general product. It was never intended that this product should be used as a substitute for or a competitor of butter, but as a luncheon delicacy and to add variety to the diet. Peanut butter is a wholesome and nutritious food product and has become a popular article upon our markets. Last year one manufacturer used over 130 cars of shelled peanuts in the production of 6,000,000 small jars of this food. Other manufacturers used large quantities, the total consumption of peanuts for the manufacture of peanut butter alone amounting during the year of 1911 to approximtely 1,000 cars of shelled goods, or 1,000,000 bushels.

In order to produce high-class peanut butter the manufacturer must employ the best materials. On the other hand, the use of the best stock obtainable will be of little avail unless the work of converting into a salable product is conducted in a sanitary manner.

It is said that the wild duck yields a serum which gives immunity from hay fever, asthma and similar troubles.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Universal Magazine Bracelet.

To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.

You Should Have Seen the Pimples

But Now Her Face Is the Fairest of the Fair, Due to Stuart's Calcium Wafers.

Those dimples are like pearls in a ruby cluster when Stuart's Calcium Wafers clear the face of every pimple, spot and blemish. And even if you haven't dimples, the clear, transparent skin of a healthy, Calcium Wafer complexion is more radiant than the deft touch of an artist to the most exquisite water color.

Stuart's Calcium Wafers act directly upon the sweat glands of the skin, since their mission is to stimulate the excretory ducts. They do not create perspiration, but cause the skin to breathe out vigorously, thus transforming perspiration into a gaseous vapor. The calcium sulphide of which these wafers are composed, consumes the germ poisons in the sweat glands and pores, hence the blood makes a new, smooth skin in a surprisingly short time.

You will never be ashamed to look at yourself in a mirror, once you use Stuart's Calcium Wafers. Nor will your friends give you that hinting look, as much as to say—for goodness sake, get rid of those pimples.

There is no longer any excuse for anyone to have a face disfigured with skin eruptions, when it is so easy to get rid of them. Simply get a box of Stuart's Calcium Wafers at any drug store and take them according to directions. After a few days you will hardly recognize yourself in the mirror. The change will delight you immensely. All blemishes will disappear.

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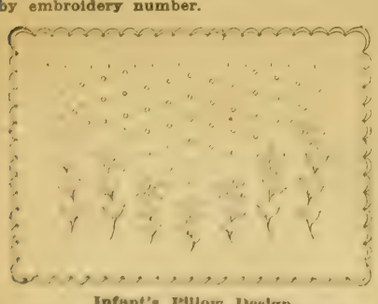
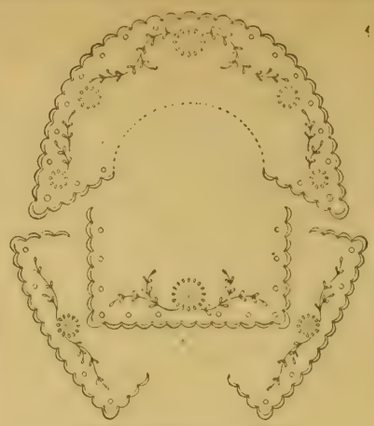
MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.



Infant's Pillow Design.

No. 691.—Design for embroidering an infant's pillow. The design can be used for a pillow twelve inches wide by eighteen inches long.



Round Collar and Cuffs.

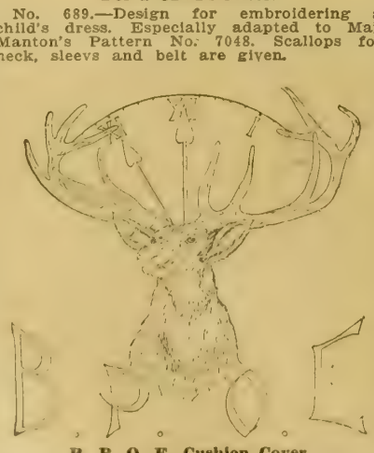
No. 690.—Design for embroidering round collar open at the front, with jabot and rolled-over cuffs.

Splendid Center Cloth.

No. 692.—Design for an embroidered center cloth. The cloth is twenty-three inches in diameter and is designed for outline work with punched-work background.

For a Child's Dress.

No. 689.—Design for embroidering a child's dress. Especially adapted to May Manton's Pattern No. 7048. Scallops for neck, sleevs and belt are given.



B. P. O. E. Cushion Cover.

No. 687.—Design for embroidering a cushion cover in B. P. O. E. design. The design is fifteen inches in width by fifteen inches in depth.

Each embroidery pattern is 10 cents, and is well worth the money.

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The Kingman Plow Company, Peoria, Ill., will send a complete catalogue of farm implements to any of our readers who will write for it mentioning this paper. This firm makes every implement in general farm use, and, what is most important, makes them well. Don't hesitate to write; a study of farm implements is in order on all farms.

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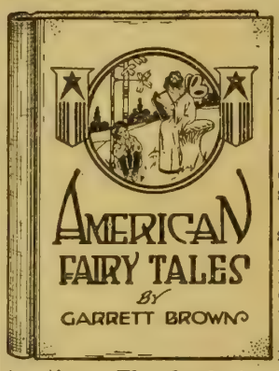

We have adopted the book entitled AMERICAN FAIRY TALES as a premium in connection with the Subscription Department of the UNIVERSAL MAGAZINE. Our readetrs ought to know that the UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication for the money, and this is our first proposition: Send us fifty (50) cents and we will credit you with two-years 'subscription to the UNIVERSAL MAGAZINE and we will also mail you a copy of the book AMERICAN FAIRY TALES, postage paid, safe delivery and satisfaction guaranteed. Address without delay **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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"Sech er dey was. White man done offered me one-third o' wat Ah could pick. Ah done tuk a look at de field an' saw dat when it wah all picked it wouldn't amount ter one-third. So Ah done lit out fer home!"

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MAY MANTON PATTERNS.

This is the best pattern service, and we re very much pleased to obtain it for our riends and patrons. Each pattern is new nd original. In this edition we present for onsideration very seasonable patterns bsolutely up-to-date, with directions for rdering.

SLEEPING GARMENTS.

No. 7529.—Girl's Sacque Night Gown. Ten sixteen years. 4 yards 36 inches wide, or the twelve-year size.

No. 7080.—Square-yoke Night Gown For Misses and Small Women. Fourteen, six-een and eighteen years. 5½ yards of ma-erial 36 inches wide, 1½ yards of edging trim as shown, for the sixteen-year size.

No. 7511.—Square-yoke Night Gown. 34 46 bust. With square or high neck, bow, three-quarter or long sleeves. 5 ards 36 inches wide, 2 yards of banding, 3 ards of edging, for the medium size.

No. 7233.—Child's Pajamas. Two to six ears. 2⅛ yards 36 inches wide, for the our-year size.

No. 6323.—Boy's Pajamas. Six to four-een years. 4¼ yards 36 inches wide, for he ten-year size.

The price of each pattern is 10 cents.

ATTRACTIVE GARMENTS FOR ALL OCCASIONS.

No. 7464.—Semi-Princess Dress For Misses nd Small Women. Sixteen and eighteen ears. 4½ yards 36 inches wide, with 1¼ ards of lace to finish, as shown in front iew, for the sixteen-year size.

No. 7601.—Semi-Princess Dress in Tunic Effect For Misses and Small Women. Six-een and eighteen years. With long or lbow sleeves. 3½ yards 36 inches wide, vith 1⅜ yards 27 inches wide for panels nd lower portion of skirt, 1½ yards of lace or sleeve frills, for the sixteen-year size.

No. 7354.—Blouse With Vestee. 34 to 42 ust. With three-quarter sleeves and cuffs r plain elbow sleeves. 1⅝ yards 36 inches wide, with ½ yard 18 inches wide for yoke and collar, ⅜ yard 21 inches wide for vestee and 9 yards of banding, for the medium size.

No. 7553.—Two-piece Skirt, With Side Panels and V-shape. 22 to 30 waist. With high or natural waist line. 2⅝ yards 36 inches wide, with 1¼ yards any width for panels, for the medium size.

No. 7342.—Girl's Dress. Four to eight years. Nos. 583 and 417 embroidery pat-terns. 2¾ yards 36 inches wide, with ¾ yard 27 inches wide for the trimming, for the six-year size.

No. 7595.—Child's Pointed Yoke Dress. One, two and four years. 2 yards of ma-terial 36 inches wide, with 3¼ yards of insertion, 1 yard of edging to make as shown, for the two-year size.

The price of each pattern is 10 cents.

MISCELLANEOUS MODELS.

No. 7101.—Negligee in Peasant Style For Misses and Small Women. Fourteen, sixteen and eighteen years. 3½ yards 36 inches wide, 3⅜ yards of banding, for the six-teen-year size.

No. 7585.—Loose-fitting House Jacket. 34 to 44 bust. With set-in sleeves, elbow or full length. 3 yards 36 inches wide, with 4 yards of banding, for the medium size.

No. 7209.—Kimono For Misses and Small Women. Fourteen, sixteen and eighteen years. 3 yards 36 inches wide, with 1⅝ yards of contrasting material any width, for the sixteen-year size.

No. 7325.—Five-Gored Petticoat For Misses and Small Women. Fourteen, six-teen and eighteen years. 2½ yards 36 inches wide, ¾ yard 36 inches wide, for plaited frill, for the sixteen-year size.

No. 7577.—Seven-gored Petticoat. 22 to 32 waist. 3¼ yards 36 inches wide, for plain petticoat, 2 yards 36 inches wide for circular flounce, 2¾ yards of embroidery 12 inches wide for gathered flounce, for the medium size.

The price of each pattern is 10 cents.

DESIGNS THAT SHOW THE NEWEST FEATURES.

No. 7579.—Norfolk Blouse For Misses and Small Women. Sixteen and eighteen years. 2¾ yards 36 inches wide, with ¾ yard 27 inches wide for collar and cuffs, for the sixteen-year size.

No. 7599.—Fancy Waist With Vestee. 34 to 42 bust. With or without revers that give vest effect, with long sleeves with or without openings at wrist or with elbow sleeves, with or without chemisette. 3⅝ yards of material 27 inches wide, 2¼ yards 36 inches wide, 1⅞ yards 44 inches wide, with ⅜ yard 27 inches wide for revers and collar, ¼ yard 18 inches wide for chemi-sette, 1½ yards lace for sleeve frills, for the medium size.

No. 7592.—Semi-Princess Gown. 34 to 42 bust. 4¾ yards 36 inches wide, with ⅞ yard 27 inches wide for vestee, collar and cuffs, ½ yard 18 inches wide for chemisette, for the medium size.

No. 7580.—Six-gored Skirt For Misses and Small Women. Sixteen and eighteen years. 4½ yards of material 36 inches wide, for the sixteen-year size.

No. 7596.—Five-gored Skirt. 22 to 32 waist. With cutaway or straight front edge, high or natural waist line. 5 yards of ma-terial 36 inches wide for the medium size.

The price of each pattern is 10 cents.

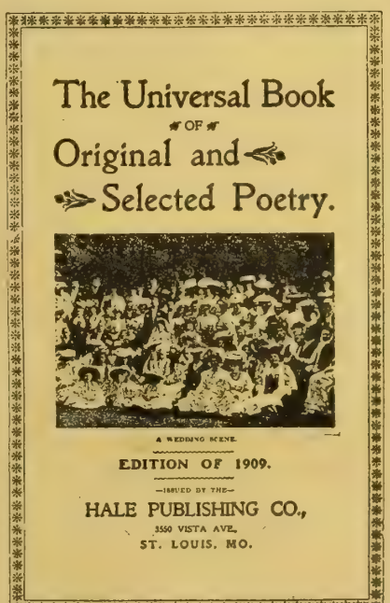
The foregoing patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A TEN-CENT PROPOSITION.

In the Interest of a Publication That is rapidly Coming to the Front.

The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the UNIVERSAL MAGAZINE is, that it is not loaded down with advertisements. Notwithstanding it is a cheap magazine, the subscription price being 25 cents a year, it was supported by subscriptions alone for five years.



The UNIVERSAL BOOK OF ORIGINAL AND SELECTED POETRY consists of one hundred pages, containing three hundred and ninety beautiful, interesting, pathetic, descriptive, humorous and delightful poems. These poems have been selected from the very best of the ancient and modern authors and the occasional pieces which have attracted favorable attention. It is a book to be kept by the bedside to compose one to sleep, a book to carry in the satchel or to read on the train and street car. It is a book for all people at all times. We issued the UNIVERSAL POETRY BOOK for the purpose of using it as a subscription premium in connection with our own new successful paper, the UNIVERSAL MAGAZINE.

Universal
Magazine.
Vol. V. DECEMBER, 1909. No. 6.
A MERRY CHRISTMAS AND HAPPY NEW YEAR TO THE READERS OF THE UNIVERSAL MAGAZINE.

A TEN-CENT PROPOSITION.

Anyone who will send 10 cents to pay for four-months' trial subscription to the UNIVERSAL MAGAZINE can select one copy of the UNIVERSAL POETRY BOOK as a free premium, and we will send it by mail, prepaid, safe delivery in good order guaranteed. Address,

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To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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We will sell you this high-grade, drop-head, Sew Easy Sewing Machine for 50c a week or $2.00 a month. We guarantee this machine for 25 years and ship it direct from the factory. We can save you some money. You get the machine at once & use it while you are paying for it. It has the latest improvements. We want you to write us today, saying: Please send me circulars & terms about your "We a week" offer. Send postal or letter now before you lose our address.

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WATCH RING & CHAIN FREE

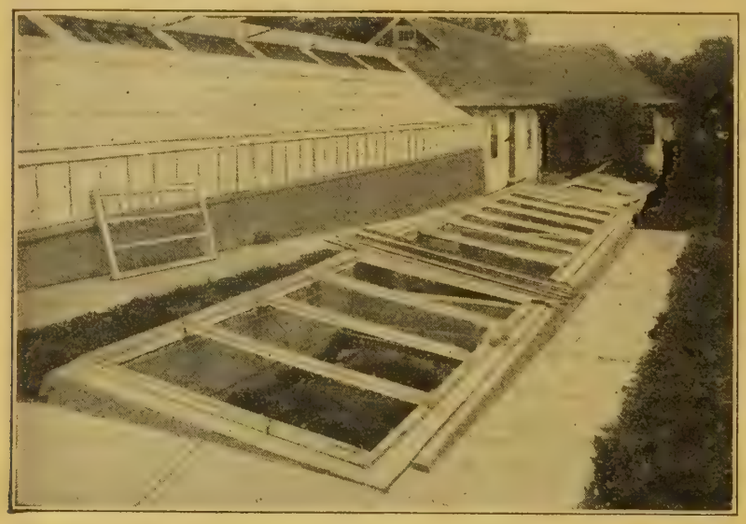
We give an American made, stem wind and stem set Watch fully GUARANTEED, and this Beautiful Band Ring or any other premium you want, for selling 20 packs POST CARDS at 10c per package. Best you ever saw. Order 20 today, when sold send us the $2.00 and we will send you the WATCH and RING and also a CHAIN.

HERMAN & CO. 2430 N. Halsted St. Dept. 250 CHICAGO

CONCRETE HOT-BEDS AND COLD-FRAMES.

Means For Growing Winter Vegetables and Early Spring Plants.

There is nothing which pleases the appetite so much as delicacies out of season. As for vegetables, such



Well Located Concrete Hot-bed.

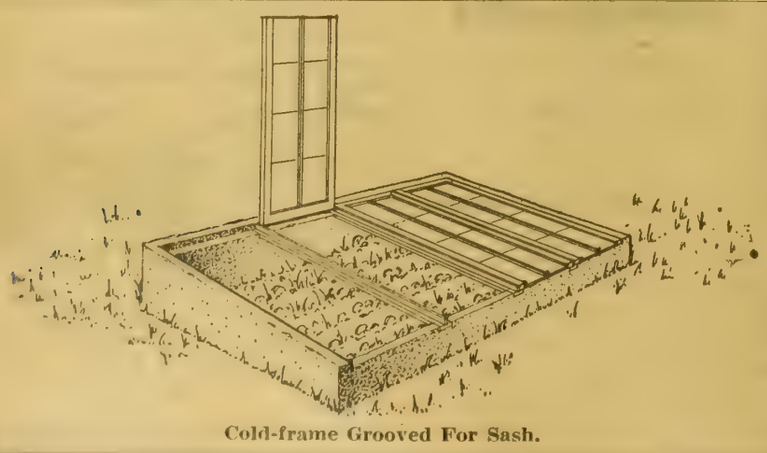
delicacies are not costly luxuries and are within the means of anyone who will take the time to build and run a hot-bed or a cold-frame. Such a bed will make possible home-grown lettuce and radishes (and even violets) for the Thanksgiving and Christmas dinners. Moreover, by this means one can depend on having good, hardy plants for spring planting in the garden.

Proper Time to Build Hot-bed.

September and October are the months to prepare the hot-bed. To avoid annual repairs and to secure the best results build it of concrete. Locate the bed on the sunny, wind-protected side of a building. A four-sash bed is usually large enough except for commercial purposes. A standard hot-bed sash is three feet by six feet. Lay out the bed six feet eight inches wide by twelve feet ten inches long. The concrete walls are six inches thick. Dig the foundation trenches two feet six inches deep within the lines given above. Make forms of one-inch lumber to carry the south (front) wall six inches and the north (back) wall fourteen inches above ground. Forms are not required below ground level. The tops of the end wall slope to the others. Before filling the forms with concrete, test the dimensions of the bed by means of the sash. See that the sash lap the forms two inches on all sides.

Mixing and Placing the Concrete.

Mix the concrete mushy wet in the proportion of one bag of Portland cement to two and one-half cubic feet of sand to five cubic feet of crushed rock, or one bag of cement to five cubic feet of bank-run gravel. Fill the forms without stopping for anything. Tie the walls together at the corners by laying in them old iron rods bent to right angles. While placing the concrete, set half-inch bolts about two feet apart to hold the wooden top-framing of the bed to the concrete, or make grooves in the top of the concrete for countersinking the sash to the level of the walls with an allowance of one-quarter inch for clearance. This can be done by temporarily imbedding in the concrete wooden strips of the necessary dimensions. During this operation, by means of blocks nailed to the strips, make provision for the center-bars described below. Remove the strips as soon as the concrete stiffens. Take down the forms after five days. The extra two and five-eighths inches in length of the bed is allowance for the three center-bars between the sash. These sash-supports are of dressed one-inch stuff, shaped like a capital "T" turned upside down. The length of the stem of the "T" is equal to the thickness of the sash and the top is three inches wide. Sufficient materials for the concrete will be supplied by fourteen bags of Portland cement, one and one-fourth cubic yards of sand and two and one-half cubic yards of crushed rock, or fourteen bags of cement and two and one-half yards of pit gravel at a cost of $10.00.



Cold-frame Grooved For Sash.

Preparation and Care of the Hot-bed.

If the bed is to be used as a cold-frame, it is finished when covered with glass. For a hot-bed, dig out the dirt to the depth of two feet, tramp in eighteen inches of fresh horse manure well mixed with leaves or bedding and cover it with four to eight inches of rich soil. Bank the excavated earth around the outside of the bed. Put the sash in place, hang a thermometer on the inside and allow the bed to heat up. After a couple of days, when the temperature has dropped to 85 or 90 degrees planting may be safely done. Seed catalogues contain valuable information as to the length of time necessary to produce the different kinds of plants.

During the midday in bright weather, the bed will become too hot and must be ventilated for a short period by raising the sash on the side away from the wind. Water the plants in the morning only and ventilate later to remove the moisture from the foliage. On winter nights it will often be necessary to cover the bed with old carpets and boards.

It is a genuine pleasure to grow winter vegetables and flowers for home use. If the supply exceeds the needs, there is always a profitable market for such products.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are

other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that should be accepted at once. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Hears Church Bells After Long Deafness.

For the first time in years this good lady, who has been deaf, hears the church bells. She is in ecstasy. Only this morning has she been able to hear the prattle of her grandchildren and the voice of her daughter. Twenty-three years ago she first found herself becoming deaf, and, despite numerous remedies, medical advice, hearing devices and specialists' treatments, she found it more and more difficult to hear. Of late years she was harassed by peculiar noises in the head, which added to her misery. At last she was told of a book which explains how to regain perfect hearing without costly apparatus or drugs. She got this book and learned how to quickly become freed from deafness and head noises. Observe her delight in this hypothetical illustration! Any reader of The National Farmer and Stock Grower who desires to obtain one of these books can do so free of cost by merely writing to the author, Dr. George E. Coutant, 228 D, Station E, New York, N. Y. He will be pleased to mail it promptly, postpaid, to anyone whose hearing is not good. This offer will bring joy to many homes.

SELECTED POETRY.

WHAR' THE HAND O' GOD IS SEEN.

o I like the city? Stranger, 'tisn't likely that I would.
'isn't likely that a ranger from the border ever could
it accustomed to the flurry an' the loud, unearthly noise—
verybody in a hurry, men an' wimmin, gals an' boys,
ll a-runnin' like the nation 'mid the rumble an' the jar,
s' as if their souls' salvation hung upon their gittin' thar.

Like it! No. I love to wander
'Mid the vales an' mountain green,
In the border land out yonder,
Whar' the hand o' God is seen.

'othin' har' but bricks an' mortar, towerin' overhead so high
hat you never see a quarter o' the over-hangin' sky;
ot a tree or grassy medder, not a runnin' brook in sight,
'othin' but the buildin's shadder makin' gloom of Heaven's light;
v'n the birds are all imported from away across the sea—
Faces meet me all distorted with the hand o' misery.

Like it! No. I love to wander
'Mid the vales an' mountain green,
In the border land out yonder,
Whar' the hand o' God is seen.

oarin' railroad trains above you, streets by workmen all defaced,
verybody tryin' to shove you in the gutter in their haste,
ars an' carts an' wagons rumblin' through the streets with deafenin' roar,
rivers yellin', swearin', grumblin', jest like imps from Sheol's shore;
actories i'inin' in the chorus, helpin' o' the din to swell,
uctioneers in tones sonorous, lyin' 'bout the goods they sell.

Like it! No. I love to wander
'Mid the vales an' mountain green,
In the border land out yonder,
Whar' the hand o' God is seen.

es, I love the Western border; pine trees wavin' in the air;
ocks piled up in rough disorder, birds a-singin' everywhere;
eer a-playin' in their gladness, elk a-feedin' in the glen;
ot a trace o' pain or sadness campin' on the trail o' men.
rooks o' crystal clearness flowin' o'er the rocks, an' lovely flowers
n their tinted beauty growin' in the mountain dells an' bowers.

Fairer picture the Creator
Never threw on earthly screen
Than ths lovely home o' Natur'
Whar' the hand o' God is seen.
—Captain Jack Crawford, the Poet Scout.

HIS BACK TO THE FARM.

The real estate dealer with ball-bearing jaws
aid: "Get on an acre and dodge city laws."
He said and repeated: "GET BACK TO THE FARM,
Where there's little to do with no hard-times alarm;
lo raise some prize pumpkins and onions and spuds,
nd save many dollars by wearing cheap duds."

With columns of figures as long as a string
He showed us how money was sown in the spring,
And how in the fall, when the picking was prime,
The money came back like a smooth-punctured dime.
He showed me how fellows with ninety-eight cents
Now loll on the cushions and grab in the rents
On houses and mansions from Stratford to Strand
Which they had made from an acre of self-acting land.

He'd letters to show me how John W. Doe
Had raked in the coin with the aid of a hoe;
How one Richard Roe from an acre of hay
Had sixty-two barrels of cash stored away.

Well, I purchased the land, and along with the deed
The salesman included a package of seed,
And I planted the acre with turnips and beans,
And onions and carrots and lettuce and greens,
Cucumbers and melons and pumpkins and peas—
Then I waited results and I lived at my ease.
The vegetables grew, put despair on the shelf,
And I strutted around and shook hands with myself.

t last when the crop was all ready to pick
hired a fat yokel with shovel and pick,
nd I told him to pluck it and bring it to town,
nd then I got ready to salt lucre down.

re a month had gone forward the digger came in
ith a sack o'er his head and his face all a-grin,
nd he said: "There was twenty-nine 'taters, I think.
ut I et 'em last Tuesday, so they're on the blink;
The rest of the stuff is all here in the sack;
And you owe me ten dollars." He set down his pack.
Three turnips were there, and two onions, a bean,
Two bunches of lettuce that should have been green,
A dwarfed, sun-dried pumpkin, a dry, scrawny beet—
But I paid the fat yokel and took a receipt.
Then a peddler came by and I sold him the crop
For ninety-eight cents, with the sack at the top.

Now the acre's for sale. I have letters to show
That coin can be dug from the ground with a hoe;
I can prove that a man with but ninety-eight cents
Will shortly be busy collecting the rents.
If he'll buy just an acre of self-acting land
He'll own high-priced houses from Stratford to Strand;
If he'll plant anything that belongs to the soil,
And will flee from the city and cut out the toil.

There's naught can compare with the green country's charm,
But I'm here in the town with my BACK TO THE FARM!
—Miles Overholt.

THE PLANTING OF THE APPLE TREE.

Come, let us plant the apple tree,
Cleave the tough greensward with the spade;
Wide let its hollow bed be made;
There gently lay the roots, and there
Sift the dark mould with kindly care,
And press it o'er them tenderly,
As round the sleeping infant's feet
We softly fold the cradle sheet,
So plant we the apple tree.

What plant we in this apple tree?
Buds, which the breath of summer days
Shall lengthen into leafy sprays;
Boughs, where the thrush, with crimson breast,
Shall haunt and sing and hide her nest;
We plant, upon the sunny lea,
A shadow for the noontide hour,
A shelter from the summer shower,
When we plant the apple tree.

What plant we in this apple tree?
Sweets for a hundred flowery springs,
To load the May wind's restless wings,
When, from the orchard row, he pours
Its fragrance through our open doors;
A world of blossoms for the bee,
Flowers for the sick girl's silent room,
For the glad infant sprigs of bloom,
We plant with the apple tree.

What plant we in this apple tree?
Fruits that shall swell in sunny June
And redden in the August noon,
And drop when gentle airs come by,
That fan the blue September sky;
While children come with cries of glee,
And seek them where the fragrant grass
Betrays their bed to those who pass
At the foot of the apple tree.

And when above this apple tree
The winter stars are quivering bright,
And winds go howling through the night,
Girls, whose young eyes o'erflow with mirth,
Shall feel its fruit by cottage hearth,
And guests in prouder homes shall see,
Heaped with the grape of Cintra's vine,
And golden orange of the line,
The fruit of the apple tree.

The fruitage of this apple tree
Winds and our flag of stripe and star
Shall bear to coasts that lie afar,
Where men shalt wonder at the view
And ask in what fair groves they grew;
And sojourners beyond the sea
Shall think of childhood's careless days,
And long, long hours of summer play
In the shade of the apple tree.

Each year shall give this apple tree
A broader flush of roseate bloom,
A deeper maze of verdurous gloom,
And loosen, when the frost clouds lower,
The crisp brown leaves in thicker shower;
The years shall come and pass, but we
Shall hear no longer where we lie,
The summer's song, the autumn's sigh,
In the boughs of the apple tree.

And time shall waste this apple tree.
Oh, when its aged branches throw
Thin shadows on the ground below
Shall fraud, and force, and iron will,
Oppress the weak and helpless still?
What shall the tasks of mercy be
Amid the toils, the strife, the tears
Of those who live when length of years
Is wasting this little apple tree?

"Who planted this old apple tree?"
The children of that distant day
Thus to some aged man shall say,
And, gazing on its mossy stem,
The gray-haired man shall answer them:
"A poet of the land was he,
Born in the rude but good old times;
'Tis said he made some quaint old rhymes
On planting the apple tree."

BILLIE GRIMES, THE DROVER.

To-morrow morn I'm sweet sixteen and
Billie Grimes, the drover,
Has popped the question, ma, to me, and
wants to be my lover.
He says to-morrow morn, mamma, he's
coming here quite early
To take a pleasure walk with me across the
fields of barley.

You shall not go, my daughter dear, there's
no use now of talking;
You shall not go with Billie Grimes across
the fields a-walking.
To think of his presumption, too, the dirty, ugly drover,
I wonder where your pride has gone to think of such a lover.

Old Grimes is dead, you know, mamma, and Billie is so lonely,
Besides they say to Grimes' estate that Billie is the only
Surviving heir to all that's left, and that they say is nearly
About ten thousand dollars, ma, a cool six hundred yearly.

I did not hear, my daughter dear, your last remark quite cearly,
But Billie is a clever lad, and no doubt loves you dearly.
Remember, then, to-morrow morn, to be up bright and early,
To take a pleasure walk with him across the fields of barley.

And when we're married then, mamma, we both shall dress so natty,
I'll buy a thousand-dollar shawl, 'twill make me look so sweetly.
This common one is getting old, and silks will be in fashion:
I'll turn his pockets inside out, and thus return his passion.

Not quite so fast, my pretty miss, don't try to win the drover,
Who's traveled all this wide world o'er in search of a true lover.
My money ne'er shall buy your shawls, nor build your castles higher;
Pray, madame, take your daughter home, I did it but to try her.
—Unknown Author.

Ways of Economizing.

If your hallway is not provided with that useful article, an umbrella holder or stand, one can easily be made by taking a five-gallon jar, giving it a coat of asphaltum and afterward painting or applying a bunch of flowers and leaves, or the jar may be simply bronzed and a gilt band added at top and bottom.

If you want a nice and a very cheap table cloth, get six yards of cotton toweling and cut into two-yard lengths; then overcast the edges with white cotton and catstitch them together; then hem the edges of the cloth. A cloth was made in this way at a cost of twenty-five cents, and it was very nice-looking and very easily washed and ironed.

You can make a can of corn go as far as two cans by cooking in the following way: Add a can of boiling water to one can of corn and place upon the stove; then mix one heaping tablespoonful of corn starch with six tablespoonfuls of cold water; add to the corn and stir; let boil two minutes, then season with salt, butter and pepper.

When eggs are scarce, even starch may be substituted for part of the eggs in custards or other dishes where milk and eggs are called for, and a teaspoonful of corn starch is equal to one egg.

You can make a delicious breakfast food by washing some wheat and then drying and browning in the oven until it becomes crisp, then grind in a coffee mill. When cooked it makes an excellent dish, eaten either warm or cold with sugar and cream.

When making your cake, take only half as much butter as the recipe calls for and finish with lard, and you will not only save butter but your cake will be softer, lighter and of finer grain.

A coal bucket that had become worn enough to sift coal dust over the floor was repaired by fitting in a new bottom of heavy cloth and then the whole was given a coat of new paint.

A nice, large and warm comfort was made at a cost of only a few cents. The best part of some old gingham, percale and calico dresses were colored a dark shade of blue with Diamond dye for cotton, then enough of these pieces were sewed together to make both sides of the comfort, and instead of cotton batting the interlining was made entirely of old and new soft scraps of goods, and these were put in the comfort, then tied with odds and ends of san-silk and silk twist. Another good comfort was made without any expense by piecing together the best parts of some old-cloth coats and pants for the top covers, and the underlining was made of old cotton pieces colored a dark brown, and a very light lining of the old soft pieces made this comfort heavy enough, as the woolen cover was so much heavier than a cotton one.—Martha.

A POPULAR PREMIUM.

A Pair of Aluminum Salt and Pepper Shakers.

The Universal Magazine ought to be known to all our readers, for the reason that it is a nice publication that is very good company on a farm.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the Universal Magazine is that it is not loaded down with advertisements.

When we send out the Universal Magazine we also like to send out a useful and meritorious subscription premium with it.

To this end we have adopted a pair of Aluminum Salt and Pepper

Universal Salt and Pepper Shakers—Reduced Size.

Shakers, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents we will send the Universal Magazine for ten months, and we will send the pair of Universal Aluminum Salt and Pepper Shakers as a premium, postage paid, safe delivery and satisfaction guaranteed.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find Twenty-five (25) Cents to pay for ten-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a subscription premium, post free, safe delivery guaranteed, one pair of Universal Salt and Pepper Shakers.

Name.. .....

Address..... .....

Adult miners in the sulphur mines of Sicily receive about 60 cents a day. About 30,000 persons are employed in the industry.

This Beautiful 20 Year Watch $3.75

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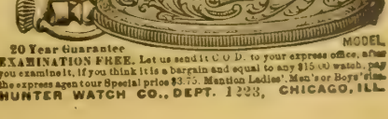

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THE HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS FOR THE YEAR 1913.

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"We are the people and our voices must and shall be heard." What we need is Knowledge, so that our voices shall speak wisdom and we shall not stand back for fear of exposing our ignorance. The wisest men read the most books. They know many things, but their greatest ability is shown when they prove what they know by the evidence as accumulated in books.

Wise men also compile books. When ten men who are specialists in certain lines of knowledge are employed for over a year in collecting the evidence in order to publish a single book the result is diamonds of fact and information.

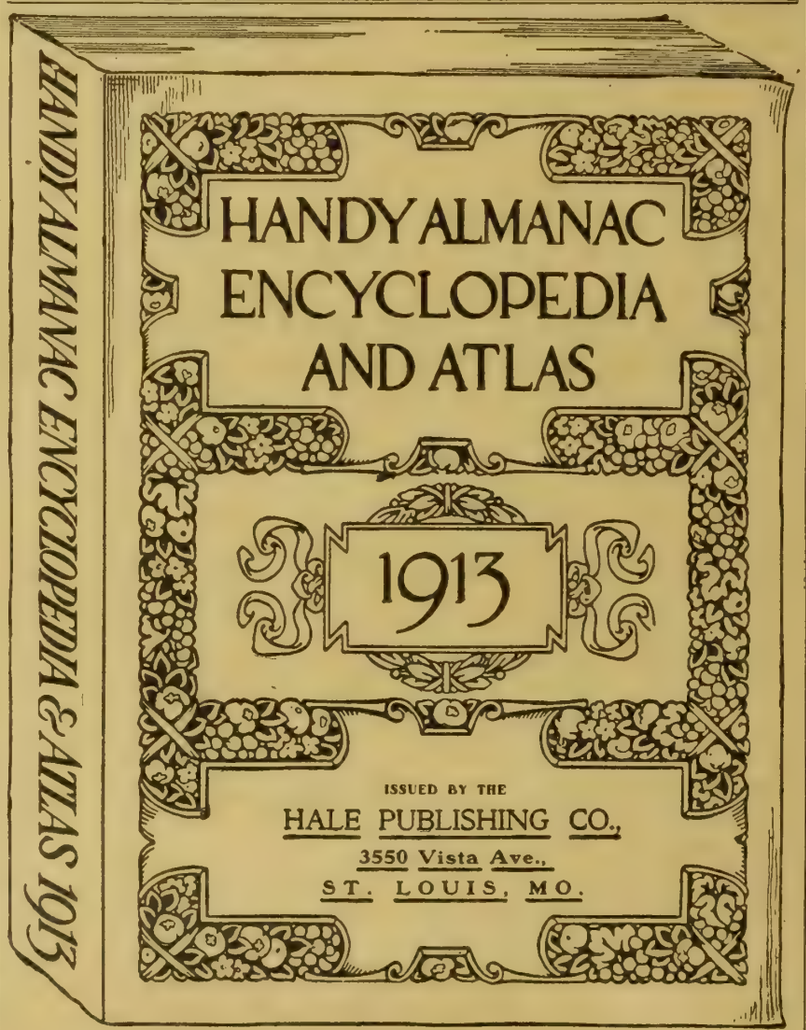
THE HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS is the product of many capable men, and yet so large is the edition that the cost has been reduced to a minimum, and although the first copy may have cost ten thousand dollars, yet a million edition will reduce the cost of a single copy so low that we are able to present it to our readers who pay only fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, and we can also afford to pay the postage without raising the price. The book and package will weigh sixteen ounces, and the postage on each copy will be eight cents.

WHAT ARE THE CONTENTS?

There are 150 to 175 subjects in the index. Some occupy a half page, others a full page, and others several pages. Some of the contents are:

Astronomical Calculations For 1913—Eclipses in 1913—How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains in the World—Governments of the World—Sports—World's Records—Important Dates in American History—Rules For Spelling and Punctuation—Household Hints—Cooking Time Table—First Aid to the Injured—Postal Banks—Parcels Post Mail—New Pension Law—New Eight-hour Law—Highest Structures in the World—World's Crops—Olympic Records—Aeroplane Records—United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—Migration of Weeds and Vegetables—Methods of Control of Moisture—Methods of Improving Seed—Diseases in Plants—Renovation of Worn-out Soils—How to Know a Good Horse—Suggestions For Farm Buildings—The Panama Canal—The Panama Exposition—Maps of the World.

Last in the list our space will permit us to mention will be the election returns for the Presidency and other important offices. The book will not be delivered until the returns are all in, which will be most likely early in December and in ample time to start with the Almanac of the new year.



HANDY ALMANAC AND ENCYCLOPEDIA—HALF SIZE OF BOOK.

HOW ABOUT THE PAPER?

Except that this edition contains a pretty large advertisement of THE HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS FOR 1913, it is a fair example of THE NATIONAL FARMER AND STOCK GROWER.

THE NATIONAL FARMER AND STOCK GROWER is not the only farm paper in the United States, but it is certainly one of the best, and has been continually engaged in advocating farmers' interests. THE NATIONAL FARMER AND STOCK GROWER was the only paper to buy and distribute seed corn and oats grown by champion corn growers, among general farmers, enabling many thousands of farmers to grow seed corn for their own use.

THE NATIONAL FARMER AND STOCK GROWER for several years offered prizes for corn and oats at every State, National and International Fair in the United States.

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The entire life of THE NATIONAL FARMER AND STOCK GROWER has been passed in doing good in a practical, tangible way without assistance from anyone but its own patrons.

Briefly stated, THE NATIONAL FARMER AND STOCK GROWER, issued monthly at St. Louis, Mo., is a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general grain-growing farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains good poultry facts and market information. There are thirty-two pages, four columns to the page.

A SUBSCRIPTION PROPOSITION.

Anyone who pays fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied. The book is a conditional supplement to the paper and must be sent separately at a different rate of postage. The proposition, therefore, is, that the book will be sent to those who select it as a premium.

ANOTHER PROPOSITION.

In clubs of three we will charge a dollar ($1.00) for three subscriptions and three books, thus allowing one to do the work of solicitation and the other two to put up the money. This is a liberal club offer, but we need the money and the subscriptions. We append the subscription blanks for one or three subscribers, as the case may be.

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National FARMER

Vol. XXVIII. St. Louis, Mo., December, 1912. No. 6.

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ENGLISH SHIRE HORSES—Photograph taken by R. F. Hildebrand, Union Stock Yards, Chicago, Ill. These Shire horses were exhibited by Trumans' Pioneer Stud Farm at the Illinois State Fair of 1912 and won the prize for the best five Shire stallions. Messrs. Truman hold their annual Shire mare sale at Trumans' Pioneer Stud Farm, Bushnell, Ill., December 12th, 1912, and will be glad to mail catalogues to those interested.

FIRST-PRIZE JACK AND FOUR JENNETS AT THE MISSOURI STATE FAIR OF 1912. Exhibited by L. M. Monsees & Sons, of Smithton, Pettis county, Mo. Photographed by Robert F. Hildebrand, Union Stock Yards, Chicago. During a visit to Mr. Monsees, he remarked: "There is no longer any question about the appearance of jacks and jennets on this farm; they are all very much alike." At the Missouri State Fair, where the photograph was taken, Messrs. Monsees & Sons won both championships and both group prizes.

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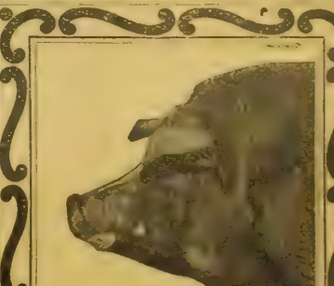

THE SEWAGE MENACE.

A Talk on Farm Sanitation and the Necessary Investigation of the Water Supply.

In the cities and in the country alike the problem of how to dispose of the sewage is becoming a serious one. In the old days, people simply accepted contagious diseases as a matter of course, and if the sewage connections were bad, they saw no connection between those bad conditions and the presence of diseases.

We know better now. Modern sanitation has lessened disease ravages by preventing the spread of disease germs. Several of our big cities had to go through terrible experiences before they could be brought to take measures to keep the sewage out of their drinking water. Chicago paid little attention to the matter till the cholera came and terrorized the community into constructing a water supply system that should give the people water uncontaminated with sewage.

Most of our cities are now awake on the subject, but our country homes are not. The ravages of typhoid in the country are now said to be more serious than in the cities. But the country homes are so far apart that what occurs in one is not taken to heart by the dwellers in other homes.

The contamination of the well water is the first cause of the spread of diseases, for more and more the wells are being contaminated by the privies and cesspools. This is due to the increase of population and the increasing number of transient guests entertained at farm houses. A single traveler who is about coming down with a disease or who is recovering from it may carry a disease into many localities.

An investigation of farm wells will show that a very large proportion of them are dangerously near barn yards and water closets. The writer has frequently observed the location of farm wells to determine whether or not they were likely to be contaminated. Some of them have been found within thirty feet of barn yards or of water closets, and in some cases both sources of contamination were present. Some farm wells are so badly contaminated that few people outside of the people accustomed to drink water from them can drink the water with any pleasure.

Much farm sewage of different kinds, from the houses and from the barns, flows into streams. This is a serious menace when ice is cut from such streams in the winter, or when fish are caught from such waters at any time of year. It has been found that in the case of oysters sewage contamination is a serious matter, and numerous epidemics of typhoid have doubtless been spread by means of the oysters produced at the mouths of rivers carrying sewage. It is also believed that fish in such waters become dangerous food. If that is so in salt water, it certainly is true in fresh water.

But on the farm the open sewage drain is perhaps the most serious menace, because in warm weather the flies feed on the sewage and become contaminated with the disease germs, which they subsequently carry on their legs to the dinner table of the farmer's family. The fly is bad enough when taken by himself, but when he is allied with bad sewage he is indeed a menace.

The Wheat Crop of 1912.

Total production for 1912 is estimated at 720,333,000 bushels, compared with 621,338,000 bushels last year, and the record crop of 748,460,000 bushels in 1901. Yield per acre, 16.0 bushels, compared with 12.5 bushels last year, and 14.0 bushels, the ten-year average. Average farm price, 83.8 cents per bushel, compared with 91.5 cents last year. Weight per measured bushel, 58.3 pounds, compared with 57.8 pounds last year, and 57.7 pounds, the ten-year average.

RURAL SURVEYS.

To Determine Real Conditions in Farming Communities.

A new kind of survey has now come into existence, and that is the rural survey. This is at least as important as soil surveys, mineral surveys, geological surveys and the other kinds of surveys with which people are quite familiar. Rural surveys are for the purpose of determining what are the real conditions of the people living in rural communities. In other words, to systematically do the work that is in line with the Farm Life Commission.

So far as we know, rural surveys have not yet been undertaken by the government. They are, up to the present time, private enterprises, undertaken with philanthropic objects in view. They help to diagnose economic conditions.

Among some of the things investigated are schools, churches, social opportunities, farm ownership and tenantry, and the conditions surrounding the hired hands. About every related problem is touched at some point.

Such surveys are sure to be of immense value to the communities in which they occur and will prove of some benefit to other localities in which they do not occur. Certain it is that we must come to deal with the economic questions of farm life as well as with the purely commercial questions.

It has been charged that farm life is responsible for many of the insane women in asylums. An investigation conducted along rural survey lines might show the truth or falsity of this assertion, and, if it be found to be true, might lead to the discovery of some remedial measure.

We cannot solve the problem of the farm by merely solving the problems connected with the growing of crops and the raising of farm animals. The greater problems lie above these, for the best culturist and the best husbandryman may offset his successes in these lines by failures in other lines.

The rural survey should include a moral survey, for without good morals no kind of farming can be a success. A while ago the writer was told of a young farmer who had inherited two farms and dissipated both of them by drink. What would have been the use of that farmer succeeding as a farmer if he must lose all the fruits of his labor through drink? So we see that the moral survey is a thing of very great importance.

All problems of rural life are, after all, one great problem having many manifestations. All the problems are so connected with each other that they are knit together into one articulate whole. There are as yet many problems that have not been touched on at all, but which will ultimately come into sight.

Rural surveys are an index of progress. They show the great unrest of the people, which unrest is always a sign of health and vigor. The troubled ocean purifies itself, but the stagnant pool remains polluted. American rural life is undergoing a process of purification to which there can be no check till the final goal is reached, if there be a final goal.

There can be no doubt that ultimately the government will take up this very important work. Most such movements have been started by private persons and have afterward been taken over by the government after the usefulness of such enterprises have been demonstrated.

SEE HIM FIRST!
Before the fertilizer salesman arrives, go to your dealer and explain to him that you will not buy 2 per cent. goods that contain only 40 pounds of Potash per ton. Show him that modern, profitable fertilizers contain from 5 to 10 per cent. Potash, and that the composition of crops and the effect of crops on soils require that the per cent. of Potash should be increased until it is as great as, or greater than, the per cent. of Phosphoric Acid in the fertilizer. It is this grade of goods that pays you and your dealer best. The quantity and quality of the crops are better and the actual plant food costs less per pound.
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Buckwheat Facts For 1912.

Buckwheat is of fine quality, but the crop of 1912 was not large. The United States Department of Agriculture estimates the crop at 19,124,000 bushels, compared with 17,549,000 bushels last year, and the record crop of 22,792,000 bushels in 1866. Yield per acre, 22.9 bushels, compared with 21.1 bushels last year, and 19.3 bushels, the ten-year average yield. Average farm price, 65.5 cents per bushel, compared with 73 cents last year. Quality, 100.9 per cent. of the ten-year average.

The Apple Crop of 1912.

The United States Department of Agriculture places the apple crop of 1912 at 69.9 per cent. of a full crop, compared with 62.4 per cent. of a full crop last year, and 51.3 per cent. the ten-year average. Quality, 83 per cent., compared with 78.2 per cent. last year and 72.1 per cent. in 1910.

THE BOOK OF LIVE STOCK CHAMPIONS.

Testimonial From an Old Friend.

Office of Kansas Farmer, the oldest farm paper west of the Missouri river—Live Stock Department, I. D. Graham, Editor—Topeka, Kas., September 3, 1912.

Mr. Philip H. Hale, St. Louis, Mo.: Dear Sir:—Will you please accept my thanks for the beautiful copy of Live Stock Champions which you sent me, and my congratulations on the excellence of the work by which you have brought it forth. This work is valuable to me and should be in the hands of every farmer and breeder who takes an interest in the improvement of domestic animals. It is impossible that breeders and farmers should see very large numbers of prize-winning animals, and this book serves to bring the best in the world before them for inspection and emulation. No man can attain results of quality without some object to be aimed at and with an ideal before him such as is shown in these photographs he has something to work for. It will afford me pleasure to mention this book in Kansas Farmer. Yours Truly,

(Signed) I. D. GRAHAM.

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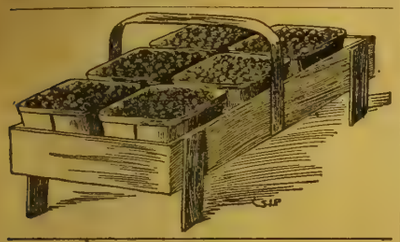

enable everybody to raise their own strawberries. It is fully illustrated; bound in flexible cloth; is 5x7 inches. The strawberry crop is equal to all the other small fruit crops combined. This little book contains that which a beginner should have to start on and an expert needs to rely on. We will send a copy of the Strawberry Culturist post free by mail and The National Farmer and Stock Grower for one year for fifty (50) cents. This is a splendid opportunity to get a good farm paper and a valuable book as a premium. An average crop of strawberries is 1,701 quarts to the acre. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

THE NATIONAL FARMER AND STOCK GROWER is in favor of the United States custom house collecting a reasonable range of customs duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

By the tariff policy we advocate fully one-half the money required for the support of the national government should be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed upon our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers.

More Wheat Exported.

It appears that the farmers of the United States are feeding the American population and that there is wheat to spare.

Wheat exports from the United States in 1912 will materially exceed those of recent years. The record of the ten months now available in the Statistical Division of the Bureau of Foreign and Domestic Commerce indicates that the wheat exports of the full year will exceed 100,000,000 bushels, against 83,000,000 bushels in 1911, and 62,000,000 bushels in 1910. The total for the ten months ended with October is 76,225,000 bushels, against 67,750,000 bushels in the corresponding months of last year. This increase occurred chiefly in the new crop, the September exports having been 17,000,000 bushels, against 10,750,000 bushels in September last year, and those of October, 20,000,000 bushels, against 8,750,000 bushels in October of last year, the total for the two months of September and October thus being 37,000,000 bushels, against 19,500,000 bushels in the same months of 1911. In noting these figures farmers should remember that increased exports are a consequence of lower prices. If the crop is abundant and prices are low, the foreign demand is a valuable item towards using up the surplus.

The Book of Champions.

"Philip H. Hale, editor of The National Farmer and Stock Grower, in St. Louis, has just published a picture book of 'Live Stock Champions,' which is full of interest to horsemen. It contains 720 indexed portraits of noted animals, among which are scores of thoroughbreds, trotters, Hackneys and draught horses. Schreiber's photographs of Rysdick's Hambletonian, Ethan Allen, George Wilkes and other old-time trotters make thee book of lasting value to votaries of harness racing."—New York Herald. See page 15.

Ham For Each Visitor.

Each visitor who attends Missouri Farmers' Week at Columbia, January 13-17 will be presented with a ham. Just what kind of a ham this is it doesn't matter. If you get one of the badges you will say that it is about the neatest souvenir you ever saw. The object of this badge is to further exploit Missouri hams and bacon, on which $100 in premiums will be awarded during Farmers' Week.

Missouri Cattle at Chicago.

On November 14th, at Chicago, Col. J. T. Johnson, a prominent auctioneer and experienced cattle feeder of Mexico, Mo., was on the market with five loads of Shorthorn cattle, seventeen head, good enough to sell for $11 per 100 pounds, averaging 1,578 pounds, with sixty-one head, 1,434 pounds, at $10.75 per 100 pounds.

Pork raising in the Ozarks. See page 11.

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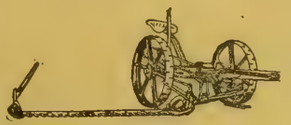

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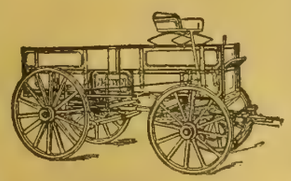

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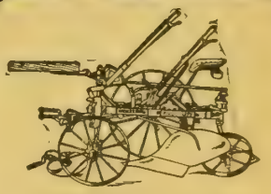

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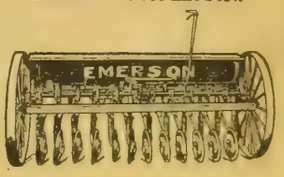

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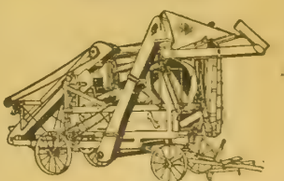

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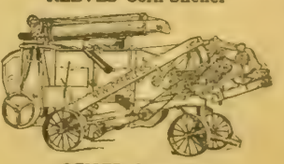

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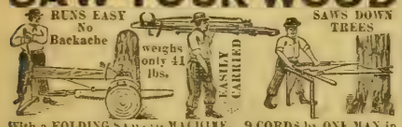

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VALUE OF GOOD ROADS.

Difference Between Hauling on Good and Poor Road Surfaces.

A busy growing nation such as ours certainly requires internal improvements to keep pace with our prosperity. Our prosperity is measured by industrial activities, and such activities are scattered in all parts of our great commonwealth.

There are several essentials to promote this growth, and one of the chief ones is that of good roads or highways.

Investigations have shown that the average horse can exert at a walking pace a traction pull of about one-eighth to one-tenth his weight. Assuming this to be about the correct value, what effect will the kind of road have upon the load the horse is able to pull?

On an asphalt pavement it requires thirty to seventy pounds' pull to move one ton; on a sand road, 100 to 200 pounds' pull to move the same load. We might conclude that the limits are 30 to 250 pounds for the best to the poorest surface. This one horse, say of 1,500 pounds weight, could draw a load of five tons on the smooth asphalt pavement and only 1,200 pounds on the soft sand road. These figures are only approximately correct, since they are average values, but sufficiently close to give us some idea of the relative value of good and poor road surfaces.

Before any district or state can fully realize the value of good roads, special action on its part must be necessary. This action must embrace three things: A non-political organization, whose purpose is to provide good roads; a practical and economical construction; and maintenance.

There should be one or more good business men on the Board of Control; a lawyer of some years' experience should be a member, and there should be represented on the Board of Control an engineer who knows his business. The engineer should also be chief engineer of the construction, with as many assistants as necessary to carry on the work of road building. Some states of our commonwealth have made the state engineer the chief engineer of a Road Commission, whose personnel is composed of business men, lawyers and engineers, who receive no salary and are appointed by the Governor of the state for a definite period of time.

There are several methods of organization and only experience will eliminate the undesirable elements, leaving the good. What might be successful in one part of the country may be unsuccessful in another.—Ralph Parshall, Colorado Agricultural College, Fort Collins, Colo.

WHEAT MARKET SITUATION.

Casual Remarks on the Wheat Trade at the Close of November Trading.

Any man who devotes his life to keeping track of the conditions which affect the grain markets from day to day, from week to week, from year to year, has plenty to do, and he has very little time for anything else. For any farmer to attempt to do so is undertaking too much. He can make a short cut to acquiring information by taking, as we do, the principal facts and items once a month, and by making a table of them from the figures published, and he can build up a goodly store of facts that will become historical data that nobody can deny, because he becomes the witness as to their correctness and the best judge of their value.

We have learned by experience to derive much good and valuable information from the reports emanating from the different Boards of Trade. Many people have something in the nature of a fit directly anyone speaks of the Chicago Board of Trade; but we have got over that. When we wish to know the present price of wheat, the past history of wheat and the future prospects for wheat, we do not turn aside from the only source of information.

Furthermore, there is always a seller as well as a buyer in every transaction, and the farmer has just as many friends on the Board of Trade as the miller or the exporter. There is just as much work done on the Board of Trade to sustain prices as there is to depress them. Every man having grain to sell is trying to sustain and advance the market, and every man wishing to buy grain is interested in depressing ad lowering the market. Each section is absolutely essential to good business methods, and the transactions called futures are just as necessary for international trade as a butcher knife is necessary to cut meat on the block. Grain is bought for immediate delivery, and that is called cash grain. Grain is bought and sold under contract for future delivery, and that is called "futures," and provides in the safest way possible for supplies in the future to fill foreign contracts or domestic requirements.

We left wheat selling very moderately in price. At St. Louis cash wheat was selling at $1.04 to $1.07 a bushel. That was on October 31st. Then the quotation at Chicago for the December option was 91¼ cents a bushel. The quotation for May, 1913, delivery was 96½ cents, and the July wheat option was quoted at 92⅝ cents a bushel.

Although prices were very reasonable from a farmer's standpoint, the prices have not been sustained, except in one instance. On November 30th, at St. Louis, No. 2 red wheat, cash grain, sold at $1.05 to $1.07½. That is because soft red wheat is scarce and sellers keep it well in hand. The hard winter cash wheat at St. Louis at the same time was selling at 86½ to 90 cents a bushel.

But turning to the general trade as represented by Chicago trading, the December option, which was quoted on October 31st at 91¼ cents, was reduced by November 30th down to 84¼ cents.

The May, 1913, option, which was quoted at 96½ cents on October 31st, was reduced to 90¼ cents by November 30th.

The July, 1913, option, which was quoted at 92⅝ cents on October 31st, was reduced by November 30th to 88¼ cents per bushel.

Farmers who review these figures may imagine that their interests are not looked after; but, as I said before, there are just as many people working to keep prices up as there are people to force prices down, and the only influence that could possibly make a difference would be for farmers to hold the grain on hand until prices advanced to a higher basis.

Wheat is difficult to hold. It is raised to be sold in reasonable time and not raised to be fed on the farm to any great extent.

North Carolina Prison Cotton.

The state prison of North Carolina has a farm and made nearly a bale of cotton to the acre. Recently 838 bales were sold by the trustees at 12½ cents a pound.

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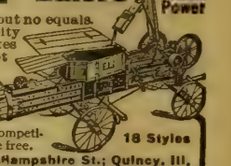

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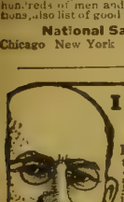

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THE OATS MARKET SITUATION.

Remarks by the Editor on His Favorite Cereal.

Notwithstanding the oats crop of the year 1912 surpasses all previous records, the oats market was sustained better than the market for wheat or corn during the month of November. It seems natural to say that oats were low enough already, but that cuts but little figure, for markets are governed by influences that are uncontrollable. While in the end markets may be controlled by the law of supply and demand, there is no proof that the market is ever under the influence of common sense.

On October 31st the cash oats at St. Louis were selling at 32½ to 33 cents a bushel, and on November 30th we find the quotation to be 33 cents. That is not so bad, considering the tumble other grains have had in market.

On October 31st, the December option, Chicago basis, was quoted at 32 cents, just exactly one cent a pound for oats. The May quotation of 1913 was 33⅞ cenas, and the July, 1913, quotation was 33⅝ cents.

On November 30th, on the Chicago market, the December quotation closed at 30⅞ cents a bushel; the May, 1913, quotation at 32⅝ cents; and the July, 1913, quotation at 32¾ cents.

Oats do not move so rapidly as they might do, but farmers can hold prices where they are, at least, and advance them by being in no hurry to dispose of their oats. Keep them away from the greater markets, feed oats, sell to neighbor all the oats he can use legitimately, sell to livery stables, to all forms of consuming agencies, but hold oats back from the Chicago market, and that is the way to obtain an advance in price, for, sooner or later, oats will sell higher.

CORN MARKET SITUATION.

Basis of Trade on the Closing Day of the Month of November.

The farmer who is a cattle feeder is probably the greatest buyer of corn, and when he thinks corn is cheap enough to feed cattle with, then corn is at the lower level. We cannot have an immense corn crop and high prices for corn at the same time, and the farmer who cannot feed his crop to his own stock has always found that out. The price of corn has taken a tumble, and is lower now than it has been for several years.

On October 31st, cash corn at St. Louis was selling at 63½ to 64¼ cents a bushel, and now, on November 30th, we find that cash corn sold to-day at 46½ cents a bushel, the difference being a loss of 18 cents a bushel in the month of thirty days.

On October 31st the December option at Chicago was quoted at 52⅛ cents; the May, 1913, option was quoted at 52 cents; and the July 31st, 1913, option was quoted at 52¼ cents.

Here we are at the close of business on November 30th, with the December option closing at 47⅞ cents a bushel. The May, 1913, option is quoted at 43⅜ cents a bushel, and the July, 1913, option is quoted at 49¼ cents a bushel.

There is very little more to be said about corn prices and prospects than the record shows. There is a record crop and it will require time to absorb it. It is not a hopeless case, by any means. "What is one man's meat is another's poison," and the low-priced corn is good for the cattle feeder, the hog feeder and the sheep feeder and more especially the horse feeder. There is still room for the farmer to market his crop of corn on foot.

Homesteads in Egypt.

It would appear that Egypt is not badly governed under British rule.

Lord Kitchener laid the foundation stone of an agricultural school in the Egyptian Delta on November 6 and initiated a scheme for the distribution of land which has become available for cultivation through drainage. As an experiment 610 feddans (or acres) were distributed in five-feddan lots to the landless fellaheen (peasants), the idea being to help the poor fellaheens and at the same time to increase the number of small landholders and to create family homesteads. During the first three years, when they must do work of reclamation, the fellaheen will receive the land practically free, and in the following ten years they will pay a moderate rental, after which the holdings become theirs for life. Afterwards the land descends in the families if the government approves. Alienation is forbidden, except with the consent of the state.

Are Fertilizers Stimulants?

Phosphate or superphosphate was the first artificial manure produced. It was originated by the great chemist Liebig more than fifty years ago, and it was produced by dissolving bone, which is principally phosphate of lime, in sulphuric acid; hence it took the name superphosphate, and from that time phosphate or superphosphate has been a general name or term for all commercial manures, and even to this day, with some people all fertilizers are phosphates. It should be borne in mind, however, that phosphates are chiefly phosphoric acid with some ammonia added, and latterly with some potash, and are chiefly useful as "starters" and as supplements to stable manure.

It is sometimes said that phosphates are stimulants, but there is no stimulant known to plants in the same sense that whiskey is a stimulant for man. Complete fertilizers, whether special, general or phosphatic, produce an early, vigorous growth, because if properly made they are soluble and easily assimilated and quickly absorbed by growing plants. Milk is not a stimulant, but is the food of all young animals, easily and quickly assimilated. For the same reason properly-prepared fertilizers, and especially well-digested phosphates, are the food of young growing plants, because they are ready to nourish while the plant is young and before the soil is warmed up to its greatest energy.

Cash Grain at St. Louis.

Basis of trade market of November 30th, 1912: No. 2 red wheat, $1.05 to $1.07½; No. 3 red, 99c. to $1.03; No. 4 red, 85 to 96c.; No. 2 hard, 86½ to 90c.; No. 3 hard, 86 to 88c.; No. 4 hard, 84c.

No. 2 corn, 46 to 46½c.; No. 3 corn, 45 to 45½c.; No. 4 corn, 43½ to 44c.; No. 2 yellow, 46 to 47¼c.; No. 3 yellow, 46c.; No. 4 yellow, 43½c.; No. 2 white, 47 to 47½c.; No. 3 white, 47c.

No. oats, 32 to 33c.; No. 3 oats, 31½ to 32c.; No. 4 oats, 31c.; No. 2 white, 35c.; standard, 35c.; No. 3 white, 33½c.; No. 4 white, 32c.; No. Rye, 60c.

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As to Cattle Supply.

Towards the end of the month of November the Daily Live Stock World, published at the Union Stock Yards, said:

"So far this year cattle receipts at the six principal Western markets are about 675,000 less than during the period of 1911. When weight is reckoned with the shrinkage in supply volume is even greater.

In reckoning with statistics this year considerable double counting must not be ignored. Forwarding is always an incident to speculation, and that has been rife.

All through the season ubiquitous gatherers have been running a drag-net through the country. Trash has sold relatively high and prices have exerted a magnetic influence in drawing it to market. The cattle run of 1912 has been short of age, weight and quality. It has carried the bovine dregs of the country.

The figures are as encouraging to the grower as they are calculated to dampen the spirits of the manufacturer and consumer."

At St. Louis, during the last week in Novemebr, potatoes were selling as follows: Wisconsin Rural at 50 to 52c.; Minnesota white stock at 50 to 53c.; Red River Early Ohio at 45 to 50c.; Iowa Rural at 37 to 41c.

CONCRETE CORNER AND GATE-POSTS.

Method of Making One-piece Post With Braces.

Nothing gives more trouble and injures the appearance of property so greatly as sagging gates and fences caused by rotten gate and corner-posts. Property owners are rapidly getting rid of this nuisance by making such posts of concrete.

The concrete post shown below is a home-made article according to the owner's plan. It has been in service five years and is easily good for ninety-five more. The post and braces were molded in position and as one piece. The post proper is 10 inches square and the braces 6 inches. They extend 3½ feet into the ground and end in a bulb of concrete.

Forms For Post and Braces.

For the post mold proper, two-inch lumber makes a stiff form. Cut two boards 2x10-inch and two 2x14-inch, all 7 feet 6 inches long. (For the 2x10, a 2x4 and a 2x6-inch piece may be substituted; likewise for the 2x14-inch, a 2x6 and a 2x8-inch piece may be used.) The 2x10-inch pieces are nailed to the three sets of 2x4-inch cleats as shown in the drawing. Holes are bored in the cleats so that the ⅝-inch bolts 18 inches long, running across the forms from cleat to cleat, will rest against the 2x14-inch boards and hold the box-like form in shape. One-inch triangular-shaped strips tacked in the corners of the form will bevel the sharp edges and produce a neater-appearing post.

Each form for the braces consists of two side pieces 1x6 inches, and one bottom piece, 1x8 inches, all 10 feet long. Nail the pieces together in the form of a trough six inches deep. To make the bevel joint with the post form, lay off 3½ inches on the lower edge of the side pieces at one end and saw off the trough to the bevel. In the side pieces of the post mold, eight inches from the top, cut an opening extending downward seven inches deep and eight inches wide to receive the molds for the braces.

Mixing the Concrete and Molding the Post.

With the forms ready and all of the material on hand, dig the hole 3½ feet deep for the post proper. At distances of 9 feet 6 inches from the center of the finished post dig another hole 3½ feet deep for the concrete bulb in which the brace will end. One foot above the bottom of this hole, open a trench eight inches wide, sloping upward towards the corner post, to a point within seven feet of the center of it.

Mix the concrete, one bag of Portland cement to two cubic feet of sand to four cubic feet of crushed rock, or one bag of cement to four cubic feet of good pit gravel. Make the concrete mushy wet and fill the holes to the depth of one foot. Set the mold for the post in position and slide the troughs for the braces into the openings, with the upper ends even with the inside of the post form. Fasten them securely and chink the cracks with old rags. Brace all forms firmly. Down the post form, two inches from each corner, set a ⅜-inch rod 10 feet long with the upper end bent backward. Fill the post form with concrete to the openings of the braces. Place one inch of concrete in the troughs for the braces and lay upon it, one inch from each side, two ⅜-inch rods with their upper ends extending into the post mold. Put in four inches more of concrete, place two more rods in a similar manner and then another inch of concrete. Work rapidly and without delay finish filling the post form with concrete. After the concrete has stiffened, level the top edges of the post and the upper edges of the brace with a trowel.

For each post with two braces, there will be required four bags of Portland cement, eight cubic feet of sand, sixteen cubic feet of crushed rock (or four bags of cement and sixteen cubic feet of bank-run gravel), and twelve pieces of ⅜-inch rods ten feet long. These materials will cost about $2.50.

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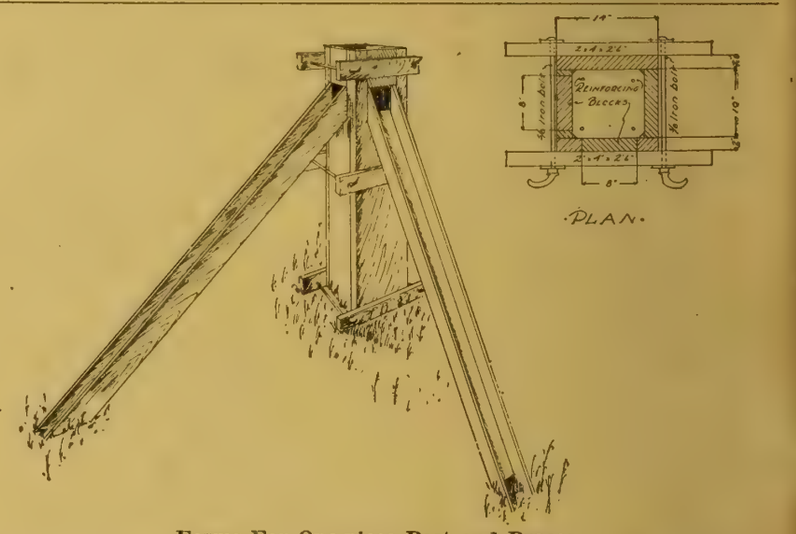
Curing the Post and Stringing the Fencing.

See that the post is fenced off so that animals cannot disturb it before the concrete has acquired its strength. After seven days the forms may be carefully removed. Do not use the post until it is thirty days old. Many persons make corner-posts in the fall, before freezing weather, and do not place the fencing on them until the next spring. The wire fencing may be pulled around the post, as shown, or ratchet fasteners may be attached by making holes through the post by means of small gaspipe set through holes in the form or by means of greased rods turned frequently while the cement is setting.

The same form is adaptable to brace-posts in the fence line or to gate-posts. Hinges and fasteners for gates can be secured in the manner described above for ratchet wire-tighteners. For entrance ways, very attractive ornamental posts can be made in the same general method.



Forms For One-piece Post and Braces.

Home-made Concrete Corner Post.

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912—True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

This is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in the Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, mother of champions, or winner in the prize ring.

The Book of Live Stock Champions is receiving the highest praise from the live stock breeders' associations and from officials of the Department of Agriculture. It is being adopted as a text book at high schools and colleges. Active, up-to-date stockmen having an interest in their business and a desire to do their share towards live stock improvement are subscribing for the Book of Champions themselves and recommending others to do so.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special inducements to paid-in-advance subscribers, to old friends and patrons. We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title. This is an extraordinary offer.

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Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Book of Live Stock Champions, cloth-bound edition of 1912.

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Time Savers.

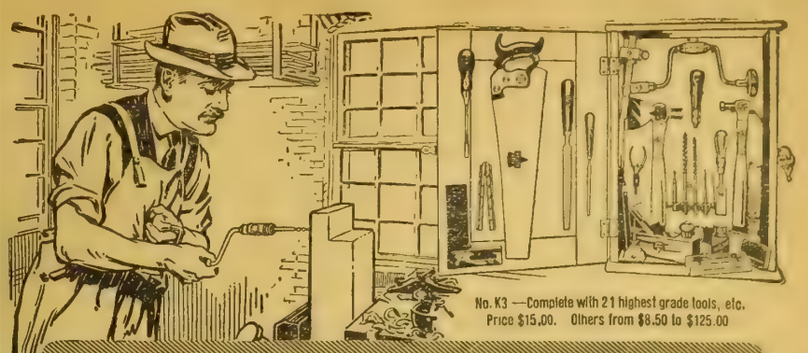
Man has learned that time is money, even on the farm. But in many instances, while the mowing machine, reaper and manure spreader have come to be necessities, the little helps in the kitchen are postponed until money is more plenty. The one whose work does not end with the setting of the sun or with the eventide meal, who patches and contrives while her "better half" is lost in dreams, dares not think of the little helps which would save time enough to her that she, too, might get the normal amount of sleep, or have a bit of leisure of her very own.

There is the food chopper. There are numerous calls for it when it is readily available. Instead of chopping her potatoes and the meat leftovers for the morning meal with an improvised tool made from an old baking-powder can, she runs them through the chopper and the work is done in very much less time. If she has a few crusts of dry bread, these are passed through the same mill, and added with improvement. The horseradish roots over which she nearly cried her eyes out in grating are done with the chopper, and there are no uneven pieces. If she cannot have peanut butter for variety in the school sandwich, she can have hickory-nut butter by the same process, or, but using a coarser cutting plate, she can have chopped nuts and raisins for cake in a minute's time. The bits of cheese which once were only waste, dry and hard, are the basis of a most delicious sandwich filling when passed through the chopper. The steak which was so tough that no one could eat it is ground in the same machine and becomes a most delicious Hamburg. Every one suggests another, and the woman who thinks soon finds that the price of the chopper is saved in the material which it works over, to say nothing of the time that should go to its credit.

The roaster is another utensil which costs comparatively little and yet for which many strive to use a makeshift substitute just because it is not used every day. Accidentally burn one good-sized roast by trying to cook it in the oven with only a shallow spider, and you have wasted the price of a small-sized roaster. The juices of the meat are much more fully retained through the tight-fitting cover, and the cooking is effected more thoroughly and with much less danger of burning.

But there are variations in its use. When you have a small piece of round steak, make a good stuffing of bread crumbs, with chestnuts added if you have them; season well with salt, pepper, butter or suet and parsley; roll in the slice of steak and fasten with skewers or stitches and place in the roaster with a little water. When half done, fill around the edges with pared potatoes. Bake until both meat and vegetables are done. When removing the potatoes, wrap each in a clean cloth and squeeze to burst the skin. This will let the steam escape and prevent sogginess. Remove the meat and add water for gravy, thickening with a little flour and water. Green corn and potatoes are excellent boiled in the roaster, and when the top of the stove happens to be crowded, as on wash day, this a convenient way to dispose of them.

Go through a five and ten-cent store and you will find an abundance of little things which are great conveniences. The kettle drainer may save burnt fingers. The granite stewpan is light, heats quickly and is easily cleaned. The toy washboard is fine for keeping dish towels in order. The potato ricer and fruit press quickly turn out choice products. The glass lemon squeezer and porcelain rolling-pin have sanitary advantages which are patent. A dollar judiciously invested will make your kitchen a new place, and the work of preparing a meal greatly lessened, while in some instances the results will be much more satisfactory than it is possible to do in the old way.—Bessie L. Putnam.



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No Scarcity of Flour.

All records for flour production were broken by the Minneapolis mills during the week ending November 4, according to the Northwestern Miller. The output totaled 457,065 barrels, which was a gain of 26,445 barrels over that of the preceding week and compared with 340,385 barrels for the corresponding week last year.

Louisiana to Oklahoma.

Several years ago, when for a time beef cattle appeared to be selling high, the Southern States did not have a large number of cattle on feed; but there were many calves, yearlings and two-year-old cattle that were just tolerable stockers. The same situation now exists, and the cattle graziers of Oklahoma, who are long on pasturage and feed and short of cattle, are ranging through the country buying all the stock cattle they can get at prices that do not look to be ruinous. The Miller Bros., of the 101 Ranch in Oklahoma, are buying in Louisiana and obtained 5,000 cattle in ninety days. It seems strange that the state of Louisiana should be shipping stock cattle to Oklahoma to be fed, and the more natural movement would be the other way.

To Reduce the Duties.

Immediately after the new administration is installed an extra session of Congress will be called. The principal purpose will be to reduce the customs duties on manufactured goods and take off the duties that are now imposed upon foreign farm products. The farmers who object to the programme had best get a move on themselves. Farmers in each congressional district will have to get after their Congressmen. That is the only way to prevent the farmers from getting another touch of free trade.

Cotton in the East Indies.

India's area in cotton on October 1, according to the second general memorandum of the Commercial Intelligence Office, was 18,464,000 acres, as against 17,362,000 acres at the same date last year, an increase of six per cent.

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A NEW SECRETARY OF AGRICULTURE.

Endorsement by The National Farmer and Stock Grower of Prof. Henry J. Waters.

The change in the administration of the federal government calls for the retirement of all cabinet officials, including the Secretary of Agriculture, and within the next few months a new Secretary will be appointed.

We have noticed the name of Prof. Henry Jackson Waters as being mentioned for the position, and we hope that all the friends and patrons of The National Farmer and Stock Grower will give him their endorsement as freely and as positively as we endorse him for the position.

We do not know if he desires to obtain the office, neither do we know how far he will be acceptable to the political party in power; but we know the man, his power, strength of character, his energy and his ability, and his superior qualifications for such a position, and we hope he will be tendered the appointment.

Prof. H. J. Waters is now President of the Kansas Agricultural College. He graduated at the Missouri University in 1886; he was appointed Assistant Secretary to the State Board of Agriculture. He resigned that office after two years to accept the Agricultural Professorship of Pennsylvania State College. He returned to Missouri in 1903 as Director of the state's agricultural exhibit at the St. Louis Fair. Missouri University then made him Dean of the College of Agriculture. The Presidency of the Kansas institution was accepted by him in 1909.

Prof. Waters is fitted for the post by experience and qualification. He is successful in all his works. He is a practical teacher, looking at farmers' problems from their standpoint, entering into the spirit of their necessities and limitations. He is in the prime of life, of mental and physical activities. The office needs such a man; the farmers need such a man, and we hope for the benefit of the farming industry that Prof. Waters will be our next Secretary of Agriculture.

A Christmas Present.

One of the subscribers to THE NATIONAL FARMER AND STOCK GROWER who paid his subscription also sent a second dollar to obtain a subscription for a friend to make him a CHRISTMAS PRESENT of the BOOK OF LIVE STOCK CHAMPIONS. No better or cheaper present can be imagined. The friend obtains a beautiful, cloth-bound book true blue in color of binding and containing seven hundred and fifty half-tone pictures, each picture an original engraving true to life and representing the most famous champions in live stock history. It will make an acceptable present on any farm that is inhabited by progressive people. See advertisement on page 7.

CONCERNING FARM LOANS.

No Complicated System of Finance Necessary to Insure Farmers Getting Loans at a Fair Rate of Interest.

Farm lands are in all probability the best security in the world, and there is no reason why farmers should not be able to borrow all the money the security will stand and at a low rate of interest.

The National Farmer and Stock Grower ventilated this subject thoroughly several years ago and brought the matter to the attention of the Secretary of Agriculture by a petition addressed to him, and through him to the President of the United States.

Since that time Postal Savings Banks have been instituted and in time large amounts of money will be deposited therein and bear but a small rate of interest. Many people having ready money for emergencies prefer to loan it to the government at low rates of interest rather than run the risk of depositing money in local banks.

At the time the Postal Savings Banks were instituted it was understood that it would be the policy of the government to loan the money out again through safe banks for the purpose of encouraging industries. It appears to us that if the deposits in Postal Savings Banks are to be loaned out again for the encouragement of industries, that there is no industry better entitled to the use of the money than the farming industry.

The government can loan the amount of Postal Savings Bank deposits to country banks that will in turn loan the money out to farmers at a fair rate of interest. The difference between the rate of interest paid by the government and rate charged to farmers could be a a subject of agreement. The banker would have to assume the responsibility for the transaction to make sure that the security was good and sufficient to insure the safety of the loan, and all the government would have to do would be to loan the money to banks with the understanding that it was going out in the shape of well-secured farm loans.

There is absolutely no occasion for the institution of any new system of banking in order to enable farmers to borrow money, providing they put up the same value in securities that is expected of other business people. The farmers themselves can furnish the money for the purpose. Many farmers are depositing money in the Postal Savings Banks, and they also would very much rather be safe depositing with the government than receive a high rate of interest from a State or National Bank. Other farmers wish to borrow money, provided they can get it at a fair rate of interest, and they ought to be able to obtain from a State or the National Bank the Postal Bank deposit money, thereby finding a lucrative outlet for it.

The Parcels Post.

Regulations for operation of the parcels post system by the Postoffice Department have been made public. The lowest rate is five cents a pound and the highest rate is twelve cents a pound.

Under the regulations as drawn, farm products will be admitted to the parcels post under the general limitations as to size and weight, excepting seeds, cuttings, bulbs, roots, scions and plants. These will be permitted in the parcels post mails under regulations as to size and weight applicable to other parcels post packages, but at the rate of postage of one cent for two ounces or fraction thereof, regardless of distance.

Books, circulars and all printed matter classified as third class will not be permitted in the parcels post mails but will have to pay a higher rate—one cent for two ounces or fraction thereof.

A parcel not more than three feet six inches in length may measure as much as two feet six inches in girth, or around the thickest part. A shorter parcel may be thicker. Thus, if it measures no more than three feet in length, it may measure as much as three feet in girth, or around the thickest part. Measurements will be made by means of a six-foot tape-line furnished the Postmasters by the Department.

The Boys' Magazine.

It is not to be expected that the boy will say that the Boys' Magazine is the most valuable publication in the world for practical and instructive departments until he gets it. He will not be able to say that he derived pleasure and profit from reading it more than he expected until he has a chance to do so. There is an offer in behalf of the Boys' Magazine on page 31, and it worth looking over.

GOOD BOOKS AND PAPERS.

HOLLAND'S MAGAZINE, issued monthly at Dallas, Texas, is a first-class publication, and the price is $1.00 per year, payable in advance. There is splendid reading in **HOLLAND'S MAGAZINE,** specially prepared and edited, with elegant illustrations. In many homes, where several magazines are subscribed for, **HOLLAND'S MAGAZINE** is first looked for as the best of them all. The articles and stories have the true ring to them, and part of the satisfaction the readers derive is in the feeling that they become better men and women from having read the magazine. We commend the publication to our readers.

EMERSON-BRANTINGHAM IMPLEMENT CO. CATALOGUE.—Write for free copy to Emerson-Brantingham Co, 85 Iron street, Rockford, Ill. This is an instructive catalogue, including the largest line of farm machinery in the world, all shown to the minutest details by illustrations. It includes plows, harrows, pulverizers, listers, spreaders, planters, drills, cultivators, mowers, hay tools, baling presses, corn shellers, gas engines, farm tractors, steam traction engines, threshing machines, road rollers, wagons and vehicles.

THE UNIVERSAL MAGAZINE.—This is a monthly publication, issued at the small price of 25 cents a year, or 50 cents for three years. The **UNIVERSAL MAGAZINE** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. Will be glad to send a free sample copy. Address, The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

FARMERS OF FORTY CENTURIES.—This is a book for students of agriculture, whether they are at the college or on their own farms. Professor King has written of the farming in China, Corea and Japan, after making a thorough study of conditions and methods. The book is intensely interesting, because of the splendid illustrations, and because of our future necessity to use and husband our resources at the same time. It is a handsomely bound book of 440 pages. The price of the book is $2.50, postpaid, and it can be had of Prof. F. H. King, 1540 University Ave., Madison, Wis.

CROPS AND METHODS FOR SOIL IMPROVEMENT.—Published by the Macmillan Company, 66 Fifth Avenue, New York City, at $1.50 per copy, net. This book is by Prof. Alva Agee, head of the Department of Agricultural Extension and Dean and Director of the Pennsylvania Agricultural College. It is divided into thirty-three chapters, each being divided into subjects to support the main title. The entire field of agriculture is covered by the book, and it is a splendid work for advanced farmers to read carefully. There are 250 pages and twenty-five illustrations.

PROFITABLE FORMULAS FOR HOME MIXING OF FERTILIZER.—This is an educational pamphlet indicating contents of fertilizers for different crops. Write to German Kali Works, 42 Broadway, New York City, N. Y., and ask for copy. Such booklets, written by expert fertilizer authorities, do considerable towards making clear the road to crop improvement.

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CALIFORNIA HONEY, sample 10c. Leaflet free, quoting prices, freight prepaid. Agents wanted. **Spencer Apiaries Co., Box 181, Nordhoff, Cal.**

FREE PILLOWS with every order. Great proposition. Fine goods. Mail us $10 and we send you new 36-lb. feather bed and give you 6-lb. pair pillows **FREE.** New feathers. Best ticking. **Freight prepaid on all. Satisfaction guaranteed. Fine chance for agents. TURNER & CORNWELL, Dept. 73, Charlotte, N. C.** Reference, Commercial Nat. Bank.

Our New Dollar Spectacles are guaranteed to fit your eyes or money refunded. Send your age and $1, with 4c. postage. **FREDERICK & CO., Dept N. S. G., Toledo, Ohio.**

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ARKANSAS.—Fine lands for sale cheap in the healthy fruit and stock-raising lands of the Ozarks. Surrounded by first-class markets. Address for Free Book on the Ozarks, **A. Hilton, G. P. A.,** 1512 Frisco Building, St. Louis, Mo.

ARKANSAS.—Cotton Belt Route. Free descriptive books of productive lands. See page 14.

FLORIDA.—I own a large tract of the very best land in Sunny Florida, just west of Jacksonville and will sell you 160 acres or a section at bargain prices. Write me. **J. T. George,** 3725 Wyoming street, St. Louis, Mo.

KANSAS, MISSOURI, OKLAHOMA, TEXAS, NEW MEXICO, ARKANSAS AND LOUISIANA Lands for sale on the Rock Island Route. See page 23.

MISSISSIPPI.—Yazoo County. 838 acres black soil; five miles from thriving town on I. C. R. R.; sixteen tenant houses, large barn, wells; 80 acres in timber, balance in pasture and cultivatable land, all level and in high state of cultivation; two miles from large tract just sold to a Northern capitalist, which proves the desirability of real estate in this immediate section. Price, $25.00 per acre. **Jarnagin & Company,** Goodman, Miss.

MISSISSIPPI.—Attala County. 450 acres black loam soil; three miles from substantial town on main line of I. C. R. R. 200 acres in cultivation; 180 acres timber; 70 acres pasture; comfortable six-room dwelling; tenant houses, barn, wells and cribs. Entire place under fence. This is one of the finest plantations in this section, and is cheap at $25.00 per acre. We have other places of various sizes and prices in Holmes, Attala and Yazoo counties. Inquiries solicited. **Jarnagin & Company,** Goodman, Miss.

MISSOURI.—Ozarks for dairying; Ozarks hog raising; Ozarks for general farming; Ozarks for cheap lands that will not be cheap long. See page 11.

TEXAS.—Lands on the Cotton Belt Route. Free books descriptive of the country. See page 14.

FARM WANTED.—I am looking for a good Farm at a reasonable price. Give full description in first letter. Address, **CASH FARM BUYER, Box 7910, Cherry Valley, Ill.**

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago.**

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In Western Canada's Free Homestead Area

The Province of **Manitoba** has several New Homestead Districts that afford rare opportunity to secure **160 Acres** of excellent agricultural land **FREE.**

For Grain Growing and Cattle Raising

this Province has no superior and in profitable agriculture shows an unbroken period of over a quarter of a century.

Perfect Climate; Good Markets; Railways Convenient; Soil the very best, and social conditions most desirable.

Vacant lands adjacent to Free Homesteads may be purchased and also in the older Districts lands may be bought at reasonable prices.

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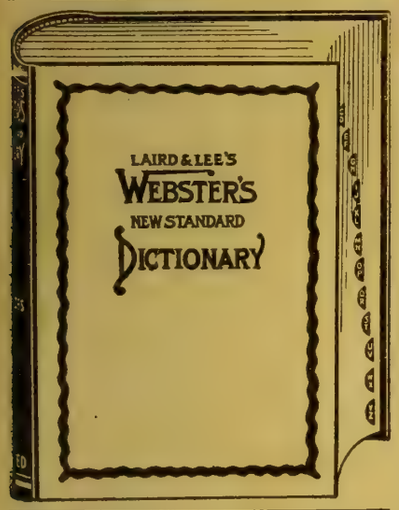
One of the Greatest Books Ever Issued—A Premium Offered by the Subscription Department of This Paper.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 750 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical,



classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

Our offer to you: Send us one dollar and we will send you The National Farmer and Stock Grower for two years, and we will also send you, postpaid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

FEEDING BEEF STEERS.

Comparison of Results—Feeding in the Barn and Feeding in an Open Shed.

As a result of seven-years' experiments at the Pennsylvania Station the conclusion has been reached that an open shed, boarded up closely on three sides and kept well bedded at all times, is more efficient for fattening steers than the basement of a barn.

During the winter of 1909-10 the cattle fed in on open shed made more rapid gains, attained a higher finish, sold for 15 cents per hundred more, and returned 11.6 cents more for each bushel of corn consumed than similar steers fed in the barn. They also required less labor in feeding and more straw was used in bedding. Results of previous work show that cattle which are fed in groups of ten or twelve each, with ample room at mangers and troughs, make more satisfactory gains than similar cattle tied in stanchions. This indicates that the methods which require the least amount of labor are the most satisfactory in the feed lots.

A point to be especially emphasied in this connection is that in climates as severe as those under which the above experiments were made the roof and three sides of the open shed should be as nearly absolultely closed as it is practicable to make them, not permitting drafts through the shed or admitting air except from the open side, which should preferably face to the south.

BARGENOCK GAY CAVALIER—AYRSHIRE BULL. Winner of many prizes, the last being grand championship at the National Dairy Show, 1912. Exhibited by Adam Seitz, Waukesha, Wis. BARGENOCK GAY CAVALIER is one of 750 pictures in the Book of Live Stock Champions, advertised on page 7.

Saddle Horse Brings $2,875.

From the New York Herald, December 1st, 1912: "Thomas W. Murphy, acting for Mr. A. H. Cosden, was the contending bidder when the big black saddle horse The Leader was struck off to Louis M. Newgass for $2,875 at the Harbison sale, in Durland's Riding Academy, on Tuesday evening. Mr. Cosden is best known in the horse world as the owner of Queen Worthy, 2:07¼, winner of the $10,000 Merchants and Manufacturers' Purse at Detroit last summer. Dealers say that only once in the history of horse auctions has a saddle horse been sold for more than $2,375. By a singular coincidence Mr. Newgass was the seller on that occasion. The record price was $3,500, and was paid by J. H. Moore, of Chicago, for a chestnut mare that afterward won second prize at the National Horse Show. Mr. Harbison called The Leader the best heavyweight horse he ever owned."

Argentine Agriculture.

Farmers who consider their interests from the standpoint of the wide world will be interested in reading about the opening of new farm areas in the Argentine Republic. According to the United States Department of Commerce and Labor, in the arable zone of Bahia Blanca a vast extent has been fitted for agriculture this year, and there are now some 3,325,510 hectares (hectare is equal to 2.47 acres) of land under cultivation. Last year the figures were 2,951,195 hectares, and four years ago 2,251,020 hectares. This, being interpreted, means that in one South American province nearly a million acres of new land were brought into use in one year.

FAY JEWEL BEAUTY—DISTINGUISHED HOLSTEIN COW. Was grand champion cow of the breed at National Dairy Show, 1911, and won many other premiums. Photo by Hildebrand at the Third Iowa Dairy Show, 1912, where she was also senior and grand champion cow. Exhibited by Wm. Galloway, Waterloo, Iowa. Another picture of FAY JEWEL BEAUTY is on page 270 of the Book of Live Stock Champions, advertised on page 7.

Death of a New York Horseman.

The New York Herald announces the death of J. D. Carroll, practical head of the great horse firm of Fiss, Doerr & Carroll, of New York City, and the election of Arthur J. Baldwin, of the firm of Griggs, Baldwin & Baldwin, to succeeed him as treasurer and general manager. The remains of Mr. J. D. Carroll were followed to the grave by friends in one hundred and twenty-seven carriages, and twelve landaus in addition were filled with floral offerings.

Top Lambs at St. Louis.

Early in December, at the St.Louis National Stock Yards, R. S. Harriman, a prominent farmer and stockman of Cooper county, Missouri, had in a load of Western lambs, 120 head, that weighed 74 pounds and brought $7.75 per 100 pounds, the top of the market. These lambs were fed at United States Demonstration Farm No. 4 under the direction of the Missouri Farm Management Association, and the price they brought is a testimonial to the superior way they have of caring for stock.

Texas Cattle at St. Louis.

Early December sales of Texas cattle on the St. Louis market included for Farley & Skinner, of Vineta, Tex., 120 head, averaging 1,100 pounds, at $7.00; 190 head, averaging 1,064 pounds, and forty-six head, averaging 1,062 pounds, at $6.80 per 100 pounds; forty-five head, averaging 1,052 pounds, at $6.75 per 100 pounds; and thirty-four head, averaging 922 pounds, at $5.65 per 100 pounds.

Mail Coupon Below For Big Free Book of

Hansen's Gloves

For a Firm Grip

For a real "strangle hold" on the wheel or on the reins—on whatever you have in hand—there's nothing like Hansen's Gloves. Get book of proof and free try-on offer.

You get everything that a glove will do to protect and make the work go easier in

Hansen's Gloves

And do it cheaper than "trashy" gloves. They help you to work *faster*—they prevent injury and *last* to the point of *real economy*.

Sold by many dealers, but if not yours, let us send a pair on approval. Make selection from the book. Mail coupon or postal *today*.

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You may send me Free and postpaid your book showing Hansen's Gloves. I am most interested in the styles for the following purpose:
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Mention above what kind of work, driving or sport.
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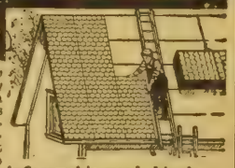
Don't Fail to Get Prices on Edwards STEEL Shingles



If you only *knew* how *cheaply, quickly* and *easily* you can roof your buildings with genuine *Edwards* STEEL Shingles, you wouldn't fool with any more prepared roofing or inflammable wood shingles.

Don't you know Edwards sells the world's finest roofing direct from factory at lowest price ever known? Don't you know Edwards pays freight clear to your station and guarantees prompt, safe delivery? And don't you know that more than 100,000 Edwards roofs have been put on and that never a one has failed to give PERMANENT satisfaction? Don't you know that *any* man can easily lay *Edwards* STEEL *Shingles* right over old roof or on sheathing? Don't you know that *Edwards* STEEL Shingles are

Rust-Proof, Fire-Proof, Rot-Proof

Don't you know Edwards uses a secret process which absolutely prevents rust from ever getting a foothold; that Edwards has patented an Interlocking Device which makes a permanent watertight joint? Don't you know Edwards uses only the finest open-hearth steel for his shingles; that Edwards *Galvanized* STEEL Shingles never need painting nor repairs? Don't you know that Edwards gives every buyer a signed $10,000 guaranty against fire by lightning; that *Edwards* STEEL Shingles not only make the most handsome roof but outlast THREE wood-shingle roofs and FIVE prepared-paper roofs?

Well, then—why don't you write Edwards a postal this minute and get by return mail his latest catalog 1257 and astounding factory prices? If you'll give the *size* of your roof, Edwards will make you a lump price on the job. Get Edwards *prices* at once. (86)

THE EDWARDS MANUFACTURING CO.
1207-1257 Lock St. Cincinnati, Ohio

HOLSTEIN COW RECORDS.

Average For 262 Head, All Ages, and Production by Age Classes.

A recent statement by the Superintendent of Advanced Register of Holstein Cattle says that 262 animals, of which one-half were heifers, averaged in seven days 389.9 pounds of milk, containing 13.733 pounds of butter-fat, equivalent to 55.7 pounds or over 26.52 quarts of milk per day, and 16.02 pounds of commercial butter per week.

The production of the cows by ages from two years, two months upward, is worth studying:

Seventy-two full aged cows averaged: Age, six years, eight months; milk, 468.3 pounds; per cent. fat, 3.50; fat, 16.41 pounds.

Thirteen senior four-year-olds averaged: Age, four years, seven months; milk, 431.5 pounds; per cent. fat, 3.62; fat, 15.608 pounds.

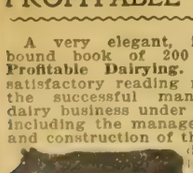
Twenty-nine junior four-year-olds averaged: Age, four years, three months; milk, 424.5 pounds; per cent. fat, 3.49; fat, 14.835 pounds.

Fifteeen senior three-year-olds averaged: Age, three years, nine months; milk, 396.8 pounds; per cent. fat. 3.62; fat, 14.346 pounds.

Twenty-seven junior three-year-olds averaged: Age, three years, three months; milk, 404.5 pounds; per cent. fat, 3.56; fat, 14.419 pounds.

PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send The National Farmer and Stock Grower for two years and we will send the book, Profitable Dairying, as a premium. Address,



HALE PUBLISHING CO.,
3550 Vista avenue, - St. Louis, Mo.

Twenty-five senior two-year-olds averaged: Age, two years, eight months; milk, 344.4 pounds; per cent. fat, 3.43; fat, 11.827 pounds.

Eighty-one junior two-year-olds averaged: Age, two years, two months; milk, 309.2 pounds; per cent. fat, 3.53; fat, 10.905 pounds.

Shrinkage in Print Butter.

An investigation of the rate of shrinkage of prints of Idaho butter under temperature and humidity conditions similar to those the butter would encounter in grocery channels of distribution is reported in a recent bulletin issued by the Idaho Experiment Station. It was found that the pound prints lost about one-quater of an ounce in the first seven days, on an average, the variation beng from .19 to .37 of an ounce, while the two-pound prints showed a proportionately lighter shrinkage, the loss in weight being on an average only a little greater than a quarter of an ounce. The shrinkages mentioned are probably a little full for actual practice, for in the experiments the prints were placed two inches apart to allow a circulation of air around them, thus exposing a larger surface to evaporation than would be the case were the prints carried packed in a box, as is usually the case. The experiments show that an honest pound of butter in the beginning will not be far from an honest pound if sold on a reasonably quick market.

DAIRY AND CREAMERY NOTES.

Watertown, N. Y., is a cheese-producing center, and the Produce Exchange of that city reports 15.7 cents a pound as the average price of the season and the highest on record. The highest quotation reached was 17½ cents.

The Missouri Department of Food and Drug Inspection under Dr. Cutler has been actively endeavoring to stamp out the manufacture of an impure butter in Southeast Missouri. This article is made from renovated stock and a mixture of other ingredients, and contains at least 50 per cent. moisture, unfair competition to the regular buttermakers, who are not permitted under the law to have more than 16 per cent. moisture in their butter. The parties who have been manufacturing this stuff have been arrested by the state and are under investigation by the government. It is believed that this fake butter competition will be stamped out.

At Thief River Falls, in November, in a butter contest, Mr. C. J. Holte, of Fertile, Minn., won the first prize with a score of 95, and Mr. M. Sorenson, of Pelican Rapids, second with a score of 94¾. Thief River Falls is on the Northern Pacific Railroad, near the Canadian line.

A large number of cheese factories are being purchased and placed under one management in New York state.

KEEPING UP THE MILK YIELD.

By P. M. Brandt, of the Missouri Agricultural College.

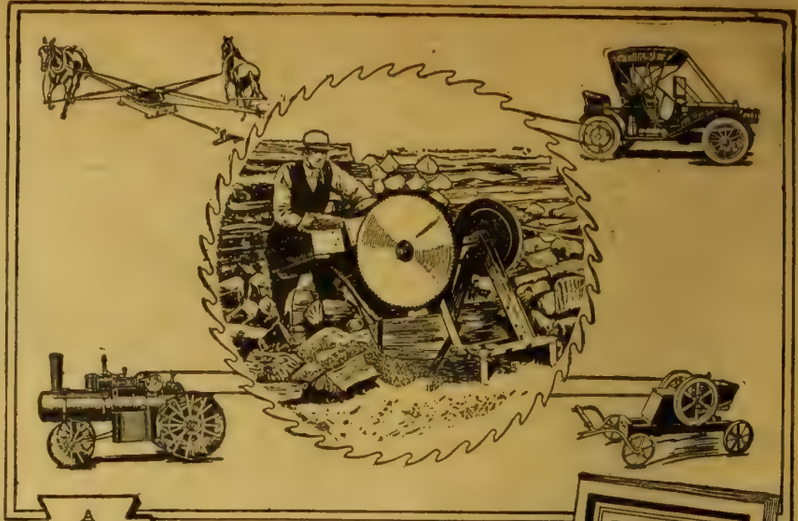
Now is the time when it is necessary to feed the milch cows. It is true that some grass is still green, but it has not much feeding value. A cattle feeder does not think for a moment of finishing off a bunch of steers on this fall grass. Why should a dairyman expect the cows to maintain their milk yield on it?

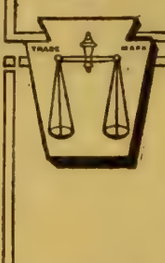
Butter-fat is scarce. The price is high and is going higher. It will pay to produce more butter-fat, but it cannot be done by feeding the cows fall grass, corn stalks and timothy hay. It is also a mistake to neglect the cows for a few weeks, intending to make amends by liberal feeding when winter comes. It is important that the milk yield never be allowed to decline. It is almost impossible to bring a cow back to her normal flow after it has been permitted to decline.

It is important that fall feeding be commenced now before the milk flow is cut down by short grass and scant feed. Those who are fortunate enough to own a silo should give each cow about twenty-five pounds of silage a day. Every cow should have all the clover, alfalfa or cowpea hay she will clean up. This will amount to about ten pounds a day if the silage is fed. If silage is not fed, more hay should be given. It is well to remember that cowpea hay is one of the cheapest of dairy feeds.

Cows giving over a gallon of milk a day should be fed grain. A good grain mixture is corn chop mixed with bran or cotton-seed meal. Corn and cob meal may be substituted for the chop. A pound of this mixture should be given each day for every three pounds of milk produced.

The best of cows will not produce milk unless fed liberally on the right kind of feed.





Are You Cutting Your Firewood by Hand?

THEN you know the hard labor and long time required to cut your winter's supply. With a power-driven circular saw you can cut more cords of wood in one day than you did in several by the old hand method —and with much less exertion.

This is one of the suggestions in our book on

DISSTON

SAWS TOOLS FILES

Sold by all Progressive Hardware Dealers

and the cost of a saw, mandrel and belt is but nominal compared with the results obtained.

Disston Mandrel

The book contains complete information on Disston Saws and Tools especially adapted for farm use, as well as instructions for their proper care. It is needed on every farm. Simply write for the **"Disston Farm Tool Book"** and it will be sent free by return mail.

"There is no substitute for a DISSTON."

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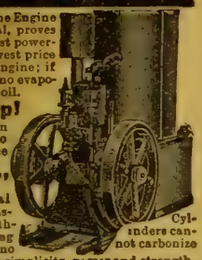
Book of Live Stock Champions.

W. E. Alexander, of Tuckahoe, West Virginia, said: "I received the Book of Live Stock Champions and am well pleased with it. I will do all I can to turn subscribers your way." The Book of Live Stock Champions is advertised on page 15.

The Horseradish Market.

In the vicinity of St. Louis horseradish is a staple crop. Many thousands of barrels are brought in and delivered loose from farmers' wagons. During Thanksgiving week sales were at $3.25 to $3.60 per barrel.

Use KEROSENE Engine Free!



Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.

Gasoline Going Up!

Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

Amazing "DETROIT"

—only engine running on coal oil successfully, uses alcohol, gasoline and benzine too. Parts without cost cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Cylinders cannot carbonize. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate the money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

MILK BOUGHT ON QUALITY.

The New York Exchange Will Quote Three Grades But Only Expect to Receive Two.

According to the New York Produce Review, for some time past there has been a feeling in the wholesale milk trade of New York City that because of the classification of milk by the Board of Health there should be separate quotations for the different grades. Action was taken by the Consolidated Milk Exchange in reference to this matter, and it was decided to make the change, so on November 11 the new prices went into effect. The Exchange rate is now four cents a quart for C grade and four and one-fourth cents for B grade; both prices are net to shippers in the twenty-six-cent freight zone. Grade A does not appear in the general distribution, therefore is not quoted. The cost delivered in New York is $1.91 and $2.01 a forty-quart can respectively.

The special bulletin recently issued by Health Commissioner E. J. Lederle says:

"The rules and regulations of the Department of Health require that all milk, whether in bottles or cans, shall be labeled with the grade for which a permit has been issued. The Department should be informed whenever the regulation is not complied with.

"Grade A—Suitable for infants and children. This grade of milk is sold only in bottles, the caps of which must be marked 'Grade A.' This grade comprises certified milk, guaranteed milk, inspected milk raw and selected milk pasteurized.

"Grade B—Suitable for adults. This grade may be sold in bottles or cans, caps and tags of which must be marked 'Grade B' in large green letters on a white ground. This grade comprises pasteurized milk and selected milk raw.

"Grade C—Suitable for cooking purposes only. Must be plainly marked in red letters 'Grade C, for cooking.' From the sanitary standpoint this is the poorest grade of milk that is permitted to be sold and should never be used for babies or children."

SCIENTIFIC DAIRYING.

A Few Remarks on Bookkeeping and the Advantage of Good Milk Supply in Winter.

Bookkeeping and scientific dairying must go together. Whether a man have few cows or many, his books should show just what each cow is doing. The lack of this has been the cause of many a failure. Because books were not kept, many a worthless cow has been maintained from year to year, her owner not knowing that she was not producing enough to pay the cost of her feed. Yet bookkeeping is the most difficult thing to induce some of our farmers to undertake. But it must continue to be one of the essentials of successful dairy operations.

Winter dairying is still one of the very important measures to increase dairy profits. In those states where the winters are mild more attention should be paid to that phase of dairying. Experiments carried on in different parts of the country have shown how valuable this kind of dairying may be made. It has several distinct advantages. The dry time of the cows comes in the middle of the summer, when pastures are short generally. The cold months are the months in which it is easiest to get competent help. Dairy products keep better in the winter than in the summer. Where the snow lies on the ground germs are few, and it is more possible to produce germ-proof milk in the winter than in the summer. Prices for butter and cream are better in the winter than in the summer. There is less competition in winter dairying than in summer dairying. This condition is likely to continue, as few farmers can be induced to undertake winter dairying, which requires more thoughtful preparation than dairying as ordinarily conducted.

Recent investigations into the inheritance of milk-producing qualities show that careful selection is needed, even in the progeny of big-milking cows. The daughters of such cows are, some of them, very poor milkers, and such should not be bred from. Because a cow is a big milker is not a proof that her daughter will be, but her power to produce milk is likely to reappear in a granddaughter, if not in a daughter. Also, the sire should come from a big milking strain, as well as the mother. Ruthless elimination is necessary in any case, if a herd of good milkers is to be established.

Milk-borne epidemics of typhoid fever are reported from time to time. It is asserted by some of our physicians that if the spread of typhoid fever through milk could be prevented, the disease could be stamped out. They may be sanguine to too great a degree, but there is no doubt that the carelessness in regard to contaminating milk is one of the things that we need to look after most. Where there are large dairies rigid inspection is possible and advisable, both for scarlet fever and typhoid fever.

Milk inspection must come to be a still greater factor than it is at present if we are to have a greatly improved milk product, as to its sanitary condition. Fortunately, the cities and milk-buying companies have the matter entirely in their own hands, as they can prevent the use of milk that is produced under unsanitary conditions. Some cities now send out their inspectors far beyond their borders and refuse to allow milk sold inside their limits except that coming from dairies that have complied with the milk inspectors' requirements.

Wonderful Crop of Oats.

The great crop of oats produced in the year 1912 is finally estimated by the United States Department of Agriculture at 1,417,172,000 bushels, compared with 922,298,000 bushels last year, and the record crop of 1,186,341,000 bushels in 1910. Yield per acre, 37.4 bushels, compared with 24.4 bushels last year, and 29.5 bushels, the ten-year average. Average farm price, 33.6 cents per bushel, compared with 43.8 cents last year. Weight per measured bushel, 33.0 pounds, compared with 31.1 pounds last year and 31.3 pounds, the ten-year average.

Hay Crop of 1912.

The hay production of the present year is the largest so far in the history of the country. The total production is estimated by the United States Department of Agriculture at 72,425,000 tons, compared with 54,916,000 tons last year and the record crop of 70,798,000 tons in 1908. Yield per acre, 1.47 tons, compared with 1.14 tons last year, and 1.43 tons, the ten-year average. Average farm value, $11.80, compared with $14.62 last year.

The Crop of Potatoes.

The total potato crop of 1912, as estimated by the United States Department of Agriculture, is placed at 414,289 000 bushels, compared with 292,737,000 bushels last year and the record crop of 389,195,000 bushels in 1909. Yield per acre, 112 3 bushels, compared with 80.9 bushels last year, and 94.3 bushels, the ten-year average yield. Average farm price, 45.5 cents per bushel, compared with 76.3 cents last year. Quality, 102.4 per cent., compared with the ten-year average.

Book of Champions on page 7.

The Ozark farmer is making 5c a lb. profit from pork—are you?

THERE are five reasons why Ozark farmers get 5 cents a pound profit from pork—and they are the same reasons why stock raising of any kind in the Ozarks is so much more profitable than in other sections.

No. 1:—The Ozark farmer has good grazing from April 1st to January 1st—nine full months. Only 3 months of winter (mild at that)—no long expensive winter feeding and very little shelter needed.

No. 2:—The Ozark farmer can produce pork at 2 to 2½ cents per pound on cowpeas, alfalfa, peanuts, etc., which grow so well on these Ozark soils—only a little corn needed a few weeks before marketing, to make the flesh firm.

No. 3:—The Ozark farmer's city markets are so close by, that the net price offered him at his local market is greater than would be offered where the hogs would have to be shipped a greater distance.

No. 4:—The Ozark farmer is offered the highest prices prevailing anywhere—by the dealers in Kansas City, St. Louis and Memphis (price now around 8 cents).

No. 5:—The Ozark farmer enjoys an ideal climate for stock, free from malaria; where sickness is reduced to the minimum; where the purest of running water, fine drainage, mild winters, cool summers and the altitude, keep stock unusually free from the scourges which so often visit other sections.

James F. Crone, near Mountain Grove, spent $32 for hogs a little more than a year ago, and from that investment has sold pork to the value of more than $600; besides having meat for his family and 42 head on hand.

And think of the advantage in the Ozarks for dairying! Results speak louder than anything: E. T. Shelpman of Greene County, sold $1232 worth of cream and butter in a year from 12 cows; T. P. Emmons of Oregon County, sold $2,054 worth of milk from 20 cows; G. F. Holloway, who makes $10 per month per cow (and gets 65 bushels of corn per acre), says: "I find this country the best for farming and dairying, and I have been in nearly every State in the Union."

Even if you had to pay the same price for land in the Ozarks that is asked elsewhere, you could make greater returns from your investment there; but realize that right now you can get good land at $12 to $25 per acre. All in all, it's a proposition that ought to make any man want to *know more* about it now.

A free book for you!

It's not the kind you can pick up anywhere. Double sized pages, 75 actual photo pictures of farms—some in full color. Written by a man who knows farming. Takes up the Ozark sections, county by county, and describes the farming conditions there. Also tells actual experiences of Ozark farmers. I haven't many copies of this book on hand; please drop me a postal to-day for your free copy.

FRISCO LINES

A. HILTON, General Passenger Agent, 1512 Frisco Building, St. Louis, Mo.

[Please mention National Farmer and Stock Grower.]

FERTILIZING EXPERIMENTS.

Effect of Lime and Cow Peas on Wheat Soils—Comparison of Turning Under Cow-pea Stubble Only and Turning Under the Catch Crop.

The Agricultural College Bulletin No. 96, issued by the Tennessee Station, tells of a series of experiments on three East Tennessee farms having different types of soil, to test the virtue of liming soils and turning under a catch crop of cow-peas grown on wheat stubble between the harvesting of one crop in the early summer and the drilling in of the next crop in the fall.

These experiments extended over a period of three years on one farm, four years on another and five years on the third.

It was found that two tons of ground limestone per acre was equal to one ton of slacked lime. The application of lime to a soil that was capable of producing a good crop of clover was unprofitable because unnecessary. However, for immediate results in hastening the breaking down of coarse stable manure or of a crop turned under, the application of lime may be justified on even good clover soils. On soils that will not produce a healthy growth of clover, and on poor soils that are to be heavily fertilized with stable manure or the turning under of a green crop, the application of lime is always advisable.

The plots where the catch crop of cow-peas was turned under each year produced very little more wheat—not so much in some cases—than the plots where the peas were cut and cured for hay. This confirms the general experience of farmers, that the roots and stubble of cow-peas supply the soil with so much humus and nitrogen that it pays better to make hay of the tops than to plow them under unless the soil has had its supply of humus exhausted by continuous clean culture for a number of successive years.

In these experiments it was found that land which had previously been in sod for a number of years and was therefore rich in humus and nitrogen at the beginning, actually lost both humus and nitrogen each year. In other words, even the turning under of the catch crop of cow-peas each fall did not restore as much nitrogen and humus to the soil as were removed in the previous crop of wheat and straw. On the other hand, the plots that were poor in humus and nitrogen at the beginning gained in both by the yearly additions of the catch crop of peas, whether only the roots and stubble were added to the soil or the tops also were turned under.

Because wheat extracts from the soil large quantities of both nitrogen and phosphoric acid, the most heavy annual exportations of wheat have served to transfer much of the soil fertility of this country to Europe. And the same is true in a larger sense of the exportation of cotton-seed meal, which is so rich in plant food drawn from the soil that millions of tons of it are applied to the fields direct as a fertilizer, both in this country and abroad.

Thanksgiving on the Road.

There was something of the spirit of the Pilgrim Fathers about the unostentatious Thanksgiving dinner of J. F. Collins, a workingman, and his family of eight at the Union Depot, Kansas City, on Thanksgiving. He was on his way to Lodi, Calif., from Lincoln, Ark. He is a farmer and will make his new home on a ranch.

The family was ranged along a bench in a remote corner. A red table cloth was removed from a huge basket containing the Collins' family Thanksgiving dinner. There was no turkey or any fancy "fixings" made to tempt the wayward palate, but just plain food.

The last plate had been distributed, and Mrs. Collins, recovering the baby from her husband, had taken a seat. "Let us give thanks," said the father. Every head bowed and the hands of the children folded on their laps. When everything was quiet, Mr. Collins prayed in a low tone:

"Bless us, O Lord, for these, thy gifts, which we daily receive from thy bounty. Amen."

Missouri State Corn Show.

The State Corn Show to be held at the College of Agriculture in Columbia, Mo., January 13-17, 1913, gives promise of being by far the best exhibition of its kind ever held in Missouri. Last year we had an excellent show, even though a backward season cut the crop in some sections. This year, taken as a whole, Missouri is credited with an extra heavy corn crop, and the Missouri Corn Growers' Association has provided a list of premiums that will surely bring out the best they have.

Approximately $3,000 in cash and premiums will be given away this year. The best ten ears in the show will win the $200 State Board of Agriculture Trophy, with a $75 premium additional. The best single ear in the state will receive a $45 premium.

Eight hundred dollars in cash and premiums will be awarded to the boys and young men of Missouri. The Junior League of the Missouri Corn Growers' Association was organized only this year, yet it has a membership of over 2,500 boys and young men, all trying for the prizes awarded here at the State Corn Show. Remember, boys, the trophies offer in the junior division of the show are to be awarded permanently this year. If you are enrolled in the contest, now is the time to select your corn for the show in January.

In addition to the classes for corn we also have classes for small grains with cash prizes offered. The National Corn Exposition is to be held again this year and the leading winners in the State Show will be taken to the National Show. If you have some good corn, write me today for premium list for the show, which contains the score card, and for full directions for selection of corn for show. Plan to send in a sample of corn, and, better still, come yourself and meet the corn breeders from the various sections of the state.

Remember the date—January 13-17, 1913. For all information address T. B. Douglass, Assistant Secretary, Columbia, Mo.

CHAMPION SEED CORN PREMIUMS.

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

The subject of seed corn is of the utmost importance, especially at this time. Pretty good seed corn is easy to get, but superior seed corn is scarce. Even the best seed corn growers have good and bad seasons, and there is great variation, one year with another, in vitality and quality of their seeds.

Only one thing can be guaranteed, and that is, pure-bred seeds, like pure-bred animals, produce true to type, and sometimes there is worked out an almost imperceptible improvement. The road to improvement is rough and rocky, and upon it there are many obstacles; but ultimate success is possible, and only possible by using seeds of the right breeding and quality. The backward road is easy to travel by using seeds of no breeding and only containing the qualities that even negligence cannot destroy. Promiscuous seeding of unknown corn results in smaller crops of low-grade corn. Nature may save the crop by an excellent season, but the general result is bad.

As a step towards general improvement, every corn grower should have one or more experimental plots each year, using small quantities of different seeds. The National Farmer and Stock Grower has furnished opportunities for farmers to obtain such seeds for the past five years.

The very best ear of corn at one of the greatest show contests was pure-bred Yellow Dent, only 10¼ inches long, 7⅞ inches in circumference at a line three inches from the butt, and was 6⅞ inches in circumference at a point two inches from the tip. It weighed 19 ounces when thoroughly dry, and it carried twenty rows of kernels. The picture presented herewith will show that it had a good butt; that it had a good tip; that the lines between kernels were straight; the ear was splendidly proportioned, and it was bright with life and vitality. When you go out to the field or to the crib to select corn for seed, carry with you a stick 10¼ inches long and a piece of tape to measure around the ears of corn that at first glance look good to you. When you find fat ears of corn, be sure that the fatness is not an undue proportion of cob. Judge your own corn by a comparison with this ear of corn.

The picture presented herewith represents the ear of corn referred to as in all probability the best ear of Yellow Dent corn ever exhibited, grown by Mr. D. L. Pascal, of Iowa, who with it won a trophy worth $1,500.00, and it was the best ear grown that year in Iowa, and it is the single ear of corn that was shown in a glass case at the first National Corn Show. Mr. Pascal has a strain of Yellow Dent corn, bought from the originator and kept pure for sixty-six years.

For several years The National Farmer and Stock Grower has purchased of Mr. Pascal a quantity of seed corn related to this grand champion ear, and we have distributed it in pound lots to our subscribers, who have started growing their own seed corn from the Pascal seed furnished by this paper. Furthermore, many of our subscribers have won prizes at their own State Fair with ears of corn grown from the Pascal seed we furnished them. Some of them were first prizes and one of them was the championship prize for an exhibit of ten ears at the State Fair of Louisiana.

We have again purchased Yellow Dent Seed Corn from Mr. Pascal and we intend to send it out as subscription premiums as near free as we can arrange to do so. The corn is conditionally free and our subscriber is simply paying the postage on it. The amount of corn is plenty for the purpose of experiment.

Our Subscription Proposition.

The postage on twenty ounces of seed is ten cents; therefore we make this proposition: Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send as a premium a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal from his breeding corn that grew the grand champion ear. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis Mo.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity: Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

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EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
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EARLY SHIPMENTS OF FURS AND HIDES MAKE BIGGER PROFITS FOR TRAPPERS.

Big fur and hide dealers who buy direct from trappers and hunters are now asking for early deliveries of pelts. This is the season of the year when buyers begin paying good prices. Funsten Brothers & Co., of St. Louis, U. S. A., the largest firm in the world which deals direct with trappers, is paying good spot cash prices to hunters and trappers who make early shipments of furs, hides and pelts.

The men who make trapping pay big money invariably are the first to make shipments in the fall. To make the year most profitable to the trapper, shipments should be gotten off as fast as skins are taken. Many hunters fail to realize the largest returns from their pelts because they do not know the importance of frequent shipments.

Most successful trappers—men who make trapping a profitable business—now use a prepared animal bait. Hundreds of trappers have doubled their fur catch and their profits by using Funsten animal baits. This is what makes the sport of trapping lively and profitable.

A special service is now offered without cost to men who wish to learn the inside secrets of profitable trapping. Pamphlets have been prepared which give accurate and complete data on fur prices, game laws, trappers' supplies and the best methods of trapping. Men who wish these pamphlets can get them free by writing to Funsten Brothers & Co., 633 Funsten Bldg., St. Louis, U. S. A. These booklets tell how trappers buy supplies at factory prices.

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Investigate the SANDOW
Kerosene Stationary ENGINE
It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—throttle governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year ironclad guarantee—15-day money-back trial. Sizes 2 to 20 H. P. Send a postal today for free catalog, which shows how Sandow will be useful to you. Our special advertising proposition saves you one-half cost of first engine sold in your county. (16t)
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THE MARKET FOR FURS.

FUNSTEN WANTS $10,000,000 WORTH OF FURS

Biggest Prices! Best Grading! Cash Quick

Those are the advantages you have in sending your furs to Funsten. We are the largest in the world in our line. The biggest American, Canadian and European buyers are represented at our regular sales. Competition for Funsten Furs is greatest. As we sell furs in larger quantities and get more spot cash, we can pay you more cash for yours than you can get anywhere. We count on large volume of business and small margin of profit. No traveling buyers—do all our business direct with you. We want ten million dollars' worth of furs. We want your shipments—anything—from one skin up.

Big Money in Trapping!

Do trapping during spare time. It's good sport and PAYS BIG. Mink, coon, skunk, muskrat, fox, wolf, lynx, white weasel and all kinds of furs are valuable. We buy any quantity.

TRAPS To accommodate trappers and shippers we furnish traps—including the famous VICTOR—at factory cost. Largest stock in United States.

Funsten Animal Bait Guaranteed to increase your catch or money back. Beware of imitations. Funsten Animal Baits won Grand Prize at World's Fair in 1904. U. S. Government uses Funsten Baits. One can of Funsten Animal Bait brought one man in St. Michaels, Alaska, $1,199 clear profit. Costs only $1 a can. Different kinds for different animals. Whether you are an experienced trapper or just a beginner, we can help you catch more furs—make more money. Write today for free Trapper's Guide, Game Laws and Trapper's Supply Catalog—three books in one—Fur Market Reports, Funsten Safety Fur Shipping Tags, etc. ALL FREE. (31)

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NATIONAL FUR AND WOOL CO.,
368 N. Main St., St. Louis, Mo.

U. S. TO TEST FUR FARMING.

Experiment Station to be Established, Probably in Idaho.

Quite recently from Washington, D. C., it was announced that fur farming for profit is one of the experiments the Department of Agriculture is about to try. The Treasury Department has just rendered a decision allowing the department to spend what is needed for the industrial plant, which will be located in Idaho, probably in the mountain region, where the fur animal has to wear a thick coat for self-protection. This industry has never been tried on a scientific scale, anywhere, although there have been some very successful private experiments.

The department plans to start on mink and marten. Mink are found around this region, although they are not at all common. The department intends to start modestly in the fur-raising work, because breeding stock for good animals is expensive. There will have to be a good deal learned about the food and habits of the animals in captivity. It was considered almost impossible to rear foxes in captivity till it was found by one breeder that the mother fox had to have a small inclosure by herself. Now there are several valuable fox farms. With the mink and martens it will not be so hard to obtain animals to start the work.

THE PEACH-TREE BORER.

Four-year Experiment of Asphaltum Treatment With Badly-Infested Trees.

In a recent bulletin of the California Station, E. L. Morris calls attention to the use of hard asphaltum, grades "C" and "D," for the control of the peach-tree borer. This material was applied early in the spring to badly-infested trees from which the borers had been dug.

It was found that a thick, heavy coating prevented both the issuance and the entrance of about 95 per cent. to 98 per cent. of the insects, the degree of efficiency depending upon the thoroughness of the application. Asphaltum does not penetrate, crack, deteriorate or bind the tree, since it yields to the slightest pressure. Four years of experimenting have not shown the least injury.

The material is applied warm with a brush from five inches below to five inches above the ground. It is easier to apply two or more coatings than to try to put on more at one time than will adhere firmly. The first coating will harden very quickly and the second can be applied without loss of time. Two coatings are generally sufficient unless the bark is very rough. But in any case a thick, uniform coating is absolutely necessary for the best results.

Borers are seldom uniformly distributed over an orchard. Small blocks of trees here and there may be badly infested and the most of the orchard comparatively free from the pest. In such cases it is not necessary to treat all of the trees with asphaltum, but it is necessary to examine them carefully, for in no other way can the true conditions be known.

A convenient way to handle the asphaltum is to mount an iron kettle on the running gear of an orchard truck and suspend beneath it a sheet-iron apron as a fire-box. Keep hard asphaltum in the kettle all the time, so that the melted asphaltum will not get too hot to carry in small containers, and apply directly to the trees.

A Powerful Stump Puller.

The Hercules Stump Puller advertised on the last page of this paper is no stranger to our readers. Not less than thirty of our patrons have bought these stump pullers and they are all enthusiastic in regard to the work the Hercules can be made to perform. Don't fail to read the testimonials on the last page of this paper. Send in the coupon and receive the free book about stump pulling.

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Know How Much You Make Next Year

No one shall pay a cent for ***Bickmore's Farm Account Book.*** It will be sent free to any farmer who will be good enough to tell who and where he is. The cost of a crop never demanded closer attention. Business farming puts money in the bank. This book is arranged to keep all accounts in simple form—more simple, and certainly more practical, than trying to remember them; shows what to charge against crop production; has a laborer's time record; and section for personal accounts. ***64 pages; for ink or pencil.*** Not a cheap affair. It is meant for business. Its quality is in keeping with

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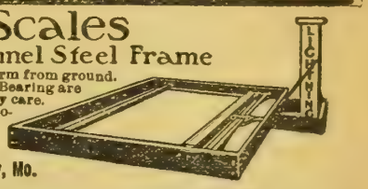

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.

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A farmer wrote these books!

—a man who knows farming from A to Z. He traveled through thousands of square miles of the *best* sections in Arkansas and Texas, along the Cotton Belt Route; and found out where the *real* farm opportunities were—the kind that *he*, knew *you* would like to hear about.

He doesn't generalize. He comes right down to brass tacks and tells you what Farmer Tull is raising—shows you actual pictures of Farmer Tull's crops, etc.; and tells you what the same kind of land, near Tull's place, would cost you *now*. He got the personal experiences of scores of farmers in this way; and took actual photos of their places. He points out the best sections for wheat growing, for corn, fruit, truck, etc.—in plain words he sifts the whole situation down to a point where you can say to yourself: "*There* is the most likely locality for *my* line of farming—I'll go and investigate." (And with low round trip fares via Cotton Belt Route twice each month your trip will cost mighty little.) Send a postal *today* for

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of these books—115 farm pictures and 100 pages of farm facts! I know you'll be glad to get them. Write *now*.

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OVERWORK ON THE FARM.

The Human Machine Can Have Too Much of a Good Thing.

One of the great faults of Americans is working too much. It is not so bad as laziness, but is as certainly disastrous, if carried to the possible limit, as it is with many farmers. The pressure of life is largely the cause of this excess of labor, but yielding to this temptation should be resisted just as other temptations are resisted. This is a case where there is such a thing as "having too much of a good thing."

The farmer that gives himself up entirely to work is killing not only himself but his family. Usually he is starving his soul. It is common to find farmers who work seven days every week, and from the time of rising in the morning till the time of going to bed at night. In such cases it will be found that the farmer's wife is working equally hard.

What a pity it is that the soul of a human being should be kept dwarfed by a round of labor that can result in feeding the body only! Every soul has lofty aspirations, but the continuous laborer must say to those aspirations: "Wait a while till all my tasks are finished," which means forever. No person ever finishes all the tasks he desires to complete; the world is too full of labor for that.

The writer remembers a farm on which he worked when a boy. The rising hour in the summer time was four o'clock in the morning. The long day began then with the feeding of the cattle, the horses, the hogs and the poultry. Then came milking time, and after that breakfast. After breakfast the real labor of the day began in the plowed field, the haying field, the garden or the orchard. If it rained, the cooper's shop was opened, and all went to work making barrels to be sold on the market. After sundown the cows were milked again, and there was other work after that. In haying time work went on in the hay field till darkness stopped it, and on some moonlight nights labor continued in the hay field till ten o'clock at night. Fortunately haying did not last through the summer. One factor connected with this overwork at haying time was the extra hired man employed for two weeks at a wage of $2.00 per day. The farmer secretly acknowledged to his family that the reason he was having all work so many hours was to cut short the haying period, so he could let the extra man go. In other words, he was getting out of that man about fifteen hours of work per day.

Every human being should have several different interests, none of which should be neglected. There should be time given to the development of his social nature and his religious nature, without which a human being is but a clod of the earth, of no real use to himself or anybody else.

One rest day in seven should be insisted on by all, whether from a religious motive or not. The human machine needs rest periods, and if these are not provided the machine must ultimately suffer.

Our beautiful farm life should not be poisoned by establishing a system of slavery in place of reasonable labor. Better management will result in larger production and less labor on many a farm.

Great Difference in Hogs.

The reason why the slaughterer pays a higher price for one load of hogs than he can be made to pay for another, is because there is considerable difference in the quality of the meats and in the shrinkage in slaughtering results. Hanging on the hooks ready for the retail trade, the slaughterer often knows that the highest-priced hogs on foot are sometimes the cheapest on the block. Common hogs, shrinking heavily in slaughter and without attraction as meat, are sometimes dearer in the end than the hogs that brought the top price in the market.

Thanksgiving Poultry Market.

During Thanksgiving, which was the last week in November, the market for live poultry at St. Louis was quoted as follows: Turkeys, choice dressing, 16½c.; do. poor and culls, 8 to 10c.; chickens, 12c.; broilers, 14c.; fowls, 10c.; cocks, 8c.; ducks, 13c.; geese, 11c.; guinea chickens, old, per dozen, $2.00; do. young, 1¾ pounds and over, $4.00; do. young under 1¾ pounds, $3.00; geese and ducks plucked, 2c. per pound less than quotations.

Keep Brood Sows Well Conditioned With Merry War POWDERED Lye

E. Myers,
President.
E. Myers Lye
Company

Every hog raiser knows the importance of giving special care and attention to the health of his brood sows; for these animals are the pork producing plant of his farm. He knows he cannot expect strong, healthy litters from sickly, scrawny, poorly nourished brood sows. By feeding a small quantity of *Merry War POWDERED Lye* with the rations, the bowels are kept in normal condition, the blood at an even temperature, and at farrowing time fever will be allayed. The chances for a fine litter of healthy pigs will be greatly increased.

From weaning until marketing hogs should be kept on a *Merry War POWDERED Lye* diet—just a small quantity mixed with the feed. It *protects* hogs against cholera, destroys hog worms, keeps the hogs keen in appetite, adds weight—in short—*increases pork profits.* Don't experiment with ordinary lye. *It might prove dangerous. Merry War POWDERED Lye* is *specially* prepared and is a *safe* hog remedy and conditioner. The *experiences* of thousands of hog raisers *prove* my claims about *Merry War POWDERED Lye.* Here is a fair sample:

It Saved The Life of This Brood Sow

"I want you to know what Merry War Powdered Lye did for a valuable red Duroc Jersey sow of mine. When our sow took sick we did not know what was the matter with her. She looked just like the picture of the skinny hog in your ad., so we used a can of Merry War Powdered Lye and she was able to stand up in three days. When we began using Merry War Powdered Lye we expected to find her dead at any moment. She is now in good condition and I expect her to farrow at least 10 pigs the first of August."

MRS. A. P. SORENSEN, Otter Pond, Ky.

Prove this for yourself. Merry War POWDERED Lye is for sale at most dealers, 10c per can (*120 feeds*). It is convenient to buy in case lots—4 doz. cans, $4.80. *Costs only 5c per hog, per month* to feed regularly—by far the best and much the cheapest hog insurance you can buy. If your dealers can't supply you, write us, stating their names; we will see that you are supplied, also send you, free, a valuable booklet, "*How To Get The Biggest Profits From Hog Raising.*" *Order direct from us in case lots (4 dozen cans $4.80) if your dealers won't supply you.*

E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

Which Kind Do You Want?

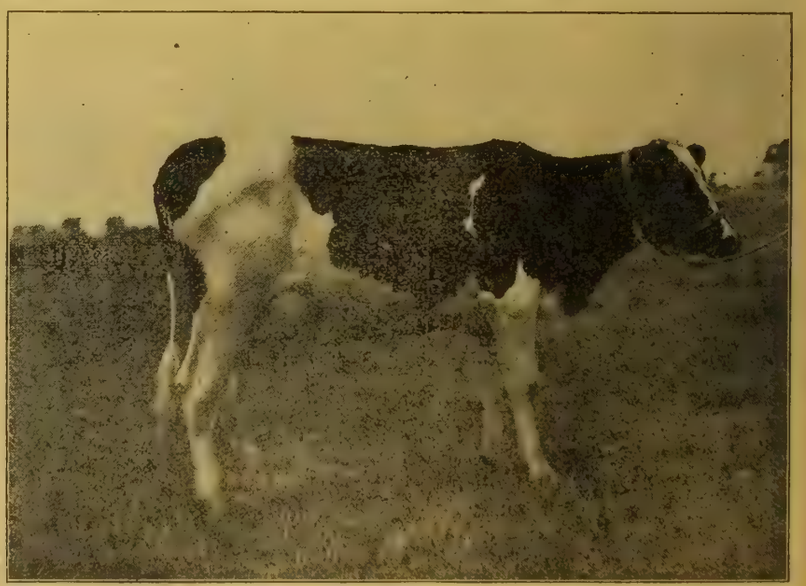
A Top Price For Hogs.

On November 19th, with 9,500 hogs in the St. Louis market, the top price, $7.90 per 100 pounds, was paid for a load of 218-pound hogs shipped in by I. N. Fredericks, of Shelby county, Missouri. The hogs were sold by Clay, Robinson & Co.

The Market For Feathers.

During Thanksgiving week, on the wholesale market of St. Louis, prime white live goose feathers were selling at 60 to 63c. a pound; prime gray at 43 to 44c., and old white at 36 to 38c. Inferior grades, 15 to 30c. Duck—White, 41c.; dark, 30c. Chicken—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c.

Mr. Fred Ruebusch, of Sciota, Ill., is advertising pure-bred O. I. C. pigs and bred sows of his own breeding, and he has some of the best breeding stock of the white hogs that are world renowned for being mortgage lifters. Mr. Ruebusch is recommended by the banks of his county and his pigs recommend themselves. He is located in Lee county, west of Bushnell and east of La Harpe, and has express facilities to all points in the railroad systems.



FINDERNE PONTIAC NETHERLAND — HOLSTEIN-FRIESIAN HEIFER. A junior two-year-old. Broke two world's records with a production of 567.5 pounds of milk in seven days, 3.96 per cent. fat, equivalent to 28.26 pounds of commercial butter; and in thirty days 2,329.4 pounds of milk, 3.80 per cent. fat, equivalent to 110.72 pounds of butter. This extraordinary heifer is owned by Bernhard Mayer, Finderne, Somerset county, New Jersey.

KINGMAN Model Gang Plow

For Durability and Easy Work

Only the best steel used in the Kingman Model Gang Plow. In its design and construction you get the benefit of our 40 years experience in plow building.

YOU GET LIGHT DRAFT and more uniform furrows with the Kingman Model Gang Plow, because it is built so that the weight is carried on the furrow wheels—there's no dead weight; side draft is practically eliminated.

EASY TO HANDLE. Powerful foot and horse lifts, and lever in easy reach of driver to raise or lower bottoms. Bottoms are flexible; enter and leave ground point first.

Bottoms are soft center steel, in any style to suit your soil. Shipped as nearly set up as possible. Write for FREE Illustrated Catalog.

KINGMAN PLOW CO., Dept G, Peoria, Ill.

GERMINATION TESTS.

The Stronger the Vitality of the Seed Ear the Larger the Yield.

Forty ears of seed corn, apparently exactly alike, were selected from an Iowa farmer's seed by Prof. P. G. Holden. Kernels were taken from each year and germinated. One ear was dead. The kernels from some ears germinated very strong, from others strong, from others weak. The seed from each ear was planted in a separate row. The kernels from the ear which showed the most vigorous germination produced at the rate of ninety-two bushels to the acre. The ear that showed the weakest germination produced at the rate of twenty-four bushels to the acre. The four ears strongest in germination, including that which produced at the rate of ninety-two bushels, yielded at the rate of eighty-eight bushels an acre; the four ears that were weakest in germination, including the twenty-four-bushel ear, averaged at the rate of thirty-two bushels an acre.

Seed corn was collected from ninety farms near Ames, Iowa, by Prof. Holden and planted in adjoining plats. The seed that showed the strongest vitality in germinating yielded eighty and one-half bushels an acre; the seed that showed the least vigor yielded thirty-one and one-half bushels an acre. The yield of the other lots varied between these extremes according to the vitality of the seed.

C. P. Hartley, the government corn expert, divided a lot of freshly-gathered ears of seed corn into two lots. One lot was cured and kept in a seed house under the most favorable conditions for maintaining the highest vitality. The other lot was kept in a crib under conditions that maintained average vitality. In the spring both lots germinated equally well. The crop from the seed kept to maintain the highest vitality was eighteeen bushels an acre more than that from the seed with average vitality.

Mr. Hartley says: "Save the seed only from the most profitable individuals. Care for each living kernel from the time it ripens until it is planted in a manner that will enable it to develop into a thrifty plant and produce one or more large ears."

At the Ohio Experiment Station, in a field of corn of the same variety, some rows were badly broken down in a storm, while other rows stood upright. Seed taken from the rows with broken stalks produced seventy-five bushels an acre; seed from the rows that withstood the storm yielded 114 bushels an acre.—H. M. Cottrell, Agricultural Commissioner, Rock Island Lines.

STORING GRAINS.

A Few Scientific Directions, Also Some Based on Simple Common Sense.

An Agricultural College Bulletin No. 156 of the Illinois Station is on the subject of injurious insects to stored grains.

Of more than fifty species of insects sometimes found in stored grain and their ground products only seventeen are grain eaters, and of these only nine are of much importance, namely, grain moth, flour moth, meal moth, meat snout-moth, yellow meal worm, flour beetle, granary weevil, rice weevil and the saw-tooth grain weevil.

The bulletin gives the description, habits and life history of each of these insects, and recommends the following preventive and destructive measures:

Grain should be threshed and dried out as soon as possible after it ripens. All sacks and storage bins should be cleaned out and fumigated before placing new-crop grain in them. Corn is less liable to insect attack if dried, shelled and sacked. Flour and meal bins should be cleaned out and fumigated occasionally. In buying grain, farmers, seedsmen and millers should make sure that it is not infested by insects before storing it.

If in spite of these precautions a crib, grain bin or storage room becomes infested, make it as nearly air-tight as possible and give it a thorough fumigating with sulphide bicarbon. Hydrocyanic acid gas is sometimes used, but it is more dangerous and less penetrating than the sulphide bicarbon.

HUMAN FARM LABOR.

Increased Productivity by the Inventions in Farm Machinery.

In a recent circular on the subject of farm labor, issued by the United States Department of Agriculture, the increased productivity of human labor by the use of implements and machinery is strikingly stated in the case of corn. From 1855 to 1894 the time of human labor required to produce one bushel of corn on an average declined from four hours and thirty-four minutes to forty-one minutes. This was because inventors had given to the farmers of 1894 the gang plow, the disc harrow, the corn planter drawn by horses, and the four-section harrow for pulverizing the top soil; because they had given to the farmer the self-binder drawn by horses to cut the stalks and bind them; a machine for removing the husks from the ears and in the same operation for cutting the husks, stalks and blades for feeding, the power being supplied by a steam engine; because they had given to the farmer a marvelous corn sheller, operated by steam, and shelling one bushel of corn per minute, instead of the old way of corn shelling, in which the labor of one man was required for 100 minutes to do the same work.

The Great Crop of Corn.

According to the latest figures by the United States Department of Agriculture, the corn crop of 1912 is finally estimated at 3,169,137,000 bushels, compared with 2,531,488,000 bushels last year, and the record crop of 2,927,416,000 bushels in 1906. Yield per acre, 29.3 bushels, compared with 23.9 bushels last year, and 26.7 bushels, the ten-year average. Average farm price, 58.4 cents per bushel, compared with 64.7 cents last year. Quality, 101.1 per cent., compared with the ten-year average. Corn of 1911 crop reported on farms, November 1 was 64,764,000 bushels, compared with 123,824,000 bushels of the 1910 crop remaining on farms November 1 last year.

The 1912 Barley Crop.

According to the United States Department of Agriculture, the total barley production of 1912 is estimated at 224,619,000 bushels, compared with 160,240,000 bushels last year, and the record crop of 178,916,000 bushels in 1906. Yield per acre, 29.7 bushels, compared with 21 bushels last year, and 25.4 bushels, the ten-year average. Average farm value, 53.8 cents per bushel, compared with 84.9 cents last year. Weight per measured bushel, 46.8 pounds, compared with 46 pounds last year, and 46.9 pounds in 1910.

Rye Crop of the United States.

The latest estmate by the United States Department of Agriculture for the crop of the year 1912 places the total rye production at 35,422,000 bushels, compared with 33,119,000 bushels last year, and the record crop of 34,879,000 bushels in 1910. Yield per acre, 16.9 bushels, compared with 15.6 bushels last year, and 16.1 bushels, the ten-year average. Average farm price, 68.8 cents per bushel, compared with 83.1 cents last year.

Yes, crops can wait

But at whose Expense?

Nearly every soil contains enough plant food for many hundred years; it represents the potential fertility of the soil, and is good for about 14 bushels of wheat, 20 bushels of corn, 15 bushels of oats or 40 bushels of potatoes to the acre. But an acre rightly treated with manure or fertilizers is capable of producing three to five times as much. If the acre waits for plant food **who pays the bill?**

AVOID THAT "WAIT" BY USING

EMPIRE FERTILIZERS

These fertilizers supply to growing crops in available form the plant food elements required which in connection with good seed, cultivation and weather, and the plant food supplied by the soil and air, are producing good crops of profitable size and quality. Farmers depend upon them as upon other old friends, and have done so for years.

Agents wanted where we have none. Address early for prices and terms,

EMPIRE CARBON WORKS

421 Locust Street, St. Louis, Mo.

CASH OR CREDIT

Catalogue FREE.

ONLY $10.00

Cash, balance $5 per month, buys this 3-year-guaranteed buggy. Buggies $29.50 up; Surries $45.00 up; Farm Wagons $40.00 up. We trust honest people located in all parts of the world.

Write For FREE CATALOGUE.

Century Manufacturing Co.,

Dep't 896, East St. Louis, Ill.

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if **Fleming's Lump Jaw Cure** ever fails. Our fair plan of selling, together with full information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Contains 192 pages and 69 illustrations. Write us for a **free copy.**

FLEMING BROS., Chemists
218 Union Stock Yards, Chicago, Ill.

Don't Have a Blind One

"VISIO"

An Absolute Cure for

Moon Blindness

(Opthalmia), Cataract and Conjunctivitis

Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Before After

ABSORBINE

Will reduce Inflamed, strained, swollen Tendons, Ligaments, Muscles or Bruises, Cure the Lameness and stop pain from a **Splint, Side Bone or Bone Spavin.** No blister, no hair gone. Horse can be used. $2 a bottle delivered. Describe your case for special instructions and **Book 2 E free.**

ABSORBINE, JR., the liniment for mankind. Reduces strained, torn ligaments, enlarged glands, veins or muscles—heals ulcers—allays pain. Price $1.00 a bottle at dealers or delivered.

W. F. YOUNG, P. D. F., 106 Temple St., Springfield Mass.

13

Time Has Told

Don't experiment with every remedy under the sun for Spavin, Ringbone, Curb, Splint, Capped Hock, Swollen Joints or lameness of horse or man.

Kendall's Spavin Cure

has been the old reliable remedy for 35 years. Try it.

Granby, Mo., May 14, 1911.

Gentlemen:—Have used your Spavin Cure for 25 years and have cured many spavins. I do not think it can be beaten. Very truly yours, C. L. England.

$1 a bottle, 6 for $5. At all drug stores. Ask for free book, "Treatise on the Horse," or write to—

DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

Sharp SHOE in 20 Minutes
YOUR HORSE can be driven with safety and comfort on the iciest street if fitted with
RED TIP CALKS.
No long waits at blacksmith's shop for sharpening, no postponed trips due to bad roads. Your Horse is ready when you are ready. Be sure you get Genuine Neverslip Calks. They are marked with a RED TIP. Without the RED TIP they are Not Neverslips. Send today for Booklet L.

Annual New York Sale.

The Old Glory Horse Sale at Madison Square Garden, New York, was concluded on November 30th. There were 725 horses sold for $268,000, an average of $370 per head. This sale included all types except drafters; principally trotters and pacers.

THE FAMILY HORSE.

"What's the Matter With Old Tom?"

William Allen White, whose answer to the question, "What's the matter with Kansas?" made him famous many years ago, has lately answered another question—"What's the matter with Old Tom?"—in a way that will make the Emporia editor's name forever cherished in the horse world:

When Theodore Roosevelt visited Emporia a few weeks ago, Mr. White took the Progressive candidate out buggy riding behind the family horse. Some of the Kansas newspapers, in reporting the incident, referred to Old Tom in terms intended to be sarcastic, whereby his owner paid this tribute to the faithful steed in the columns of the Gazette:

"Old Tom, of course, is no Maud S. nor Joe Patchen—for several reasons. But he has the same number of legs attached, and his heart is true. He makes no claim to speed, but his carburetor always works, and while he has but two cylinders he brings his guests back in one piece and leaves them at home rather than down-town at the undertaker's to be assembled by total strangers into their aliquot parts. What if he isn't speedy? What if his best record is a mile in fifteen minutes? So far as that is concerned, the pyramids have been 4,000 years making a distance that Old Tom can make in a few desultory minutes, and no one sneers at them. There are too many smart Alecks running newspapers who jest at useful things to raise a laugh. Old Tom may not have a windshield or speedometer. But—what would he do with them? He is fully equipped with a few kind words and a whalebone whip. He will go longer—though perhaps not so far—on a forty-cent bale of hay than these new-fangled vessels of wrath fitted into destruction will go with a bucket of gasoline and a cord of rubber. Then, of course, there is this important thing to say of Old Tom: While, of course, it is difficult to get new parts when he breaks, yet, after all, he is paid for, and there's no ninety-day note turning up every season to make the years a melancholy procession on the other side of the street from the bank. That's not much, perhaps, but still it's something. Taken up one side and down the other—Old Tom has his good points."

IMMENSE SHEEP SHIPMENT.

Big Montana Flockmaster Disposes of 121 Double-deck Loads at Chicago in Four Days.

On November 14th the Chicago Live Stock World mentioned an extraordinary sheep shipment from Montana by saying:

"With the marketing of nine double-decks of yearlings here today, Thos. Cruise, millionaire Montana mine owner and large flockmaster, completed one of the most remarkable stunts in sheep marketing recorded in trade annals.

Discovering a few weeks ago that his flock of upwards of 100,000 head was much larger than he deemed best to attempt to carry through the winter, Mr. Cruise promptly ordered four trains of thirty double-deck stock cars, each to be set at his loading pens. The order was filled, with an extra car thrown in for good measure, and the entire 121 double-decks were loaded and billed to Chicago. The stock reached a feeding station near Chicago in good shape, but the consignment was of such a mixture that the better part of three days was consumed in sorting and shaping preparatory to its appearance at the Chicago market, which was called upon to absorb 112 of the 121 doubles, in addition to the regular market supply within a three-day period. Forty-three double-decks were placed on the Monday market; on Tuesday another thirty-seven doubles was shot in, and on Wednesday the market was asked to absorb thirty-two more doubles. The remaining nine doubles were here Thursday.

The memory of the pioneer traders recalls no prior single instance when so large a string of one ownership was offered for sale on one market within so brief a period. It is distinctly to the market's credit, and a record which would be possible on no other market, that the stock was absorbed, not only promptly as offered, but that this was done without straining the demand or causing material weakness in the trade—the last shipments, in fact, outselling the first.

The big string proved a bonanza to stock sheep and feeder buyers who were on hand in droves, making an eleventh-hour stand for supplies, with an apparent realization of the fact that he who this season longer defers the filling of his sheep feed lots is lost. Practically the entire shipment, aggregating 27,886 head, went to feeder buyers, but twenty-four head out of the entire offerings of forty-three double-decks being fat enough for slaughter.

The stock was all thin in flesh and consisted of mixed yearlings and aged stock, not a lamb being found in the 121 doubles. Sales of feeding wethers in the band were largely from $3.85 to $4.15 per 100 pounds. feeding yearling wethers mostly at $5.00; aged feeding ewes mostly at $3.10 to $3.45; and feeding yearling ewes from $4.00 to $4.15 per 100 pounds."

A Great Winning.

Dr. LeGear's White Plymouth Rocks won a complete victory at the Arkansas State Fair, at Hot Springs, Ark., November 11th to 16th, 1912. They captured every prize offered to the White Plymouth Rocks, and there was a large entry and strong competition.

We entered seven cocks, eleven hens, four cockerels and six pullets. There were only three prizes offered in each class and Dr. LeGear's Plymouth Rocks won:

First, second and third cock.
First, second third hen.
First. second and third cockerel.
First, second and third pullet.
First, second and third breeding pen.

One silver loving cup for the best fifteen White Plymouth Rocks in the show, and a $50 special cash sweepstakes prize for the best twenty-five birds in the show, regardless of breed, competition open to the world.

There were birds entered from six different states, which proves the superior qualities of Dr. LeGear's White Plymouth Rocks. Our winnings at the Arkansas State Fair are the greatest on record for any one breeder of one variety at a large poultry show.

Dr. LeGear's White Plymouth Rocks also won thirteen out a possible sixteen prizes at the Great St. Louis Show, 1911.

Bred and owned by Dr. L. D. LeGear, Kirkwood, Mo., or 713 Howard street, St. Louis, Mo.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,

P.O., NATIONAL STOCK YARDS, ILL.

Hog Book Free.

Book of facts on care and diseases of hogs. Tells how to prevent and cure disease, and destroy worms. Greatest discovery known Sent free. Write Dr. D. C. Snoddy Co., Dept. H, Nashville, Tenn.

THE KELLOGG TREATMENT

For All Non-Breeding and Aborting Stock.

A guarantted remedy for cows, horses, hogs and sheep.

Endorsed by thousands of breeders and dairymen as the only satisfactory treatment. On the market for 24 years. Write for descriptive 48-page book.

H. W. Kellogg Co., 970 Carroll Ave., St. Paul, Minn.

SAVE-THE-HORSE

(Trade Mark Registered)

OUR LATEST Save-The-Horse BOOK—is our 17 Years' Experience and DISCOVERIES—Treating over 100,000 horses for Ringbone—Thoropin—Spavin—and ALL Lameness. It is a Mind Settler—Tells How to Test for Spavin—What to Do for a Lame Horse, Covers 58 Forms of Lameness—Illustrated. MAILED FREE.

But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers).

Write! AND STOP THE LOSS.

TROY CHEMICAL CO. 62 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

National Farmer and STOCK GROWER,

Monthly Farm Paper. Useful on grain, stock, dairy, poultry, fruit and vetgetable farms. Send for Free Sample Copy, or, what is better,

send fifty cents for one year's subscription, and receive as a premium **Eight Hardy, Everblooming Roses,** one-year plants, the richest colors, the best varieties. They are **Rhea Reid, The Bride, Etoile de Lyon, Bridesmaid, Champion of the World, Papa Gontier, Bessie Brown** and **Crimson Rambler.** Nowhere else in the world can they be bought for the money. Address, **HALE PUB. CO., 3550 Vista Ave., St. Louis, Mo.**

GET THIS STOCK BOOK FREE

It tells you just what to do in an emergency. Many a valuable animal dies that could be saved by prompt treatment.

Dr. LeGear's international reputation as a veterinarian brought such insistent demands for his opinion and advice that it became imperative for him to compile a scientific treatise on the ailments of Cattle, Horses, Hogs, Sheep and Poultry, and every word of information and advice contained in this book is the result of his years of study and experience.

We want every owner of Stock or Poultry to have a copy. Write for it today—it is free.

DR. L. D. LeGEAR MEDICINE CO.
715 Howard Street ST. LOUIS

Sole manufacturers of Dr. LeGear's Stock and Poultry Remedies, consisting of Stock Powders, Colic Remedy, Antiseptic Healing Oil, Antiseptic Healing Powder, Dip and Disinfectant, Gall Remedy, Spavin Remedy, Liniment, Heave and Cough Remedy, Worm Remedy, Powdered Lice Killer, and a full line of Poultry Remedies.

Combination of Breed and Feed.

"Blood tells." Likewise, "feed tells." The combination of the two enabled the Missouri College of Agriculture to give to the state the world's record cow, Josephine. The same combination has enabled the college to give to Missouri another high-record milk and butter producer, Carlotto Pontiac.

Carlotta is seven years old. She was bred on the College Farm. In twelve months, during which time her milk was officially weighed and tested, she produced 23,593 pounds of milk. This is equivalent to 93½ standard barrels. The milk from this one cow would have supplied the needs of thirty average city homes. Her milk contained 708 pounds of fat, which is equivalent to 827 pounds of butter. This was sold at regular Elgin prices for over $200 The skim milk was worth between $30 and $40. It required between $80 and $90 worth of feed to produce this gross return of more than $230. At six cents a quart, which is less than the usual price to city customers, the milk from this cow would have sold for over $700.

There are a good many so-called dairy herds in Missouri (and more of them in some other states) in which the entire herd does not return as much clear profit for feed consumed in a year as has this one cow, owned by the Missouri College—Carlotta Pontiac.

Trusses Like These Are a Crime

Here's an end to the curse of wearing straps and springs that squeeze and pinch — pads that do no good — trusses that simply shorten your life.

Here's something absolutely **guaranteed** to keep your rupture from coming out. Test it on 60 days trial and see. If it doesn't hold at all times, then it won't cost you a single cent.

Has overcome some of the worst cases on record. Doctors and surgeons who know of it recommend it instead of operation. No belt, no leg-straps, no springs. Is waterproof—will hold in bath.

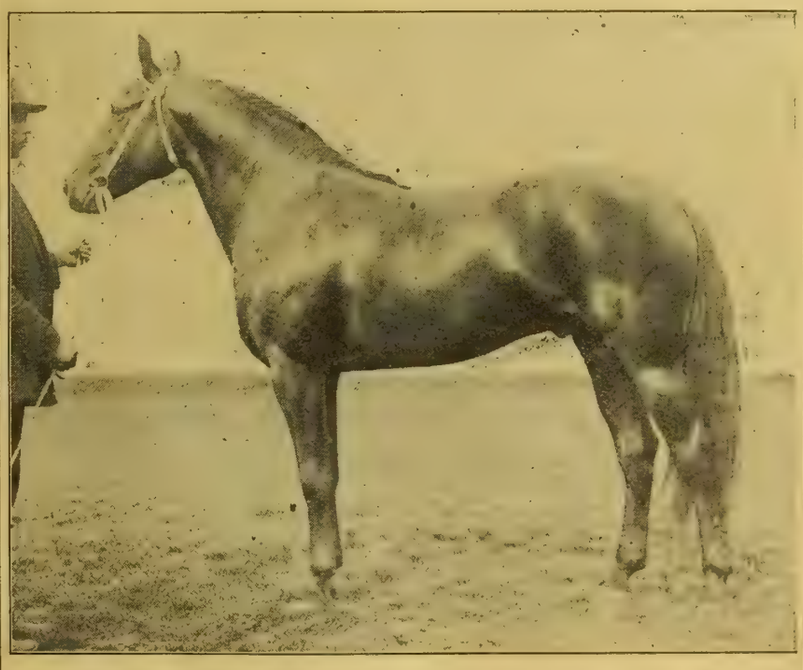
Write for Free Book and find out all about it. Book is full of facts never before put in print. Cloth-bound, 96 pages. Explains why elastic and spring trusses cannot help you. Shows dangers of operation. Exposes the humbug "appliances," "methods," "plasters," etc. Will save you from wasting money. Shows why 60 days trial is the only safe way to test anything for rupture and how we offer you the only thing good enough to stand such a long test.

Book gives over 5,00 voluntary endorsements. Write for it to-day—it tells you things you could never find out by going to doctors or drugstores. Address:
Box 776—CLUTHE CO., 125 E. 23d St., New York City.

ROCK SAND—ENGLISH THOROUGHBRED STALLION. Foaled in 1900. Winner of the English Derby, St. Ledger and Two Thousand Guineas—known as the Triple Crown. ROCK SAND was imported into this country and became closely identified with the American turf, and during the last three years his get won the highest class of events of the turf in four countries—United States, England, France and Canada. Mr. August Belmont, the American owner, recently sold ROCK SAND to an English Syndicate for $150,000.00, and he returnel to his native land on the last day of October, 1912.

Not Cholera, But Worms.

Collie Bowers, a farmer of Otho township, Fort Dodge Iowa, is enthusiastic in regard to using Merry War Lye (see page 14) in cases where supposed cholera is attacking hogs. In his section they have the annual attack of so-called hog cholera, which is really a form of worm trouble that comes with new corn, and after some experience in losing pigs last year he set to work using Merry War Lye, and this year the whole township is saving its pigs by the same process. The experience as set forth by him appeared in the Fort Dodge Messenger of November 7th, 1912.



BORDER KNIGHT—TROTTING STALLION OF THE BEST CLASS. At the Kentucky State Fair, Louisville, 1912, BORDER KNIGHT, 2:12¼, from the Glen Lake Farm of John W. Stout, was awarded first premium in the class for stallions in service. This is a well-deserved compliment for this good son of Bingen from Felista.

THE ELECTION RETURNS.

General Results Known, But Not the Exact Figures.

Of course, no one is now waiting on the result of the election, but the returns are not yet all in. The latest table placed the vote for Hon. Woodrow Wilson in the entire country at 6,156,748; that for the third party and Republican ticket combined at 7,304,568, and the total vote for all parties at 14,295,737. Directly the returns are made official, the last pages of the Handy Almanac, Encyclopedia and Atlas for 1913 will be printed and will be delivered to all who are entitled to a copy of it. We are offering this book to all of our readers who will pay 50 cents for one-year's subscription to The National Farmer and Stock Grower and who do not receive any other premium. The book is advertised on page 25.

St. Louis Horse Market.

Holland, Nugent & Maxwell Bros., of the St. Louis market at the National Stock Yards, Ill., report that trade is active for any number of horses, but the prices are not so high as a month ago. The horses in demand are on the chunk order, 1,100 to 1,400 pounds in weight. All light horses, except the Southern and fancy drivers, are slow. Horses on the plain Southern order, that sold at the high time at $70 to $95, are now well sold at $40 to $50. A letter to Mr. T. H. Holland, National Stock Yards, Ill., from any car-load shipper will receive personal attention.

Last Butter Quotation.

On December 2d, at Elgin, the official butter quotation was 35½ cents. That is for the top grade of creamery butter. A year ago the quotation was 36 cents; two years ago, 29 cents; and three years ago, 33 cents.

SUBSCRIPTION PREMIUM — A POCKET COMPASS.

This is a true 1¾-inch Pocket Compass purchased from a reliable house. It is a fancy, nickel-plated, open-face, watch-shape Compass, with a silvered dial, and it weighs less than one ounce. Every farmer or ranchman should have one in his pocket. Send us One Dollar and we will send you The National Farmer and Stock Grower for one year, and we will also send you this Pocket Compass by mail postpaid. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed, because either paper is worth considerably more than the full price. The papers are as follows:

THE NATIONAL FARMER AND STOCK GROWER—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.

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PROFIT IN CAPONS.

A Splendid Contribution to the Meat-production Side of Poultry Raising.

Circular No. 27, by W. A. Lippincott, Department of Poultry Husbandry, Kansas Experiment Station, Manhattan, Kas., treats of caponizing and capons. The circular has twenty-four pages, nine of which are devoted to illustrations of the process of caponizing.

The author states that the operation of emasculating the young roosters not intended for breeding is just as simple and quite as important as that of castrating the young pig or calf intended for future slaughter. The capon, like the barrow and steer, becomes docile, lays on flesh more economically, and the flesh is of much higher quality, remaining as sweet and tender as when the operation was performed on the young broiler.

The loss by reason of the operation of caponizing, properly done, need never exceed five per cent.—five birds in every 100. The instruments consist of a sharp knife, a spreader, a probe and forceps for the removal of the little testicles, and the price of these instruments ranges from $2.00 to $4.00 a set.

A broiler weighing two pounds July 1st will turn out a capon weighing eight to ten pounds in December, worth $1.50 to $1.60. Unless the demand and price for broilers be unusually good, there should be a handsome profit in converting the male broilers into capons.

The proper time to operate is when the bird weighs a pound, if of the small breeds, like Leghorns, and a pound and a half if of the heavier breeds, like Plymouth Rocks.

With this circular, or any standard work on poultry on hand, any intelligent, careful person can soon learn the art of caponizing.

THE EGG-LAYING CONTEST.

Final Results as Reported by the Manager.

The First Missouri National Egg-laying Contest closed at the State Poultry Experiment Station at Mountain Grove, Mo., on October 31st. The results of the contest were not especially startling. The leading pen was R. C. Rhode Island Reds, which made a record of 1,042 eggs for five hens, or an average of over 208 eggs per hen. The best individual record was made by Lady Showyou, White Plymouth Rock hen, which laid 281 eggs in twelve months. This hen lacked one egg of equaling the best record in this country, which was 282 eggs by a Barred Rock hen at Guelph, Canada. Lady Showyou, however, laid a full-sized egg, weighing on an average a little more than two ounces each, and with a good, strong shell on each egg. We are told by Prof. Graham, of Guelph, that his 282-egg hen laid a very small egg with a very poor shell; so Lady Showyou was far the most remarkable performer of the two when these facts are considered.

There were 655 hens in this contest, and they laid a total of 87,843 eggs, or an average of over 134 eggs per hen. Considering the fact that more than a dozen pens lacked two or three months of being mature at the time the contest began, and also considering the fact that more than half of the pens were made up of hens and several of them contained hens three and four years old, we are reasonably well satisfied. When we consider the fact that most of these birds had been carelessly and promiscuously bred with no special idea to increase egg production, and came from all classes of breeders, we do not feel that one hundred and thirty-four eggs per hen is a bad average for such a promiscuous lot of stock.

Yield by Months—655 Hens.

	Eggs.
November	3,118
December	5,082
January	3,203
February	6,442
March	10,828
April	12,458
May	11,478
June	9,798
July	8,873
August	7,015
September	5,716
October	3,832

The Best Pen Records.

		Eggs.
1.	R. C. Rhode Island Reds—D. E. Hall, California, Mo.	1,042
2.	White Wyandottes—P. J. Jansen, Little Rock, Ark.	1,015
3.	S. C. W. Leghorns—Walter Hogan, Petaluma, Calif.	991
4.	B. P. Rocks—Brooks Sanitary Hennery, Morgan Park, Illinois	967

The Best Individual Record.

1.	White Plymouth Rock—J. A. Bickerdike, Millersville, Ill.	281
2.	R. C. R. I. Red—D. E. Hall, California, Mo.	255
3.	B. P. Rock—M. H. Baldwin, Sioux City, Iowa	245

The Heaviest Eggs.

The pen laying the greatest weight in eggs were the five Single Comb White Leghorn hens, which was the third in the contest, owned by Walter Hogan, of Petaluma, Calif. The 991 eggs weigh 131 pounds 2 ounces. This pen of Leghorn hens weighed less than four pounds each, and it will be seen from the above figures that each hen laid more than six times her own weight in eggs.

POULTRY DEPARTMENT NOTES.

. The New York Produce Review says: "Young geese are ready for market when the tip of their wings reaches the tail, which is when they are about ten weeks of age."

The effect of meat rations fed to hens was tested at the West Virginia Station, where one pen of fowls received a ration largely of corn and other starchy grains, while another pen was fed partly on meat and fresh bone. The meat-fed fowls laid 7,555 eggs, while the grain-fed birds laid 3,431, or less than one-half as many as those receiving the nitrogenous ration. The eggs from the meat-fed fowls were larger, much firmer, rather better and produced far more vigorous chickens than those of the others.

A Parade of Turkeys.

On Tuesday morning of Thanksgiving week, 20,000 turkeys trotted through the streets of Cuero, De Witt county, Texas. Seven thousand people turned out to see the parade, which was led by a United States Army Band and attended by the Governor of the state. Cuero is a poultry-packing center besides being a railroad center. During the census year De Witt county had 150,000 head of poultry of all ages. Lavaca, an adjoining county, had 248,000 head.

FAVORITE CORN HUSKER.

Clark's Corn King with its new self-shedding hook. The spear point enters the husks easily. The slant bend turns the husks for shredding, and the rounded, curved and beveled edges throw out the husks and prevent clogging. As this is the most approved hand husker on the market, we have selected it as a seasonable subscription premium. The hook sets at any angle; two positions for a thumb hook and five positions as a palm hook. Opening and closing the small end of the plate makes the adjustment perfect for any width of hand and prevents chafing. The strap passes through the leather tongue and the first ring and over the hand to the opposite ring and back through the first ring. Be sure and have the strap enter the ring

from the outer side. It brings the pulling strap unlerneath, forms the sinch draw and gives you the full benefit of the sinch-lock, which is the same as a half-hitch. The strap then passes to the last ring and then to the buckle; the half-hitch forms one fastening and the buckle holds the end of the strap. We will send The National Farmer and Stock Grower for one year and Clark's Corn King Husker for 50 cents. The Husker is a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Wonderful Invention!
X-Ray Incubator Uses Only One Gallon of Oil to a Hatch

Requires Only One Filling of Lamp

SHIPPED *direct* to you from X-Ray factory. No agents—no dealers. Guaranteed to please. Order filled *same* day received. Freight prepaid *anywhere!* X-Ray incubator has lamp underneath—square in the center—and *not* on the side. Thus it is the *only one* with *perfect* heating system. Egg-chamber is always at proper temperature—there's no cold side. Oil tank holds from 4 to 8 qts. of oil—only 4 qts. are needed for an *entire* hatch. Lamp is filled *just once. Automatic Trip*—exclusive X-Ray patent—cuts down flame *at burner* when egg-chamber gets too hot. No excess heat escapes—so only *one* gallon of oil is needed.

X-Ray Incubator

Built Different From Other Machines—has lid on top, with 2 double-glass panels. Thermometer is *always* in sight. To ventilate or turn eggs simply raise glass top. Eggs are never removed from X-Ray. X-Ray is only one made on *right* principle with lamp where it *should* be.

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Write *now* for our new 1913 book No. 96. Get *all* facts.
We pay the freight.
X-Ray Incubator Co., Wayne, Nebraska.

Freight Prepaid.

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Poultry and egg prices *very high* for 1913. Cost of production *lower*. Get *your* share of the larger profits!

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together with Cyphers Company Service insure success for you. Write today for big new 244-page book "Profitable Poultry and Egg Production"—Free to any address.

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Double cases all over; best copper tank; nursery, self-regulating. Best 140-chick hot-water brooder. **$4.85.** Ordered together, **$11.50.** Freight Paid (E. of Rockies). No machines at any price are better. Satisfaction guaranteed. Write for book today or send price now and save time. Address

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Eat Anything Without Fear

Tightness of the Stomach Caused by Undigested Food Stopped with a Stuart's Dyspepsia Tablet.

When you feel as if your stomach was being tightly choked—when the pain is intense and you break out in a cold and clammy perspiration and there is a lump in your throat and you are weak and nauseated—all you need is a Stuart's Dyspepsia Tablet to clear away the wreckage of undigested food left in the stomach and intestines and restore you to your normal self again. And this can all be accomplished within a few moments.

You May Have Often Envied the Hearty Eater! Why Not Emulate Him?

Thousands of people have learned so well how sure and dependable Stuart's Dyspepsia Tablets are for all stomach ills that they now eat anything they want without fear of distress. They are never without a package at home and at the office, and upon any indication that the stomach is a little weary, they take a Stuart's Tablet after each meal for a few days until the digestive organs get rested up again.

This is a splendid plan to follow and always results in much good. The appetite is improved, the food is relished more, your sleep is more refreshing, and your disposition will make you friends instead of enemies. For Indigestion, Sour Stomach, Belching, Gas, Coated Tongue, Intestinal Indigestion and all Stomach Disorders and Pains—or for Loss of appetite—Stuart's Dyspepsia Tablets are invaluable.

Use them freely—they are as harmless as sugar would be—and are not to be classed as "medicine." They have no effect whatever on the system except the benefits they bring you through the proper digestion of your food.

All Drug stores sell Stuart's Dyspepsia Tablets. The price is 50 cents per box.

EXPERIMENTAL POULTRY RAISING.

Pleasure and Profit to be Obtained by Careful Record and Investigations.

There is a great pleasure to be found in experimental poultry raising. Often there is also much profit. The doing-away with the old, profitless methods will frequently of itself make the flock of poultry profitable.

Most farmers have the land and the opportunity for experimentation with poultry. Members of the family can be enlisted in the enterprise, which will need much recording and bookkeeping. This work of tabulating results and expenses will give a mass of data that must be figured out, but which will prove a most interesting task.

A man who for five years will carry on experimental poultry raising will never go back to the old, blind way of doing things. He will find the things that give greatest profit and will stick to them.

In experimental poultry raising good quarters have to be provided. Balanced rations must be figured out. The experimentation will show what number of fowls will yield the greatest relative profit for any one farm.

The problem of feeding ground green bone is one that will pay to investigate, for in it the experimenter will find a cheap and valuable feed at a time when all commercial poultry feeds are excessively high.

As it is at the present time, every one engaged in such experiments should make much of provisions for poultry pasturage. This must be one of the important issues of the future in poultry raising. Mixed poultry feeds, refuse grain, and the like, are now costing the poultry raiser $2.00 per 100 pounds, in many localities, even when purchased in considerable quantities. Green feed of various kinds must be worked with to find what will be the most profitable and the easiest produced. The poultry raiser will have to get away from the large purchases of feed.

The experimentation should extend to the marketing of the product. There is no doubt that the profits are often lost through marketing at a great disadvantage and through firms and men that systematically defraud the consignor of the poultry products. The writer has known cases where fowls were receipted for and sold at market prices, when in reality they brought more as fancy breeding stock; but the salesman put the extra price in his pocket and said nothing about it.

Co-operation in the marketing of poultry products ought to be experimented with. It is the only way by which the abuses now common can be done away with. American farmers should be as enterprising as are the Danish farmers, who have covered their country with a network of such associations.

Experimentation with such co-operative associations might open a way for a great saving in feeds purchased, which perhaps ought not to cost the farmer as much as they do. The lack of co-operation in such matters is the most serious phase of poultry raising at this time.

The lack of co-operation among poultry raisers is one of the astonishing things in our rural life. With the example of the Danes, the Irish, the French, the Germans, the Austrians and the Italians in such matters, it might have been thought that co-operation among American poultry raisers would long ago have been established.

It is to be hoped that the spirit of experimentation will engender extensive co-operation.

POULTRY LESSONS.

Conclusions Arrived at by the Manager of the Missouri International Egg-laying Contest.

He says: "We will simply mention a few of the things which we have gathered from the records and from general observation, and these will be elaborated in our later bulletin on this subject. We feel that we can safely say:

1 That there is no variety or breed which far excels other varieties or breeds which are in general use as far as egg production is concerned.

2. That more depends upon the strain or breeding of a variety as to the number of eggs it will produce than upon the variety itself.

3. That some hens have a born tendency to lay and others have a born tendency to put on fat. The latter kind should be culled out in establishing a laying strain.

4. That more depends upon the breeding of the male as to the number of eggs the offspring will produce than upon the female, yet it will pay to breed from your best layers in preference to the poorest.

5. That you should select the variety which suits you best as to color, size and shape and breed them up until they satisfy you as to quality and productiveness. You make a mistake by jumping from one breed to another trying to discover a better layer.

6. That it will pay the average poultryman to trap nest his flock in the fall and winter months and breed from the pullets which lay earliest in life and from the pullets and hens which lay in the winter.

7. That the style of house used in this contest is one of the most satisfactory styles of houses for this climate. We find it cool in summer and comfortable in winter, convenient and properly ventilated.

8. That hens like sprouted oats as much or better than any other green food, and they do well on it. It aids digestion and increases egg production.

9. That a little moistened food is relished and will slightly increase egg production.

10. That many high producers lay thin-shelled eggs, and that the germs are often weak. A few high producers are able to lay large numbers of eggs, fertilize them and put vitality into the chick.

11. That the Mediterranean class can stand more protein and fattening food than the birds of the American, Asiatic or English classes. There is not so much danger of the Mediterraneans becoming too fat, and they require a richer food than the other classes mentioned.

12. That the egg yield from Mediterraneans is affected by extreme cold more than the other classes of fowls, because of the fact that they are closely feathered, larger combs and smaller bodies.

13. That if you give a hen reasonably good shelter, feed and attention she will net you a reasonable profit if she has been properly bred.

14. That the purpose of properly feeding and housing a hen is not to feed eggs into her body, but to so feed and care for her that you may get out of her the eggs which breeding has placed there. Proper feeding, housing and care have a bearing on the number of eggs produced by a flock, but breeding is the most important factor.

15. That hens must be fed, and fed liberally, if you expect eggs in large quantities, especially if you expect winter eggs.

16. That regularity in feeding is very essential.

17. That hens must not be excited or chased, but should be handled in a quiet, gentle manner at all times.

18. That rape will color the yolk of the egg green, and onions or fish scrap will cause the eggs to taste of these if fed quantities.

19. That the ground should be kept fresh, shade provided in the hot summer months and the house kept clean. The hens cannot do well if covered with vermin.

20. That most high layers will lay practically all the color out of their legs and plumage in one year.

21. That hens lay a few more eggs when males are not used in the pens with them.

22. That most good layers moult late in the season. They look tough, dirty and weather-beaten, as a rule, as a result of their hard year's work; but the poor layers spend their time in dressing up and putting on a beautiful coat of feathers, and test them early, as a rule.

23. That the best producers have broad bodies. The back is broad and the ribs are widespread, giving plenty of room for the egg organs and digestive organs. Their bodies are solid and the birds are not loose-jointed but compactly built.

24. That good layers are big eaters. A bird must have capacity to eat and digest a great amount of food if she is to lay a great number of eggs.

25. That a big decrease in the egg yield in the winter months can be brought on more quickly by great variations in temperature, sudden changes in weather conditions, than by continued or prolonged spells of either cold or rainy weather.

26. That it will pay to keep a good hen until she is four years old. We had several hens four years old which laid over 150 eggs each.

27. That most of the high producers have good-sized combs for birds of their variety.

28. That the method of feeding may not be the best, but the hens certainly liked the mash used, ate great quantities of it, and if you are to get the best results from the hen she must have a food which she relishes.

29. That photographs have been taken and measurements made, but we are not able to say at this time that there is a fixed type for high producers. You can judge for yourself when these appear in the bulletin.

30. That there is much room for improvement in all varieties and breeds as far as egg production is concerned, and it is up to the breeders of this country to get busy. There are wonderful possibilities along this line.

Flaxseed Crop of 1912.

According to the United States Department of Agriculture, the total production of flaxseed is placed at 29,755,000 bushels, compared with 19,370,000 bushels last year and the record crop of 29,285,000 bushels in 1902. Yield per acre. 9.9 bushels, compared with 7 bushels last year and 8.8 bushels, the ten-year average. Average farm price, $1.33 per bushel, compared with $2.10 per bushel last year. Quality, 101.2 per cent., compared with the ten-year average.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is The Reliable Poultry Journal. We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that should be accepted at once. Address. **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Sunflower seed received from country shippers has been selling at St. Louis at $2.50 to $3.25 per 100 pounds.

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POLAND-CHINA HEADQUARTERS.

We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.

KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S BARGAINS.

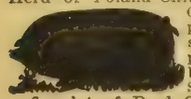
100 HOGS. 2 STALLIONS. 1 JACK. Registered Poland-Chinas and Duroc-Jersey Hogs.

TWO STALLIONS AND ONE JACK. Write for private sale list. It will please you very much.

WILDER CARPENTER,
The Grand View Breeding Farm, Marmaduke, Arkansas.

NINETY DAYS SPECIAL BARGAINS IN POLAND-CHINAS.

Special Bargains, and prices cut to the bottom. We are closing out the Blue Ribbon Herd of Poland-China Hogs, including the Great Missouri Champion, Hutchinson Sensation, 53,000; also a prize-winning son of Royal Meddler, 50,111.



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Pedigreed Poland-China Pigs, the best of breeding, big bone, fancy show stuff, $15 to $25. Write your wants to

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POLAND CHINAS

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One extra good litter of last July farrow, sired by Our Professor. These are first-class in every way; some fine September Pigs of choice breeding. If needing a young Boar, would be pleased to hear from you. from you.

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TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,
J.G.TRUMAN, Manager, Bushnell, Ill.

O. I. C. AND CHESTER WHITE BOARS AND GILTS. No kin. Bred Sows, young herds, a specialty; prolific, large kind; all ages. Pedigrees furnished. Prices reasonable.

FRED RUEBUSCH, Sciota, Illinois.

SALE OF HOLSTEIN CATTLE.
Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition:

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.

250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds. Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me regarding your wants.

JAMES DORSEY, Dept. F & S G,
Gilberts, Kane County, Illinois.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

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PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

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CLOVERDALE FARM.

Thirty big-bone, Kentucky, registered, Mammoth Jacks, from yearlings to six-year-olds. We have some nice Percheron Stallions and a choice lot of registered Tamworth and Hampshire Swine. We would be glad to have you write for circular and testimonials or visit our farm.

H. T. BROWN & CO., Lexington, Ky.

PURE-BRED SHROPSHIRE RAMS.

Registered Shropshires. Come, and if you are not more than pleased I will pay your car-fare both ways. Or shipped subject to your approval upon arrival, or money refunded.

HOWARD CHANDLER, Chariton, Iowa.

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Breeder and shipper of high-grade
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Prices reasonable.

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50 Pedigreed Duroc Red Pigs at $8.00 each. **CHAS. DORR, Osage City, Kansas.**

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10,000 Ferrets for sale. Write for price list and catalogue. It's free.

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THE BREAKFAST BACON HOG.

That's the meaning of those long, deep, sides—choicest, sweet, tender, fresh pork.

HEALTHY, EARLIEST TO MATURE, PROLIFIC.

Splendid hustlers; relishes all kinds of feed, pasturage and cured forage.

THEY CROSS OUT GREAT ON LARD TYPE.

Write for descriptive booklet.

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Now offer one-half of my herd at private sale, as I will not have the room to keep so many hogs after this. Two Herd Boars, eight good, tried, registered Sows, bred, $35 to $45; also Spring and Summer Gilts, and Summer Boars, $16 to $18; September and October Pigs, $12 to $13; all registered, and papers to buyers. Many satisfied customers in thirty-seven states. Catalogue free. For above bargains come or write to

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I have some extra good Duroc-Jerseys for sale. If you want something as good as will be found in any of the best herds, I have it of either sex, from pigs to yearlings. Write me what you wish to purchase. All inquiries promptly answered.

J. E. WELLER, Faucet, Mo.

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55 BREEDS Pure-bred **Chickens, Ducks, Geese, Turkeys,** also **Incubators, Supplies** and **Collie Dogs.** Send 4c for large Poultry book, Incubator Catalog and Price list. H. H. HINIKER, Box 25, Mankato, Minn.

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For anything in Scotch Collies, Pups, Trained Bitches, all ages, prices right, quality considered, write to

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MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

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The "Sal-Vet" International Shropshire Challenge Cup.

This handsome silver trophy will be given by The S. R. Feil Co., Cleveland, Ohio, manufacturers of "Sal-Vet," for the best pen of three yearling American-bred Shropshire ewes exhibited at the International Live Stock Show at Chicago. The cup is twenty-seven inches high with base, appropriately engraved, and its winning will be an honor worth striving for. (To insure ownership of this cup, it must be won three times by the same contestant, but not necessarily three consecutive times.)

The "Sal-Vet" people will also give a similar cup for winners among each of these three other breeds—Hampshire, Southdown and Oxford.

Practically all the big sheep breeders, as well as breeders of hogs, horses and cattle, are constant users of "Sal-Vet." Its merits as a worm eradicator, stock conditioner and tonic is unquestioned. Instances are known where "Sal-Vet" has doubled the weight of hogs in a few months without increasing the amount of feed. In the "Sal-Vet" advertisement, which appears on page 21 of this paper, Mr. Feil agrees to send readers of this paper enough "Sal-Vet" to feed all their stock, horses, cattle, sheep and hogs, sixty days at his risk of satisfaction.

We suggest that all our readers who are not already using "Sal-Vet" turn to the advertisement on page 21, clip the coupon and mail it to Mr. Feil for a sixty-days' supply.

BLOODED STOCK NOTES.

Mr. J. E. Weller, of Faucet, Buchanan county, Mo., on the Chicago, Great Western Railway, not far from St. Joe, is a breeder of Shorthorn cattle and Duroc-Jersey swine. His stock is first-class in every respect.

Attention is invited to the card in the live stock breders' columns on the part of James Dorsey, of Gilberts, Kane county, Ill., who is offering pure-bred and grade Holsteins of the best breeding and character for working dairy purposes and particularly suitable for farmers who are engaged in shipping milk to market. The wonderful capacity of the Holstein breed to give an extraordinary flow of milk that in butter-fat is up to all market standards is shown in this paper, both in the yield of a two-year-old heifer, with illustration, and by the average of hundreds of cows that are officially tested. The card of Mr. Dorsey is worth reading.

Mr. A. F. Siefker, R. F. D. 1, Defiance, Mo., raises pure-bred hogs successfully and his Poland-Chinas have to be cut down in numbers; he will therefore sell some of his own breeding stock, which are described in his catalogue. Speaking of the eight brood sows, he says: "They have raised good litters, and as far as I know not a single one has any bad habit or fault, and they will be bred to my three great herd boars, some to Master Meddler, 2d, 55,000, others to Size and Quality, 47,889, others to Longfellow's Special, 64,200."

Folding Sawing Machine.

One of the inventions of benefit to the farmer and lumberman is the Folding Sawing Machine. It is a big time and money saver. It is important, because of the many valuable advantages it possesses over all other hand-sawing outfits or contrivances.

Its strong points of superiority commend this machine to all who have any amount of sawing to do. And the price is so low that every farmer who cuts any timber at all can easily afford to own one; in fact, can not afford to be without it.

This sawing machine in reality pays for itself every five to ten days of use, for it actually saves one man's time and costs only fifteen dollars.

Folding Sawing Machine.

The writer of this article has seen letters by the hundred from all parts of the world, speaking in the highest and most enthusiastic terms of this machine.

Many of these letters state that the writers have sawed, single-handed, all the way from five to twelve cords of wood per day, and that with the Folding Sawing Machine one man can saw as much wood as two men by the old methods, and do it more comfortably.

This money-saving, labor-saving machine is not an experiment, but has been in successful use for many years. It is made by the Folding Sawing Machine Co., 161 West Harrison street, Chicago, Ill., who will no doubt be glad to furnish Catalogue E 48 upon request.

SOUTHERN CALF GROWING.

Raising and Finishing Calves For Market on the Same Farm.

The raising of cattle and the fitting of them for market have generally been considered two separate and independent operations, conducted, as a rule, by two different men, each operating independently of the other and not interested in the outcome of the other's operations. The professional cattle feeder has always preferred to buy his feeder cattle in preference to raising them, and he has been interested in the cattle raiser only to the extent of having him supply a sufficient number of animals of proper quality and at a low enough price to enable him to fit them for market with profit.

In recent years, however, as the value of land has advanced, the raising of feeder stock as a distinct industry has been less profitable, especially on the higher-priced lands, and consequently there is, in some sections of the country at least, a tendency for the breeder also to fatten his product on his own farm. Of course, no fixed rules can be given as to the profitableness of the one or of the other phase of the beef business. The question as to whether an individual farmer can raise feeder cattle with profit depends in a large measure, other factors being equal, upon the value of his land and the quantity and kind of feed he can produce. In sections where a great percentage of the land is stony, rough, or too steep to cultivate and is adapted to the production of grass, the growing of feeder cattle is profitable. On the other hand, there are many instances where the raising and feeding of the animals on the same farm would bring greater returns in money value, besides adding to the permanent fertility of the land.

Recent co-operative work by D. T. Gray, of the Alabama Station, and W. F. Ward, of the Bureau of Animal Industry, in feeding yearling calves, ahs a direct bearing on the question of raising and finishing animals on the same farm. They state that:

"The farmer who has as many as thirty breeding cows on his farm should make it a rule to fatten their offspring himself; he can seldom afford to sell the calves to the professional feeder. The feeder usually makes money on the process of fattening, and the man who raises calves in sufficient numbers should keep this extra profit at home. Furthermore, the farmer who has from eight to twelve calves or steers ready for the feed lot will usually find it profitable to buy a sufficient number of feeders to complete the load; and he can then fiinish all of them on his own farm.

There are many ways of disposing of beef calves or cattle, and the farmer should be watchful to avoid methods by which money might be lost. It is possible to raise beef cattle properly and by selling them improperly to lose money on the business in just the same way that it is possible to raise good apples, potatoes and peaches and lose money on them when the marketing part of the business is not studied and given proper attention. When beef cattle are bred, fed and marketed in a scientific and businesslike manner satisfactory profits should be realized."

The first experiment undertaken was to determine the cost of finishing high-grade calves for market on different feeds when the animals were less than one year old. Three lots were kept for four months on a basal ration of cotton-seed hulls and alfalfa hay. Lot 1, on a supplementary ration of cotton-seed meal, made an average daily gain of 1.71 pounds at a cost of 6.22 cents per pound; lot 2, with cotton-seed meal and corn-cob meal in the proportion of 2 to 1, made an average daily gain of 1.76 pounds, at a cost of 6.19 cents per pound; lot 3, with cotton-seed meal and corn-cob meal in the proportion of 1 to 2, made a gain of 1.83 pounds, at a cost of 6.83 cents per pound. The third lot gave a larger percentage of dressed weight and sold for a better price, but not for enough more to pay for the extra cost of feed.

To determine whether calves can be fattened profitably for the spring market on a feed of cotton-seed meal, cotton-seed hulls and mixed pea-vine hay, fifty-two varieties were divided into two lots, one lot receiving the shelter of a good barn and the other fed in the open; but as it was found that the young calves would not thrive during the winter months without shelter, the entire lot was placed in sheds. During a period of 112 days the average daily gain for the entire lot was 1.24 pounds, at a cost of 6.97 cents per pound. Each calf netted a profit of $3.50.

A test was made in wintering calves and fattening them the following summer on pasture. Thirty-four calves were wintered on cotton-seed meal and hulls, corn chop and alfalfa hay. The average daily gain was 1.13 pounds, at a cost of 8.63 cents per pound. On March 25 they were turned on good pasture and in eighty-nine days made an average daily gain per head of 1.33 pounds, at a cost of 4.84 cents per pound. The profit for each calf was $1.86.

Among the conclusions drawn from the above experiments are the following:

A farmer may expect to obtain a reasonable profit on beef calves when he raises and fattens them on his farm and sells them when they are twelve to fourteen months old. * * * In the South, at least in Alabama, at the present time, the calves should be born during the early spring months. * * * Young calves can be finished for the market at a profit on cotton-seed meal, cotton-seed hulls and pea-vine hay, but it is more profitable to introduce corn-and-cob meal to take the place of part of cotton-seed meal. * * * The tests seem to indicate that it is more profitable to feed a heavy ration and sell the calves at the end of the winter months, when the prices are normally high, than to hold them until the early summer months.

IMP. YEOMAN—GUERNSEY BULL. Famous as sire of Dolly Dimple and other cows of extraordinary merit. Came West to win championship of the breed at National Dairy Show, 1912. Exhibited by Mr. F. Lothrop Ames, of Langwater Farms, North Easton, Mass. IMP. YEOMAN is one of the 750 pictures of famous animals in the Book of Live Stock Champions, advertised on page 7.

Price of Wholesale Onions.

During the last week in November onions were selling low. At St. Louis, at wholesale, bulk Red Globe sold at 22 to 36c. per bushel on track, and fancy sacked do. at 35 to 42c. per bushel, delivered; sacked white at 50 to 55c. per bushel.

WESTERN CANADA'S PROSPERITY.

Not a Boom, But Due to Natural Development.

One of the largest banks in Holland has been doing a big business in Western Canada, and Mr. W. Westerman, the President, on a recent visit into the Provinces of Manitoba, Saskatchewan and Alberta, expressed himself as being much impressed with present conditions and prospects, and was convinced that the great prosperity of the Dominion was not a boom, but merely the outcome of natural developments.

Not only has money been invested largely in Western Canada by the Holland Banks, but by those of Germany, France, as well as Great Britain. Not only are these countries contributing money, but they are also contributing people, hard-headed, industrious farmers, who are helping to produce the two hundred million bushels of wheat and the three hundred million bushels of the other small grains that the Provinces of the West have harvested this season.

During the past fiscal year there came into Canada from the United States 133,710; from Austria-Hungary, 21,651; from Belgium, 1,601; from Holland, 1,077; from France, 2,094; from Germany, 4,664; from Sweden, 2,394; from Norway, 1,692. And from all countries the immigration to Canada in that year was 354,237. From the United States and foreign countries the figures will be increased during the present year.

Most of the people have gone to the farms, and it is no far look to the time when the prophecy will be fulfilled of half a billion bushel crop of wheat in Western Canada.

Mr. H. H. Hiniker, of the Belgrade Poultry Farm, Mankato, Minn., has just issued a splendid book that really gives considerable information about poultry. It is also a catalogue of fifty-five breeds of poultry. See breeders' card on page 20.

I'll Stop Your Losses from Worms—I'll Prove It 60 Days Before You Pay

Little pigs only a few weeks old are often found loaded with worms. Hogs of all ages suffer from these deadly parasites. Then cholera, swine plague and other contagious diseases get in their destructive work. Stock troubled with worms don't thrive; they cough, have fever, act dull, and don't gain a pound. Your feed is wasted; your profits are stolen. Your animals frequently die, causing total loss of many dollars. I'll stop all this **quick** with Sal-Vet, the great worm destroyer and conditioner. I have done it for thousands of others. I'll do it for you, before you pay me a penny, if you will just send me the coupon.

Prices 40 lbs. $2.25, 100 lbs. $5.00, 200 lbs. $9.00, 300 lbs. $13.00, 500 lbs. $21.12. No order filled less than 40 lbs.

Read This Letter: "Have fed Sal-Vet to my hogs and lost none. Neighbors both sides of me, east and west, have had cholera bad. One west of me, on adjoining farm, lost about forty hogs and pigs with cholera; the one east, on adjoining farm, lost all he he had, excepting four." A. J. HOFFMAN, Leipsic, Ohio.

SAL-VET

Send No Money—Just the Coupon

If you will fill out the coupon—tell me how many head of stock you have—mail it to me, I'll ship enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives, and when the 60 days are up report results. If it does not rid all your stock of the deadly stomach and free intestinal worms, I'll cancel the charge—you won't owe me a cent.

S. R. Feil, Pres. **THE S. R. FEIL CO., Dept NFSG Cleveland, Ohio** [72]

60-day trial shipments are based on 1 lb. of "Sal-Vet" for each dog and sheep, and 4 lbs. for each horse and head of cattle as near as we can come without breaking regular packages

SIDNEY R. FEIL, Pres. THE S. R. FEIL CO., Cleveland, Ohio
Ship me enough SAL-VET to last my stock 60 days. I will pay the freight and report results in 60 days and will then pay for it if does what you claim. It it does not you are to cancel the charge

Name.....
P.O. Shipping Sta.
State. Sheep Cattle Horses
NFSG 12-12

UNCLE JOE'S FOLKS.

A Little Story in Regard to Modern Farm Life.

"We don't have to accept it, father?" asked Louise Compton, as she handed back to her father the invitation for spending the Christmas on the farm.

"No; I don't believe anybody can compel us to go. The question is, don't we want to go? I haven't been out to Brother Joe's for ten years, Louise, and you were there only once when you were a baby. Your mother never cared for the country. Twice before they've asked us, but you trumped up some kind of an excuse. There's nothing sounds so good to me as getting off there for the holidays with Uncle Joe's folks, and if you don't care to go, I believe I'll try it by myself."

"Oh, very well; if you feel that way about it, I'll go, of course. And it may as well be first as last," answered Louise in an ungracious tone.

"You just wait. You'll like it just as well as I will," said Mr. Compton, as he kissed his daughter good-bye for the day.

"I can't imagine myself ever coming to the pass where I will enjoy being buried alive in the country for several days with not a soul worth while to talk to," answered Louise.

Louise had been longing for an invitation to a Christmas Eve party to be given by Marie Babcock, a girl in whose favor she was most anxious to stand, for Marie was the daughter of wealthy parents and the center of an exclusive little clique of which it was the desire of Louise's heart to become an intimate member. The expectation of this invitation had led Louise to plan a new gown for the occasion.

"But I won't take it out to the country—never!" said Louise to herself as she stopped to take a peep at the dress. "I'll wear some of my old things that can't spoil, and I'll keep my new gown for something worth while. After all, perhaps it's not such a bad idea to go to Aunt Mary's, for it's the same as giving me a new dress to wear to something else that the girls invite me to. It really doesn't look as though Marie intended to invite me, after all. And I know that Mr. Donald Smith is going to be there, or, at any rate, he's invited. Perhaps if he hadn't noticed me a little specially at Eva's party Marie would have invited me. But with everything that Marie Babcock has, she needn't be jealous of poor little Louise Compton. The presents for the whole Uncle Joe family won't cost one-half as much as one little dainty remembrance that I'd have taken to Marie. There'll be five of them—Aunt Mary, Uncle Joe, Lucy, Mary and Dick. I'll be on the watch for something for them. They'll think anything that comes from the city is wonderful."

Being "on the watch" in this case meant haunting the bargain counters and getting as much as possible for a little money. When packing, the day before Christmas, she felt well satisfied as she looked at the outlay, which consisted of a plaid shoulder shawl for Aunt Mary, a trifle bright in coloring, but then that would doubtless add to its attractiveness in the eyes of her aunt; a cheap edition of "Uncle Tom's Cabin" for Uncle Joe; he probably had never read it; a small work-basket for Lucy; a box of cotton handkerchiefs for Mary; and a paper-covered treatise on "The Diseases of Live Stock" for Dick. This last Louise considered a master stroke of thoughtfulness, for it had flashed through her head as she was rummaging about a counter containing odds and ends of books, that Cousin Dick had attended an Agricultural College. But it must be confessed that her satisfaction in the assortment was chiefly due to the fact that from the fifteen dollars which her father had given her to be used for Uncle Joe's family, she still had left eleven dollars, which she intended to use in some choice way of her own.

Louise and her father lunched just before starting for the train, and as Mr. Compton looked across at his daughter he exclaimed: "Whatever have you been doing to yourself, Louise? You look so different, so kind of broad across the shoulders."

"You are a man, father," replied Louise with a laugh. "If I had on a new dress you'd never notice a thing, but when I put on a dress that is several years old you comment on it at once. I don't want to wear my new light broadcloth coat. It's such a beauty and one trip to the country might spoil it for all winter. I intend to wear my old coat, and, as it is not very heavy, I decided to put on this old dress of ladies' cloth and I'll be as warm as toast. Aunt Mary and the cousins will never know the difference. The styles a couple of years back have just come in there, most likely, and so I'll be right up-to-date."

"I don't know," demurred Mr. Compton. "I always thought Aunt Mary and the children looked well, but the girls were only children when I last saw them. Maybe you know best, but if it wasn't time for us to go I believe I'd want you to go up and change yet."

"Well, there isn't time. I put in a second-best silk waist that I can wear at the dinner. "I'll be well supplied and you'll see that these old clothes of mine will just about fit in with the best ones of Aunt Mary and the girls."

The ride to Plainville, the station where Uncle Joe was to meet his relatives, took almost five hours. The thermometer had taken a drop for which the trainmen were unprepared and the passengers shivered in their seats.

"And to think of jolting three miles in a rattling farm wagon over bumpy country roads behind polky old horses in this bitter weather!" wailed Louise.

"Oh, don't make it out too bad. Uncle Joe always kept pretty good horses. Too bad, there isn't more snow, and it would be a sleigh ride," comforted her father, as he strode up and down the nearly empty car.

But when they got off the train there was not even a farm wagon in sight. The only vehicle was an electric car at the far end of the platform. Mr. Compton was about to lead Louise into the station, when the door opened and a tall, fur-coated, fur-capped, fur-mittened man held out a hand to each of them.

"Glad to see you, Dave and Louise. Come right this way. There are heaters in the car, and I'm sure you will warm up faster there than in this ice-box of a station."

Whether it was a gasp of amazement or a sigh of relief that Louise gave as she cuddled down among the fur robes in the heated car, her father did not know. She did not see the look of quiet amusement he sent in her direction, and she spoke scarcely a word on the short run out to the farm, but she stared with round eyes at the straight, fur-coated figure that was speeding the car homeward.

When they turned in at the road leading to a big white farm house with lights sending out welcoming beams from all of the windows, she gave a cry of pleasure.

"Why, Uncle Joe, I never knew farm houses looked like that," she said.

"It's a comfortable enough house," replied Uncle Joe, well pleased at the delight his niece was showing.

But the outside of the house hardly prepared Louise for the inside. The furnishings were comfortable, quiet and spoke the best of taste. Softly shaded lights threw a pretty glow over everything. The frosty bedrooms Louise had anticipated and dreaded were not there. A furnace heated the dwelling and in the living rooms fireplaces heaped high with burning logs gave added cheeriness to the home. It seemed to Louise as she looked about her that she had never seen so ideal a setting for a Christmas holiday. And when Aunt Mary, dressed in a silvery gray poplin and looking every inch the lady, followed by pretty Lucy in an old rose gown cut after the most perfect lines, came forward to welcome her, Louise felt all at once as bashful and awkward as a girl at her first party. She was so conscious of her shabby coat and her old-fashioned flannel dress that bright red spots burned in her cheeks and she stumbled unseeingly after Lucy had led the way to the guests' rooms.

As soon as she had closed the door Louise sank upon the bed. She was going to laugh or cry, she didn't know which. Then the former emotion prevailed and she stuffed her handkerchief into her mouth while she rocked helplessly back and forth.

"Oh, Louise, you snob! snob!" she thought. "Whatever will you wear? Their gowns are perfection and this home is the most beautiful you have ever been in, and here you've got only your shabbiest duds to put on. Think of the pretty dresses and your new coat at home. Oh, mother mine, maybe if I had you to guide me I wouldn't make such mistakes. But from now on I'll appear at my best when I'm invited out and at least do honor to my hostess, whether she be princess or peasant."

When Louise took out the silk waist it looked shabbier than she had thought it to be, but she bravely donned it, resolving to make the best of her selfish mistake. Nor did it make it easier when she met Mary just before dinner and found her even more beautiful than Lucy and gowned to exactly suit her own peculiar style. But her punishment seemed complete when tall, broad-shouldered Dick came in with the desirable Donald Smith, who was supposed to be at Marie's party.

The supper was a pleasant meal. In spite of the self-consciousness regarding her clothes, Louise thoroughly enjoyed it, though she did wish she knew more about some of the subjects which they were discussing. Why had she spent so much time in silly reading and in talking over foolish nothings with nearly brainless girls, when there were such big, important things to learn about?

Louise would gladly have withheld the presents she had brought, but she dared not do so because she feared her father's displeasure. "I'm

[Concluded on the following page.]

Great Majestic
Malleable and Charcoal Iron Range

The Range With A Reputation

Buying a new range is a matter worthy of your most careful consideration. It is a mistake to buy from pretty pictures and glowing printed descriptions—very inferior ranges are plentifully applied with both. Before deciding upon a range, the wise woman will go to the local dealer handling them and examine closely into the superior points of merit of the *Great Majestic*—the range with a reputation, built on honor—of the best materials

Won't Break or Rust Like Steel—Outwears Three Ordinary Ranges

It is the ONLY range made of malleable iron and charcoal iron. Charcoal iron won't rust like steel—malleable iron can't break, and while the first cost of a *Great Majestic* may be more than others, *it outwears 3 ordinary ranges.*

All Copper Movable Reservoir

Heated through copper pocket stamped from one piece of copper, setting against fire. Holds 15 gal. By turning lever, frame and reservoir—moves away from fire—patented feature only on *Majestic.*

Perfect Baker—Fuel Saver

The *Majestic* is put together with rivets—joints and seams remain air tight.

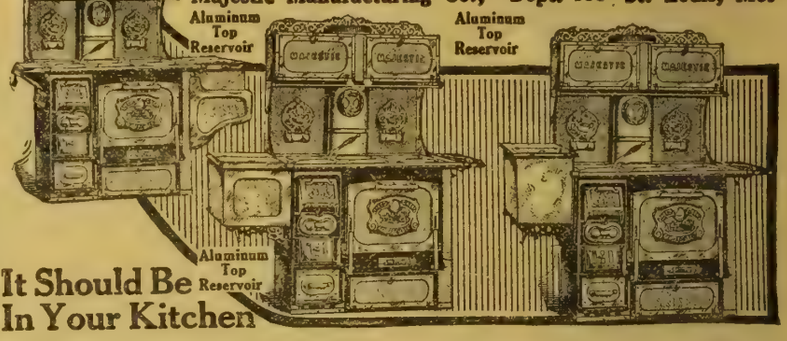
The oven is lined with guaranteed *pure asbestos board,* put there to stay covered with an iron grate—*you can see it.* Uses but half the fuel used in other ranges, gives an absolutely even dependable baking heat.

The *Majestic* is for sale by the best dealers in nearly every county in 40 states. Write for our booklet, *"Range Comparison."*

Other Exclusive Features

All doors drop down and *form* perfect and rigid shelves. No springs anywhere to get out of fix. *Malleable oven racks* slide out automatically, holding anything they contain. *Open end ash pan*—no more shoveling ashes out of ash pit. *Ventilated ash pit* prevents floor from burning. *Ash cup* catches ashes. It's the best range at any price, and should be in YOUR kitchen. *All Malleable front insures the Majestic 300% greater strength at a point where all other ranges are weakest. One piece body, no seams. It's worth your your while to investigate.*

Majestic Manufacturing Co., Dept. 131 St. Louis, Mo.



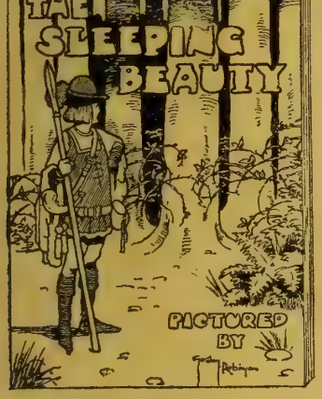
It Should Be In Your Kitchen

TOY BOOK PREMIUMS.

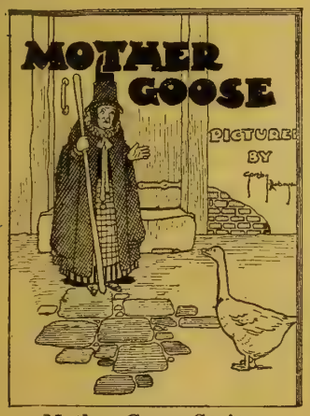
Pleasure and Instruction For Children, Especially During the Holiday Season.

We are always on the lookout for something that will please the children and at the same time be of an educational advantage to them. Our beautiful toy books, the first we have ever used as a subscription premium, are delighting the hearts of the little ones, and we are greatly pleased to consider these books as one of our very best premiums. We are issuing these toy books as supplementary premiums to The National Farmer and Stock Grower. These toy books are substantial, beautifully colored, illuminated. The illustrations are wonderfully beautiful. They are astonishing in the delightful coloring. There are four sets. They are as follows:

Animal Series.
No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.



Fairy Tale Series.
No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.



Mother Goose Series.
No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 116—Little Red Riding Hood.

Little Darling Series.
No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.

In offering these delightful toy books we make several propositions:

1. Send us twenty-five (25) cents for six-months' subscription to The National Farmer and Stock Grower and you can select one set of four (4) toy books.

2. Send us fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower and select two sets of four (4) toy books as a premium.

3. We publish the Universal Magazine. It is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. Send us twenty-five (25) cents and we will send you the Universal Magazine for one year and you can select a set of four (4) toy books as a premium.

Order toy books by numbers. Select either four you desire. Address your orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

UNCLE JOE'S FOLKS.

[Concluded from the preceding page.]

going to give them to you anyway, because it's all I've got," she explained that evening, as the presents were being distributed. "Father isn't to blame. He wanted me to get everyone something nice and gave me the money. I'm just awfully ashamed, but I'm afraid I haven't been going with the right kind of girls and my head has been full of such foolish notions. Perhaps some day I'll be able to show you that I'm my father's own daughter and that I've lost all my silliness and selfishness."

A chuckle from Uncle Joe made Louise stop short.

"Are you laughing at me, Uncle Joe?" she cried.

"Not exactly," he answered. "The trouble with me is, and always was, I'm no good at concealing my feelings, and now I'll have to tell you, for it's really a pretty good joke, that "The Diseases of Live Stock" was written by Dick himself, but you probably didn't recognize Richard J. Compton as Cousin Dick. This is the fourth edition."

Louise joined in the laugh that followed, but it was with a burning face. Then she blushed still more brilliantly as she glanced at Uncle Joe and saw him gloating over an edition de luxe of Shakespeare.

"The Shakespeare Club sent it to him," said Aunt Mary, answering her look. "He's President. His old set was worn to tatters."

Though Louise could not fail to be delighted with the beautiful gifts she received, she took them with a shamed face. Aunt Mary and Uncle Joe gave her a beautiful lavalliere with a rough pearl pendant; Lucy presented her with a hand-crocheted coat set, and Mary gave her a hand-tooled leather bag. From Dick there was a five-pound box of candy.

Before retiring that night Louise confessed to her girl cousins her dilemma about dressing for dinner the next day. She had learned that there were to be several outside guests present and she did not wish to humiliate her hostess by her appearance.

"Why, I believe that you could wear one of my dresses," said Mary. "I can give you the choice of two." With a grateful heart Louise selected a white silk crepe.

"You girls have such beautiful gowns," she commented. "Do you have someone in the city to make them?"

"Oh, no," replied Lucy. "We do all of our own sewing. Mary has more dresses than I, because she needs them when she appears in public to play."

"Play?" questioned Louise.

"Sister is a violinist and is quite in demand, but I thought you knew or I wouldn't have said anything."

It was after the most wonderful Christmas day in Louise's life that she sought Aunt Mary for a final chat.

"Dear Aunt Mary, I never knew there were such happy families with so many delightful friends. Father has always wanted to meet Dr. Simpson. But no one seems to be able to meet him in the city, while here he is just a boy."

"Yes, dear," answered Aunt Mary. "His mother lived on the next farm, and he and the children have always been the best of friends. There is no harm now in telling you that Lucy is engaged to marry him. I know that she is going to ask you to be one of the bridesmaids and Donald Smith is to be best man."

"How kind of you and Lucy," cried Louise. And the thought flashed across her mind that Marie Babcock and her set were much inclined to talk about the boys who had shown them any attention, while this little dark-eyed cousin was engaged to one of the leading physicians of that part of the country and had not breathed a word about it.

"But everybody paid just as much attention to that little faded lady who used a bandana handkerchief for a muffler. Is she a celebrity, too?"

"She is just a sweet little soul who has rather a lonely time of it, so we often ask her on such occasions."

"My, what I've been missing all these years," sighed Louise. "I am going to make your home my model, Aunt Mary."

"I think Donald Smith will like that, as he is always telling Dick that he has the best home in the world," said Aunt Mary with a sly smile, for she had been observing several things during the time that her niece and Donald had been guests in the home.

"Why, Aunt Mary, I meant papa's home, for you know I'm mistress of it."

"Well, well, dear, don't let your old aunt tease you, only I know Donald is planning some calls in town, for he and your father have struck up a great friendship."

"Yes," replied Louise, "he asked me if he could come. I have known him for several months, but he never cared much about me, because he thought I went with a crowd that he detested. But I'm out of that crowd for good and all."—Janet Thomas Van Osdel.

Cheap Lands Southwest

and these cheap lands, highly productive, have brought forth a tremendous crop this year. The cash return from this great crop in many sections has paid the initial cost of the land with enough left over for a good living.

This land is as good as the land you are now farming and can be bought for $15 and up per acre. If you are renting, your rent money will buy a farm in the Southwest along

Rock Island Lines

The greatest opportunities for farming existing today are found in Kansas, Missouri, Oklahoma, Texas, the Panhandle Country, Louisiana, Arkansas and New Mexico—conditions are the most favorable in years and land is low priced.

An exhaustive study as to climate, soil, rainfall, what crops bring best returns, etc., in the various sections has been made by Prof. Cottrell, Agricultural Commissioner, Rock Island Lines and descriptive literature prepared. This will be sent free on request.

Write Today
Low Priced Land
Low Fares to See the Land

Rock Island

L. M. ALLEN
Passenger Traffic Manager
513 La Salle Station
Chicago

John Sebastian, Third Vice President

For Missouri Farm Women.

Miss Nellie Nesbitt, a graduate from the Home Economics Department of the University of Missouri, and who has had experience in the teaching of home economics, besides giving much thought and study to the problems of the home, and especially of the farm home, has recently been employed by the Missouri State Board of Agriculture. Miss Nesbitt will devote her entire time to institute and organization work. She hopes to do for the farm women of Missouri what S. H. Jordan, J. K. Wright and others employed by the Board of Agriculture have done and are doing in their work with the men on the farms. Committees desiring the services of Miss Nesbitt should communicate with the Secretary of the Missouri State Board of Agriculture at Columbia.

Kept Them Alive.

"Do you really believe, doctor, that your old medicines really keep anybody alive?" asked the skeptic.

"Surely," returned the doctor. "My prescriptions have kept three druggists and their families alive in this town for twenty years."—Harper's Weekly.

Rid Your Face Of All Pimples

Skin Cleared in a Few Days by Stuart's Calcium Wafers, the Famous Blood Purifier.

Pimples, blotches, skin eruptions of all kinds, are simply the impurities in the blood coming to the surface. All the external treatment in the world won't do a particle of good unless you purify the blood. And there's nothing so humiliating as a face that's all "broken out" and spotted.

It's a Glorious Change to Be Rid of Pimples. You Just Feel Fine.

Stuart's Calcium Wafers will clear the most obstinate complexion, because they go right into the blood and remove the cause of the trouble. The blood is cleansed of all impurities and foreign substances and these are quickly eliminated from the system. You'll notice a wonderful change in a few days—you will hardly know yourself in a week.

And Stuart's Calcium Wafers are absolutely harmless to any one. Their ingredients are just what a physician prescribes in most cases of skin eruptions and poor blood. These wafers are put up in a concentrated form, which makes them act quickly and thoroughly.

You can get Stuart's Calcium Wafers at any drug store at 50 cents a box. Begin taking them today and then look at yourself in the mirror in a few days, and find all those awful pimples, blackheads, acne, boils, liver spots, rash, eczema and that muddy complexion rapidly disappearing and your face cleared like the petal of a flower.

Motorcycle Free—Hundreds of other prizes—bicycles, cameras guns, watches, toolchests, gold rings, etc. Full information and big Premium List Free. Write me today. **E. T. Meredith**, 311 Success Bldg. Des Moines, Ia.

WE PAY $36 A WEEK AND EXPENSES to men with rigs to introduce poultry compound. Year's contract. IMPERIAL MFG. CO., Dept. 38, Parsons, Kans.

8 Hardy Rose Plants Free.

The **Universal Magazine** is a splendid monthly publication; nice, bright, cheerful, illustrated; 32 pages, three columns to page. Devoted to stories, the homestead, good literature, poetry, patterns, embroidery, etc.

We have a very liberal offer to make in connection with a subscription to the **Universal Magazine**. Anyone who will send us fifty cents to pay for two-year subscription to the **Universal Magazine** can select as a Free Premium **Eight Hardy, Ever-blooming Roses**, one-year plants. They are splendid varieties, as follows: Etoile de France, Yellow Kaiserin, Helen Gould, Clothilde Soupert, President Taft, White Killarney, Marigold and Ever-blooming Rambler. No such collection was ever offered before as a subscription premium. Address **HALE PUBLISHING CO.**, Vista Ave., St. Louis, Mo.

Native Cattle at St. Louis.

At the St. Louis market, early in December, choice to prime native steers were quoted at $10 to $10.75 per 100 pounds; good to choice steers, $9.00 to $10; medium to good steers, $7.50 to $9.00; common to medium steers, $6.50 to $7.50; common steers, 850 to 1,100 pounds, $5.50 to $6.75; choice to prime yearlings, $9.00 to $10; good to choice yearlings, $8.00 to $9.00; fair to good yearlings, $6.00 to $8.00; heavy Western steers, $7.50 to $8.25; medium Western steers, $6.25 to $7.25; light Western steers, $5.50 to $6.00—all quotations being at the price stated per 100 pounds.

Two Crops of Apples.

The Farmer and Mechanic of Raleigh, N. C., says: "John T. Spencer, who lives a little over a mile east of Lenoir, has a June apple tree on his place that produced two crops of well-matured apples this year. June apples in November is the unusual record of this tree."

MAPLE-SUGAR INDUSTRY.

Result of Investigations by the United States Department of Agriculture.

From the time the earliest explorers discovered Indians making sugar from the maple tree until the present day, the production of maple sugar has been an important industry in the United States, is the interesting information contained in Farmers' Bulletin 516, soon to be issued by Secretary Wilson. The industry is purely American, Canada being the only country outside of the United States that produces the product. The bulletin says:

"Maple sugar and maple syrup are considered delicacies and are not produced in such quantities as formerly. The aggregate of all pure maple products and the many imitations may be the same, for it is said that were all the maple trees cut down, and thus the supply of maple sap cut off, no drop in the quantity of syrup or sugar would be noted. Within the last six or seven years there has been a renewed tendency toward the production of a better grade of maple products.

"Maple syrup or maple sugar prepared by the best methods is a light-colored, pleasant-tasting product. Contrary characteristics are the result of uncleanly methods and possibly sour sap in ninety-nine cases out of a hundred, and were manufacturers to take greater care in their methods their results would show improvements. This better grade may not appeal to many people who have been accustomed to the dark, stronger grades."

In relation to the present growth of the sugar maple the bulletin states:

"Within its wide range the sugar maple appears a predominant tree only in the New England States, New York, Southern Canada, Northern and Western Pennsylvania, and in parts of Ohio, Indiana, Illinois, Michigan, Wisconsin and Minnesota. In the Southern Appalachian Mountains it occurs in scattered bodies where climate conditions are similar to those of the North. In the extreme northern part of New York state and the adjacent district of Quebec the forest growth is often almost pure maple, and even considerably farther south, where beech and birch become associate trees, the sugar maple holds its own as the dominant species. In Northern Pennsylvania, at an altitude of over 1,000 feet, the mixture is much the same as it is in New York. In Ohio, Indiana and Illinois a similar condition is found; but as the hilly country disappears the maple retreats to the richer and damper soils, leaving great areas to the oaks and chestnuts."

To obtain a copy of Bulletin No. 516, all that is necessary is to write for it to the Secretary of Agriculture, Washington, D. C.

DOLLY DIMPLE DRESSING DOLLS.

A Subscription Premium With the Universal Magazine, Published at St. Louis, Mo.

The Dolly Dimple Dressing Dolls are furnished in a cardboard box, and each box contains a cut-out doll with easel back, four dresses and four hats. The dolls are nine inches high. The names of the dolls are "Affectionate Alice," "Baby Betty," "Chubby Caroline" and "Dainty Dorothy." Nothing more satisfactory has ever been offered as a subscription premium with a publication. We have adopted the Dolly Dimple Dressing Dolls as a subscription premium. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication for the money.

In offering such a premium we are actuated by a desire to place in rural homes these delightful Dolls, which gratify the children, besides having a good influence upon them.

Anyone who will send us 25 cents to pay for one-year's subscription to the UNIVERSAL MAGAZINE can select the Dolly Dimple Series of Dressing Dolls as a subscription premium, and we will send the box postage prepaid, safe delivery guaranteed.

If you don't care to obtain the set of Dolly Dimple Dressing Dolls by subscribing for the UNIVERSAL MAGAZINE, you can obtain a set by sending in 25 cents for six-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, which will serve the purpose equally as well. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

CEMENT WORKERS' HANDBOOK.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 8 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine**, our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

NEW BOOK OF KNOWLEDGE

FOR HOME, FARM, RANCH, FACTORY AND OFFICE.

A Book For Boys and Men, Women and Children, Old and Young.

Now is the Accepted Time to Get This Book.

THE HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS FOR THE YEAR 1913.

What is It? The answer is Diamonds.

"We are the people and our voices must and shall be heard." What we need is Knowledge, so that our voices shall speak wisdom and we shall not stand back for fear of exposing our ignorance. The wisest men read the most books. They know many things, but their greatest ability is shown when they prove what they know by the evidence as accumulated in books.

Wise men also compile books. When ten men who are specialists in certain lines of knowledge are employed for over a year in collecting the evidence in order to publish a single book the result is diamonds of fact and information.

THE HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS is the product of many capable men, and yet so large is the edition that the cost has been reduced to a minimum, and although the first copy may have cost ten thousand dollars, yet a million edition will reduce the cost of a single copy so low that we are able to present it to our readers who pay only fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, and we can also afford to pay the postage without raising the price. The book and package will weigh sixteen ounces, and the postage on each copy will be eight cents.

WHAT ARE THE CONTENTS?

There are 150 to 175 subjects in the index. Some occupy a half page, others a full page, and others several pages. Some of the contents are:

Astronomical Calculations For 1913—Eclipses in 1913—How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-Trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains in the World—Governments of the World—Sports—World's Records—Important Dates in American History—Rules For Spelling and Punctuation—Household Hints—Cooking Time Table—First Aid to the Injured—Postal Banks—Parcels Post Mail—New Pension Law—New Eight-hour Law—Highest Structures in the World—World's Crops—Olympic Records—Aeroplane Records—United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—Migration of Weeds and Vegetables—Methods of Control of Moisture—Methods of Improving Seed—Diseases in Plants—Renovation of Worn-out Soils—How to Know a Good Horse—Suggestions For Farm Buildings—The Panama Canal—The Panama Exposition—Maps of the World.

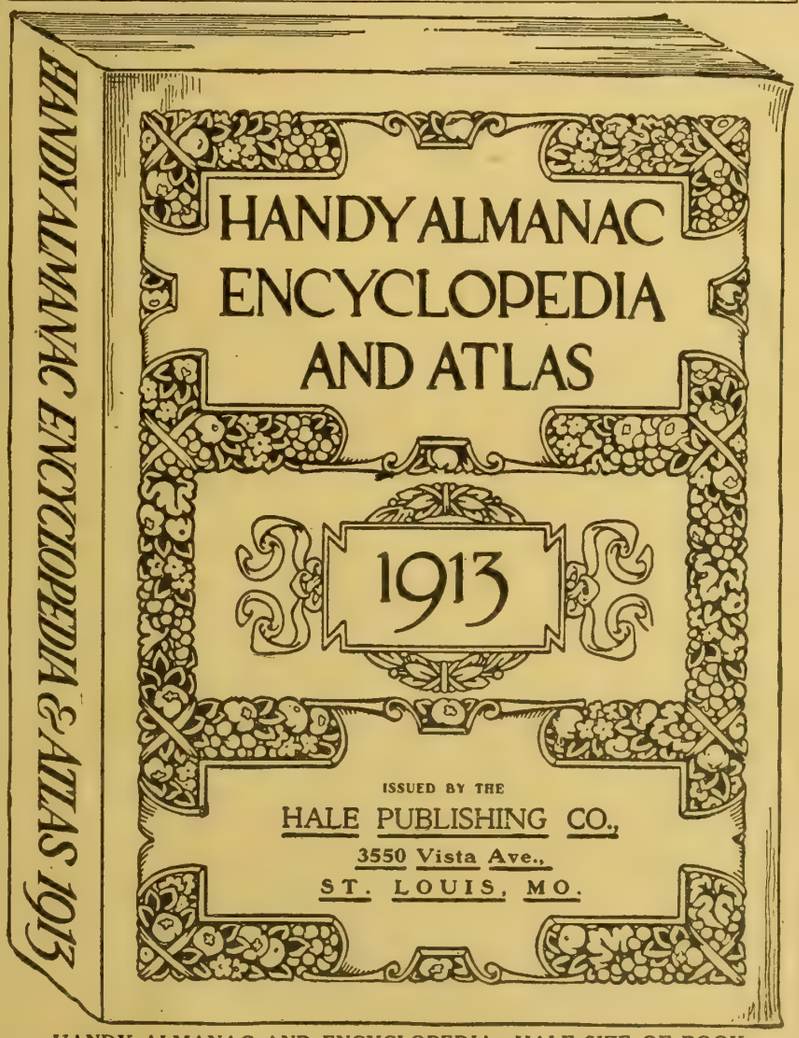
Last in the list our space will permit us to mention will be the election returns for the Presidency and other important offices. The book will not be delivered until the returns are all in, which will be most likely early in December and in ample time to start with the Almanac of the new year.

HOW ABOUT THE PAPER?

Except that this edition contains a pretty large advertisement of THE HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS FOR 1913, it is a fair example of THE NATIONAL FARMER AND STOCK GROWER.

THE NATIONAL FARMER AND STOCK GROWER is not the only farm paper in the United States, but it is certainly one of the best, and has been continually engaged in advocating farmers' interests. THE NATIONAL FARMER AND STOCK GROWER was the only paper to buy and distribute seed corn and oats grown by champion corn growers, among general farmers, enabling many thousands of farmers to grow seed corn for their own use.

THE NATIONAL FARMER AND STOCK GROWER for several years offered prizes for corn and oats at every State, National and International Fair in the United States.



HANDY ALMANAC AND ENCYCLOPEDIA—HALF SIZE OF BOOK.

It was THE NATIONAL FARMER AND STOCK GROWER that first called attention to the high rates of interest on farm loans and brought about the agitation which will soon result in the improvement of farm credits.

The entire life of THE NATIONAL FARMER AND STOCK GROWER has been passed in doing good in a practical, tangible way without assistance from anyone but its own patrons.

Briefly stated, THE NATIONAL FARMER AND STOCK GROWER, issued monthly at St. Louis, Mo., is a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general grain-growing farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains good poultry facts and market information. There are thirty-two pages, four columns to the page.

A SUBSCRIPTION PROPOSITION.

Anyone who pays fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied. The book is a conditional supplement to the paper and must be sent separately at a different rate of postage. The proposition, therefore, is, that the book will be sent to those who select it as a premium.

ANOTHER PROPOSITION.

In clubs of three we will charge a dollar ($1.00) for three subscriptions and three books, thus allowing one to do the work of solicitation and the other two, to put up the money. This is a liberal club offer, but we need the money and the subscriptions. We append the subscription blanks for one or three subscribers, as the case may be.

SUBSCRIPTION BLANK.
For One Subscriber.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS, the new Book of Knowledge.

Name.....

Address.....

My occupation is.....

SUBSCRIPTION BLANK.
Clubs of Three.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for three one-year subscriptions to THE NATIONAL FARMER AND STOCK GROWER. You will please send each of us the paper one year, and each a copy of the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS.

Name.....

Address.....

Name.....

Address.....

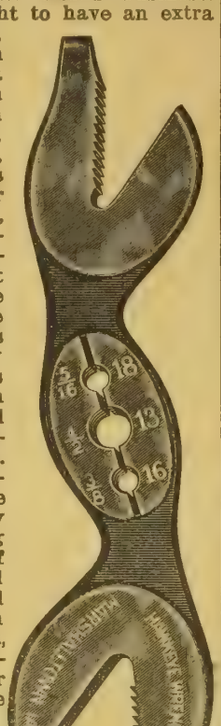
Name.....

Address.....

NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screw-driver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.



Special Inducements.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Highly Recommended.

Mr. T. C. Kimber, who is advertising the famous Yorkshire hog of his own breeding, is receiving many letters of congratulation from buyers in Alabama, Arkansas, Missouri, Illinois, Indiana, Kentucky and Tennessee upon the magnificent animals he has shipped them upon orders. Mr. Kimber's farm is near Ironton, Mo., on the Iron Mountain Route, but he likes to have orders sent to him at P. O. Box 1212, St. Louis, Mo.

Christmas Gifts.

These should be dictated by the time, natural ability and means of the giver; the taste and needs of the recipient. We know of one woman of wealth who always sends a check, because she feels that she does not know just what would be most pleasing, and this is sure to bring a moderate desire. But not all of us have a bank book of ample size, and the present which works in some of our own time is really a necessity.

If you are an adept with the crochet hook or needle, study the pages of some standard household and fancy-work magazine, and ideas will come fast enough. Hand work is more and more growing in appreciation, and the crash bag in striking outlines may become as artistic as the most delicate embroidery. The new punch work is effective in many ways, and the same pattern or a part of it may be used for milady's collar or for the end of a towel or pillow-case, a large initial being worked into the latter.

There are numerous forms of dainty neckwear, especially that in Irish crochet, which can be quickly done in spare moments, and a bit of bright ribbon or velvet interwoven gives the stylish touch shown in the store window. Even though you do not wish to buy, take time to look at some of the fancy work now shown, and ideas for using some of your own left-overs will be sure to come.

There are aprons of all sorts, dainty and serviceable. Bits of muslin with rounded corners and a spray of embroidery; plain checked gingham, which insures safety to the best dress when at work. One woman who last year found her Christmas allowance painfully small made small round aprons from left-over bits of light calico for some of her girl friends, and these, bordered with a narrow ruffle, were as attractive as useful.

Another covered small square pieces of board, measuring about six inches, with the best part of a discarded coat, fine cloth, and in places but little worn. Black satine was used for covering the back. Diagonally across the face of each was placed a second small square cushion covered with a "sample" piece of fancy silk bordered with a narrow ruffle of silk in a harmonizing shade, which was held in place by three brass-headed furniture tacks on each side. In the top was fixed a brass hook from which to suspend it, and at each of the other three corners were fastened similar hooks. Thus a combination where pins, scissors and needles are always at hand was the result.

For the little girls, the choice in dolls is almost endless. But if you have not the money for an expensive one, try the clothespin doll, made in some unique or grotesque form. It may be Uncle Sam, a Quaker lady, the college girl in cap and gown, or Aunt Dinah. It is quickly made, and the material used is going to waste in any home, while the surprise of the little one at the unique form will prove not a little.

From the farm home may go many luxuries to the city or town, especially since the high cost of living has been such a problem. A pound or two of butter, a can of sweet cream, a basket of nuts or apples, a jar of home-made sausage or fresh lard, honey—the possibilities are almost unlimited along this line, and in some instances a real treat may be given from the things which you would scarcely miss. If some one has a special liking for a certain product of the farm, remember this at Christmas time.

And it is the remembrance which is really the keynote of the Yuletide spirit. Not the money value so much as the thing of being in the thoughts of the giver makes us happy over the gifts. And so the bits of handiwork, the homely product, are appreciated as emblems of the "peace and good will" which should prevail.—Bessie L. Putnam.

The Real Santa Claus.

The actual presence of Santa Claus adds more to the pleasure of the little folks than some of us realize. Baby will enjoy the doll or drum found in the stocking or suspended from the tree, but his understanding of how they came there is rendered very much more acute by the actual presence of the patron saint. Even the old cloak which served to disguise Uncle Tom for the enjoyment of the children of a half century ago served its purpose well, as the stories of the little ones for months after the visit abundantly proved.

With the increased possibilities, the patron saint can now be easily represented with very little expense. Personality means much to the adult, more to the child. The kindergarten process is founded upon accomplishment rather than recital. Through the actual appearance of Santa, things comprehended only vaguely by baby resolve themselves into actual realities, and the droll and merry little figure will long be remembered with pleasure by the child. Christmas and the associations which it brings will be thrust into its hands instead of suspended on the branches just out of reach.—Bessie L. Putnam.

Get Beefsteak Prices For Your Sausage and other Pork Products—Use Enterprise Machines

Hog-raising farmers should take advantage of the big difference in market prices of pork products and hogs on the hoof. Fine country-cured sausage, such as you can make, brings about the same price as the choicest beefsteak. **An Enterprise Meat AND Food Chopper and an Enterprise Sausage Stuffer and Lard Press** are the profitable machines to use for any purpose. Great in the kitchen.

THE ENTERPRISE
Meat AND Food Chopper

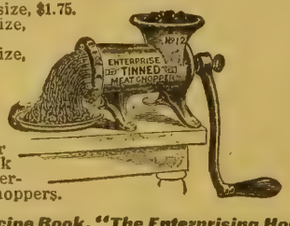
This is No. 5

cuts sausage meat slick and clean as the old-fashioned chopping knife—not the crushing and mangling, squeezing sort of chopper which is not a specially made *meat* chopper.

It is the one chopper that gives the chopping cut—does not squeeze, mangle or crush. It is a chopper that will also give you almost daily use in the household. It enables you to make an unlimited number of dainty dishes from left-overs and bits of meat that otherwise would be wasted. Its use means not only better living, but economical food cost.

The **Enterprise Meat AND Food Chopper** has a four-bladed chopping knife which with the cutting plate gives nearly 300 cuts at every turn of the handle. Made in 45 sizes and styles, for hand, steam and electric power.

No. 5, family size, $1.75.
No. 12, farm size, $2.25.
No. 22, farm size, $4.00.



These are the choppers we recommend. If you want cheaper machines, ask to see the Enterprise Food Choppers.

The ENTERPRISE
Sausage Stuffer and Lard Press
Cylinder Bored True.

The Sausage Stuffer is guaranteed to stuff casings perfectly. Air bubbles, the most frequent cause of sausage spoiling, are wholly prevented from entering the casings by our patented corrugated spout, an attachment to be had only with the Enterprise. It is patented by us and cannot be used by other makers. Bear this in mind and do not be fooled by imitation spouts which lack the essential features of the Enterprise. A few "batches" of your fine sausage thus protected from spoiling will pay for these inexpensive machines several times over.

No. 25, 4-Quart, Japanned Price, $5.50
Tinned and Japanned

These sausage stuffers are made with greatest precision. Pressure plate fits close without binding. Meat cannot squeeze out. Many other exclusive points of merit, economy and convenience. Do not let butchering time come this year without one of these Enterprise Sausage Stuffers and Lard Presses with the patented corrugated spout to work with. The change to a lard or fruit press is instantly made. Nine sizes and styles—up to eight quarts capacity. One of these will fit your needs.

Our 200-Recipe Book, "The Enterprising Housekeeper," new edition with kitchen helps, sent anywhere for the postage, 4 cents. Illustrated Catalogue of Enterprise Meat AND Food Choppers, Enterprise Sausage Stuffers and Lard Presses, and other Enterprise Specialties sent free. For sale at hardware and general stores everywhere.

THE ENTERPRISE MFG. CO. OF PENNA.

Dept. 87, Philadelphia, Pa.

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

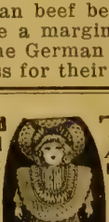
Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The German Butchers.

The cost of living is high in Germany. The butchers would not sell Russian beef because they could only make a margin of 18 per cent. on it. The German butchers are not in business for their health.

FREE TO GIRLS **Talking and Sleeping Doll**

Every little girl wants this new doll that can talk and go to sleep. No difference how many dolls you have now, this one is different. Big. Nearly 2 feet tall. Stylish hat, dress, shoes and stockings. The prettiest, sweetest dolly of all. Long curls. I have one for you. Girls wild for her. Be ahead of your friends and she will say "Papa" and "Mama" for you soon. You'll love her dearly.



This Doll AND 100 PIECE

Housekeeping Set for Dolly given free to one little girl in every home where this paper goes for a little favor. Pay no attention to other offers. Mine is better. SEND NO MONEY, but send your name today and say: "I want the Talking Doll and her outfit." Address me personally.

An Extra Prize will be sent to all girls who answer this advertisement in good faith and do so promptly.

MISS GERTRUDE ALLERTON, Dept. 10, 227 W. Washington Street, Indianapolis, Ind.

Gas, Automobile and Traction Engineering

Regular Winter Quarter commences November 26. No vacation during holidays, except Christmas and New Year's Days. Special Winter Term for short course students begins Jan. 6, 1913.

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Among the Flowers.

Someone asks if a humming-bird cactus which is full of buds can be safely moved without causing the buds to drop? We have done it repeatedly with this species without noticing any bad effects; and since the querist states that her plant is in a room too cold even now for it to thrive, there is certainly nothing else to do than to change it to a warmer one. Such change, however, should be made as gently as possible. Thus, for a few days it may be placed where a door will open into a room with a fire, and then gradually accustomed to artificial heat. The plant should also be moved with as little jarring as possible and given conditions as to light and heat as nearly like those previously furnished as is practicable.

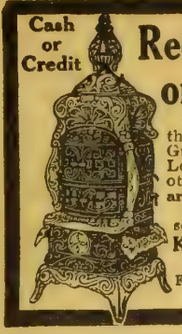
There are some types of cacti not so easily managed, the night-blooming cereus, for instance, being almost sure to drop the buds if the plant is moved after they are formed. Others are no more sensitive than a geranium, and quite as easily grown.

When digging your gladiolus bulbs you no doubt found many tiny bulblets bunched at the base of some of the large bulbs. If these are saved and sowed in rows like seed next season some of them will bloom and the others will develop into bulbs of blooming size for another summer. If you have a variety of choice colors, there are plenty of friends who will be pleased to sow some of these tiny effects and thus get a start in a handsome collection of these valuable bulbs.

When freezing weather sets in, see to it that the bulb beds and the pansy plants are well covered with leaves. Nature knows how to blanket her treasures, and we will do well to follow her example. If you carefully rake up the leaves in the yard, save a part for the poultry, but reserve enough to insure the hardy plants from the alternate freezing and thawing, which is so much more disastrous than continuous freezing. Then when warm weather is assured, work the leaves into the soil to enrich with the favorite leaf mould.

Some good plant fertilizer will be needed, especially during the winter months. Liquid manure is the best of all fertilizers, but unfortunately it is not always available in winter, neither is it the most pleasant thing to use in the house. There are several commercial substitutes in more agreeable form and nearly as effectual. A teaspoonful of ammonia to a quart of water once a week is not a complete plant food, yet it will be found quite satisfactory in many instances. Be careful about striving to stimulate ailing plants with any food. Only the robust one is able to assimilate the rich food, and the weakling may succumb under such forcing. Besides, be sure that your plant may not be in the dormant state, which nature is sure to send to some species, in which case you are doing a great wrong in trying to make it grow when complete rest is what is needed. Water the century plant and others which grow only during the summer months only very sparingly now, if at all, and do not supply a single bit of fertilizer.

When forcing the hardy bulbs, as hyacinths and narcissus, remember that nature destined them to bloom in the cool spring months. Very little or no fire is permissible; just keep them above the frost line; and, if you would have the blossoms lasting, do not keep them in the bright sunshine, though the latter is necessary to bring them out. After they are expanded, a north window is preferable.—Bessie L. Putnam.



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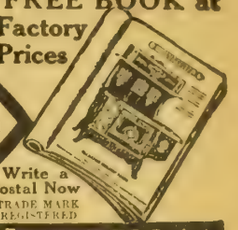

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The Girl Who Wills.

The healthy girl who is really in earnest may now have a thorough education, but in olden times she was left out of almost everything, even of the old adage, "Where there is a will there is a way." This no one recognized more keenly than little Lucy Stone, who could see no real reason why her brothers should be sent to college and she only regarded by her father as "crazy" when the mother meekly hinted to him the aspirations of his girl.

It was fortunate that she was not born a generation sooner, for then even her strong will would not have availed; but Oberlin had at this time opened her doors to women and negroes, and thither the girl directed her steps. She picked berries or chestnuts, exchanging them for books, which were studied earnestly. Later she taught, the only occupation then open to women, except that of servant or seamstress, and at twenty-five she had saved enough to warrant her starting to college. In going from Buffalo to Cleveland by way of Lake Erie, on her way to Oberlin, she slept on a pile of grain sacks among horses and freight with a few other women, who, like herself, had not the money to pay cabin passage.

To-day the high-grade schools admitting women to their highest degree are many. The self-respecting girl loses not in the esteem of her classmates by working her way through college; or, if she chooses to earn the money or a part of it before entering college, there are many ways in which she can do this. Lucy Stone went through school in spite of the opposition of custom, friends—even a father's finger was raised in scorn. To-day all the world beckons the plucky girl who wills to make the most of herself—and she almost always proves her real worth.—Bessie L. Putnam.

The Power of Mother.

Washington, Lincoln, Garfield, McKinley and many other great men will be witnesses to the power of mother's influence so long as history shall endure. The child learns a large per cent. of its knowledge in the first few years of life. "You cannot dream yourself into a character," says Froude; "you must hammer and forge one yourself."

To you is given the forming of the foundation for this character. It is yours to chisel out the granite blocks of honor, fidelity and reverence; yours to fashion them together, remembering that the masonry poorly constructed will endanger the superstructure. Some of the working tools have been given to you by the Divine hand; others you must work and earn. "One good mother," says Herbert, "is worth a hundred schoolmasters." Energy, consecration to lofty ideal, devotion, love, and the constant recognition that "only one failure in life is possible, not to be true to the best one knows," are elements to our success. And the true mother rests not upon what she already knows, but is continually groping for "more light."—Bessie L. Putnam.

Stock Joke.

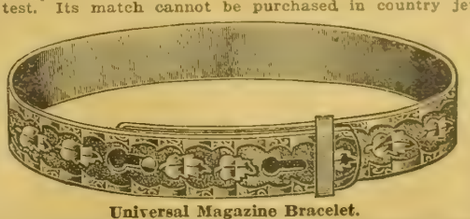
"Here's an item," observed Rivers, who was looking over the exchanges, "to the effect that the King of Sweden raises prize dogs on his farm."

"I suppose he uses them," suggested Brooks, "to drive his Stockholm."—Chicago Tribune.

The St. Louis Thanksgiving market for pumpkins at wholesale was $2.50 to $3.25 per 100 pounds.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



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A VARIETY OF GARMENTS THAT CAN EASILY BE MADE BY THE HOME DRESSMAKER.

No. 7605.—Surplice Blouse With Robespierre Collar. 34 to 42 bust. With set-in sleeves in full or three-quarter length, with or without jabot revers and chemisette.

No. 7632.—Semi-fitting Under or House Jacket. 36 to 44 bust. With or without collar.

No. 7634.—Empire Gown. 34 to 42 bust. With or without train, collar and chemisette, with or without waist lining, with long or three-quarter sleeves.

No. 7636.—Two-piece Skirt With Panier. 22 to 30 waist. With high or natural waist line, with short train or walking length.

No. 7620.—Girl's Norfolk Dress. Eight to fourteen years. With fancy or stock collar, three-quarter or long sleeves.

The price of each pattern is 10 cents.

ANOTHER VARIETY OF GARMENTS THAT CAN EASILY BE MADE BY THE HOME DRESSMAKER.

No. 7608.—House Jacket With Fitted Back. 34 to 44 bust. With V-shaped or high neck, elbow or three-quarter sleeves.

No. 7619.—Blouse With Surplice Front. 34 to 42 bust. With long or elbow sleeves, with or without revers and chemisette.

No. 7441.—Russian Coat Dress For Misses and Small Women. 16 and 18 years. With round or high collar, elbow or long sleeves.

No. 7640.—Norfolk Coat For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7618.—Boy's Overcoat. Two to eight years. With or without belt that can be made in full length or across the back only.

The price of each pattern is 10 cents.

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No. 6323.—Boy's Pajamas. Six to fourteen years.

No. 7628.—Boy's Bath Robe. Ten to sixteen years. With or without cuffs.

No. 6867.—Men's Lounging or Bath Robe. 34 to 46 breast.

No. 6551.—Child's Caps. Two to six years. 478 Embroidery Pattern for Melon Cap.

No. 6861.—Men's House Coat. 34 to 44 breast.

The price of each pattern is 10 cents.

STILL ANOTHER VARIETY OF GARMENTS THAT CAN EASILY BE MADE BY THE HOME DRESSMAKER.

No. 7606.—Girl's Under Waist and Drawers. Six to twelve years. With drawers that can be left loose or gathered into kneebands.

No. 7612.—Corset Cover With Straight Upper Edge. 34 to 42 bust. With straight upper edge, with or without peplum.

No. 7637.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. With three-piece skirt that can be made with one plain and one draped front, draped, with turned-over or fancy collar, with long or short sleeves.

No. 7610.—Four-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With overlapping edges that can be made square or round, with high or natural waist line.

No. 7607.—Kimono With Set-in Sleeves For Misses and Small Women. Fourteen, sixteen and eighteen years. With or without seam in back, with or without collar, with long or three-quarter sleeves. Perforated for sacque length.

The price of each pattern is 10 cents.

PATTERNS FOR MAKING DOLL'S CLOTHES.

No. 6486.—Baby Doll's Outfit. 18, 22 and 26 inches high.

No. 6839.—Doll's Dress and Rompers. 18, 22 and 26 inches high.

No. 7220.—Doll's Kimono and Apron. 18, 22 and 26 inches high.

No. 6381.—Doll's Underwear Set. 18, 22 and 26 inches high.

No. 7624.—Doll's Panier Dress. 18, 22 and 26 inches high.

The price of each pattern is 10 cents.

YET ANOTHER VARIETY OF GARMENTS THAT CAN EASILY BE MADE BY THE HOME DRESMAKER.

No. 7625.—Fancy Evening Waist. 34 to 42 bust. With low or high neck, short or long sleeves.

No. 7642.—Girl's Norfolk Coat. Eight to fourteen years. With laid-in plaits, with sailor or round collar.

No. 7614.—Kimono With Set-in Sleeves. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust. With or without seam at back, with sleeves than can be made shorter or longer, and left free or gathered into bands, perforated or sacque length.

No. 7627.—Straight Skirt. 22 to 30 waist. With or without four-piece yoke.

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The foregoing patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

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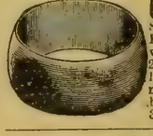

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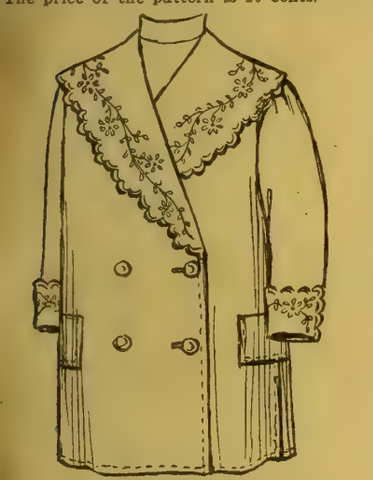

Collar and Cuffs.

No. 698.—Design for embroidering the ollar and cuffs of a child's coat. Especially dapted to May Manton's Pattern 7661. The rice of the pattern is 10 cents.

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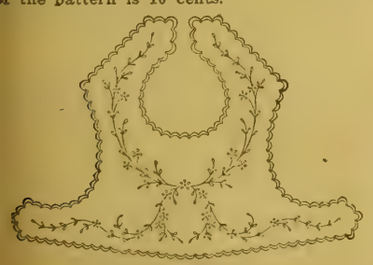
No. 697.—Design for a doyley nine inches n diameter. The pattern is designed for utline and the background for punched ork. Four transfers are given. The price f the pattern is 10 cents.



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No. 683.—Design for an embroidered bib. Ribbon is to be passed under the lower edge and tied at the back. The price of the pattern is 10 cents.

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No. 696.—Design for an embroidered cover for pin cushion four inches wide by eighteen inches long. The price of the pattern is 10 cents.

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Take Care of Your Eyes.

Eye-strain is certainly a factor in producing disease of every part of the eye, and the eyes will endure so much work and no more, and if you would keep yourself free from nervous prostration, have respect for your organs of sight, as the overworked nerves of the eyes react on on the nerves of the body and often cause a complete nervous breakdown.

In reading or writing, in either standing or sitting, the head and body should be erect. The act of bending constricts the neck veins, hindering the return of the blood from the head.

Be careful not to read lying down, as there is then too much blood pressure in the eyes and the external muscles soon become very tired; and stooping or lying down congests the eye, besides requiring unnatural work of the eye muscles.

The care of the eyes should be studied, as great damages result from carelessness, and eye-strain not only produces headache and neuralgia, but often causes vertigo, nausea, inability to apply the mind and mental depression. Don't believe that the early use of glasses is harmful in the end. When eye glasses will improve the sight they should be worn, and many persons have done great injury to their eyes by neglecting to properly clean their glasses. They should be wiped off every day with a soft cloth dipped in rain water and polished with soft tissue paper, and at least once a week they should be washed in a little soap and water to which a few drops of ammonia have been added.

The eyes should never be used when they are tired or weak from illness, nor should they be exposed to a strong light at any time. The light should always fall on the work or book from over the left shoulder.

To preserve the round shape of the eye-balls, occasionally rub them gently and always toward the nose. As one grows older, the eye-balls have a tendency to become flat. Gentle rubbing or massage helps to preserve their shape; and every morning, while washing the face, rub the eyes toward the nose gently from the side of the face.

If the eyes are inclined to be weak, bathe them at least once a day with a weak boric solution prepared by dissolving a teaspoonful of boric powder in a pint of boiled water; and if they are the least sore, they should have very careful attention, for the eye is a very delicate organ, and irremediable mischief may result if inflammation is allowed to run on. One of the best remedies for inflamed or sore eyes is made by putting one teaspoonful of the boric powder in a teacup, then adding fifteen drops of spirits of camphor and rubbing to a smooth paste and then pouring over it two-thirds of a cup of boiled water, then strain and bottle and apply with a piece of soft linen, or use a glass eye-cup.

There is nothing better for children's eyes than the weak boric solution, and if this is used every morning the eyes will be strengthened; and a soft linen cloth which is employed for no other purpose is better to use when bathing the eyes than a sponge.—Aline.

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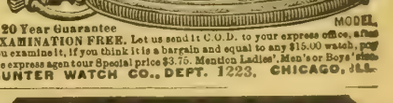

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THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 8550 Vista Ave., St. Louis, Mo.**

COMMERCIAL CUTS OF BEEF.

When a Beef Steer is at Its Best—Points For the Producer and Consumer.

Bulletin No. 158 of the Illinois Agricultural Experiment Station is of absorbing interest to the millions of people who would reduce the family meat bill without stinting the quantity of nourishment provided for the sustenance of the family.

In order to enlighten the producers of beef cattle on the one hand as to the period of maturity at which a beef steer is at its best, and the beef-consuming public on the other hand as to an intelligent understanding of the relative economy of the different cuts of beef offered by the butcher, three steers were slaughtered, dressed, cut up and the various portions—hide, offal, internal fat, head, feet, liver, heart, etc., as well as each kind of merchantable meat—were carefully weighed. Then each cut of meat was separated into lean, fat and bone, and these constituent portions were weighed and chemically analyzed to determine the proportion of water, digestible protein, etc., in each.

No. 1 was a choice Hereford steer, eighteen months old and weighing 902 pounds. No. 2 was a choice Aberdeen-Angus steer, twenty-four months old, and weighing 1,190 pounds. No. 3 was a prime Shorthorn steer, twenty-nine months old, and weighing 1,360 pounds—live weight in each case.

No. 1 turned out of chilled dressed beef 60.36 per cent. of his live weight; No. 2, 60.88 per cent.; and No. 3, 63.97 per cent. The quantity of internal fat was 5.15 per cent. of the live weight for No. 1; 5.97 per cent. for No. 2; and 4.71 per cent. for No. 3. The hide was 7.48 per cent. of the live weight in No. 1; 6.51 per cent. of No. 2; and 6.43 per cent. of No. 3. In like manner, No. 1 was figured with the largest percentage of head, feet and other offal, and No. 3 with the smallest.

From this data it is evident that the more mature the animal, and the better finished, the larger percentage of merchantable meat it turns out. While steer No. 3 was the fattest of the lot, its fat was distributed between the muscles, where it improved the quality of the meat and brought a high price, rather than in the hollow of the carcass, where it could only be converted into tallow and sold for a low price.

It was found that the hind quarters contained the larger per cent. of fat and smaller per cent. of bone; while the fore quarters contained the larger per cent. of lean meat. The lean meat is richer than the fat in mineral matter and also in protein, the most valuable and nutritious element of meat.

In the matter of economy, the flank ranks first, since it contains no bone and sells at a low price. The neck and chuch steak stand next in economy, since their nutritive value is very high in proportion to their cost. Round steak stands third for the same reason. Loin and porterhouse steaks are more tender and palatable, but their food value is much less in proportion to their cost. A skillful cook can render the cheaper cuts quite as tender and palatable as the more expensive cuts, particularly in the form of roasts and stews.

This bulletin is elaborately illustrated with photographs of the various cuts of meats.

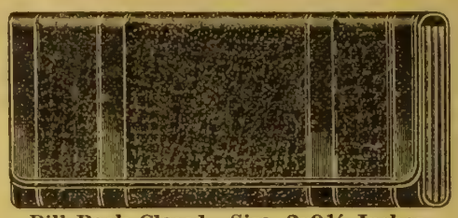
Famous Stockman Dead.

From Missoula, Montana, on November 12th, the death of John C. Burke was announced. In his day he was one of the best-known stockmen of the West, who was also one of the founders of the Chicago Stock Yards, and who was a partner of "Big Ed" Corrigan in the building and operation of Hawthorne and several well-known race tracks at Chicago. Mr. Burke had suffered from asthma for thirteen years, and went to Missoula two years ago for his health.

A Pocket Book Circulation Premium.

THE NATIONAL FARMER Folding Bill Book.

Illustration Showing Bill Book Open.



Bill Book Closed—Size, 3x8½ Inches.

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BEST VALUE AND MOST SERVICEABLE PREMIUM EVER OFFERED.

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Our Subscription Offer.

WE have adopted THE NATIONAL FARMER FOLDING BILL BOOK as a subscription premium with the best monthly farm paper in the United States.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Fighting the Chinchbug With Fire.

The chinchbug cost the state of Missouri approximately $5,000,000 this year. Unless immediate steps are taken to destroy the swarms which are living over during the winter, this loss will be greatly increased next year.

In the month of December, as early as possible, all meadows, pastures, roads, waste lands and other fields which are heavily overgrown should be carefully examined for the hibernating chinchbugs. Those fields near wheat and corn fields which were infested last summer should be examined with special care. The insects hide deep down in clumps of grass, under leaves and rubbish, and in many cases their presence can be detected from the disagreeable odor of the crushed bugs, even before one finds them in their hiding places.

Wherever they are found the fields should be burned over immediately and carefully so that every possible shelter will be destroyed. The wind should not be too strong so that the heat will penetrate down into the clumps of grass and make a clean job. Farmers should cooperate in burning over all public highways and railroad right-of-ways in the infested regions. With careful, systematic burning of all harboring places in the fall, a large per cent. of the millions of hibernating bugs will be killed by the heat directly and many more left exposed to the winter. After each and every farmer has done all he can to destroy the pest during the winter, the fight will be well enough started so that, if taken up in time next summer, the injury from the pests may be greatly reduced. — L. Haseman, Missouri Agricultural College.

Cabbage Very Cheap.

St. Louis quotations: Holland seed at $8.00 to $9.00 per ton. On orders, dealers charge 75c. per 100 pounds sacked for Holland seed. Red cabbage at $18 to $20 per ton.

SELECTED POETRY.

THE MISSION OF THE FLAMES.

e Christmas eve had stepped once more
From off the sunset's gilded cars,
d on her dark blue dress she wore
The priceless jewels of the stars.
, queen of all the nights was she—
By many grateful souls caressed!
d most of all by those whom he
Took once within his arms and blessed.
e temple smiled with youthful joy,
And twice three hundred hands were there
take the gifts that hearts employ
Caresses of the heart to bear.
d on the altar's cushioned soil,
Where many happy eyes could see,
ere loomed that growth of playful toil
And toilsome play—a Christmas tree.

gloomy streets not far away,
Two foemen fought each other's life;
was the last of many a day
Of fancied wrong and frenzied strife.
ch cursed the other with his heart,
And planned a death bed o'er and o'er;
d each to do its murderous part,
The grim five-bladed dagger bore.
, Christmas—birthday of the joys
Of peace, that every bosom craves!
hy on thy eve should Passion's voice
Call yet his muster roll of slaves?
e know not: oft the brightest star
In God's sweet heaven secure and high,
dimmed by clouds from near and far,
That need a storm to brush them by.

w from the feast of joy there came
A sullen shout, a wailing cry;
e temple roof is thatched with flame!
Huge treasure torches gleam on high!
w, heroes of the human race,
If such there be within this call,
rouse and clear the child-strewn place,
Before yon gilded frescoes fall;
e swift response was strong and brave,
As ever could be said or sung;
en fight like men themselves to save,
They fight like fiends to save their young!
e swift response was strong and brave,
Strove as the unleashed whirlwind strives,
nd to an hundred parents gave
The present of their children's lives.
o stronger two than those who late
Had lurked each other's blood to claim!
ast ones they were to leave the gate
That hung on hinges forged of flame.
rsing, they met each other's view—
Looked at each other's arms and smiled—
hen met scorched hands in friendship true;
For each had saved the other's child.
—Will Carleton.

THE EFFECT AT PUNKIN HOLLOW.

ell, election day is over, and the country's
runnin' yit;
an't see any change whatever—not a solitary bit;
hen the hens lay eggs they cackle, just
the way they did before;
here are problems left to tackle and there's
trouble still in store;
zra Brown still has lumbago—just as bad
as ever, too—
o you find it makes your pay go farther
than it used to do?

eethin' babies keep on cryin', never noticin'
the change;
nd the sharpers still are tryin' swindles
that are new and strange;
eath appears to be as fatal as before the
ruction came;
ooks as though the ship of state'll keep
on floatin' just the same;
eacon Smith still tries to borrow, without
havin' much success,
nd the sun will rise to-morrow somewhere
in the east, I guess.

indows that are loose still rattle when the
wind begins to blow,
nd we have to feed the cattle, as we did a
year ago;
olks who thought we'd all face ruin if
things failed to go their way
eem to still be up and doin' if they haven't
much to say;
enry Hungerford's still settin' on a box up
to the store,
hile his wife is gettin' paler than she
was before.

till, the preachers keep on preachin', doctors, too, are on the trot;
reedy people still are reachin' for the
money that you've got;
ity fellers who are gunnin' skin their
shins on every log;
overnment keeps right on runnin', never
havin' slipped a cog;
ill Spooner's indigestion keeps a dark look
on his brow,
nd we'll have the tariff question up again
four years from now.
—Chicago Record-Herald.

SHUT IN.

he moon above the eastern wood
hone at its full; the hill range stood
ransfigured in the silver flood,
a blown snows flashing cold and keen,
ead white, save where some sharp ravine
ook shadow, of the somber green
f hemlocks turned to pitchy black
gainst the whiteness at their back,
or such a world and such a night
ost fitting that unwarming light,
hich only seemed where'er it fell
o make the coldness visible.

ut in from all the world without,
e sat the clean winged hearth about,
ntent to let the north wind roar
baffled rage at pane and door,
hile the red logs before us beat
he frost line back with tropic heat;
nd ever, when a louder blast
ook beam and rafter as it passed,

The merrier up its roaring draught
The great throat of the chimney laughed;
The house dog on his paws outspread
Laid to the fire his drowsy head:
The cat's dark silhouette on the wall,
A couchant tiger's seemed to fall;
And for the winter's fireside meet,
Between the andirons' straddling feet,
The mug of cider simmered slow,
The apples sputtered in a row,
And close at hand the basket stood
With nuts from brown October's wood.

What matter how the night behaved?
What matter how the north wind raved?
Blow high, blow low, not all its snow
Could quench our hearth fire's ready glow.
O, Time and Change—with hair as gray
As was my sire's that winter day.
How strange it seems, with so much gone
Of life and love, to still live on!
Ah, brother, only I and thou
Are left of all that circle now.
The dear home faces whereupon
That fitful firelight paled and shone,
Henceforward listen as we will,
The voices of that hearth are still;
Look where we may, the wide earth o'er,
Those lighted faces smile no more.
We tread the paths their feet have worn,
We sit beneath their orchard trees,
We hear, like them, the hum of bees
And rustle of the bladed corn;
We turn the pages that they read,
Their written words we linger o'er,
But in the sun they cast no shade,
No voice is heard, no sign is made;
No step is on the conscious floor!
Yet love will dream and Faith will trust
(Since he who knows our need is just),
That somehow, somewhere, meet we must.

Alas for him who never sees
The stars shine through the cypress trees!
Who hopeless lays his head away,
Nor looks to see the breaking day
Across the mournful marbles play!
Who hath not learned in hours of faith
The truth to flesh and sense unknown,
That life is ever lord of Death
And Love and never lose its own!
—John G. Whittier.

"WHEN THE FROST."

When the frost is on the pumpkin and the
fodder's in the shock,
And you hear the kyouck and gobble of the
struttin' turkey-cock,
And the clackin' of the guineas, and the
cluckin' of the hens,
And the rooster's hallylooyer as he tiptoes
on the fence;
Oh, it's then's the time a feller is a-feelin'
at his best,
With the risin' sun to greet him from a
night of peaceful rest,
As he leaves the house, bareheaded, and
goes out to feed the stock,
When the frost is on the pumpkin and the
fodder's in the shock.

They's somethin' kindo' hearty-like about
the atmosphere
When the heat of summer's over and the
coolin' fall is here—
Of course we miss the flowers, and the
blossoms on the trees,
And the mumble of the hummin' birds and
buzzin' of the bees;
But the air's so appetizin', and the landscape through the haze
Of a crisp and sunny morning of the airly
autumn days
Is the pictur' that no painter has the colorin'
to mock—
When the frost is on the pumpkin and the
fodder's in the shock.

The husky, rusty rustle of the tossels of the
corn,
And the raspin' of the tangled leaves, as
golden as the morn;
The stubble in the furries—kind o' lonesome-like, but still
A-preachin' sermons to us of the barns they
growed to fill;
The strawstack in the medder, and the
reaper in the shed;
The hosses in their stalls below—the clover
overhead!—
Oh, it sets my heart a-clickin' like the tickin'
of a clock
When the frost is on the pumpkin and the
fodder's in the shock.
—James Whitcomb Riley.

FATE OF THE CHRISTMAS DINNER.

The feast was spread. Mamma and cook to
other scenes retreated
When Tommy ran to take a look before the
guests were seated.
The turkey, brown as brown could be, reposed upon a platter—
And sure you need not wish to see a Christmas turkey fatter!

And Tommy waits not for the guests, who
still most sadly linger,
But right into the turkey's breast he pokes
his little finger.
He gouges out with right good will a handful of the stuffing,
And fills his little mouth until his sheeks
seem strangely puffing.

A lordly "drumstick" next he spies, and
eagerly he eyes it,
Then swiftly seizing on the prize, with willing hands he tries it.
His pinafore, a sorry sight, would drive
mamma to madness,
While nose and mouth and cheeks are quite
a-shine with grease and gladness.

But Tommy heeds not minor ills—to jelly
now he dashes,
And on the damask cloth he spills a dozen
scarlet splashes.
The plainer food he passes by, and gives his
whole attention
To tasting each and every pie—their fate I
dare not mention.

The Christmas guests had dallied long—
they dillied and they dallied—
Until at last, a merry throng, around the
board they rallied.
Alas! what havoc meets their gaze! Their
hopes now quickly failing!
As they look on in wild amaze to view the
scene appalling.

The turkey with his "drumstick" bare, his
lordly breast quite battered.
The pies no longer plump and fair, the
cloth with juice bespattered.
Alas! Alack! How eyes do snap! Poor
Tommy's fate seems certain;
But grandma takes him on her lap, and so
we drop the curtain.
—Helen Whitney Clark.

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Every man and boy should own a library. It is easy to obtain a nice lot of books. A splendid book to begin with is "The American Government," by Frederick J. Haskin, which is a valuable book for any American between the age of nine and ninety years.

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The "American Government" clears the mind of many doubts and answers many questions. A Congressman serving his first term needs such a book before he goes to Washington, and Mr. Haskin has produced a book of which 175,000 copies were sold the first year.

We will recommend other books, but "The American Government" is a first-class book for No. 1 in a farm library. We have adopted "The American Government," handsome cloth-bound edition, as a subscription premium in connection with The National Farmer and Stock Grower. Anyone who will send One Dollar for two-years' subscription to The National Farmer and Stock Grower can select a copy of "The American Government" as a subscription premium, and we will send it postpaid, safe delivery and satisfaction guaranteed.

Why the Kiss Was Missing.

It had been their first separation, and during the week the young husband had sent his wife ten letters, fifteen picture postcards and four telegrams.

Why, then, this touch of coldness in her welcome on his return?

"Dearest," he whispered, "what is wrong?"

"Oh, George," she replied in broken tones, "you didn't send me a kiss in your seventh letter!"

George thought like lightning for a moment before he replied:

"I know I didn't, petsy, but I had steak and onions that night for supper, and you wouldn't like me to kiss you after eating onions, would you?"—Exchange.

Dried Fruit Market.

During the last week in November the consignments of dried fruit received upon the St. Louis market were sold as follows: Apples—Evaporated rings, inferior at 4c.; fair to prime at 4¼ to 4½c.—fancy more; chops, cores and peelings, ½ to ¾c. for sun-dried, to 1c. for bleached evaporated; sun-dried—dark and poor, 3¼ to 3½c.; large, bright quarters, 4¼c. Peaches—Sun-dried halves, 7½ to 8c. per pound.

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THE BOYS' MAGAZINE at all news-stands, 10c a copy.

A POPULAR PREMIUM.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

When we send out the Universal Magazine we also like to send out a useful and meritorious subscription premium with it. To this end we have adopted a pair of Aluminum Salt and Pepper Shakers, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always bright, and will last a lifetime.

Universal Salt and Pepper Shakers—Reduced Size.

To anyone who will send us twenty-five (25) cents we will send the Universal Magazine for ten months, and we will send the pair of Universal Aluminum Salt and Pepper Shakers as a premium, postage paid, safe delivery and satisfaction guaranteed.

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Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find Twenty-five (25) Cents to pay for ten-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a subscription premium, post free, safe delivery guaranteed, one pair of Universal Salt and Pepper Shakers.

Name.....

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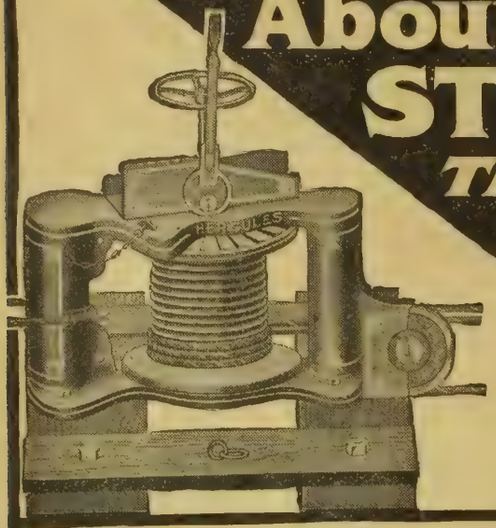
Read What These Farmers Say About The HERCULES STUMP PULLER

Then Write For My Grand Free Book About Pulling Out Stumps!



Pull Out the Stumps—and Raise Crops on Virgin Soil

Stump land robs you of *virgin soil*—the most fertile soil in the world. If you have 40 acres of stump land you're losing at least $750.00 in crops you *don't* get—and *half* the realty value of the land. You can raise a good 1500 bushels of corn on that 40 acres—you can raise a good 75 tons of hay—or 3,000 bushels of oats—or 1,000 bushels of wheat. What does it mean to *you* in dollars and cents? Doesn't it prove that

Loafer Land Doesn't Pay

Doesn't it prove that you need a Hercules Triple Power All Steel Stump Puller? I tell you friend, the sooner you get the stumps out of your field, the sooner you'll be making the *real big* farm profits. Get a Hercules. It pulls any stump in five minutes—pulls an acre of stumps a day. It can be used as a single, double or triple power machine. Its all steel construction gives it 400 per cent more strength than the next best puller and 60 per cent less weight. It is self anchored or stump anchored—built low to the ground—polished and turned to make the draft light—has *double* safety ratchets.

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Let me send you my fine free book and special price offer. I want you to read the facts and proof shown in my book. See the actual photographs and letters sent in by owners of the Hercules Stump Pullers. Read my thirty day trial offer—my three year guarantee against breakage from *any cause* and note the price I will make you.

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B. A. FULLER, Pres.

Hercules Mfg Co.

840 21st Street

Centerville, Iowa

THESE MEN KNOW

J. W. Shealy, Ballentine, S. C., writes:
"I am only a small farmer, but I have succeeded in stumping the most of my land with the Hercules. Would not think of trading the cost of puller and expense of stumping land for the stumps as they were in the field before I used the Hercules."

Andrew Swanson, Houston, Minn., writes:
"We have been two of us and one horse working with the Hercules about 20 days and I am sure it is the best investment I ever made. I will always have a good word for the Hercules Company for honesty and a square deal."

C. W. Hadley, St. Clair, Mo., writes:
"We got the finest piece of corn in this country where there was nothing but trees and brush and stumps last year, but we cleared it out with a Hercules Machine and put it into corn."

Nicholas C. Fries, Nansville, N. Y., writes
"I purchased a Hercules Steel Puller about May 1910. I have used it on my farm with much satisfaction and have cleared about 18 acres. I think I may say it will pull anything you hitch to. I pulled some stumps that were four feet across. I can sincerely recommend this puller."

A. R. Reitz, Shady Bend, Kansas, writes:
"We have surely pulled some tough stumps with the Double and Triple Power Hercules. We pulled some Green White Oak stumps 3½ inch base diamater, cut two years ago, and all spouted out—growing. It surely surprised me to pull these with the Triple Power, Genuine Steel Puller. Some of the stumps had roots 25 feet long."

August Hanke, Wathena, Kansas, writes:
"About one year ago, I purchased from your firm, one of your Hercules Triple Power, Genuine Steel Pullers. I have placed this machine to the most severe tests and have come to the conclusion that it will do even more than you claim. With my Hercules, at odd times when the work on my farm was slack, I have cleared 10 acres of heavy brush and timberland. The stumps on this tract of land was very thick, consisting of Oaks, Linn and Elm.

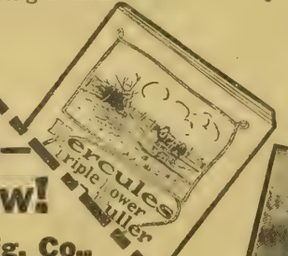
I cleared this land of stumps, brush, roots and all, which left the land in a splendid tillable condition. Last spring I planted this tract of land in corn, and it yielded 450 bushels of the finest corn that has ever been seen in these parts.

I am intending to clear 20 more acres this spring, the timber on this land is so dense that it is almost impossible to work in; however I shall overcome all difficulties encountered, as my Hercules only requires a cleared circle about 24 feet in diamater, in which to commence work. If you desire to use this letter in your advertising matter, it will be perfectly satisfactory to me."

J. K. Detwiler, Bristol, Ind., writes:
"I have a Hercules Triple Power, All-Steel Stump Puller, and it gives entire satisfaction. We cleared 24 acres. It takes out the roots and all. The machine is just as good as when we commenced. It is very simple and handy, and beats dynamite all to pieces for cheapness. To have cleared my land with dynamite would have cost me about $600, but instead of that we have simply used our spare time and the stumps are out, roots and all.

Our stumps are White Oak, large center, tap-rooted. We think sometimes they come from China. No trouble. Anyone can work my Hercules. I would advise every farmer that has land to clear to get the Hercules. This year we raised great big potatoes where the stumps were last year and the land was easily cultivated."

Geo. Hugle, Nehawka, Neb., writes:
"We have pulled the stumps off four acres of ground and they were awful thick. With three men we pulled at the rate of 200 stumps a day. We are now plowing for corn and there aren't any roots to bother us, so we find the Hercules Stump Puller much cheaper, as well as safer than dynamite."



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National FARMER

Vol. XXIX. St. Louis, Mo., January, 1913. No. 1.

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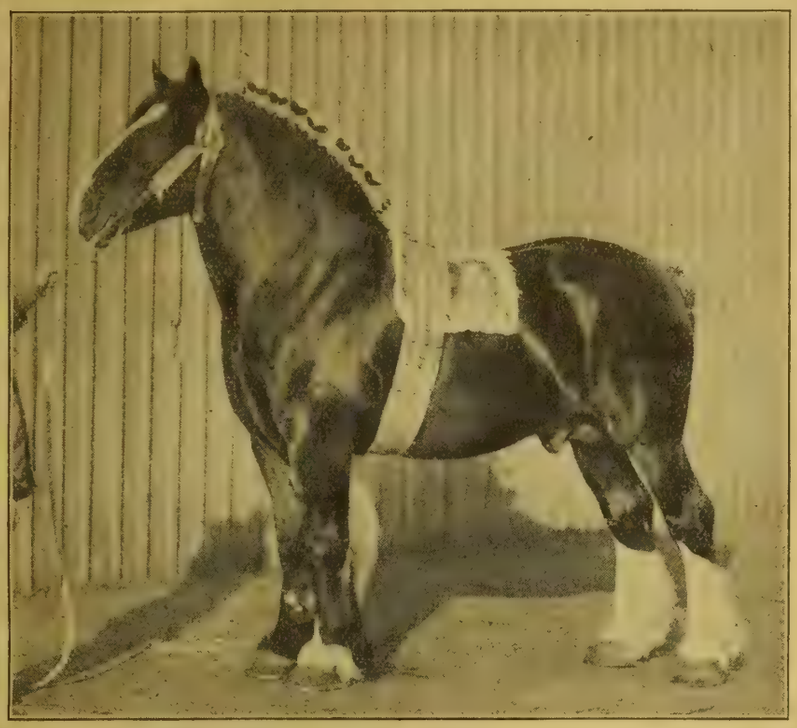

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Live Stock Champions.

The Book of Live Stock Champions which is referred to on page 2 of this edition contains no less than 250 Chicago International champions, besides 500 champions at other shows. Every picture is a half-tone engraving taken from life photographs, and all the famous animal photo artists are represented in the book with their best work. Such a book, bound, as it is, elegantly in blue cloth, could be readily sold to a limited extent at five dollars a copy, but the book is a supplement to The National Farmer and Stock Grower, and the publisher would rather sell fifty thousand books at a dollar than sell probably two thousand copies at five dollars a copy. The Book of Live Stock Champions was published to encourage the improvement in live stock. Breeders are encouraging the sale of this book for that reason.

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SUGAR BEETS vs. WHEAT.

Exporting Wheat is Selling Our Soil Fertility, Whereas Imported Sugar Brings in Nothing of the Kind in Exchange—Showing Entirely in Favor of the Sugar Beet.

Senate Document No. 890, Sixty-second Congress, second session, entitled "Sugar at a Glance," graphically sets forth a most remarkable and monumental folly on the part of the American farmers. The document, prepared by Truman G. Palmer, embraces sixty-seven large pages and besides a number of photogravure illustrations it makes use of forty-two charts to drive home in an impressive manner a number of startling truths.

For instance, Chart No. 40 pictures to the eye the prodigality of American farmers in dissipating their soil fertility, and contrasts this foolishness with the wise frugality and thrift of the German farmers in constantly building up the fertility and productivity of their lands.

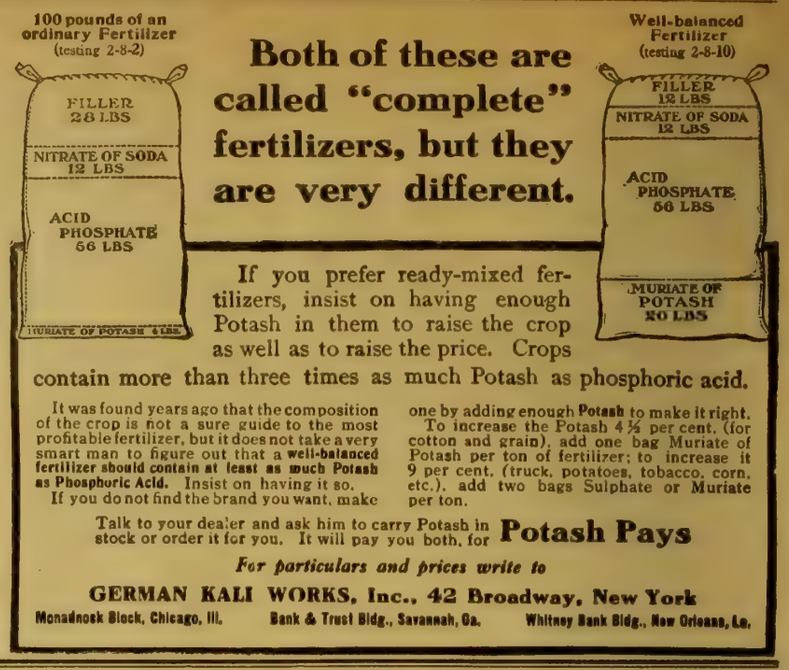
This chart shows that in 1909 American farmers exported wheat, cotton-seed meal and linseed meal to the value of $93,203,226 and imported foreign raw sugar to the amount of $93,379,029 — almost identical amounts. Now this $93,203,226 worth of wheat, cotton-seed meal and oil meal contained $35,793,342 worth of nitrogen, phosphoric acid and potash, the three principal elements of soil fertility, which they had taken from the soil upon which they grew; while the $93,379,029 worth of raw sugar imported contained not a dollar's worth of soil fertility. In other words, we shipped abroad thirty-six million dollars' worth of soil fertility and got not one dollar's worth in return.

On the other hand, during the same year, Germany exported $49,339,542 worth of raw sugar, carrying away not a particle of soil fertility, since the pulp of the beets from which it has been extracted were fed to cattle and converted into beef and butter and cheese that were consumed at home and the manure spread upon the home farms. And during that year German farmers imported cotton-seed meal and linseed meal valued at $48,552,952, and containing $28,770,564 worth of soil fertility. These meals were fed to the stock of German farmers and their soil fertility was recovered in the manure and applied to the German farms.

Chart No. 39 shows at a glance the result of a long series of years of this sort of crop exchange, during which time the German farmers have rapidly increased in productive capacity at the expense of American farms, so that the 42,776,000 acres of wheat, rye, barley, oats and potatoes in Germany yielded 2,975,742,000 bushels, valued at $1,810,878,000; while in the same year the 85,546,000 acres in the same crops in this country yielded only 1,874,635,000 bushels, worth $1,178,005,000. In other words, with only half as many acres in these five crops, Germany produced over a million bushels more than we did the same, their average yield per acre of these crops being more than double ours.

And yet Chart No. 31 shows that while the prices of other farm crops, particularly potatoes, extensively grown for export in this country, fluctuated widely, the price paid for sugar beets at the factory has steadily increased from year to year with the single exception of the year 1901, when the price was 13 cents per ton less than in 1900. The factories paid $4.10 per ton in 1897; $4.30 in 1898; $4.60 in 1899; $4.73 in 1900; $4.60 in 1901; $4.98 in 1902; since which time the price has risen every year, reaching $6.00 per ton in 1910. The price of Irish potatoes is not nearly so reliable, having dropped from 55 cents a bushel in 1897 to 43 cents in 1900 and then jumped to 77 cents in 1901 and fallen to 47 cents the next year, and since then the average price has continued to fluctuate between widely-separated extremes.

Altogether this document would seem to be an unanswerable argument in favor of the production of our own sugar supply and in favor of feeding all of our highly-concentrated feeding stuffs on American farms and reaping the three-fold benefit of the feeders' profit, increasd fertility of our lands and greatly reduced tonnage on which to pay transportation charges, for four or five tons of feedstuffs can be condensed into one ton of meat or butter or cheese.


100 pounds of an ordinary Fertilizer (testing 2-8-2)
FILLER 28 LBS
NITRATE OF SODA 12 LBS
ACID PHOSPHATE 56 LBS
MURIATE OF POTASH 4 LBS
Both of these are called "complete" fertilizers, but they are very different.
Well-balanced Fertilizer (testing 2-8-10)
FILLER 12 LBS
NITRATE OF SODA 12 LBS
ACID PHOSPHATE 56 LBS
MURIATE OF POTASH 20 LBS

If you prefer ready-mixed fertilizers, insist on having enough Potash in them to raise the crop as well as to raise the price. Crops contain more than three times as much Potash as phosphoric acid.

It was found years ago that the composition of the crop is not a sure guide to the most profitable fertilizer, but it does not take a very smart man to figure out that a **well-balanced fertilizer should contain at least as much Potash as Phosphoric Acid.** Insist on having it so. If you do not find the brand you want, make one by adding enough **Potash** to make it right. To increase the Potash 4½ per cent. (for cotton and grain), add one bag Muriate of Potash per ton of fertilizer; to increase it 9 per cent. (truck, potatoes, tobacco, corn, etc.), add two bags Sulphate or Muriate per ton.

Talk to your dealer and ask him to carry Potash in stock or order it for you. It will pay you both, for **Potash Pays**

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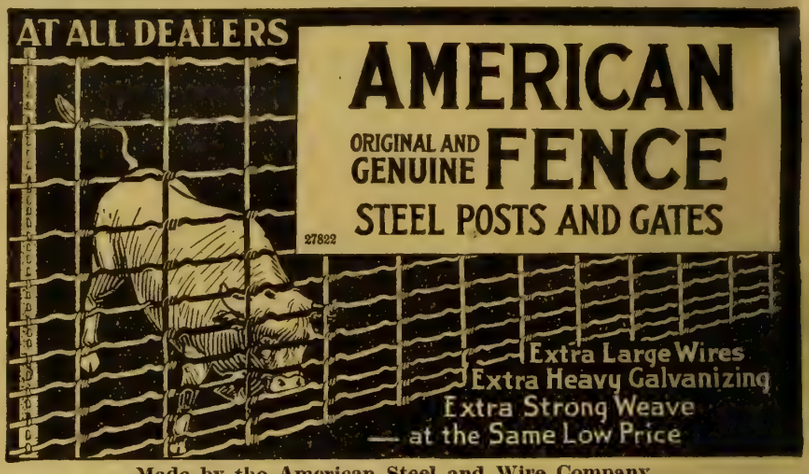

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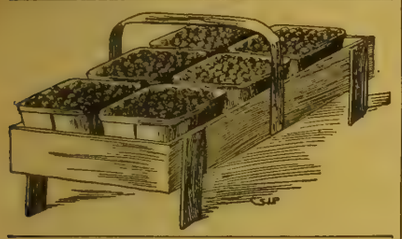

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WORN-OUT PASTURES.

How to Restore Them to Fertile Conditions and to Produce Good Yields.

In most farming districts of the Middle Western States the observant traveler notices old pastures which yield little beyond weeds, and really do not produce sufficient value in pasturage to pay taxes on the land. Obviously, the best thing to do with such lands is to break them up and take them into the crop rotation. But for some reason it may not be practicable to do this, and it is desired to improve the yield of grass and clover at the least cost compatible with the attainment of grazing land.

Pasture land upon which clover, timothy and Kentucky blue grass has failed, and sheep sorrel appears, and briars and bushes generally, is sure to be acid. Upon acid land no good pasture can be secured. The first step therefore is to remedy the acidity. This is best accomplished with lime in the caustic state, from 500 to 1,000 pounds per acre; the lime should be water-slaked upon the land, using about three gallons of water for each 100 pounds of burnt lime. The lime should be guaranteed to contain not less than 90 per cent. of lime carbonate; some lime water contains over 30 per cent. of magnesia, which is injurious to most crops. The "agricultural lime" sold as such often is a mixture of trash, ashes and ground limestone. It should be remembered that a ton of burnt lime will absorb about one-fourth its weight in water, and upon this the farmer must pay freight and cartage.

Old pastures are likely to be deficient in phosphoric acid; this element of plant food is abundant in bones, and is therefore carried off in the bones of cattle grazed upon the land. Upon sandy soil, and likewise upon wet bottoms, the soil is likely to be lacking in potash, an element of vegetable life specially valuable in grasses and leguminous crops. Thus, the three minerals which are most needed to restore a worn-out pasture are lime, phosphates and potash. A little nitrogen is desirable with the seeding to hasten early growth, but as a rule this substance is not needed for the renovation of old pastures.

The procedure we recommend is as follows: Grub up all bushes, and on the sites of such use a double share of lime. Then go over the entire field with a harrow as often as requisite to cut up the old sod, but do not turn it up. Upon this broadcast the lime and harrow once more, using a heavy cutting harrow; let it stand for a week, until the caustic lime has become carbonate; then harrow in the following fertilizer, per acre:

Nitrate of soda, 50 pounds.
Acid phosphate, 250 to 500 pounds.
Muriate of potash, 150 to 250 pounds.

The above mixture is for upland soil; if the pasture is on wet bottom land, use the following formula, per acre:

Steamed bone meal, 500 pounds.
Muriate of potash, 250 pounds.

Directions—Harrow in with a light harrow and immediately sow on the land the following mixture of seeds, per acre:

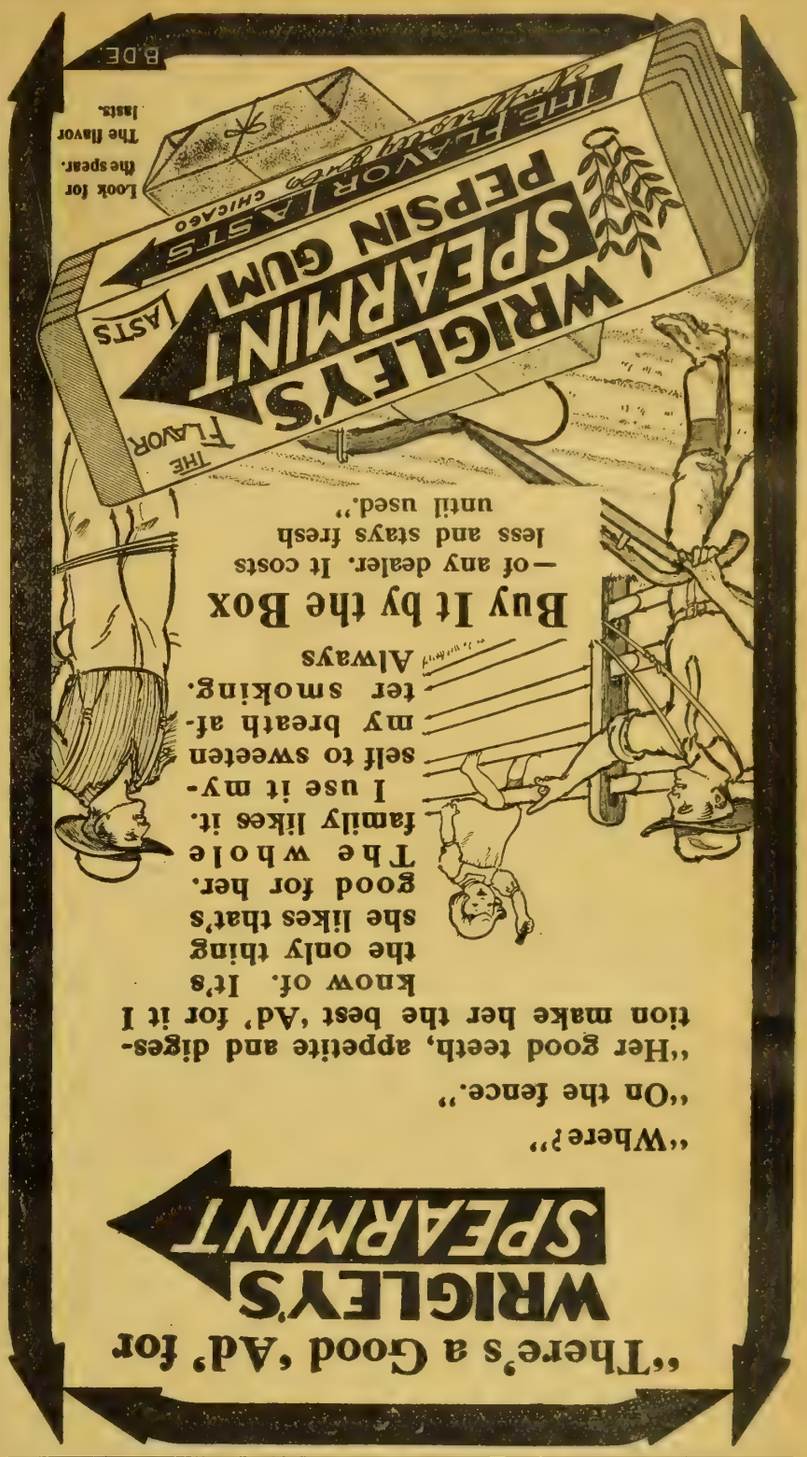
Red clover, five pounds.
Spotted medic or bur clover, three pounds.
White clover, two pounds.

If for bottom lands, the following seed mixture will be better:

Alsike clover, four pounds.
White clover, three pounds.
Winter vetch, six pounds.

Cover in with a light smoothing harrow. It will not pay to sow tame grass upon an old sod, since when the land becomes suitable the grass will spontaneously reappear. If the renovation is completed in the fall, a nurse crop of one bushel of rye may be added to the above formula; if the seed is sown in spring, use oats. The fall or late summer is the best time, where the clover does not winter kill.

If the renovated pasture is to endure more than one year, an annual top dressing of about 100 pounds of muriate of potash and 250 pounds of acid phosphate must be given, but no nitrogen. The land should be harrowed each fall to spread droppings; if Canada thistle appears it must be grubbed up; the best time to do this is when the weeds are in full bloom.—Gerald MacCarthy.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WHEAT-GROWING BONANZA.

The Crop That Won the Big Four Tractor and the Emerson Gang Plow.

Joseph P. Nash and Chas. Bridgeman, partners, ranchers and wheat farmers up in the Shields River Valley of Montana, seventy-five miles north of Yellowstone National Park, were winners of the prize, valued at $5,000, for the best five bushels of wheat grown in the American Northwest during 1912 and exhibited at the Minneapolis "Land Show." The exhibit was Turkey red, weighed the full sixty pounds and a few ounces more to the bushel. The commercial score card gave it 92½ points. It milled 104.7, and fifty-nine and one-third bushels per acre was the average on fifty-two acres.

This announcement of the award was made by President Lewis Penwell, of the Northwest Development League, after the many samples of wheat of all varieties had passed under the eyes of four different judges, then ground into flour and baked into bread. Affidavits were furnished by the growers from the County Surveyor of Park county, Montana, who measured the field, and from the threshermen who measured 3,085 bushels of the wheat they threshed from the fifty-two acres.

The prize-winning wheat was not the highest scoring wheat by the commercial score card, but it was 4.7 points better than No. 2 Northern Spring, the millers' standard on the milling test. The wonderful yield which Nash & Bridgeman realized from carefully selecting their seed and the natural fertility of the soil of the Shields River Valley placed the prize in the hands of the Montanans.

The prize won consists of a Big Four "30" Farm Tractor and a set of the famous Emerson engine gang plows, donated by the Emerson-Brantingham Implement Company of Rockford, Ill. The ranchers will start in with the opening of spring to "rip up all of Park county and plant it in Turkey red wheat," as Mr. Nash expressed it when asked what they would do if they won the outfit. They own 1,160 acres.

The sample of Nash & Bridgeman wheat scored 104.7. The laboratory found the prize-winning wheat contained but 12 per cent. moisture. It had a cleaning loss of only half of one per cent. and a net flour yield of 76.6 per cent. The No. 2 Northern Spring, to which it was compared, has an average of 13 per cent. moisture and a flour yield of 72 per cent.

Twelve ounces of flour made from the Nash & Bridgeman Turkey red produced a loaf of bread containing 168 cubic inches and weighed 18.25 ounces when it came from the oven.

The Island of Jamaica exports twice as many bananas as any other country, and the United States imports more bananas than any other country by five times as many.

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The Universal Magazine contains many interesting items. Read about it on page 29.

THE OATS MARKET SITUATION.

Although the Prices Are Comparatively Low, the Market is as Strong as Farmers Care to Make It.

Comparatively speaking, only a few farmers sell oats that are bought for the purpose of sending into the grain markets. Seventy per cent. of the oats crop does not appear in the big cities and is consumed in localities where grown. If we knew all the farmers having oats to sell it would be very easy to advance oats prices three to five cents a bushel. Notwithstanding the crop is the largest ever grown and of the best quality, the total amount in pounds is small.

A bushel of oats on paper looks as large as a bushel of anything else, but in actual weight it requires nearly two bushels of oats to equal a bushel of wheat.

In the form of oatmeal oats are selling at $10 to $12 a bushel in restaurants, and the retail dealer in feed thinks nothing of adding ten cents a bushel to oatmeal as a retail profit, and farmers are dumping their oats, when, if they would put the price up and starve the market a month or so, there would be no resistance to a reasonable advance. Fortunes are made out of oats, but it is not the farmer who is making the fortune.

Last July, when the size of the crop became apparent, no one thought that the market would continue above thirty cents, but it has not gone down to the figures of two years ago. For five months the market has not changed enough to talk about. The cash market on December 31st, at St. Louis, at 33 to 33½ cents, was a cent or two higher than on August 31st, 1912.

On December 31st the Chicago quotation closed out at 32¼ cents. The next May quotation was 32¾ cents, and the July, 1913, quotation was 32½ cents, and none of these figures was higher since the extent of the crop was announced.

Don't be afraid to advance the price of oats. If you cannot get more money, keep the oats. Don't be unreasonable. Do not expect to get double the price. All movements are gradual and a few cents a bushel is a large advance in market. The actual price of oats is under control of farmers, and they can hold the oats and feed them at a profit.

THE CORN MARKET SITUATION.

Notwithstanding the Reduced Prices, the Market Seemed Firm on the Closing Day of 1912.

The immense corn crop reduced prices by its own weight. Nobody disputes it, and those who are buyers and consumers think it is a good thing. But 45 cents in market and 75 cents in market are 30 cents apart, and the man who has corn in the crib to sell knows the difference better than anyone else.

On May 31st, 1912, the December corn option was quoted at 62⅞ cents a bushel, and in seven months by a gradual process it declined until on the last day of the year the closing price was 45½ cents a bushel. On the same day, at St. Louis, cash corn, which had sold as high as 82 cents during the year, was selling as low as 45 cents flat. Such is life in the corn trade, and we must make the best of it.

The only apparent satisfaction in the market situation is that the May, 1913, and the July, 1913, quotations held the same figures at the close of 1912 as they did thirty days previous. It is almost equal to saying that the market for corn has reached the low point and there is safety, if not riches, in the future.

For the next two months not much change is expected to take place in the corn market, but look out for March, the month that shows the visible supply. On December 31st, 1912, the May option was quoted at 48⅜ cents and the July option at 49¼ cents.

CASH GRAIN QUOTATIONS

At St. Louis on the Last Day of December, 1912.

Wheat.—No. 2 red wheat, $1.06 to $1.10; No. 3 red, $1.03 to $1.06; No. 4 red, 90 to 98c.; No. 2 hard, 88 to 92½c.; No. 3 hard, 88c.

Corn.—No. 2 corn, 45c.; No. 3 corn, 44 to 44¼c.; No. 4 corn, 42½c.; No. 2 yellow, 45c.; No. 3 yellow, 44 to 44¼c.; No. 4 yellow, 43c.; No. 2 white, 48½c.; No. 3 white, 47c.; No. 4 white, 43½ to 44c.

Oats.—No. 2 oats, 33 to 33½c.; No. 3 oats, 32½c.; No. 4 oats, 31½c.; No. 2 white, 34½c.; standard, 33¾ to 34½c.; No. 3 white, 33 to 33¾c.; No. 4 white, 32½ to 32¾c.

Rye.—No. 2 rye, 62c.

Horse and Mule Shipment.

During the month of December, 1912, Mr. C. L. Bevel, a North Carolina horse and mule dealer, bought an entire train of mules in one shipment. Mr. Bevel is a large operator in the Southern horse and mule trade and used to buy when the market was on Broadway.

Closing Year Hog Prices.

On December 31st, at the St. Louis National Stock Yards, a few hogs sold at $7.55 per 100 pounds, which was the top of the market. The bulk of sales went at $7.25 to $7.40, weights ranging largely from 190 to 240 pounds. The top hogs weighed 268 pounds. Best lights under 165 pounds brought $7.00 to $7.35 per 100 pounds; best grade of pigs under 125 pounds went at $6.85 to $7.10 per 100 pounds; fair kinds, $6.25 to $6.65 per 100 pounds; and the rough, heavy packers, $7.00 to $7.15 per 100 pounds, as a rule.

Yearly Cattle Receipts.

Hog receipts at the great Western markets were pretty strong in 1912. Chicago received 7,179,000; St. Louis, 2,529,000; Kansas City, 2,523,000; Omaha, 2,886,000; St. Joseph, 1,960,000; and Indianapolis, 1,800,000. Omaha increased 22 per cent.; Chicago, 1 per cent.; St. Louis lost 19 per cent.; and Kansas City compared with the previous year.

Liberal Cattle Receipts.

Cattle receipts during the year 1912 at the St. Louis National Stock Yards do not indicate a cattle famine. The total arrivals were 1,999,900 head, showing a gain of 11 per cent. over the previous year. Chicago receipts decreased 8 per cent.; Kansas City, 9; Omaha, 14; St. Joseph, 3; and Indianapolis, 1 per cent.

Mexican Yearling Sheep.

On Decemebr 31st, at the St. Louis National Stock Yards, J. H. Starr, of Centralia, Boone county, Mo., was on the market with a string of Mexican yearling sheep from his feed lots in Saline county, Missouri, 477 head, that weighed 85 pounds, and brought $7.75 per 100 pounds. This is the highest price paid this fall or winter for yearlings.

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No. ——	"	"	16 h.-p.	450

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No. 4181	"	"	18 h.-p.	450

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Wholesale For Millstuffs.

Millstuffs are sold at the price stated per 100 pounds. On January 1st, at St. Louis, quotations were as follows: Ten cars 100-pound hard bran sold at $1.01, and five cars soft bran at $1.04, East St. Louis basis; two cars 100-pound soft middlings, prompt shipment, at $1.15; eighty sacks 100-pound middlings on track at $1.15; one track car 100-pound middlings at $1.21; one split car 100-pound hard on track at $1.01 for bran and $1.05 for middlings (on direct orders—four cars 100-pound shorts at $1.07). Quote 100-pound mixed feed nominally $1.04 to $1.09, and 100-pound middlings $1.05 to $1.25 (fancy white worth more); 100-pound white hominy feed held a. $20.50 and yellow at $19 per ton; 100-pound alfalfa meal quotable at $16.50 to $17.50 for brown to $20 to $21 for green. At mills, in city trade, quote 100-pound bran at $1.06 to $1.08, and middlings at $1.15 to $1.40.

THE WHEAT MARKET SITUATION.

A Little Chat About the Market as It Stood Upon the Close of 1912 and the Opening of 1913.

The year 1912 has passed, and with the year went the December wheat option that was closed out at 87¼ cents a bushel. On the Board of Trade at Chicago they began to do business in the December option last May, when on the last day of the month the December wheat option was quoted at $1.06¼ cents a bushel. It will be seen that from the time the new wheat crop was estimated the December option declined. But the month of December was not so bad on the December option, because it was quoted at 81¼ cents a bushel on November 30th, and when it was closed out by the time limit the last quotation was three cents higher.

"The King is dead! Long live the King!" That means December is dead and May is King. May is the quotation that all eyes are centered upon. Between January 1st and May 31st, the people who buy and sell wheat have to mind what they are about. The next crop is an unknown quantity, but it will show something of an influence before the option deals are closed. The amount of wheat in farmers' hands is an unknown quantity until March 8th, and the rapidity of consumption here and everywhere are influences that will cause the May quotation to go up and go down.

If we commence to make a list of market influences we would require more space than The National Farmer and Stock Grower has altogether, and as a matter of fact, these monthly reviews are for the purpose of stating facts as they are in order to make a record of them, rather than to speculate on what might have been, or to even figure if the quotations are justified by the situation. Sometimes we seem to see the future but we do not bet upon it, but look at the subject without prejudice and accept the situation. A farmer should be able to review the past; he should be posted upon the present, and he should have sufficient information concerning the prospect to look the future in the face.

May to us grain growers is now the near future. The first May wheat quotation that we saw quoted was in the month of August, 1912, and we made the remark that the quotation on August 31st was 97¼ cents. But the first people who traded in May wheat of 1913 will probably lose several cents a bushel when the May option is ripe, unless they may have sold out some time ago. On the last day of December, 1912, the May option was quoted at 91½ cents a bushel and there we must leave it until we pick it up again next month.

Beyond the May trading is the July wheat option, and the figure quoted on December 31st was 88⅞ cents a bushel. There, so far as the great wheat trading is concerned, you have the dead December quotation of 87¼ cents, the active May quotation of 91½ cents, and the future July quotation of 88⅞ cents. No man on December 31st, 1912, was better posted.

On December 31st, at St. Louis, in the so-called cash market for consignments sold and delivered on track, the hard wheat was selling in line with the other quotations at 88 to 92½ cents a bushel; but the soft wheat, No. 2 red, was selling at $1.06 to $1.10 a bushel. The reason for the difference between soft and hard wheat, as we understand it, is, that the daily demands for soft wheat from millers who cannot grind hard wheats are in excess of the daily supplies of No. 2 red, and the commission men selling the wheat ignore the hard-wheat quotations and force buyers to pay all that is possible to get out of them. Soft wheat does not always outsell hard wheat, but on December 31st, 1912, the difference was 18 cents a bushel in favor of No. 2 red.

GENERAL STOCK NOTES.

Mr. H. T. Brown, of Cloverdale Farm, Lexington, Ky., has just returned with a large shipment of pure-bred and registered stallions and mares and a lot of high-grade mares. Cloverdale Farm has just sold to Senor Jose Y.Lezama, of the Island of Cuba, the three-year-old mammoth jack, Kentucky King. This jack was a winner at the Blue Grass Fair at Lexington in 1912 and is one of the best jacks that this farm has ever sent to the island.

Mr. Chas. Ford, Mortonsville, Ky., breeder of Tamworth hogs, had his usual success at the Fairs in 1912. At the Chicago International he won first and championship on both single and pen of barrows. Mr. Ford has over 100 head for sale, and from the best strains known to the breed.

Woodland Plantation, at Hammond, La., under the management of M. Nielsen, is one of the representative breeding establishments of the South, raising pure-bred Jersey cattle, Berkshire and O. I. C. swine, not forgetting White Wyandotte poultry that won the female championships and other prizes at the New Orleans Poultry Show, December, 1912.

Cotton mules, 14.3 to 15.2, good quality and fat, are in demand at the St. Louis National Stock Yards. So say Holland, Nugent & Maxwell Bros., and they sell thousands of them.

Parcels Post Potato.

In one of the first packages received at St. Louis under the new parcels post law, and the first package received by The National Farmer and Stock Grower, was a fourteen-ounce "Green Mountain" potato from the Bowker Fertilizer Company, of Boston, Mass. The potato was from the crop of L. A. Littlefield, Lincoln, Me., which won the Bowker first prize of $200 in the contest of 1912. An account of this contest will appear in the February edition of this paper.

Sheep Receipts at St. Louis.

During the year 1912 the St. Louis National Stock Yards received 1,040,000 head of sheep, passing the million mark for the first time in the history of the trade. In one day, June 25th, 1912, the market received a total of 16,121 sheep.

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OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

THE NATIONAL FARMER AND STOCK GROWER is in favor of the United States Custom House collecting a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

By the tariff policy we advocate fully one-half the money required for the support of the national government should be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed upon our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers.

State Leader For Missouri Farm Advisers.

The Board of Curators of the University of Missouri has appointed Mr. D. H. Doane State Farm Management Leader for Missouri. Mr. Doane will represent both the College of Agriculture and the United States Department of Agriculture and will have supervision of the Farm Advisers in Missouri counties. For several years he was connected with the United States Department of Agriculture in farm management investigations. For the past two years he has been in charge of the farm management investigations and instructor in the University of Missouri.

The Missouri College of Agriculture has completed arrangements for a very comprehensive plan of co-operation with the United States Department of Agriculture for the location of Farm Advisers in Missouri counties. The success already attained in Cape Girardeau and Pettis counties has aroused statewide interest in this plan. The College of Agriculture and the United States Department of Agriculture believe this to be the most successful plan so far devised for bringing to the farmer on his own farm the benefits of the investigations made in the College and the Experiment Station.

On January 13th to 17th, 1913, during Farmers' Week, there will be held at Columbia, Mo., the first annual gathering of County Farm Advisers and all others who are interested.

As yet there are but few counties that have Advisers, so the major portion of this meeting will be devoted to explaining how the work may be started in other counties, how the Advisers work and what they accomplish. We will hear from Messrs. S. M. Jordan and C. M. McWilliams what they have done in Pettis and Cape Girardeau counties. Also from some of the farmers and business men, telling why they have said: "The employment of our County Farm Adviser is the best investment our county has ever made." On each afternoon and during the whole day Thursday the programme will be devoted entirely to the County Farm Adviser work.

A meeting, preliminary to the one here announced, was held by the Pettis County Bureau of Agriculture at Sedalia,, November 11th, 1912. At this meeting plans were made and resolutions adopted, which had for its object the gathering at the state meeting of every farmer, Judge of the County Court, banker, school superintendent, teacher, railroad official and Commercial Club member in Missouri. Accordingly, we hereby extend to those mentioned, and all others interested, a most cordial invitation to be with us January 13th to 17th, to help push Missouri's greatest agricultural undertaking. (Signed) D. H. Doane, State Leader.

Butter made on farms decreased 77,000,000 pounds, comparing 1909 with 1899. In the same time butter made in factories increased 204,000,000 pounds.

Corn and cows are a winning combination in the Ozarks.

MR. Hosmer and his son bought a farm near Rolla, Mo., a few years back, at an average of $10 to $15 per acre. To-day that farm couldn't be bought for $75 to $150 per acre, and is bringing an annual net income of over $5,000.

When the Hosmers took hold of this place, it was said that the corn couldn't be grown high enough to hide a 10-year old boy — but now they are making from 60 to 80 bushels *per acre* regularly. And they are averaging around $90 per year per cow!

H. S. Harris says: "My milk production for the six months from April to November (milking an average of 15 cows, about one-half of which are two-year olds), was 8,135 gallons, which sold at 16 cents per gallon, or $1,301.60. *Feed all raised on my farm*; except salt."

Mr. Holloway, another Ozark dairyman, says: "I find this country the best for farming and *far* the best for dairying. The healthful, mild climate cannot be beat. I know this, for I have traveled a great deal; have been in nearly every State in the Union."

These experiences prove what an expert on dairy husbandry said a while back: "Not only are the Ozarks adapted for dairying but are certain to be noted far and wide in the future for this industry Butter fat can be produced cheaper in the Ozarks than anywhere else."

With plenty of good pasture land, an unlimited amount of pure water, with soil that will grow every variety of grains and grasses, with short, mild winters that permit grazing most of the year and make expensive shelter unnecessary — stock raising of every kind is more profitable in the Ozarks.

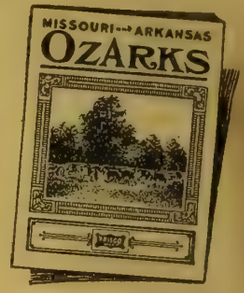
Ozark farmers are producing pork at 2½ cents a pound, and selling it at 8 cents or more. They are making around $12 per ewe; with the sheep feeding almost entirely on native wild grass.

The closeness of Kansas City, Memphis and St. Louis — offering tip-top prices — has a great deal to do with the big net profits which Ozark farmers get.

But all these advantages mean more when it is realized that good land can be bought now in the Ozarks at $12 to $15 per acre. It's a proposition that deserves any man's serious thought and investigation right *now!*

A free book for you!

It's not the kind you can pick up anywhere. Double sized pages, 75 actual photo pictures of farms—some in full color. Written by a man who knows farming. Takes up the Ozark sections, county by county, and describes the farming conditions there. Also tells actual experiences of Ozark farmers. I haven't many copies of this book on hand; please drop me a postal to-day for your free copy.



FRISCO LINES

A. HILTON, General Passenger Agent, 1512 Frisco Building, St. Louis, Mo.

CASH OR CREDIT

Catalogue FREE.

ONLY $10.00

Cash, balance $5 per month, buys this 3-year-guaranteed buggy. Buggies $29.50 up; Surries $45.00 up; Farm Wagons $40.00 up. We trust honest people located in all parts of the world.

Write For FREE CATALOGUE.

Century Manufacturing Co.,
Dep't 963, East St. Louis, Ill.

Overland

65% go to Farmers

IN the past five years we have built 60,000 cars. This year's output of 40,000 makes a grand total of 100,000 cars. *Sixty-five per cent. of this great production will be bought by the modern American farmer.*

Take Minnesota as one example: Minnesota is one of the nation's greatest and richest farming states. In the automobile registrations of the fiscal year Overland cars in the entire state of Minnesota show *a gain of 98 per cent.* The nearest competitor can show a gain of *only* 87 per cent. and the next *only* 55 per cent.

In Minnesota towns and villages of 1,000 inhabitants, or less, Overland cars, for the year, show a gain of 136 per cent. The Overland's nearest competitor shows a gain of *only* 104 per cent. and the second nearest a gain of *only* 73 per cent. And so you find it all over the country.

The Overland has the approval of the majority of America's big farmers—the most substantial and practical class of people in America.

The 1913 Overland at $985 is the exact equal of any $1200 car manufactured. It has a powerful thirty horsepower motor. Seats five large people comfortably. This car has center control and tires of ample size. The springs are of the finest steel—three-quarter elliptic in the rear. The wheel-base is 110 inches. The rear axle is three-quarter floating, drop-forged and fitted with the famous Hyatt bearings; the front axle is an "I" beam, fitted with Timken bearings. Overland brakes are unusually large and strong. It is completely equipped with top, windshield, Warner speedometer, Prest-O-Lite tank, and the very best of everything. Nothing is lacking.

Forty thousand cars in 1913 alone make possible this big value.

Look up the nearest Overland dealer at once. Secure a demonstration. Let us prove to you that the Overland is the most economical car you can buy. A post card will bring additional information, our 1913 catalogue and the dealer's address. Please address the factory, Dept. 89.

The Willys-Overland Company

Toledo, Ohio

Our Big Instruction Book---Free

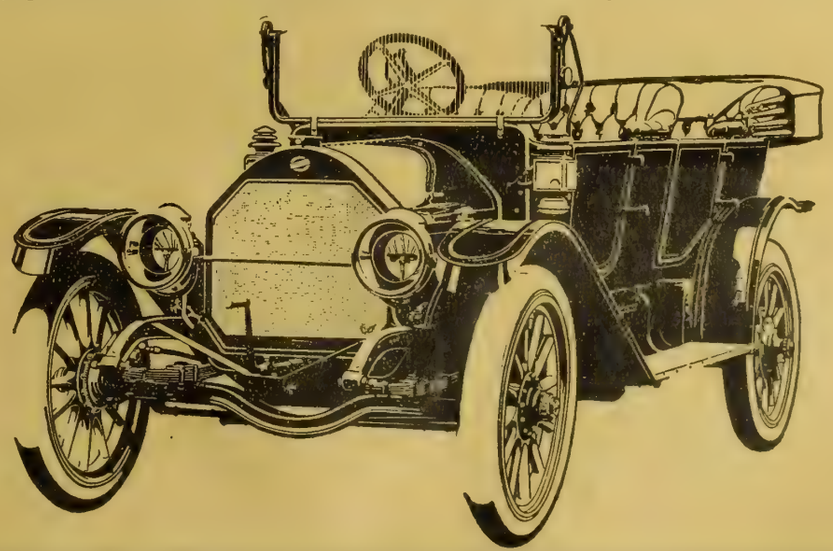
For a postal card you may have our big automobile instruction book—*absolutely free.* It contains over 100 pages; each page is illustrated with simple diagrams. The language is not technical; the young people will read it with interest and can understand every word. It tells you how to purchase, operate and care for an automobile.

We want you to have this book because it will help you and because it will help us. A thorough reading will prepare you to appreciate the good and bad features of automobiles. And such knowledge will only emphasize to you the very high Overland standard. Write for this free book—today.

$985

Completely Equipped

- Self-starter
- 30 Horse Power
- 5-Passenger Touring Car
- 110-inch Wheel Base
- Timken Bearings
- Center Control



$985

Completely Equipped

- Remy Magneto
- Warner Speedometer
- Mohair Top and Boot
- Clear Vision, Rain Vision Wind Shield
- Prest-O-Lite Tank

The National Farmer and Stock Grower.

(Title Registered in U. S. Patent Office.)

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New Year's Resolution.

What the year 1913 will bring to farmers remains to be proven, but each farmer may rely upon nature, just as he can rely on himself. The best resolution a farmer can make is to be ahead of the game with his own work. If you wish the rain to germinate the seed, the seed must be in the ground when the rain comes.

Ladies' World and Grapevines.

We are again offering a very valuable subscription combination in the matter of one-year's subscription to the Ladies' World; one-year's subscription to The National Farmer and Stock Grower; and eight selected two-year grapevines, which are grown at the best grape nursery in New York state,all for one dollar ($1.00.) There are magazines published at $1.50 a year that are not equal to the Ladies' World, and the grapevines will be satisfactory to all who get them. Such a combination ought to bring us ten thousand subscriptions in the month of January. See page 5.

Our Seed Corn Premiums.

On page 20 our readers will find mention of our seed corn premiums. We do this work to encourage experimental farming and to encourage farmers in sending subscriptions to this paper. On forty thousand farms in the United States there are corn-growing plots that have had considerable influence in the enlargement of the corn crop of the United States, and the seed was sent out by The National Farmer and Stock Grower.

We Must Work Together.

All those farmers who believe in "Our Industrial Policy" as published on page 6 should do their part towards it by recommending the paper to others who believe the same. Every time we publish that article we lose some subscribers who do not believe in the protection of American Interests. Where we lose one we ought to get two in return. Very few farm papers have any industrial policy to speak of, but The National Farmer and Stock Grower has a policy and does not hesitate to place it before our legislators for their information.

Potash Pays the Farmer.

On page 2 will be found an example of fertilizers containing enough potash and another example of fertilizers not containing enough potash. Many low-grade fertilizers are stuffed with phosphoric acid, because it is cheap, and the other elements, nitrogen and potash, are short. Read the advertisement of the German Kali Works on page 2.

A Farm Level Necessary.

A farm level is just as useful and as necessary as a two-foot rule. Every farmer does not have to be a surveyor or an engineer to conduct a farm, but he should know enough to establish his grades and levels in laying out his fields for cultivation, in terracing to prevent the land washing, in ditching and draining, etc. The best farm level on the market is made by the Bostrom-Brady Mfg. Co., Atlanta, Ga. It is sold through hardware dealers, but the way to get acquainted with the uses and purposes of a farm level is to answer the advertisement on page 6.

Our Almanac and Encyclopedia.

Anyone sending us 50 cents for one-year's subscription to The National Farmer and Stock Grower can select The National Farmer and Stock Grower Almanac and Encyclopedia as a free premium. We will send it by mail postage paid, safe delivery guaranteed. See page 25.

Our Good Combinations.

The National Farmer and Stock Grower contains considerable clean-cut inforamtion of value to farmers, and is worth several times what it costs. We also offer some very good premiums that all farmers ought to have and can have in connection with a subscription to the paper.

The Crocodile Wrench.

We have only recently used the Crocodile Wrench as advertised on page 15 as a subscription premium. Although it is heavy, weighing twelve ounces, we send it as merchandise by parcels post and it is a welcome wrench on every farm.

Stockmen Are Stylish.

All stockmen desire to have stylish hats, boots and gloves. Most of the best gloves on farms and ranches are "Hansen's." Hansen, of Milwaukee, has a card on page 14. Hansen issues a free book on gloves. To buy Hansen's gloves you don't have to go to Milwaukee. He will tell you where to see and feel them before you buy. Use the coupon or write a post card to O. C. Hansen Mfg. Co., 132 Detroit street, Milwaukee, Wis., and ask for free glove book.

Empire Fertilizers.

Every farmer should know something about fertilizers. It is the easiest experimental work in the world—one field fertilized, another one not; both the same soil, the same seed bed, the same time of planting, the same cultivation, the same season, the same method in harvesting. Compare one with another. Write to the Empire Carbon Works, 421 Locust street, St. Louis, Mo., for a book on fertilizers, with formulas for all crops. Use some of these fertilizers and get your experience, so that you may know if it is profitable, and to what extent it is urofitable, to use commercial fertilizers. Write for the book anyway. It costs nothing, and it will teach you something.

The Reliable Poultry Journal.

The poultry journals are all excellent, but the best of them all is the Reliable Poultry Journal, published at 50 cents a year. Another publication almost as good has advanced the price to $1.00 a year, but we stand by the Reliable and club it with our own paper. See page 18. The club offered is like buying gold dollars at 10 cents each.

Parcels Post Here.

Parcels post is here, but it will be three months before it will be understood outside of the local zones, where one pound or less will cost five cents and each additional pound one cent more until for eleven pounds the package will cost fifteen cents. The fifty-mile zone rate also begins at five cents for the first pound and three cents additional for each pound up to thirty-five cents for eleven pounds. Small packages—one, two and three ounces—will be considerably higher than before; thus, a two-ounce package formerly going anywhere in the United States for two cents will now cost five cents in the nearest zone and twelve cents (being charged as a pound) in the farthest zone. There are some hard places and some soft places in the parcels post, and the express companies have not yet been heard from. The zone system will probably turn out to be an intolerable nuisance, and we expect to see it done away with.

CLASSIFIED ADVERTISING.

CALIFORNIA HONEY, sample 10c. Leaflet free quoting prices, freight prepaid. Agents wanted. **Spencer Apiaries Co., Box 181, Nordhoff, Cal.**

FREE PILLOWS with every order. Great proposition. Fine goods. Mail us $10 and we send you new 36-lb. feather bed and give you 6-lb. pair pillows **FREE.** New feathers. Best ticking. **Freight prepaid on all. Satisfaction guaranteed. Fine chance for agents. TURNER & CORNWELL, Dept. 73, Charlotte, N. C.** Reference, Commercial Nat. Bank.

NEW ROLLED GOLD DOLLAR SPECTACLES AND EYE GLASSES guaranteed to suit or money refunded. Send your age and $1, with 4c. postage. **FREDRICK & CO., Dept. S. N. G., Toledo, Ohio.**

FARM AND RANCH LANDS.

POLOMAS VALLEY, ARIZONA, FARM LANDS sold on easy payments. Perfect titles guaranteed. Abundance of water year round. Canals all in. Land level; easily irrigated; all cleared and ready for plowing. Soil rich, dark, sandy loam, 25 to 30 feet deep, free from alkali, and adapted to alfalfa, small grain, oranges, lemons, olives, dates; also wheat, barley, oats and live stock. Climate ideal. Pure well water. Land all fenced in 80 and 160-acre tracts. Write for maps, lists, prices, terms and full information. Sent free. Address the owner, **POLOMAS LAND CO., 1535 E Street, San Diego, Calif.**

ALABAMA.—2,240 acres fertile farm land. Thirty-three tenant houses. 900 acres fenced. Fine land for alfalfa, corn, cotton or cane. One-fourth mile from station. Buy from owner and save commissions. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—405 acres of land, nine miles from Warren, Bradley county. 100 acres in cultivation, balance in pine, oak, gum and hickory; estmated at $500.00. Good four-room house, wire and rail fence. Part of land has good growth of switch cane. Ideal stock stock proposition; unlimited range. Prices for sixty days, $12.50 per acre, cash. **A. L. Greene Company,** Warren, Ark.

ARKANSAS.—A great agricultural state not half appreciated, but a splendid, mild-climate country that is affordng fertile farms at low prices. Arkansas has 214,648 farms in all, averaging 81 acres, averaging $2,116 in value and three-fourths free and clear of debt. Increase in value in ten years, 53 per cent. Write for Free Book about Arkansas to **A. Hilton, G. P. A.,** 1512 Frisco Building, St. Louis, Mo.

ARKANSAS.—Land is low in value but continually advancing. The Cotton Belt Route is one of the great railroad systems leading to the Southwest from St. Louis and is capable of the greatest degree of development. Read about Cotton Belt Excursions on page 14 and write to **E. W. LaBeaume,** G. P. A., 1466 Pierce Bldg., St. Louis, Mo., for Free Book on Arkansas and Texas.

CALIFORNIA.—THE FAMOUS SANTA CLARA VALLEY. "WE SELL IT." Write for list of places and literature. **E. D. Crawford & Co.,** 415 Bankers' Investment Bldg., San Francisco, Calif. Branches; San Jose and Gilroy.

CANADIAN LANDS.—Sold to settlers only. No opportunity for land grabbers. Rich farms on easy payments; money loaned experienced farmers to erect buildings. See page 22 and write to **C. M. Thornton,** Commissioner, 112 W. Adams Street, Chicago, Ill., and write for free maps.

ILLINOIS.—For Sale: 20, 40, 80, 120, 160, 200, 240, Illinois farms, priced right. **L. M. Forth,** Wayne City, Ill.

KANSAS, MISSOURI, OKLAHOMA, TEXAS, NEW MEXICO, ARKANSAS AND LOUISIANA Lands for sale on the Rock Island Route. This great railroad system has wonderful opportunities for farmers to consider. There is an Agricultural Expert on duty to assist and guide settlers in their work. See page 23 and write to **L. M. Allen,** P. T. A., 513 LaSalle Station, Chicago, Ill., for crop information.

MISSONRI.—For Sale: Farms of 40 to 600 acres at reasonable prices and terms. Choice locations on main line Frisco Railway. List mailed free on application. **John Ross,** Bourbon, Mo.

MISSOURI LANDS IN THE OZARKS.—Corn and cows are winning a combination. Farmers in older states who wish to obtain new locations for one-third of actual value should write for Free Book of the Ozarks. Address, **A. Hilton, G. P. A.,** 1512 Frisco Building, St. Louis, Mo. See page 6.

TEXAS.—Farms in Texas on the Cotton Belt Route can be had cheap. Most of the fruit and vegetable farms sending early shipments to St. Louis are from the sections traversed by this road. Write for Free Book on Texas and Excursion Rates to **E. W. LaBeaume,** G. P. A., 1466 Pierce Bldg., St. Louis, Mo.

FARM WANTED.—I am looking for a good Farm at a reasonable price. Give full description in first letter. Address, **CASH FARM BUYER, Box 7910, Cherry Valley, Ill.**

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago.**

CANADA'S OFFERING
To The Settler

The American Rush to Western Canada is Increasing

Free Homesteads In the new Districts of Manitoba, Saskatchewan and Alberta, there are thousands of Free Homesteads left, which to the man making entry in 3 years' time will be worth from $20 to $25 per acre. These lands are well adapted to grain growing and cattle raising.

Excellent Railway Facilities

In many cases the railways in Canada have been built in advance of settlement, and in a short time there will not be a settler who need be more than ten or twelve miles from a line of railway. Railway Rates are regulated by Government Commission.

SOCIAL CONDITIONS. The American Settler is at home in Western Canada. He is not a stranger in a strange land, having nearly a million of his own people already settled there. If you desire to know why the condition of the Canadian Settler is so prosperous write to any of the Canadian Government Agents and send for literature, rates, &c., to

Canadian Government Agent
125 W. 9th St. Kansas City, Mo.

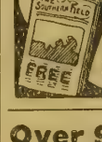
C. J. Broughton
Room 412, 112 W. Adams St. Chicago, Ill

or address Supt. of Immigration, Ottawa, Canada.

Southern Farm Facts

Land at $10 an acre up

Alfalfa makes 4 to 6 tons per acre; Corn 60 to 100 bu. All hay crops yield heavily. Beef and Pork produced at 3 to 4 cents per lb.—Apples pay $100 to $500 an acre; Truck crops $100 to $400; other yields in proportion.



THE SOUTHERN RAILWAY Mobile & Ohio R.R. or Ga. So. & Fla. Ry. will help you find a home in this land of opportunity. Booklets and other facts—free.

M. V. RICHARDS, Land and Industrial Agent
Room 71, Washington, D. C.

Over 90% of the HORSE CLIPPERS

Used in the world are the

STEWART Ball Bearing MACHINES

Before you put your horses at the spring work, take off the winter coat that holds the wet sweat and dirt. They will look better, get more good from their food, rest better, feel better, do better work.

The Stewart Clipper turns easy, clips fast and stays sharp. Gears are all file hard and cut from solid steel bar. They are enclosed, protected and run in oil; little friction, little wear. Has six feet of new style, easy running flexible shaft and the celebrated Stewart single tension clipping head, highest grade.

PRICE **$7.50**

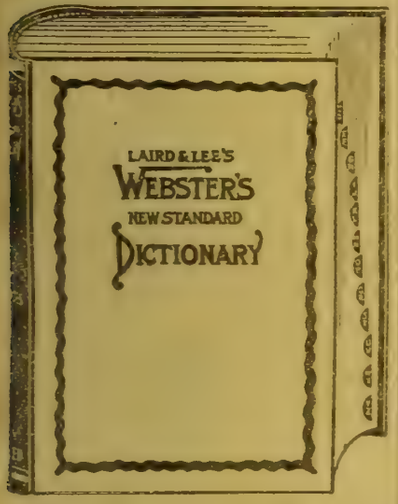
Get one from your dealer or send $2 and we will ship C.O.D. for balance.

CHICAGO FLEXIBLE SHAFT CO.
182 Ontario Street, Chicago
Write for complete catalog showing most modern line of horse clipping and sheep shearing machines

Webster's NEW STANDARD Dictionary

One of the Greatest Books Ever Issued—A Premium Offered by the Subscription Department of This Paper.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 750 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.



Our offer to you: Send us One Dollar and we will send you The National Farmer and Stock Grower for two years, and we will also send you, postpaid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

GOOD BOOKS AND PAPERS.

TRAPPING—INSIDE SECRETS OF.—A special service is now offered without cost to men who wish to learn the inside secrets of profitable trapping. Pamphlets have been prepared which give accurate and complete data on fur prices, game laws, trappers' supplies and the best methods of trapping. Men who wish these pamphlets can get them free by writing to Funsten Brothers & Co., 633 Funsten Bldg., St. Louis, U. S. A. These booklets tell how trappers buy supplies at factory prices.

GOLDEN ARROW SEED CATALOGUE.—This is the time of year to obtain the new seed catalogues, showing all the tested varieties and all the new and promising field and garden seeds. For the Golden Arrow Seed Catalogue address A. W. Schisler Grain Co., 708 North Fourth street, St. Louis, Mo.

INTERNATIONAL HARVESTER COMPANY CALENDARS FOR 1913.—These calendars, one for Champion, Milwaukee, Osborne, McCormick, Deering or Plano Harvesters, can be had by applying to the nearest I. H. C. agents; also a copy of the I. H. C. Almanac and Encyclopedia. The Almanac contains articles as follows: "What a Good Seed Bed Means to Plant Growth;" "Deep Plowing" by Elmer O. Fippin; "Care of Farm Machines;" "Hints on Alfalfa Growing;" "The Farm Water Supply," and so on. In addition, of course, the Almanac includes information on astronomical observations, tables of weights and measures, postal information and other useful data.

THE BEGINNER IN POULTRY is a new book by C. S. Valentine and is issued by the Macmillan Company, 66 Fifth Avenue, New York City, N. Y., at $1.50, net, per copy. It is a poultry book to read, enjoy and derive profit therefrom. It is elegantly printed; about 40 chapters; 150 illustrations; pages 4x7½ inches, and elegantly bound in cloth. The writer, a master in poultry raising, knows how to lead the beginner safely towards success.

OPERA STORIES.—All operas are founded upon stories, true, false and mythical. All these stories are interesting, no matter whether one has an opportunity to attend a performance, and when one does attend, the story is all the more necessary. Henry L. Mason, of 492 Boylston street, Boston, Mass., has collected the stories of 132 leading operas, with the portraits of leading singers, and the price per copy is only fifty cents. The illustrations are of the leading characters, such as Carmen Melis as Aida; Enrico Caruso as Manrico; Mary Garden as Thais; Huberdeau as Mephistofeles, etc.

THE SOUTHERN FIELD.—The National Corn Show will be held at Columbia, S. C., commencing January 27, and it will attract considerable atention to Southern agriculture. **THE SOUTHERN FIELD** is a bi-monthly publication, issued in the interest of the development of the Southern States. It contains a list of low-priced farms that are worth looking into. By writing to M. V. Richards, Land and Industrial Agent, Southern Railway, Room 71, Southern Railway, Washington, D. C., and mentioning this paper you can obtain a free subscription to **THE SOUTHERN FIELD.** It contains the information desired.

POTATO PRODUCTION.—This is an illustrated pamphlet of fifteen pages, issued for free distribution to farmers by Middle West Soil Committee, 916 Postal Telegraph Bldg., Chicago, Ill. It shows the type of potato that brings the best price in market and how to grow that kind; it gives the experience and illustrations of farm of C. B. Congdon, Desplaines, Ill., where 242 bushels of potatoes were produced to the acre. The cost of every detail in plowing, disking, harrowing, preparing seed, planting, seed, spraying, cultivation and hoeing, cost of fertilizer, of digging, and interest on money in land, are all given, together with market results. All who are interested should write for a copy.

South American Crops.

A cablegram, dated December 28, 1912, from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, giving the following information:

In Argentina the estimated production, this season, of wheat is 235,161,000 bushels; oats, 115,882,000 bushels; flaxseed, 51,180,000 bushels.

In Brazil the estimated production of coffee, this season, is 1,322,720,000 pounds.

Four-wheel Corn Planter.

On page 12 will be found a card relating to the Hayes Corn Planter that never misses a hill. Over 160,000 are in use and farmers are delighted with them. Send at once to Hayes Pump and Planter Company, Galva, Ill., and ask for free booklet Z. You will then learn what a perfect corn planter is.

Sheep at Principal Markets.

During the year 1912 Chicago received 6,057,000 sheep; Omaha, 2,950,000; Kansas City, 2,136,000; St. Louis, 1,030,000; St. Joseph, 730,000; and Indianapolis, 155,000. Chicago, St. Louis, St. Joseph and Indianapolis gained in receipts over the previous year.

Honey Values at St. Louis.

The wholesale market quotations for honey at St. Louis, January 1st, 1913, were as follows: Southern extracted and strained—Bright amber in barrels at 7c. per pound and in cans at 7½ to 8c.; dark in barrels at 6 to 6½c. Comb—Amber at 14c.; dark and inferior at 9 to 11c. per pound; broken and leaking at 7 to 8c.; fancy clover at 15 to 16c.

Rose Subscription Premiums.

On page 31 we are offering our usual rose subscription premiums. This year we ask only the subscription price of the paper, 50 cents a year, and if you select them as a premium we will send them to you, postage paid, at the proper time for digging and transplanting. The Rose Garden we buy from has assigned The National Farmer and Stock Grower five thousand sets of roses, which is more than we sent out last year. Don't fail to send in your order early.

How to Train Scary, Vicious, Balky, Tricky Horses and QUICKLY DOUBLE THEIR VALUE!

Write for Prof. Jesse Beery's FREE "HORSE-TRAINER'S PROSPECTUS"

If you are the owner of a vicious, tricky, kicking, balky, dangerous and unsaleable horse or colt, don't get rid of the **horse**—get rid of its **bad habits.** Write for Prof. Jesse Beery's "Horse-Trainer's Prospectus," a large, handsome, illustrated book written by the

King of World's Horse-Trainers

Prof. Jesse Beery won world-wide fame and was tremendously successful giving exhibitions of his marvelous skill in mastering man-killing stallions, training wild horses to drive without bridle or reins. The whole country was thrilled by his daring deeds.

Secret of His Power Revealed at Last

In the grand Free "Horse-Trainers' Prospectus" Prof. Beery now reveals the secret of his power and shows the way to duplicate his dazzling success.

Prof. Jesse Beery

What His Graduates Have Done

Prof. Beery's Correspondence Course in Horse-Training and Colt-Breaking is the only instruction of the kind in the world. Thousands of his graduates are reaping the profits and benefits of his wonderful course. For example, take the case of Emmett White, Kalona, Iowa, now a prosperous professional horse-trainer. Mr. White says: "I wouldn't take $500 for what you have taught me. You may judge of my success when I tell you that I have been able to buy a home and an automobile solely through earnings from training horses as taught by your excellent methods."

Buys "Man-Killers" Cheap, Trains and Re-Sells at Big Profit

A. L. Dickinson, Friendship, N. Y., writes: "I am working a pair of horses that cleaned out several different men. I got them for $115, gave them a few lessons and have been offered $300 for the pair."

S. M. Ryder, Mercersburg, Pa., writes: "I am making money buying 2-year-old horses cheap, handling them for a few days and selling them, perfectly broken, at a large profit."

Scores of Beery graduates are making money as trainers and breeders, giving exhibitions. Write and we will tell you about more of them. It's intensely interesting.

Train a Colt in 8 Hours!

You can do it by the Beery System. There is lots of money in breaking colts. The field is unlimited.

Bang! Bang! Bang!
The Beery System Drives Out Fear

Retires from the Arena—Now Teaching Horse-Training by Mail

Prof. Beery has retired from the arena, after a career of unparalleled success, and is devoting his time to teaching his methods to a limited number of selected pupils—both men and women—by correspondence.

Graduates Making $1,200 to $3,000 a Year at Home or Traveling

The wonderful success of Prof. Beery's graduates—taught by mail at home during spare time—proves beyond question the value of his instruction. People place value on his instruction to $25 a head to have horses tamed, trained, cured of bad habits, and colts broken to harness.

A Penny Postal May Make Your Fortune

No matter who you are or where you live, if you love horses and are ambitious to earn more money in a profession you will be proud of, write for the wonderful Free "Horse-Trainer's Prospectus" today, without fail. Tell me all about your horse.

PROF. JESSE BEERY, Box 67, PLEASANT HILL, OHIO

CLYDESDALE STALLIONS—THE BEST GROUP AT THE ILLINOIS STATE FAIR. Exhibited by J. Leitch & Son, Lafayette, Ill. Photo taken on the ground by Hildebrand, of the Union Stock Yards, Chicago, Ill.

Don't Fool With Wood Shingles

Buy STEEL Shingles

They Cost Less, Last Longer, Are Easier to Put On and Are Fireproof

This is the Age of Steel. Wood shingles have gone out of date. Cost too much. Too much bother to put on. Rot out in a few years. And they multiply by 10 the danger of fire.

Thoughtful men are nailing **STEEL Shingles** right over their old wooden roofs.

And those putting up new buildings are likewise careful to choose STEEL SHINGLES.

Edwards STEEL Shingles

come in big sheets of 100 shingles or more. Don't have to put them on **one at a time** like wood shingles. Just nail the whole sheet right over old roof or on sheathing. No **extras**, no **painting**, no **tools** needed. **And money** can't buy a more handsome roof.

Absolutely Rust-Proof

Don't judge Edwards **Steel** Shingles by common galvanized iron roofing—the kind that rusts. We have invented a method that absolutely **prevents** rust from getting a foothold, as 100,000 delighted owners of Edwards Roofs have found. It's the famous Edwards **Tightcote Process.**

Protection From Fire

Don't take chances of **fire** from defective chimneys, flying sparks and lightning. Roof your buildings with these STEEL Shingles and make them safe. Remember, nine out of every ten fires start with the roof. We specifically **guarantee** every Edwards Steel Shingle Roof against **lightning.** This guaranty is by a $10 000 Cash Bond.

Write for Special Factory Prices —Freight Prepaid

We sell direct from factory to user, thus saving you 40% And our business is so big that we cut our profit-per-sale to about half the maker's usual profit. **And we pay the freight.** Amazing as it may seem, these STEEL Shingles actually cost LESS than **wood** shingles.

Send postal at once for our latest Roofing Book No. **157** and Special Factory Prices. Give size of roof, if you can.

THE EDWARDS MANUFACTURING CO.
107-157 Lock Street (93) Cincinnati, Ohio

HEALTH IN THE COW STABLE.

How to Get It and Keep It—The Value of Cement in Dairy Construction.

Health in the cow stable means health among the people that use the milk drawn in the cow stable. Fortunately for the people that use milk, many of our states and municipalities are taking steps to make sure that cow stables are kept clean. Previously many serious epidemics have been spread through the milk that has come out of dirty stables.

Only healthy cows should be used in the production of milk. In the past, cows that were under suspicion of having tuberculosis were frequently disposed of to canners after they had been kept in dairies as long as they would give a fair mess of milk. Without doubt, many a case of tuberculosis has been transmitted to human beings from such cows. The writer has in mind the daughter of a gentleman at the head, previously, of an agricultural college. The daughter was receiving the milk from a family cow, but in time came down with tuberculosis, which seemed to have its inception in the stomach. The cow was under suspicion. She was tested with tuberculin and reacted. She was killed and her udder was found festering with the tubercles of the dreadful disease, which finally killed the little girl referred to. Every farmer and every dairyman should feel it a duty to make sure that none of his cows are diseased.

Clean cows are the exception on farms and in dairies. It is only the energetic farmer or dairyman that goes to the trouble of keeping his cows clean. The writer has been in many stables where the cows were so dirty that it seemed a wonder how the farmers themselves could drink the milk drawn under such conditions. The movement now is for more cleanliness, and there is room for improvement. The man that begins to improve will find that certain things are necessary, such as cement gutters and a good supply of running water, by which he can keep everything washed out clean.

This supply of running water is important in every stable where many cows are kept, especially if the stable has cement floors and cement mangers and standing places. Most stables are so situated that they can have a good supply of running water from some source. The windmill or the gasoline engine can be had to fill the supply tank, from which the hydraulic pressure can be secured for the hose used in cleaning and for the other purposes. It is surprising that all thrifty farmers do not avail themselves of such conveniences.

The floors of the cow stable are now recognized as of very great importance. The old wooden floors, full of cracks and catching all kinds of filth, are a thing of the past. Cement is the only material that makes it possible to keep out all filth and germ breeders. Wood, if frequently wet, soon begins to rot. The pores of the wood take in the liquids and the action of heat produces odors that are sure to get into the milk and reappear later in the butter. Cement floors properly laid can be kept so clean that no bad oders will be perceptible. But the grades of the floors must be right, and the drainage outlets must be perfect, else stagnant pools will form that will prove injurious to the conditions in the stable.

Good ventilation is an essential, for the carbon thrown off from the lungs of the cows will prove injurious if the ventilation facilities are not good. All manure should be removed from the stable daily, and no food that has a disagreeable odor, such as silage, should be kept in the stable.

ELGIN QUOTATIONS.

Report That the Weekly Butter Prices Are to be Discontinued.

On December 16th, at a meeting of the Elgin Board of Trade, a motion was put and carried to discontinue all official butter quotations. This action was not arrived at without opposition, and a considerable number of members objected and bolted the meeting. The objectors were largely representing the creamery buttermaking interest, which indicates that the producers of butter regarded the quotation as arrived at and published every Monday for many years as being a general, all-around benefit, lending stability to the butter trade and establishing a fair and uniform basis in buying cream on the one hand and in selling butter at wholesale on the other. The Elgin Board of Trade undoubtedly exercised an influence by organized effort far out of proportion to what Elgin is or ever was as a butter-concentrating and selling center. Whether the weekly Elgin quotation was in reality a good or bad influence we were never absolutely determined in our own mind, but after considering the subject over and over again we were content to "let well enough alone." The Elgin quotation was not based on sales, but on conditions, and sales followed to correspond. The buyers and sellers were both represented on the Board that determined the quotation, and conditions generally justified the quotations as made.

There will undoubtedly be much discontent and demoralization because of the missing Elgin butter quotation, but in the absence of the usual quotation guide the business will adjust itself upon the basis of actual sales at important centers. The tail has quit wagging the dog, and now the question is: "Which is the dominant market for actual sales of top grades of creamery butter?"

The Best Combination Pruning Tool—for Sawing and Clipping

When pruning, a well-made, efficient tool will enable you to do the work with greater ease, in less time and soon save its cost.

The *Disston* "Orchard" Pruning Hook and Saw combines two tools in one and can be used with or without a pole. Light in weight, but strong and durable. The long, slender teeth *draw* the saw into the lightest branch.

This is only one of the many varieties of saws and tools we make for farm use. Our book gives detailed descriptions, as well as valuable information on the proper care of tools.

Write for the "DISSTON Farm Tool Book"—it will be sent free by return mail.

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SAWS TOOLS FILES

Sold by all Progressive Hardware Dealers

HENRY DISSTON & SONS, Incorporated
Keystone Saw, Tool, Steel & File Works
P.O. Box 1537 M, PHILADELPHIA, PA.

A Point in Cheese Making.

Too much water incorporated into Wisconsin cheese for November affected its quality, according to the scores announced by Prof. C. E. Lee, of the College of Agriculture of the University of Wisconsin, in charge of the scoring exhibition.

The average score of all exhibits made from milk delivered daily was 92.66, and the average moisture was 36.5. The average score of cheese made from milk two days old was 90.55, and the moisture 37.2. It is advisable to receive milk daily, even if only 1,000 to 1,500 pounds are delivered.

It is now reported that a cattle shortage is facing the world.

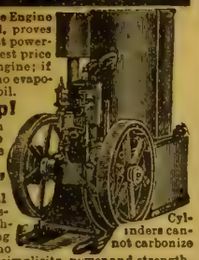
15.95 AND UPWARD
AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, **on trial, fully guaranteed,** a new, well made, easy running separator for $15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for **small dairies, hotels** and **private families.** Different from this picture, which illustrates our large capacity machines. The bowl is **a sanitary marvel, easily cleaned.** Gears thoroughly protected. **Western orders filled from Western points.** Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:

AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N.Y.

Use KEROSENE Engine Free!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.



Gasoline Going Up!

Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

Amazing "DETROIT"

—only engine running on coal oil successfully, uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Cylinders cannot carbonize. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investicate the money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

GOOD PROFITS IN COW TESTING.

Increase of $4.50 a Year Per Cow by Weeding Out Unprofitable Milkers.

Bulletin No. 233 of the California Station treats of three-years' experience of the Ferndale Cow Testing Association of Humboldt county, California.

An estimate that the average butter-fat production per cow in California was 150 pounds per year, worth 30 cents a pound, or a total of $45, awakened California dairymen to the fact that many of their cows were being kept and milked at a dead loss of good money; for if a yield of $45 be the average, many of them must yield less than that sum, and all such surely fail to pay any profit on the feed and care given them.

How to detect and weed out the unprofitable cows is a problem for which there is but one solution; namely, the scales and the Babcock test—weigh each cow's milk and test its richness. At a meeting of fifty dairymen in Humboldt county it was found that only twelve had a Babcock tester and only one of these was using it.

Therefore, it was resolved to jointly employ an expert teacher, equip him with implements and chemicals and a horse and buggy, and make him the association's official detective to run down and arrest the cows that were beating their board bills. This cost the association $1,091, which was about $1.00 per cow. But it paid them well, for it got them rid of nearly one-half their cows on which they were losing money and enabled them to replace these with cows that yield good profits. The average increase in profits has been $4.50 per cow kept per year. While there are only 1,100 cows belonging to members of this association, there are 10,000 in the district, and hence if all of them had joined in the test and reaped its benefits, the total increase in profits would have been $45,000 a year.

At the close of the weeding-out process there was not a cow in the Ferndale Association that yielded less than 200 pounds of butter-fat a year, and many of them yielded higher quantities up to 609 pounds a year.

Yet this highly profitable process is of comparatively recent origin. The first testing association was organized in Denmark in 1895; but by 1909 Denmark had 530 such associations; Sweden, 662; Germany, 207; Norway, 146; Finland, 99; Russia, 52; Scotland, 13. The first testing association in this country was organized in Michigan in 1905. California has but three associations. This bulletin gives directions for forming an association and a set of by-laws for same.

LET CALVES RUN WITH THE COWS

HUMANE CALF WEANER

	Each	½ Doz.	1 Doz.
Regular Size,	25c.	$1.25	$2.00
Large Size,	35c.	1.85	3.00

Agents wanted. Post paid.

Jacobsen Farm Supplies, Dept. A, Racine, Wis.

The Oleo Situation.

The buttermaking interests and the oleomargarine interests ought to be able to get together and relieve Congress of some of the difficulties which arise from having to settle disputed points which ought not now to be in dispute. Both butter and oleo are factory products, and both butter and oleo are cow products. In Denmark, where the best butter is made and is a most important export product, farmers are selling butter and eating oleomargarine; furthermore, oleomargarine as an economical food product is just as necessary to people of small means as the top grades of creamery butter are to people of larger means.

Ten years ago, every pound of oleo that was sold for home consumption displaced an equal quantity of butter, because the butter and oleo were both surplus products and irregularly increasing in quantity of output, whereas to-day the maximum in oleo has been reached and passed and butter is not increasing very fast, because of the increased demand for cream for other purposes.

The population in this country has now reached a total that insures permanent prosperity to the buttermaking interest under existing tariff laws, and it is also a sure thing that with the probability of a beef famine in sight the oleo competition cannot be anywhere as fierce as it has been. Conditions in regard to butter and oleo are distinctly different, and under present circumstances the representatives of each interest ought to get together, for the reason that within the next ten years the capacity of the people to consume both products will be far greater than at any time in the history of the country.

We hope this will not be construed as advocating selling oleo for butter, or colored to the regulation butter tinge, or the removal of safeguards against fraud, but a suggestion that parties at interest can reach an agreement far easier and better than Congress can do, with both parties to the subject pulling in opposite directions and leaving Congress the partisan question that they must decide either for or against one or the other of the products, whereas both have merits that cannot be disregarded.

Good Calf Sells High.

The Missouri College of Agriculture has recently sold a yearling son of Carlotta Pontiac to go to Old Mexico. The purchaser is the owner of a large dairy herd of 800 cows, furnishing milk to the City of Mexico. The sale price was $400. Carlotta Pontiac is a Holstein cow, bred and owned by the College of Agriculture. During the past year she has produced 93 barrels of milk, containing 708 pounds of fat, which is equivalent to 827 pounds of butter.

Holstein-Friesian Records.

In the recent testing of Holstein-Friesian cows, 129 females, of which one-half were heifers with first or second calves, produced in seven days a total of 53,053 pounds of milk, 3.48 per ecnt. fat, representing 1,845 pounds of butter-fat. The Superintendent of Advanced Registry said: "The average production for each animal was 411.3 pounds milk, containing 14.302 pounds of butter-fat, equivalent to 58¾ pounds or 28 quarts of milk per day, and 16.7 pounds of the best commercial butter per week. Even if there are but few large records, it will be seen that the averages keep up well; and the fact that twenty-two junior two-year-olds average over 12 pounds fat is in itself remarkable."

DE LAVAL CREAM SEPARATORS

There's no good reason why you should wait till spring before getting one

On the contrary, you may buy a DE LAVAL NOW and save half its cost by spring. Moreover, if you can't conveniently pay cash you can buy a DE LAVAL machine on such liberal terms that it will actually pay for itself.

As to your NEED of a separator, if you have the milk of even a single cow to cream you are wasting quantity and quality of product every day you go without one. This waste is usually greatest in cold weather and with cows old in lactation, and it counts most, of course, when butter prices are high. Then with a separator there is always the sweet warm skimmilk, and saving of time and labor, in addition.

When it comes to a choice of separators DE LAVAL superiority is now universally recognized. Those who "know" buy the DE LAVAL to begin with. Those who don't "know" replace their other separator with a DE LAVAL later—thousands of users do that every year. If you already have some other machine the sooner you exchange it for a DE LAVAL the better.

Why not start 1913 right in dairying? SEE and TRY a DE LAVAL NOW when you have plenty of time to investigate thoroughly. The nearest DE LAVAL agent will be glad to set up a machine for you and give you a free trial of it.

The new 72-page De Laval Dairy Hand Book, in which important dairy questions are ably discussed by the best authorities, is a book that every cow owner should have. Mailed free upon request if you mention this paper. New 1913 De Laval catalog also mailed upon request. Write to nearest office.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

The Oleo Output.

During the fiscal year ending June 30, 1912, there were produced 122,365,414 pounds of uncolored and 6,235,639 pounds of colored oleomargarine, as against 115,331,800 pounds and 5,830,995 pounds, respectively, in the fiscal year 1911, making a total increase of 7,438,258 pounds of both classes. The total production for 1912 was 128,601,053 pounds, being 13,261,227 pounds less than the quantity produced during 1910, which was the high-water mark since the enactment of the present law, with 141,862,280 pounds produced.

Wholesale and Retail Profit Saved! FREIGHT PAID

RUBBER ROOFING 1-Ply, 35 lb. 108 sq. ft., $1.10 per roll. 2-Ply, 45 lb. 108 sq. ft., $1.30 per roll. 3-Ply, 55 lb. 108 sq. ft., $1.50 per roll.

Warranted For 25 Years. Terms Cash. These Special Prices Only Hold Good for Immediate Shipment.

FREIGHT PAID to any station east of Rocky Mountains except Tex., Okla., Colo., N.D., S.D., Wyo., Mont., N.M., La., Ga., Ala., Miss. and Fla. on orders of three rolls or more. Special prices to these States on request.

INDESTRUCTIBLE BY HEAT, COLD, SUN OR RAIN.

FIRST-CLASS IN EVERY RESPECT. NO SECONDS, REMNANTS OR MILL ENDS. Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to the Southern Illinois National Bank.

Century Manufacturing Co., Department 962, East St. Louis, Illinois.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity: Free From Dodder.

TIMOTEY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.

EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO

GOOD SEEDS

BEST IN THE WORLD

New Crop Grown at Farmer Prices. In addition a lot of extra FREE SEEDS thrown in with every order.

BIG SEED BOOK FREE

Our Grand Big Illustrated Catalog of all Farm and Garden Seeds is now ready and free to you. Write for it today. Send names and address of neighbors who buy seeds. Address

RATEKIN'S SEED HOUSE
Box 10, SHENANDOAH, IOWA

CLOVER CHEAP

Now is the Time to Buy

Prices bound to be higher later. Buy before advance and save money. Write today for special low price and free samples of our Pure Iowa Grown New Crop Recleaned Tested Clover and Timothy Seed. Have alfalfa, alsike, sweet clover, all kinds grass seed. Write us now.
A. A. BERRY SEED CO., Box 133, Clarinda, Iowa

Hill's Evergreens Grow

All hardy stock—twice transplanted—root pruned. Protect buildings, stock, crops. Hill's Evergreen Book, illustrated in colors, Free. Write today.
D. Hill Nursery Co., Inc., 267 Cedar St., Dundee, Ill. *Evergreen Specialists*

STRAWBERRY BOOK

Allen's 50 page illustrated book tells how to make money with berries. Describes the famous ALLEN *true-to-name* berry plants, small fruits, asparagus and shrubs. Contains valuable information on varieties and cultural methods. Sent FREE on request.
W. F. ALLEN
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CLOVER AND TIMOTHY $4.50 Per Bu.

INVESTIGATE—Best and Cheapest Seeding Known. Alsike Clover and Timothy mixed. Fully 1-3 alsike, a big bargain. Greatest hay and pasture combination grown. Write for Free Sample and 76-page catalog and circulars describing this wonderful grass mixture. Beats anything you can sow and ridiculously cheap. We handle only best tested recleaned seed guaranteed. Write before advance.
A. A. BERRY SEED CO., Box 533, Clarinda, Iowa

RAINFALL ITEM.

Giving Some Idea of the Immense Quantity of Water Required For the Growth of Plants.

The interesting fact that ninety thousand pounds of water are needed to grow one bushel of wheat is brought out in an article in a recent Journal of Geography, published at the University of Wisconsin. To produce one pound of clover 576 pounds of water are needed. Rainfall is measured in inches, and it has been estimated that an inch of rainfall over an acre of land weighs 227,000 pounds. If all this rainfall could be so stored in the soil as to be available for crops, an inch of rainfall would produce two and a half bushels of wheat per acre. However, by no known system of tillage can all the rainfall be conserved for plant production.

Since the water that is stored in the ground is lost by evaporation much more quickly when the surface of the soil is wet, one of the ways to conserve water in portions of the country where dry farming must be practiced is by forming a protective mulch or thin layer of dry soil over the surface. This dry layer prevents the deeper soil water from reaching the surface, by destroying the capillary movement of soil water.

If dry farming is to succeed, the farm must be located in a section having a rainfall of ten inches or more, and with the least possible wind movement. The soil should not contain layers of gravel or hardpan, but must be uniform in texture to a depth of eight feet. Throughout the entire growing season the man who practices dry farming must spare no pains to preserve the protective dry soil covering.

FOREIGN SOILS AND PLANTS.

Concerning Special Discoveries by Agents of the United States Department of Agriculture.

More strange and curious fruits and plants than usual are noted in the inventory of foreign seed and plant introduction just issued by David Fairchild, Chief of the Bureau of Plant Industry of the Department of Agriculture, Washington, D. C. The present inventory contains a number of finds of Frank N. Myer, the agricultural explorer, who recently returned from two years in Manchuria and Siberia.

One of his finds is a new variety of winter Durum wheat obtained from the Russian Agricultural Experiment Station in the government of Samara. It is called Teakaia, and has been bred for cold resistance. It lived out through the snowless winters, where all other varieties of wheat were either killed outright or severely injured. It is thought this will be especially valuable for cold, dry regions of this country, where no wheat has been grown heretofore.

Many of Mr. Myers' finds, coming from the interior of Siberia, are adapted to a cold and semi-arid region, and therefore are likely to be of use in extending the dry-farming belt of the United States. One of them is a forage plant of the astragalus family, a branchy, upright plant eaten by cattle, and that seems able to stand any amount of cold drouth.

Now that Alaska is getting so thickly settled there is a demand for fruits that will live there, and Mr. Fairchild speaks of the Siberia cherry that has been found by Mr. Myers as very promising. It is a bush cherry, growing no more than four feet high, but the fruit, while small, makes an excellent preserve. It lives outdoors at a temperature of 40 below zero. The natives use the preserve instead of sugar in hot tea, and Mr. Myers says the combination is by no means as bad as it sounds. But the Arctic cherry is gone one better by an Arctic black currant that he found growing out at a temperature of 58 degrees below zero. This, it also is thought, will do well in Alaska.

One of the curious finds that has come from South America is a fiber plant that grows on the dry plateau back of Bahia. It is said to be more resistant to sea water than the best Manila hemp, stands drouth and grows a large crop to the acre.

Dr. Gustave Eisen, of the California Academy of Sciences, has contributed a new plum from Naples called the Papagone. It grows three inches long, has a small stone and is reputed to be the finest-flavored plum in the world.

Another curious thing that comes from South America is a new variety of tall forest tree. The wood is purple and very oily, with a slight sweet scent. The most remarkable feature of it is that it is proof against the attack of ants and is absolutely everlasting. Posts made from it never rot.

There are scores of other remarkable botanical finds. All of them are being tried out in the experimental gardens, and such of them as seem adapted to any particular locality will be given a trial under actual field conditions.—Philip Jarvis.

This Planter Never Misses a Hill—

No matter how carefully you prepare the soil, select the seed or cultivate the corn—no matter how rich the soil or favorable the weather, you lose money by planting with a planter that misses even an occasional hill. Don't be blinded to this fact—figure it out yourself. How much did the bare spots cost you last year? Eliminate this waste! Get right down to the bottom of the planter question.

The HAYES Drop never fails. It is the simplest, most durable and most efficient ever made. Fewer parts than any other. Has no clutch to miss and give trouble. Never cracks or grinds the seed. Will drop accurately any size or shape kernel.

The HAYES leaves no bare spots in your fields. No re-planting necessary. Increased yields soon pay for it. Farmers who have been disappointed with edge drop planters are now buying the HAYES never-fail drop.

FOUR Wheels—Bigger Yields

Runners set back between the wheels regulating depth of planting to the fraction of an inch.

The HAYES is the only planter made that will plant every kernel exactly the same depth. Corn all comes up at the same time. Cultivation 2 to 4 days earlier. No missing hills from uneven planting.

Wheels running on an angle pack the dirt around the corn, leaving a loose ridge on top. Will cover where all ordinary open wheels fail—even in wet and sticky soil.

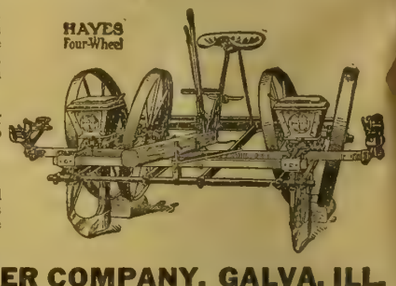
Ridge over the corn prevents wash-outs in hilly fields, gives greater sun surface and loose soil on top allows corn to sprout and come up several days quicker.

CHECKS With Absolute Accuracy

No matter how fast you drive, the HAYES always plants in perfect check, the corn comes up straighter the cross rows than the way you drive. Easiest handled planter for man and team. Also shortest coupled, making it the lightest draft and can be turned in shortest space. For these reasons you can plant from three to five more acres a day with the HAYES and get your corn in earlier—very important, for in some years this makes a big difference in the size of your crop.

LEADS All Other Planters

Over 160,000 in use and every one is giving satisfactory, time-saving, money-making service. Compare the HAYES with every other planter made. Note its strong frame. See for yourself that it has fewer cast iron parts than any other planter—malleable iron and steel are used almost exclusively. The HAYES is practically exempt from breakage, delays and repair bills.



Can be furnished with perfect working Fertilizer and Cow Pea Attachments also Stub Runners or Discs if preferred.

Mail Postal For Booklet

Investigate the HAYES, NOW. Send for free booklet "Z" that gives reasons backed by proof of use, also valuable planter facts. A postal brings it.

HAYES PUMP & PLANTER COMPANY, GALVA, ILL.

Hayes Four Wheel Corn Planter

What Millers Get For Flour.

The high cost of living is not because of the market for flour, which is cheap enough. Bakers buy flour at about two cents a pound. Wholesale quotations, January 1st, were as follows: Quote in jute sacks: Soft patents at $4.65 to $4.85; straights at $4.20 to $4.35; fancy at $3.20 to $3.00; low grades at $3.00 to $3.10; hard patents, $3.95 to $4.05; straights, $3.65 to $3.80; clears, $3.15 to $3.30; low grades, $2.85 to $3.00; spring patents at $4.10 to $4.30, and clears at $3.85 to $4.05 in jute. The foregoing prices are for lots from first hands on track or at depot—special brands on orders charged more.

Automobile Perfection.

Our readers will probably understand that the "high cost of living" does not relate to automobiles. Cars are now brought to perfection in large factories and have been reduced one-half in cost, and the makes that are advertised in this paper are the best possible value for the money. See page 7 and page 19. Investigate this subject thoroughly.

Southwest Steer Cattle.

On December 31st, at St. Louis, G. W. Rousch, of Pulaski county, Southwest Missouri, sold a string of 1,249-pound beeves at $8.00 per 100 pounds and thereby made the top for shipments from his territory. The cattle were of Mr. Rousch's own feeding and had acquired a condition seldom seen on Southwest Missouri stock.

Book of Champions on page 2.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks, how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

FREE TO STOCK OWNERS.

Big Try-out Box of Wilbur's Stock and Poultry Tonic Free For the Asking.

The Wilbur Stock Food Company of Milwaukee have decided to give every owner of live stock an opportunity to try their product absolutely without expense. In other words, they have such unbounded faith in the merit of their stock and poultry tonic that they are going to send out half a million large-size boxes absolutely free. Anyone who owns live stock of any kind may obtain one of these try-out boxes merely by requesting it.

Wilbur's Stock and Poultry Tonic has been on the market for about a quarter of a century and is known the world over as an excellent conditioner for all kinds of live stock—cows, horses, sheep, hogs, poultry. It aids digestion and enables the animal to assimilate every particle of value in the feed it eats. The manufacturers make exceptionally strong claims for Wilbur's Stock and Poultry Tonic, and these claims are backed up by convincing evidence from users in all parts of the coutnry.

As stated above, every farmer and stock owner may obtain absolutely free a large try-out box of this remarkable stock tonic by asking for it.

Simply send your name and address and tell the number of cows, horses, hogs, poultry, etc., you own and the big free box will be sent you. Address, Wilbur Stock Food Company, 621 Huron street, Wilwaukee, Wisconsin.

VEGETABLE PRICES.

Farmers' Local Deliveries and Shipments From Outside Points to the St. Louis Market.

On January 1st the following wholesale prices were quoted for vegetables on the St. Louis market:

Potatoes.—Car lots, sacked, on track: Wisconsin Rural at 51 to 53c.; Minnesota Rural and Burbank at 50 to 52c.; Idaho Rural at 57 to 59c.; frosted, rough, mixed or inferior stock sells at a discount on quotations.

Onions.—Sacked Red Globe at 30 to 42c. per bushel, delivered, according to quality—badly sprouted less. Sacked white nominal at 60c., delivered.

Spanish onions.—At $1.15 per crate, delivered.

Anise plant.—New Orleans at $2.25 to $2.50 per sugar barrel.

Beets.—New Orleans at 20 to 30c. per dozen bunches. Old home-grown at 35 to 40c. per bushel box loose.

Brussels sprouts.—At 5 to 12½c. per quart.

Cabbage.—New York Danish and Wisconsin Holland seed at $8.50 to $9.00 per ton, in bulk, delivered—frozen less. On orders, 75c. per 100 pounds sacked for Holland seed. Red cabbage offered at $17 per ton, delivered.

Carrots.—Sacked Eastern at 50c. per 100 pounds, delivered; New Orleans at 25c. per dozen bunches. Home-grown at 35 to 40c. per bushel box.

Cauliflower.—Choice fresh California at $2.65 to $2.75 per crate, delivered.

Celery.—California Golden Heart at $3.25 to $3.75 per crate, delivered; New York in the rough at $2.00 to $3.00, delivered; Michigan (cooler stock) at $1.25 to $2.00, delivered. Celery roots at 15c. per dozen for small to 35 to 40c. for large.

Cucumbers.—Eastern (Boston) at $1.25 per dozen. Florida hampers at $4.00 to $4.25 for fancy; $2.50 to $3.00 for No. 2.

Eggplant.—Florida 1½-bushel crates at $2.00.

Endive and Escarol.—New Orleans at $2.00 to $2.25 per sugar barrel. Imported at $2.00 to $2.25 per basket.

Gumbo.—Florida six-basket crates at $3.00 to $3.25.

Horseradish.—Home-grown from wagons at $3.15 to $3.25 per barrel loose.

Lettuce.—New Orleans sugar barrels at $1.00 to $1.50—fancy worth more; Florida hampers sold mainly at $1.50 and crates (heated) at $1.00 to $1.25.

Mustard greens.—Kenner and New Orleans at 15 to 30c. per dozen, according to size of bunches; Alabama sacks at 60 to 75c.

Parsnips.—Home-grown washed at 50 to 60c. per bushel loose.

Parsley.—New Orleans plain at 10c. and curly at 15c. per dozen bunches, and at $2.00 to $2.50 per barrel.

Peppers.—Florida 1½-bushel crates at $3.00 for fancy; six-basket crates at $1.75—poor less.

Radishes.—New Orleans and Kenner White Tips at 20 to 30c. per dozen bunches.

Romaine.—New Orleans at $1.50 to $2.00 per sugar barrel.

Rutabagas.—In bulk at 35 to 38c. per bushel, delivered.

Shallots.—New Orleans and Kenner at 15 to 25c. per dozen bunches.

Spinach.—Home-grown at 15c. per bushel loose; New Orleans at 10c. per dozen bunches.

String beans.—Florida hampers pale green at $1.75 and dark green at $2.25 to $2.50. Few hampers Texas sold at 60c.

Sweet potatoes.—Home-grown Bermuda at 75 to 85c.; Queen and Yellow at 90c. to $1.00, and Red Nansemond at $1.00 to $1.10 per bushel loose; Southern Illinois Queen at $2.50 per barrel.

Turnips.—Home-grown unwashed at 35c. per bushel loose and washed at 50c. per bushel box. New Orleans (new) at 25c. per dozen bunches.

Tomatoes.—Fancy Florida at $1.85 to $2.00, and choice at $1.50 per six-basket crate; Cuban six-basket crates at $1.75 to $2.00 for fancy and $1.50 for choice.

Sauerkraut.—City make in jobbing way delivered: Kegs at 60c.; half barrels at $1.50; barrels at $2.90; casks at $4.25.

Hay Market at St. Louis.

Sales on track at St. Louis, December 31st: One car Red Top mixed at $8.50, switched. Timothy—One car grassy mixed at $8.50; one car No. 3 at $10.50; one car scant No. 2 at $11; three cars No. 2 at $12; three cars at $12.50; one car No. 1 at $14.50; two cars at $15; one car at $15.50. Prairie—Part car coarse at $8.50; one car No. 2 at $10.50; one car at $12.25. Clover—Part car No. 2 at $13; one car part No. 2 clover at $13 and part No. 1 timothy at $14.50. Alfalfa—One car No. 2 at $12.50; six cars No. 1 at $15; one car at $15.50; one high car at $16. On East Side: Three cars No. 2 clover-mixed at $11.50. Timothy—One car threshed at $8.00; four cars No. 2 at $12; one car at $13; one car No. 1 at $14.50; two cars at $15; two good cars at $16; one car part No. 1 timothy at $16, and part straw at $7.50; one car choice at $17. Clover—Three cars common at $11. Alfalfa—Two cars No. 2 at $13; two cars at $14; one good car at $14.50; two cars No. 1 at $15; five cars choice at $17.

FREE-FARM ACCOUNT BOOK

Know How Much You Make This Year

No one shall pay a cent for ***Bickmore's Farm Account Book.*** It will be sent free to any farmer who will be good enough to tell who and where he is. The cost of a crop never demanded closer attention. Business farming puts money in the bank. This book is arranged to keep all accounts in simple form—more simple, and certainly more practical, than trying to remember them; shows what to charge against crop production; has a laborer's time record and section for personal accounts. ***64 pages; for ink or pencil.*** Not a cheap affair. It is meant for business. Its quality is in keeping with

BE SURE AND WORK THE HORSE

BICKMORE'S GALL CURE

a remedy that ***cures,*** and the horse works all the time. Users keep it in their stables the year round—they believe in it. It is always ready for Harness or Saddle Galls, Chafe, Rope Burns, Cuts, Scratches, Grease Heel, etc. In cows use it for Sore Teats. Don't buy a substitute. For the sake of your horse's health, be sure to ask for ***Bickmore's*** Gall Cure at the store. But write now for Bickmore's Farm Account Book—it is ready for ***you.*** No cost. No obligation. Send your name and address—that's all.

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FRAZIER'S DISTEMPER CURE

to give results, or your money refunded. $1.00 size bottle holds three 50-cent bottles. Sold by all druggists or prepaid direct from the manufacturers. Send for free horse booklet.

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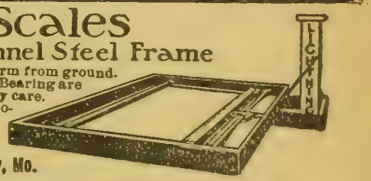
New Pattern. Solid Channel Steel Frame

Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.



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14 cents a rod for 26 inch Hog Fence.
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25½ cents a rod for 60 inch Poultry Fence.
$1.55 for 80-rod spool Ideal galv. Barbed Wire.

Kitselman Fence wears best and lasts longest. Read the following letter, one of hundreds recently received.

"Nearly 20 years ago I built corals for wild Texas cattle with Kitselman Fence. These pens are still good although the fence is on its third set of posts."
W. C. POWELL, Baird, Texas.

We make over 100 different styles of Fencing. Won't you write for our Free Catalogue today?

KITSELMAN BROS., 261 Council St. Muncie, Ind.

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KITSELMAN BROTHERS
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Send me your free Catalog of Fence.

Name _____
Town _____
R.F.D. _____ State _____

Mr. Jeffries got 93 bu. of corn per acre

on a tract of land near Clarendon, Ark. Of course, that's some yield; but taking seasons *as they come*, you could raise as much corn down there on $20 land as you can on the *best* corn lands of Iowa or Illinois.

[*Frank Tate's corn Camden, Ark.*]

Take the case of Chas. E. Crigger of Blytheville. His 200 acres, ready for the plow, stood him only $3000. "Now I am getting 50 bu. of corn per acre regularly," says Mr. Crigger. Last year my crops brought me $10,400." You could get *twice* as much profit from land that cost *half* as much — along the

Cotton Belt Route in Arkansas and Texas

— besides cutting your winter expenses *'way down*, on account of the milder climate.

Frank Tate, near Camden, Ark., told me he made 63 bu. of corn per acre. Mr. Tilson, who owns a Red River Valley farm in East Texas, says his section has the irrigated lands northwest beat a mile for alfalfa. He is getting $50 per acre from alfalfa on his *low*-priced land—with no need for irrigation.

These lands won't stay cheap always. They have already doubled in value since 1905; but even this year you can buy at $12 to $25 per ac. as good land there as you are farming now. And you'd have *every* advantage of schools, churches, close neighbors, good local markets, phones, rural free delivery, etc. This proposition deserves serious thought.

On the 1st and 3rd Tuesdays of each month there are low round trip excursions to Arkansas and Texas via Cotton Belt Route, allowing 25 days' time and free stopovers. Go on the *next* one.

Get our free books!

Written by a farm man who knows farming from A to Z. He traveled over thousands of miles in these sections to learn where the *real* farm opportunities were—the kind he knew *you* would grasp if you saw them. He tells you, in plain words, all about them. 100 pages and farm pictures. Send a postal today for your *free* copies.

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General Passenger Agent
1466 Pierce Bldg., St. Louis

COTTON BELT ROUTE

HOGS DRESSING 79¼ PER CENT.

Collin County, Texas, Hogs Dressing a High Percentage of Meat to Carcass.

During the last week in November the Forth Worth (Texas) Live Stock Reporter said:

"The Fisher hogs from Collin county were subjected to a slaughter test by Armour & Co., and dressed out 79.25 per cent. H. G. Kalhorn, Armour's head hog buyer, says this is the best dressing-out percentage he has ever seen, after sixteen-years' connection with the trade, most of that time at Chicago, Omaha and St. Louis, where the hogs are supposed to be the best in the world. 'I won't say that these Collin county hogs were absolutely the best, but they were the best I have ever seen tested,' he said. 'We may have had as good hogs, or better, but we don't know it for a fact, for not many hogs are given the dressing-out test, which calls for a good deal of extra work and expense.'

Anyhow, the Collin county hogs will stand at the head until some other hogs make a better showing.

These hogs were sent in by R. C. Fisher, who lives in Collin county. Mr. Fisher topped the market on three days last week. On Tuesday he had here thirty-nine of 388 pounds average, and thirty-six of 377. These were the hogs that were treated by Armour & Co., and which, according to Mr. Kalhorn, dressed out better than any he had ever seen. On Wednesday Mr. Fisher had another shipment, thirty-five head, averaging 411 pounds, and fifty comparatively little fellows bringing up the end at 269. Then on Thursday he had a third shipment in, thirty-eight head, averaging 274 and fifty-nine averaging 216 pounds. Nobody accompanied them, and no information could be obtained as to how they were fed.

Such big hogs are fine to look upon, but they do not make as much money for the man who raises them as prime 225 to 250-pound hogs."

A FRUIT ITEM.

Fall Bearing For Strawberries—Winter Strawberry Shortcake.

Fall-bearing strawberries—yielding delicious fruit right up to frost time—are perhaps by far the most interesting things to be seen on the big place owned by Mr. W. F. Allen, near Salisbury, Maryland, where millions of berry plants, small fruits, shrubs and privet are raised annually for shipment to nearly every part of the country.

These fall-bearing berries, however, are something more than a mere curiosity. They are sturdy, prolific stock, very practical and extremely profitable to the grower, as anyone familiar with the berry market during late August and September, and even into early October, can easily understand.

Full information, and very interesting information it is, regarding these fall strawberries may be obtained from the very attractive berry book gotten out by Mr. Allen for 1913, and everyone interested in berries, small fruits and shrubs should by all means send for a copy, if for no other reason than to learn something of this new kind of berry. Just drop Mr. Allen a postal at Salisbury, Maryland, and ask for the berry book. By return mail you will get a handsomely illustrated, fifty-page book that is a veritable reference work on berries.

It is with the more standard varieties, however, that Mr. Allen has achieved his greatest success and on which the reputation of his plants rests. For twenty-eight years this berry grower has been breeding up his varieties, until to-day he has 120 acres in strawberries alone, to say nothing of the acres in raspberries, blackberries, currants, shrubs, privet, asparagus, etc. Almost anything in this line can be secured from the Allen place, in any quantity, at almost any time. Every farm home should have Allen's 1913 Berry Book. It is worth money for its information on berries. Write for a copy to-day. Address, W. F. Allen, 116 Market street, Salisbury, Maryland.

Stumps cost you too much money. Pull them out! Get a Hercules. *Now is the time.* I'm making a very special sacrifice-price offer. Only a few men will get in on this proposition. Never such an opportunity before. Same 30-day free trial offer—same 3-year unqualified guarantee against breakage. Write me!

All-Steel Triple Power **HERCULES**

is the only all-steel triple power puller made. 400% stronger—60% lighter than others. Pulls biggest stump in 5 minutes—pulls an acre or more of stumps a day—pulls 3 acres of stumps without moving machine. Has double safety ratchets—is self or stump anchored, built low to the ground and is carefully turned and polished to make light draft.

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Let me send you my fine book and price. My book will please you. Read all the letters and see all the photos sent in by Hercules owners. Compare the regular catalog price with the special figure I'll quote you and see how much you save. Address me personally—a postal will do.

B. A. FULLER, President

HERCULES MFG. CO.,
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The National Corn Show.

Prof. I. O. Schaub, of the North Carolina Agricultural and Mechanical College, has been appointed Superintendent of Judges for the Fifth National Corn Exposition, to take place at Columbia, S. C., in January and February. The Judges' Council, of which Prof. Schaub will be Chairman, will be composed of between forty-five and fifty judges, selected by various states which will enter the Exposition. Each one of these will be assigned to the consideration of a certain portion of the competitive exhibits.

Prof. Schaub is a native of North Carolina and is a graduate of the Agricultural and Mechanical College of that state. He spent two years in teaching and university work in Iowa, and was one of the judges at the Fourth National Corn Exposition held at Columbus, Ohio. He is at present in charge of the boys' and girls' extension work at the North Carolina Agricultural and Mechanical College. Prof. Schaub has a thorough knowledge of the technique of judging and is well qualified for the position of Superintendent.

Competitive exhibits at the National Corn Exposition come up through successful competition in the various State Shows. The preliminary judging will have been completed by the opening of the Exposition, January 27th, and the awards will be announced early in the first week.

Eleven thousand acres in strawberries and other small fruits averaged one hundred dollars an acre in Illinois.

HANSEN'S PROTECTOR

Do Better Work—Easier

YOU don't go barefoot—how about your hands? Times are too busy—work too important for you to neglect your hands. And nothing will help them like the right pair of Hansen's Gloves or Mittens—the glove or mitten that makes you forget you're wearing it. Secure, easy, perfect fitting and protects from injury. There is a special style lined or unlined built for every special purpose.

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Mention above what kind of work, driving or sport.

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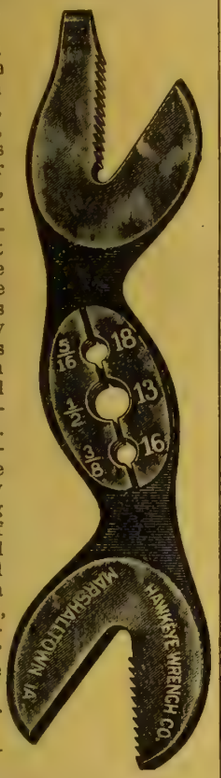
NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screwdriver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.



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Avoid the Circle.

Running around in a circle is the great way not to make progress. The man who tells you he knows his method is right because he has been doing it that way for half a century, is not necessarily right. He may have been making the same old mistakes year after year.

In fact, if we look back in human history, we find that the running around in a circle is what has kept nations stagnant for centuries at a stretch. The Chinese have been running around in an educational circle for some thousands of years and standing still as to progress.

Probably the Chinese would yet be standing still if they had not come into contact with other nations and thus had the charm of their mystic circle broken.

It takes a genius among men to get out of the circular rut in which he is running. Such men have been the leaders of progress in all ages.

In agriculture, note how the tendency has been to run around in a circle. There are yet sections of the world where men are still reaping their wheat by the help of the sickle, as in the days of Ruth. They have remained desperately poor because of the repetition of the old methods year after year, which could never bring them more than a bare existence.

In spite of the fact that we have in our country broken away from the circle in many things, it is also true that very many farmers, as well as others, still persistently run in the circle.

But it is a difficult thing to get out of the circle in which one has been running in the ruts for many years, doing the same things over and over, thinking the same thoughts over and over, making the same plans year after year, always with the same partial results.

But how shall a man break away from the ruts in the circle he is following?

By getting in touch with others, by reading or by talking with others, and so get new view-points on whatever he is doing. That is why the boy in an agricultural college makes remarkable progress away from the ruts in which he and his ancestors have been moving. The course of study in a college is constantly being changed to include all new information and all new methods. The farm boy that is sent to an agricultural college quickly finds himself walking in new paths. He is getting the advantage of the experience of thousands of men. He can therefore stop running around in a circle and move forward in a comparatively straight line.

The man that cannot have the advantage of an agricultural college course can get out of the rutted circle by reading. Every Experiment Station can furnish a list of books on a multitude of agricultural subjects, which, if secured and read, will enable the reader to break out of the circle in which he has been moving.

It is in this way that Western civilization has broken out of the ruts of centuries and has moved forward, revolutionizing the world in doing so.

To Keep Rust From Asparagus.

Breeders and growers of asparagus are advised by the United States Department of Agriculture, through Bulletin 263, Bureau of Plant Industry, to take up pedigree breeding and to use careful methods of production in order to keep rust from the plant. On the subject the bulletin says:

"Although the breeding work carried on with asparagus will eventually lead to the control of rust in commercial plantings, several years must elapse before this result will become effective. Meanwhile it is necessary to take all measures practicable to prevent the destruction of existing fields of asparagus by the rust. To this end the main factor is to keep the rust away from the fields in summer just as long as possible.

"Wild asparagus growing around the borders of the fields, along fences and ditches, is one of the worst enemies of the grower. These wild plants act as infection centers, and their influence can be easily traced later in the season when the cutting beds have grown up. Wild plants, wherever found, should be dug up and burned. New beds should be planted at only rare intervals of time, and then, if possible, where they will be to windward of a cutting bed. Keep the seedlings out of the cutting bed, at least let none stay in at the time the bed is allowed to grow up after the cutting season. Allow no poor shoots to grow up in the cutting field. Keep down every shoot of asparagus until the middle of June and see the neighboring farmers do the same. In the fall the tops should be removed carefully from one-year-old beds that are not to be cut the next year. This will in a large measure reduce the liability of infection from this source."

Reap the benefits of Available Plant Food

In a favorable season crops will make enormous gains if they are given the available plant food necessary to support them. No soil contains available fertility enough for a bumper crop. It must be added, (not in raw rock phosphate or other unavailable forms, for there is enough of that sort already in the soil) but in available fertilizers which will yield up their plant food as fast as wanted; and the bigger the crop the greater its need. If it is obliged to wait for this sort of plant food to be developed out of the soil, remember, **it waits at your expense!**

EMPIRE FERTILIZERS

These fertilizers supply to growing crops in available form the plant food elements required which in connection with good seed, cultivation and weather and the fertility supplied by the soil and air, are producing good crops of profitable size and quality. Farmers depend upon them as upon other old friends, and have done so for years.

Agents wanted where we have none. Address for prices and terms,

EMPIRE CARBON WORKS

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Factory Prices for the Asking—on Genuine Witte Engines

FREE Engine Book

THE genuine Witte—conceded the best farm engine in America—now offered at actual wholesale prices. Yes, this is the engine that has lead the gasoline engine field for 25 years. Dealers have been getting the highest prices for the Witte. *Now* you can get one at actual factory price—what the dealer paid—and have the finest engine in your county.

Our Gas Well Saves You Many Dollars More

We do more than give you ordinary factory prices. We are the *only* manufacturers who have our own gas well. Power, testing, forge, foundry and heating fuels cost us nothing. *You* get the benefits. But you couldn't afford to own any other engine even if the Witte cost twice as much—because an average of 1 cent for every horse-power per hour *cuts gasoline bills in half*—pays for your engine in no time.

Every part *guaranteed* 5 years—*full rated horse power on minimum gasoline* guaranteed too. Built in all sizes from 1½ to 40 h. p., every one *tested to 10% over load.*

WRITE FOR 60 DAYS FREE TRIAL OFFER

and complete, direct, factory price proposition with catalog and special offer bulletin. We expose engine secrets in this bulletin that will startle you. Remember, it's your first chance at an engine of quality, standing and reputation at a small price. Mention size needed or work to be done. Write at once.

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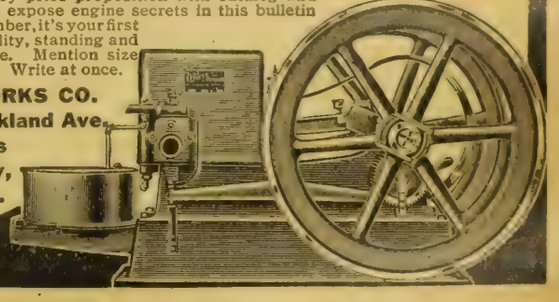
Every Part Guaranteed 5 Years



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Commission Company

Shipments of Cattle, Hogs and Sheep solicited for sale upon the St. Louis Live Stock Market.

The St. Louis Market is the most active and competitive of all markets. Many shippers selling elsewhere will obtain better returns at St. Louis.

We are thoroughly equipped to obtain the very best results in the interests of our customers, and in all market matters we will be found to be leading the procession.

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NATIONAL STOCK YARDS, ILL.

KEEP THEM WORKING

Kendall's Spavin Cure is the old reliable, *Safe* remedy for all cases of spavin, splint, curo, ringbone, bony growth and lameness from other causes. It keeps the horses working—not loafing. What it has done for others it will do for you. Keep a bottle of

Kendall's Spavin Cure

handy so you can use it quickly when the need arises. A one dollar bottle may save a horse for you. It's worth while to be ready. Ask your druggist the next time you are in town. Tear this advertisement out to remind you.

Sold by druggists everywhere, $1.00 a bottle; 6 for $5.00. Keep it in the house for family use, as well as in the stable. Get a copy of "A Treatise on the Horse" at your druggists or write to

DR. B. J. KENDALL COMPANY,
Enosburg Falls, Vt. 14

Hog Book Free.

Book of facts on care and diseases of hogs Tells how to prevent and cure disease, and destroy worms. Greatest discovery known Sent free. Write Dr. D. C. Snoddy Co Dept H, Nashville, Tenn

Don't Have a Blind One "VISIO"

An Absolute Cure for
Moon Blindness
(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Quality Before Weight.

During holiday week in December, Holland, Nugent & Maxwell Bros. had about 600 horses and mules in said in his circular: "The market was good on chunks and drafters, 1,300 to 1,500 pounds. The extremely big horses did not sell as well as they should. We sold some extra quality that would weigh 1,700 pounds, from $275 to $315, that looked like they ought to have brought more money, but the chunks from 1,200 to 1,400 pounds sold as well as they have any time in the past six weeks. Southerners were in fair demand, and all the finished fat stuff sold good. Plain, common, thin, little stuff was a little draggy, yet we could sell it to hold the money together for the shipper."

Nuts at Wholesale.

On December 31st, consignments of nuts arriving at St. Louis were quoted as follows: Pecans at 9c. per pound; black walnuts at 35c. per bushel; hickory nuts, shell-bark, at 50c.; large, 40c.; bull, 25c.; peanuts, at 3 to 3½c. per pound for farmers' stock; Italian chestnuts, 7½c. per pound; hazelnuts, 4c. per pound.

EVERY FARMER A CHEMIST.

Knowledge of Chemistry Necessary For the Conduct of a First-class Farm—How to Acquire It.

The time will come when every farmer will be, to some extent, a chemist, for every farmer needs to know about the composition of his soils, the composition of things grown on his farm, and the composition of the bodies of the farm animals. Fortunately, the way is now open for every farm to have its farm chemist, that chemist to be the man that is the owner of the farm or is its manager.

Chemistry is a great mystery to many people. That is because it is not generally studied. Everything is a mystery till it is found out. Enough of chemistry has been found out to make it no longer a mystery to any man who wishes to pursue it.

The farmer needs a knowledge of chemistry to thoroughly understand the nature of the soils he is working. Many a farm has on it several kinds of soil, which need different kinds of treatment to enable them to produce paying crops. The failure to understand the chemistry of soils has kept many a farmer poor, who, had he had the right kind of knowledge of soils, could have been prosperous.

The writer has seen poor muck soils farmed year after year, producing very light crops, which soils produced big crops every year after a chemist had analyzed the soil and found it needed only a supply of potash to make it exceedingly productive. That same soil had been farmed for more than two generations in the same faulty way.

The farmer needs a knowledge of chemistry sufficient to impress on him the difference in the value of the chemical and other fertilizers he may apply to his land. Then the applications of fertilizers will be according to knowledge and not contrary to all knowledge.

In the feeding of farm animals a good appreciation of feeding values is necessary, and this can be known only by acquiring a knowledge of some of the fundamental principles of chemistry. Hundreds of millions of dollars' worth of feed have been wasted by American farmers because of their ignorance of the relative feeding values of hays and grains. Thus, for a hundred years or more, New England farmers raised timothy hay or other varieties of so-called "tame hay" for feeding to dairy cows, when clover hay would have been much easier raised and have had a far greater feeding value for dairy purposes. Not till the chemist came along and lifted up his hands in remonstrance against such waste did the New England farmers turn extensively to the raising of clover hay for the dairy cow.

The farmer that is a chemist figures on every crop that goes off his land. He says: "Such a crop took from my land so many pounds of nitrogen, so many pounds of phosphorus and so many pounds of potassium. What will it cost me to put it back?" Then he goes to work and puts it back and thus keeps up the fertility of his soil.

There are many ways by which every farmer can acquire a knowledge of chemistry. (1) He can get a book on agricultural chemistry, of which there are many, and study up the matter himself. (2) He can take a few-weeks' course in an agricultural college. There are "short courses" adapted to such work. (3) He can send his son to an agricultural college, where he can learn the things needful for the farmer to know. This son will become a teacher of those around him and will open the way to the rejuvenation of the old farm.

First-class Commission House.

The best-organized live stock market is St. Louis, and one of the best firms doing business in that market is the Milton, Marshall Live Stock Commission Company. Shippers who consign stock to this firm to be sold can be assured of obtaining the best results possible. Mr. A. J. Milton, the President of the company, is an expert cattle salesman, and, assisted by his brother, L. H. Milton, make splendid sales. J. S. Jackson and J. S. Mulberry, selling hogs, are equally expert in their department; and Thos. Freels, Sheep Salesman, is noted for skill, ability and good judgment. It is a finely-equipped firm, doing business efficiently in the interest of their customers. All who will apply to Mr. R. E. Marshall, Secretary, P. O. Box 94, National Stock Yards, Ill., stating what they have to ship, will receive special information concerning the market prospect, coming directly from the salesmen.

St. Louis Forging Ahead.

The National Live Stock Reporter of January 1st said:

"For the first time in modern packing days St. Louis has forged ahead of Kansas City in volume of hog receipts. The 1912 supply at the St. Louis National Stock Yards totaled 2,529,897 head, against 2,523,331 head at Kansas City. A few years ago Kansas City hog receipts were running half a million to a million head larger than those of St. Louis. But times have changed and St. Louis is growing faster as a hog market than the Missouri river point.

"Total car-load receipts of live stock at Kansas City in 1912 aggregated 121,969 cars, showing a loss of 13 per cent. from the year 1911. Total car receipts at St. Louis in 1912 were 84,400 cars, showing a loss from 1911 of only 4 per cent.

"Kansas City cattle receipts in 1912 showed a loss of 9 per cent. from 1911. St. Louis cattle receipts gained 11 per cent. in the same time.

"Kansas City horse and mule receipts in 1912 lost 14 per cent., as compared with 1911. St. Louis' horse and mule receipts in 1912 lost only 4 per cent. from 1911."

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

SAVE-THE-HORSE
(Trade Mark Registered.)

Gets Advice; Sells Horse for $800.

Ogden, Ia., April 18, 1912. Troy Chemical Co., Binghamton, N. Y. Gentlemen—I have used Save-The-Horse for years, and I never found any case but it would do just what you claim for it. I have a horse I want to race and want your advice and another book. I lost or mislaid mine. The last time I bothered you your advice and treatment did the work. I sold the horse for $800.
Yours truly, H. S. HELPHRY

Every bottle of Save-the-Horse is sold with an iron-clad contract that has $60,000 paid-up capital back of it, guaranteeing to permanently cure or refund the money; no matter whether it is Bone or Bog Spavin, Tendon disease or Pufs—nor how aged, serious or complicated the lameness or blemish may be.

OUR LATEST Save-The-Horse BOOK—is our 17 Years' Experience and DISCOVERIES—Treating over 100,000 horses for Ringbone—Thoropin—Spavin—and ALL Lameness. It is a Mind Settler—Tells How to Test for Spavin—What to Do for a Lame Horse. Covers 58 Forms of Lameness—Illustrated. MAILED FREE.

But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers).

Write! AND STOP THE LOSS.

TROY CHEMICAL CO., 62 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's
Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Not used on splint, curb or soft bunches. Write for

Fleming's Vest-Pocket Veterinary Adviser

Best book on blemishes, and we send it free. Read it before you treat any kind of lameness in horses. 192 pages, 69 illustrations, durably bound in leatherette.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

Book of Live Stock Champions on page 2.

Egg Profits

A hen never shirks her job to be mean
d contrary, so don't blame the hens if
ur egg profits are not what they ought to be.
The number of eggs a hen lays depends entirely
on her condition.
Most farmers now recognize the fact that proper
ilization of land will greatly increase the yield.
With hens—a tonic, and appetizer, will cause
at they eat to properly digest, and they will in
n lay more eggs.

r. LeGear's Poultry Powder

he greatest of all poultry remedies. It purifies the
od, prevents and cures diseases, and makes hens

Large packages 25c and 50c
25 pound Pails, $2.50

f your local druggist or dealer hasn't it, write us,
ing his name and we will see that you are supplied.
Dr. LeGear's Stock and Poultry Book containing
2 pages, will be sent free on request.

R. L. D. LeGEAR MEDICINE CO.
15 Howard St. ST. LOUIS, MO.
Sole manufacturers of Dr. LeGear's
Famous Stock and Poultry Remedies.

HICK, SWOLLEN GLANDS

t make a horse Wheeze,
ar, have Thick Wind or
oke-down, can be re-
d with

ABSORBINE

any Bunch or Swelling. **No**
ster, no hair gone, and
se kept at work. $2 per bot-
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BSORBINE, JR., liniment for mankind.
uces Goitre, Tumors, Wens, Painful, Knotted
icose Veins, Ulcers. $1.00 and $2.00 a bottle at
lers or delivered. Book with testimonials free.
F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Ends The Misery of Wearing Worthless Trusses

How 60 Days Trial Is The Only Safe Way To Buy Anything For Rupture

Here is something absolutely GUARANTEED to keep rupture from coming out—something that does away with the misery-using leg-straps and body-springs.

way With Leg-Strap and Spring Trusses

So far as we know, r guaranteed rupture lder is the only thing any kind for rupture at you can get on 60 ys trial—the only ing we know of good ough to stand such a ng and thorough test. It's the famous uthe Automatic Massaging Truss—made an absolutely new principle—has 18 pat-ted features. Self-adjusting. Does away th the misery of wearing belts, leg-straps d springs. Guaranteed to hold at all nes—including when you are working, king a bath, etc. Has cured in case after se that seemed hopeless.

Write for Free Book of Advice—Cloth-und, 104 pages. Explains the dangers of eration. Shows just what's wrong with astic and spring trusses, and why drug-ores should no more be allowed to fit usses than to perform operations. Exposes e humbugs—shows how old-fashioned orthless trusses are sold under false and isleading names. Tells all about the care d attention we give you. Endorsements om over 5000 people, including physicians. rite to-day—find out how you can prove ery word we say by making a 60 day test ithout risking a penny.

ox 776—Cluthe Co., 125 E. 23d St., New York City

St. Louis Horse Market.

The St. Louis horse and mule market closed the year 1912 with a total of 165,000 head received during the year and wound up with the second largest receipts in one day. Holland, Nugent & Maxwell Bros., horse and mule commission firm, holding horse auctions each Monday and Tuesday in the year, reported a steady market December 31st, with prices paid equal to those paid any time during the past three months, but not equal to the high time. Southern drivers were in brisk inquiry and the Eastern demand was exceptionally good for chunks, 1,250 pounds. Mr. T. H. Holland, Auctioneer and Manager, says that a few more car-loads of chunks and stylish draft horses can be sold better at St. Louis than anywhere else in the world, and invites shippers of heavy horses to write him. Address, T. H. Holland, National Stock Yards, Ill.

Great Sires of Speed.

Included in the great sires of trotters making records in 1912 are the stallions Walnut Hall, Peter the Great, Bingen, Axworthy, Allerton, Joe Patchen, Moko, The Bondsman, Vice Commodore, Dan Patch, John R. Gentry, Admiral Dewey, General Watts, John A. McKerron, Cresceus and Redlac. All these and 730 more champions are in the Book of Live Stock Champions, advertised on page 2.

Silage For Breeding Ewes.

At the Missouri Experiment Station, in the winter of 1911-1912, one lot of ewes were fed on corn silage and grain; one on corn silage, grain and clover hay; and one on corn silage and clover hay. The grain consisted of corn six parts, bran three parts and oilcake one part, by weight. The ewes were put on feed December 9th and kept on these rations until lambing.

The grain and silage lot ate on the average per day .39 pound grain and 4.07 pounds silage per 100 pounds live weight. In this lot of twelve ewes, eleven were with lamb and produced eleven lambs. So, of the ewes that lambed there was 100 per cent. of lambs, ten, or 90 per cent., of which were strong and vigorous.

The lot receiving grain, hay and silage ate on the average per day .34 pound grain, 2.05 pounds clover hay and 1.85 corn silage per 100 pounds live weight. In this lot, ten of the eleven ewes were with lamb and produced fourteen lambs, or 140 per cent., of which thirteen, or 92.8 per cent., were strong and thrifty.

In the lot receiving clover hay and silage, fifteen of the sixteen ewes lambed and produced nineteen lambs in all, or 126.66 per cent. Fifteen, or 78.9 per cent., were strong, and four, or 21 per cent., were weak. The average amount of feed eaten each day by these ewes was 2.29 clover hay and 2.83 pounds silage for each 100 pounds live weight.

From the results obtained with the lot receiving only silage and hay it would seem that unless the ewes are in extraordinarily good condition the addition of grain during part of the winter, at least, would be advisable. Silage without hay for this one year proved to be satisfactory roughness for pregnant ewes when fed with grain. Considering, however, that no twin lambs were born to this lot, the silage and grain ration must be considered inferior to the ration composed of silage, hay and grain. The experience of practical feeders and the results at other Experiment Stations bear out these conclusions.

It should be further stated that in the three lots receiving silage, eleven ewes were lost during the last week in December, and as far as could be determined the loss was caused by moldy silage. From the first week in January to the first of April the ewes were fed silage without further ill effects.

A few cautions must be observed in feeding silage to pregnant ewes. The silage must be of good quality. Moldy or sour silage is very dangerous. Two or three inches should be used off the top of the silage daily, otherwise it will ferment and mold. Frozen silage is dangerous to feed, as it chills the digestive tract and may cause abortion.—By H. Hackedorn, Missouri Agricultural Experiment Station.

No More Hog Cholera —No Hog Worms— Bigger Pork Profits

By Feeding Daily Merry War POWDERED Lye

E. Myers, President, E. Myers Lye Company.

Are you going to wait until there is an outbreak of hog cholera in *your* neighborhood—when it spreads from herd to herd killing off hogs like flies—or will you take steps *right now* to *prevent* any possible outbreak in *your own* herd? You need have no fear of hog cholera wiping out *your* pork profits if you will feed a little *Merry War POWDERED Lye* twice *each day* with the regular rations. *It costs only 5c per month per hog,* and thousands of farmers can tell you it *prevents* hog cholera. This awful disease may be raging in a neighborhood, but hogs that are on a *Merry War POWDERED Lye* diet, are conditioned against it, as surely as a vaccinated person is protected against smallpox. Besides it destroys hog worms, keeps the digestion in such perfect condition that every pound of feed is changed into firm flesh thus preventing feed waste and greatly increasing pork profits.

The use of *Merry War POWDERED Lye* as a hog remedy, conditioner and fattener is *not* an experiment. It is a *specially prepared, powdered* lye that has been *tried* and *proven safe* and *effective* for those purposes. Full directions on every can. Don't experiment with an untried, old fashioned, ordinary lye. Get *Merry War POWDERED Lye*—the *time-tried* remedy that *actual experience* has *proved* to be the safest, surest preventive of hog cholera the world has ever known.

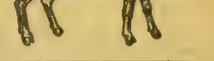
These Hogs Could Not Take Cholera

"We have had hog cholera all through our district. Those who have been using *Merry War POWDERED Lye* have missed it. One man in particular, who buys it by the case, has cholera all around him, but so far his hogs have escaped." C. M. COOPER, Proprietor of "The Right Place" Dawson, Neb.

Make a test for yourself. Merry War POWDERED Lye comes in 10c cans (**120 feeds per can**). *It is convenient to buy in case lots—4 dozen cans for $4.80 at Grocers', Druggists' or Feed Dealers' Everywhere. There are no substitutes. WE WILL SUPPLY YOU DIRECT, $4.80 FOR 4 DOZ. CANS, IF YOUR DEALERS WON'T SUPPLY YOU. Write for our valuable booklet "How To Get The Biggest Profits From Hog Raising." Sent FREE for the asking.*

E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

Which Kind Do You Want?



HYSOPE—GRAND CHAMPION PERCHERON MARE. In a class of twenty-six splendid aged mares at the Chicago International Live Stock Exposition of 1912, HYSOPE received the blue ribbon, and in competition with all other female first-prize winners she won the grand championship. The picture shows what a magnificent, clean-limbed draft mare she is. HYSOPE was imported and shown by Trumans' Pioneer Stud Farm, Bushnell, Ill., and since sold to Mr. Thomas G. Plant, of New York City.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

POULTRY YARD NOTES.

Early Chicks Are Necessary For Winter Eggs—How to Keep a Clean Flock.

Prepare for early chickens this year, if eggs during winter are to be looked for. The March and April broods are the broods that prove most profitable. because the birds in such broods get most of their growth during the summer months, when foraging is possible. The chicks that are born later in the season mature very slowly, as the cold weather of fall overtakes them and the supply of green feed is lessened.

Many a farmer would raise more early chicks than he does if he could get his hens to sit at the right time. The solution of this problem is to combine the services of the hens that will sit with the incubator, which is never out of mood for sitting.

One of the great expenses of the poultry yard is feeding chickens that are slow in maturing. The writer has one of the best of the modern breeds, but finds that many of the birds are late in maturing, so much so that they are not well feathered out by the first of December. Some of these have to be kept in the basement of the residence, while the others consume an immense amount of feed and make little growth. This experience leads to the observation that chicks born after May are not profitable except in southern and warmer latitudes, where the growing season is much longer and the supply of green stuff is practically obtainable the year around.

Keeping diseases out of the flock is an easy matter, if birds perfectly free from diseases and free from mites and lice are used for breeding. If a poultry raiser has mites in his poultry house, or has lice on his hens, let him not expect to be free from disease. He will find it most profitable to dispose of all his old stock and begin over again on a clean basis, unless conditions are such that he can thoroughly clean out every mite and every louse. But when lice and mites are present, it is practically impossible to kill them all. At least the writer has never been able to do so. The only means he has found effective has been to discontinue the keeping of fowls for a year or more in the infected house and yards. A man need not stop raising fowls during this time, but he must select a new location and begin with birds known to be clean.

Disease germs in some way get from one poultry establishment to another, if the fowls are permitted to run over the same ground. Last year a man with a good-sized flock had in his flock a disease representing roup. He moved out of the neighborhood, and months after the same disease broke out in the flock of a man who lived in the adjoining house, though the fowls of the latter had been kept penned up most of the time. However, now and then a fowl got out and ran over the ground that had been occupied by the first-mentioned flock. This illustrates the fact that a disease in one flock is a menace to near-by flocks, even when the latter are penned up.

Health of the fowls is one of the very important assets of the poultry yard, if large profits are to be looked for.

EGG-LAYING CONTEST.

The Second Missouri National Event Now in Progress.

Our readers have been pretty well posted in regard to the First Egg-laying Contest at Mountain Grove, Mo., and will be glad to learn that Mr. T. E. Quisenberry, the Director, is now fully occupied with another.

The second contest began November 15th, and in the fifteen days the six hundred hens from many states, Canada and England, and one hundred hens in addition used in a feeding experiment, lay 739 eggs. It appears that this time there are ten hens to the pen. The birds are much younger this year, and quite a number of immature pullets did not lay an egg in the first fifteen days. A pen of Illinois Wyandottes lay 60 eggs in fifteen days, and the next highest was 41 eggs for an English pen of S. C. White Leghorns.

In the next few months the contest will be more interesting, and we hope to keep our readers posted from month to month.

POULTRY NEWS.

A pair of Indian Runner ducks from New York state lay 674 eggs in one year, and another pen laid 638. This at the Missouri National Egg-laying Contest of last year.

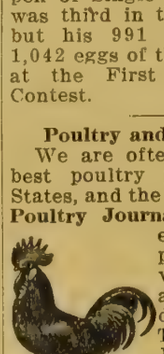
At the first Missouri Egg-laying Contest, five hens lay 137 eggs in the month of April. They were Barred Plymouth Rocks from Nebraska.

The White Plymouth Rock pen that contained Lady Show You with the 281-egg record, was thirteenth in the pen record, with a total of 813 eggs. The average of the other four hens in the pen was 133 eggs.

No one will say much to Walter Hogan, of Petaluma, Calif., concerning light-weight Leghorn eggs. His pen of Single-comb White Leghorns was third in the egg-laying contest, but his 991 eggs outweighed the 1,042 eggs of the winning pen. This at the First Missouri Egg-laying Contest.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that should be accepted at once. Address, **HALE PUBLIHING CO., 3550 Vista Ave., St. Louis, Mo.**



There are 202,336 farms in Illinois that sell more or less dairy products.

Uncle Sam Knows How to Raise Chickens

and he tells you all his secrets in **UNCLE SAM'S POULTRY BOOK** the world's only complete official guide to poultry culture. Written by government experts and sold for only 20 cents, worth $10.00, and by our plan you can have 50c. back. Send today two dimes or 10 2-cent stamps.

Uncle Sam says use an incubator and the **Sure Hatch** is built just as he says. **Guaranteed for 5 years.** Freight paid and 60 days free trial. Get Free Catalog.

Write today to **SURE HATCH INCUBATOR CO., Box 40, Fremont, Nebr.**

Successful In Any Climate—

The X-Ray Incubator

Shipped *direct* to you from factory. No agents. No dealers. Guaranteed to please you. Freight prepaid *anywhere!* Only incubator made on right principle. Lamp is placed *underneath*—square in the center—and not on the side. Thus the X-Ray has perfect distribution of heat all throughout egg-chamber. There's no cold side. Big lamp holds four to eight quarts of oil—fill it once for a hatch.

X-RAY INCUBATOR

—has patented automatic trip. That cuts flame down at *burner* when egg-chamber gets too hot. So there's no waste, no excess heat. Thus only one gallon of oil is needed. These time and labor-saving features are wonderful! Think of operating a guaranteed incubator that

Uses Only One Gallon Oil to a Hatch—Lamp Only Has to be filled once!

And there are many other patented features. Top has two double glass panels—Thermometer in sight always. Eggs are never removed from X-Ray. To ventilate or turn eggs simply raise lid. Write today for Free Book No 96 on X-Ray Incubators and Brooders. X-Ray Brooder guaranteed to raise *every* chick worth raising.

We pay freight.

X-Ray Incubator Co. Wayne, Nebr.

THE X-RAY

Big Money this Year in Poultry and Eggs

1913 promises to break all records in poultry and egg profits. Prices are high now—and will stay high. Cost of production is low. Farmers, their wives and daughters, will make a big share of this 1913 poultry money. But the way to do it is to be rightly equipped—with the right knowledge—with the right tools!

"Profitable Poultry and Egg Production" is the title of our big, FREE 1913 Year Book that gives the latest facts, the most successful methods, the most reliable advice on poultry raising. It is worth many dollars to any one who raises chickens.

Cyphers INCUBATORS and BROODERS

are selected by farmers, who insist upon a high standard of quality in every tool used on their farm! *Absolutely reliable.* They mean high percentage hatches and chicks that live—no heat or moisture troubles. Substantial, fireproof, dependable. Write today for the 244-page Book, and for full information about Cyphers Company "Free Bulletin and Personal Letter Service," which makes our customers still more successful.

Cyphers Incubator Company
Dept. 56 Buffalo, N. Y.

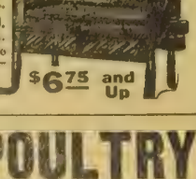
More Money from Poultry

NOW is the time to get in the money-making poultry business with one of my Successful Incubators—only $6.75 up. With the "Successful" no experiments or trial hatches are necessary—you can be sure of success every time.

SUCCESSFUL INCUBATORS
(Life Producers)
SUCCESSFUL BROODERS
(Life Preservers)

give most chicks—raise more chicks—and are guaranteed with the strongest guarantee ever put behind any machine on the market. Don't buy an incubator that guarantees less than I do. Send your name *now* for catalog, low price proposition, guarantee, and *Free Lessons in Poultry Raising* that insure success.

DES MOINES INCUBATOR CO.
961 Second St., Des Moines, Ia.
NOTE—Book "How to Raise 48 out of 50 Chicks", 10c—catalog is FREE. Get it.



$6.75 and Up

SHOEMAKER'S BOOK on POULTRY

and Almanac for 1913 has 224 pages with many colored plates of fowls true to life. It tells all about them—their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. Only 15c. C. C. SHOEMAKER, Box 945 Freeport, Ill.

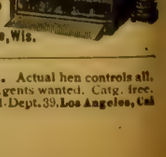
—Get Hatching Facts

which tells you how my Belle City Incubator has again—and for the fifth time—smashed all records. This time winning world's championships with three 100 per cent hatches. That record proves my hatcher is certain to give larger hatches, sturdier chicks, make big money for you. Write for book—or send price and save time. Every claim guaranteed. Jim Rohan, Pres.

$7.55 Buys World's Champion 140-Egg Incubator

We ship quick from St. Paul, Buffalo, Kansas City or Racine.

Double cases all over; best copper tank; nursery, self-regulating lamp; 140-chick hot-water brooder $4.85. Both ordered together $11.50. Frt. prepaid (E. of Rockies) Satisfaction guaranteed. Write for book today



BelleCityIncubatorCo., Box 74, Racine, Wis.

200 EGG INCUBATOR $3. Actual hen controls all. Over 550,000 sold. Agents wanted. Catg. free. Natl. H. I. Co. Sta. H-Dept. 39, Los Angeles, Cal.

CORN GROWERS AND STOCKMEN.

Annual Round-up at the Illinois State College of Agriculture of the Corn Growers and Stockmen.

Commencing Monday, January 13, at 8:00 a. m., and terminating Friday, January 24, the Illinois State Agricultural College will entertain the Corn Growers' and Stockmen's Convention with lectures and practical demonstration work, including farm mechanics.

The mechanical instruction includes tractor demonstration and inspection of farm machinery, lecture on soldering, rope work, farm tractor again, farm concrete construction, demonstration of forge work, ignition for gas engines, how to make concrete fence posts, farm shop and power plant, haying and harvest machinery, silo construction, benefits and details of land drainage, heating and water supply system, brazing, and care and operation of farm machinery. There are two demonstrations daily, fitting in the farm mechanics with other exercises.

In the list of morning lectures we find "The Use of Commercial Fertilizers" by Prof. C. G. Hopkins; "Soy Beans as a Profitable Farm Crop" by Prof. Leonard Hegnauer; "Some Things Farmers Should Know About Meats" by Prof. L. D. Hall; "Cattle Feeding, Producing International Winners in Car-loads," by Mr. E. P. Hall, Mechanicsburg, Ill.; "Problems and Work That Should be Done by County Agricultural Advisers" by Mr. W. G. Eckhardt, DeKalb county; "The Silo as a Factor in the Production of Live Stock" by Prof. W. F. Handochin; "Illinois Roads" by A. N. Johnson, State Highway Commissioner; "Illinois Alfalfa Growers' Association" by Hon. A. P. Grout, of Winchester; "Co-operative or Community Work For the Control of Insect Pests" by Dr. S. A. Forbes.

The afternoon sessions include "Plant Wounds and Their Healing" by Dr. C. F. Hottes; "The Value of Insect-eating Birds to the People" by Geo. O. Shields; "Present Condition at the College and Station" by Prof. E. Davenport; "European Farm Conditions, Illustrated," by Mr. C. C. Pervier; "Road Improvement" by Homer J. Trice; "Fence Construction, Illustrated," by J. W. Meaker, Jr., of the American Steel and Wire Company; "The Dawn of Plenty, Illustrated," by a representative of the International Harvester Company; "The New Thing in Education" by Supt. O. J. Kern; "Domestic Science" by Miss Mary Snow, of Chicago.

There will be lectures on feeding and management of cattle, horses, sheep, swine, dairy work, study of soils, poultry farming, etc. It looks like two-weeks' good, active instruction for those who go to Urbana, Ill., January 13 to 24.

Asset or Liability.

The grain crop is a liability—the cattle crop an asset. This is the way Ed. H. Webster, Dean Kansas Agricultural College, compares the grain and stock raising.

This may seem a little severe, but an analysis of the two will bear out the statement. Grain farming reduces the fertility. Stock raising increases the humus in the soil. Grain raising decreases it. Grain farming spoils the mechanical condition of the soil—stock raising improves it. Grain raising fosters weeds, plant diseases and insects—and stock raising decreases them. Grain raising results in decreasing yields. Stock raising increases them. Stock raising develops thrift—pay as you go. Grain raising develops the credit system. Grain raising brings the mortgage. Stock raising pays it off. The labor for grain raising is expensive—that for stock raising is cheaper in that it is engaged by the year. Grain raising is dependent on the season—often resulting in failure. Stock raising is quite independent of the season. Taking care of stock is a splendid training for children. People with the instinct for stock raising are and have been the dominant people in the world. Grain raising is a soil robber; hence it is only possible on a new soil, and then only for a short time.

The aim of every farmer should be to gradually work into some kind of stock raising. The ideal is to mix grain raising and stock raising. In this way as much grain can be grown on the farm as though it were all given to grain, as the yield will be larger, due to increased fertility, less number of weeds, less plant disease, better mechanical condition of the soil, etc.

The only permanent agriculture is that which is based on stock raising, and permanent agriculture means profitable agriculture.—W.C.Palmer, of North Dakota Agricultural College.

Hair From Angora Goats.

The total mohair production in the United States during the census year 1909 was 1,682,912 pounds.

Each a Lucky Car

By R. E. Olds, Designer

In every make an occasional car proves almost trouble-proof. No breakdowns, no repairs.

The man who gets it tells his friends he got a lucky car.

But every buyer of Reo the Fifth gets a lucky car. This is how I insure it.

How I Do It

A lucky car means simply a car built with proper care and caution. I have spent 26 years in learning all that is necessary.

I have all of my steel made to formula. Then every lot is analyzed twice to prove its accord with the formula.

Then the finished parts are tested. In every part I require over-capacity, not less than 50 per cent.

The gears are tested in a crushing machine, to prove that each tooth will stand 75,000 pounds.

Springs are tested in another machine for 100,000 vibrations

Added Cost

I use big tires—34x4—to save you tire expense and trouble. This year, by adding 30 per cent to my tire cost, I have added 65 per cent to the average tire mileage.

I use in this car 190 drop forgings, to avoid all hidden flaws. Steel castings would cost half as much.

I use 15 roller bearings—11 of them Timken, 4 Hyatt High Duty. The usual ball bearings cost one-fifth as much, but ball bearings often break.

I use a $75 magneto to save ignition troubles.

I doubly heat my carburetor—with hot air and hot water—to deal with low-grade gasoline.

I use a centrifugal pump, instead of a syphon, to insure positive circulation.

I use 14-inch brake drums for safety. Also seven-leaf springs, two inches wide.

1,000 Tests

The various parts of this car, during the making, get a thousand tests and inspections.

Each engine, for instance, is tested 48 hours—20 hours on blocks, 28 hours in the chassis.

Fitted parts are ground over and over, until we get utter exactness.

Each body is finished with 17 coats. It is deeply upholstered with genuine leather, filled with the best curled hair.

The electric dash lights are set flush with the dashboard. Thus the car's appearance shows the care we use.

Center Control

No other car has such easy control as you find in this Reo the Fifth.

All the gear shifting is done by moving a handle only three inches in each of four directions.

Both brakes are operated by foot pedals. So the car has no levers, either side or center, to clog the way in front.

You get in this car the wanted left side drive. The driver sits close to the cars he passes. Yet you shift the gears with your right hand, just as with the old right hand drive.

Costs Me $200 Per Car

Reo the Fifth, without these precautions, could be easily built for $200 less. For the first few months you might not know the difference. But in years to come this skimping might cost you several times $200.

I know this well, for I have built cars for 26 years — over 60,000 of them. I know the cause of troubles.

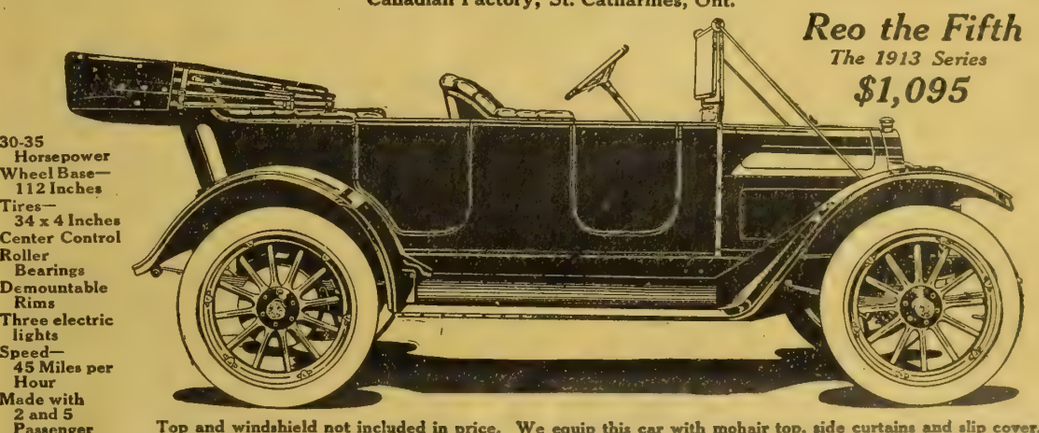
I save this $200 per car by building only one model, by building all my own parts, by wonderful factory efficiency. And I put that saving into these extremes, to save you after-cost.

If you think that it pays to have a car like this, ask us to send you the details.

Our thousand dealers now are showing the 1913 model of Reo the Fifth. Write for our catalog and we will tell you where to see the car.

R. M. OWEN & CO. General Sales Agents for **REO MOTOR CAR CO., Lansing, Mich.**

Canadian Factory, St. Catharines, Ont.



Reo the Fifth
The 1913 Series
$1,095

30-35 Horsepower
Wheel Base—112 Inches
Tires—34 x 4 Inches
Center Control
Roller Bearings
Demountable Rims
Three electric lights
Speed—45 Miles per Hour
Made with 2 and 5 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for $100 extra (list price $170).

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.

KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S BARGAINS.

100 HOGS. 2 STALLIONS. 1 JACK.
Registered Poland-Chinas and Duroc-Jersey Hogs.

TWO STALLIONS AND ONE JACK.
Write for private sale list. It will please you very much.

WILDER CARPENTER,
The Grand View Breeding Farm, Marmaduke, Arkansas.

NINETY DAYS SPECIAL BARGAINS IN POLAND-CHINAS.

Special Bargains, and prices cut to the bottom. We are closing out the Blue Ribbon Herd of Poland-China Hogs, including the Great Missouri Champion, Hutchinson Sensation, 53,000; also a prize-winning son of Royal Meddler, 50,111. Several matured Sows, a few out of Bred Gilts and several choice Pigs from four weeks to five months old, sired by as good Boars as the breed affords. This herd is rich in the blood of the most noted families in the world. Nothing reserved. Everything goes at private sale. Write for circular, description and prices.

JOHN McLAUGHLIN, Marmaduke, Ark.

POLAND-CHINA SWINE.

Spring Boars weigh 200 pounds, at $25; Fall Pigs weigh 75 to 100 pounds, $12 to $15. Great, big, fine Pigs every way. Write your wants to

D. F. BEAUCHAMP, Meredosia, Ill.

POLAND CHINAS

OUT OF STRETCHY SOWS, sired by 1,000-pound Boars. Buy them and win. **J. P. VISSERING, Box 1, Alton, Ill.**

DUROC-JERSEY PIGS FOR SALE.

Extra good litter of last July farrow, sired by Our Professor. These are first-class in every way; some fine September Pigs of choice breeding. If needing a young Boar, would be pleased to hear from you. Prices right.

H. H. HOFMANN, R. R. 1, Belleville, Ill.

TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE,
PERCEHERON and
HACKNEY
STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

I. C. AND CHESTER WHITE BOARS AND GILTS. No kin. Bred Sows, young herds, a specialty; prolific, large kind; all ages. Pedigrees furnished. Prices reasonable.

FRED RUEBUSCH, Sciota, Illinois.

SALE OF HOLSTEIN CATTLE.
Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition:

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.

250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds. Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me regarding your wants.

JAMES DORSEY, Dept. F & S G, Gilberts, Kane County, Illinois.

BUY GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

JACKS AND SADDLERS.

KENTUCKY MAMMOTH JACKS from one to six years old. Saddle Stallions, Mares, Colts and Fillies of the very best breeding. Hampshire Swine and Big Black Pigs. Write your wants or visit the Cook Farms.

J. F. COOK, Lexington, Ky.

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

JACKS and PERCHERONS. We have forty-five of the biggest-bone and best Mammoth Jacks in Kentucky. Registered Percheron Stallions from $250 to $750. Percheron Mares, Saddlers, Hampshire and Tamworth Hogs. Write for circular and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

REGISTERED LARGE YORKSHIRES
THE BREAKFAST BACON HOG.

That's the meaning of those long, deep, sides—choicest, sweet, tender, fresh pork.

HEALTHY, EARLIEST TO MATURE, PROLIFIC.

Splendid hustlers; relishes all kinds of feed, pasturage and cured forage.

THEY CROSS OUT GREAT ON LARD TYPE.

Write for descriptive booklet.

T. C. KIMBER, Box 1212, St. Louis Mo.

HOGS! HOGS! For Sale: REGISTERED Poland-Chinas and big English Berkshires. Champion Boars of Mo. State Fair, 1912, for sale at right price. S. C. Brown Leghorns that lay and weigh.

See or write **S. Y. BURKS, Bolivar, Mo.**

POLAND-CHINAS OF BEST STRAINS.

For size and quality unsurpassed. Spring Gilts and Summer Boars and Gilts, $16 to $18; Fall Pigs, $12 to $13. Choice Sows bred to Longfellow's Special, 64,200, the best Big Type Boar I ever saw; very long, deep, wide body; big bone and extra short, wide head. I must sell some of my Sows, not having room. Hogs are priced to sell at once. Many satisfied customers in thirty-seven states. Catalogue free.

A. F. SIEFKER, R.F.D. No. 1, Defiance, Mo.

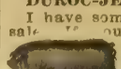
MISSOURI HERD OF TAMWORTH SWINE.

The hog that crosses best with the chunky breeds; the hog resistant to diseases; the hog of large litters; the hog that turns grass into pork. Write for prices.

W. J. WHITE, R. F. D. 2, Butler, Mo.

DUROC-JERSEY SWINE FOR SALE.

I have some extra good Duroc-Jerseys for sale. If you want something as good as will be found in any of the best herds, I have it of either sex, from pigs to yearlings. Write me what you wish to purchase. All inquiries promptly answered.



J. E. WELLER, Faucet, Mo.

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55 BREEDS Pure-bred Chickens, Ducks, Geese, Turkeys, also Incubators, Supplies and Collie Dogs. Send 4c for large Poultry book, Incubator Catalog and Price list. H. H. HINIKER, Box 25, Mankato, Minn.

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43 VARIETIES poultry, pigeons, ducks, geese, water fowl, incubators, feed and supplies. Catalogue 4 cents. MISSOURI SQUAB CO., Dept. Z P, Kirkwood, Mo

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MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

CHAMPION SEED CORN PREMIUMS.

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

Johnson County White Corn That Won Many Grand Championships.

The subject of seed corn is of the utmost importance, especially at this time. Pretty good seed corn is easy to get, but superior seed corn is scarce. Even the best seed corn growers have good and bad seasons,

AN IMPROVED EAR OF CORN.

and there is great variation, one year with another, in vitality and quality of their seeds.

Only one thing can be guaranteed, and that is, pure-bred seeds, like pure-bred animals, produce true to type, and sometimes there is worked out an almost imperceptible improvement. The road to improvement is rough and rocky, and upon it there are many obstacles; but ultimate success is possible, and only possible by using seeds of the right breeding and quality. The backward road is easy to travel by using seeds of no breeding and only containing the qualities that even negligence cannot destroy. Promiscuous seeding of unknown corn results in smaller crops of low-grade corn. Nature may save the crop by an excellent season, but the general result is bad.

As a step towards general improvement, every corn grower should have one or more experimental plots each year, using small quantities of different seeds. The National Farmer and Stock Grower has furnished opportunities for farmers to obtain such seeds for the past five years.

We are now distributing small quantities of seed corn distinctly different and grown by two great corn improvers—one, D. L. Pascal of Iowa, who has grown Reid's Yellow Dent Corn that he obtained pure from the originator. Mr. Pascal has won many prizes. The other eminent breeder is the famous L. B. Clore, of Indiana, growing Johnson County White Corn. His World's Fair and National Corn Show championships are many, and no corn improver on the face of the earth is his equal.

We have bought seed corn from Mr. Pascal and we have bought seed corn from Mr. Clore. and it will be delivered us in January. We will send it out in twenty-ounce packages as subscription premiums. We charge the regular price for the paper, 50 cents, and 10 cents postage on the corn. We make no charge for the corn. The quantity is amply sufficient for experimental purposes.

Our Subscription Proposition.

The postage on twenty ounces of seed is 10 cents; therefore we make this proposition: Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send as a premium a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal; or, if preferred, we will send twenty ounces of Johnson County White Corn grown by Mr. Clore. Take your pick of which corn you desire, and if you wish both kinds, send one dollar ($1.00) and be credited with two-years' subscription and two twenty-ounce packages of seed corn. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

OF VALUE TO HORSEMEN.

As the winter season is on it is necessary to combat the ravages of distemper among colts, mares and stallions. Frazier's Distemper Cure is advertised in this paper. Horsemen have been using this remedy for twenty-five years. Send for Frazier's New Horse Book, containing a vast amount of valuable information. It is sent free. The $1.00 bottles of Frazier's Distemper Cure contain three times the quantity of the 50-cent size. Address, Binkley Medical Co., Dept. H, Nappanee, Ind.

RED TIP CALKS

cannot drop out and will not break off; wear sharpest and last longest. They are the best and safest for YOUR HORSE.

Beware of Imitations.
LOOK FOR THE RED TIP.
Booklet L tells why. Send for it.
NEVERSLIP MANUFACTURING CO.
NEW BRUNSWICK N. J.

MILITARY HORSES.

Thoroughbred, Morgan, Trotters and Saddlers—Horses Purchased to Sire Cavalry Horses.

Under the provisions of the current appropriation act for the Department of Agriculture, authorizing the inauguration of experiments in the breeding of horses for military purposes and providing $50,000 for that purpose, the Secretary of Agriculture, with the concurrence of the Secretary of War, has appointed the following gentlemen as advisory agents in the selection of stallions and to assist in the operation of the government's plan: Mr. Henry Fairfax, of Virginia, for thoroughbreds; Mr. C. L. Bailey of Kentucky, for American saddle horses; Mr. Walter Palmer, of Illinois, for standard-breds; Mr. Maxwell Evarts, of Vermont, for Morgans.

Each gentleman acts with the officers of the government in the selection of stallions of the breed he represents. The Secretary of War has designated Lieut. Col. D. S. Stanley, of the Quartermaster's Corps, to represent the Army, and the Secretary of Agriculture has designated Mr. George M. Rommel, Chief of the Animal Husbandry Division of the Bureau of Animal Industry, to represent the Department of Agriculture.

Thirteen stallions have been purchased to date, as follows:

Thoroughbreds—Gold Heels by The Bard; dam, Heel and Toe; Charcot by Common; dam, Spanish Match.

Saddle horses.—Young Bill by Golden King; dam by Bourbon Chief; Fair Acre King by Bourbon King; dam, Aletha Chief; Richmond Choice by Rex Peavine; dam by King Richard.

Standard-breds.—MacNunne by MacDougall; dam, The Nunne; Sigler by Red Medium; dam, Maud Sigler; BeGue by Wiggins; dam, Lady Crescent; Twilight M., by Delmont, Jr.; dam, May Fry; Lord Rion by Arion; dam, Madge Fullerton.

Morgans.—Daniel Webster Lambert by Joe Allen; Madison Lambert by Lambert B.; Prince M., by Ethan Allen, 3d; dam, Topsy M.

All of these horses are well bred and registered, and some are well-known individuals. Gold Heels, for example, had a conspicuous career on the turf; Common, the sire of Charcot, was by Isonomy, winner of the Derby and other important stakes in England. All the saddle horses thus far purchased have had winning records at the Kentucky Fairs. Of the standard-breds, MacNunne is notable in that he, like Carmon, at the Colorado stud of the Department of Agriculture, is a grandson of Robert McGregor. Sigler was first in two-year-old class for standard-bred trotters at the National Horse Show of 1911; and Lord Rion's sire, Arion, sold for $125,000. The Morgans thus far purchased are excellent representatives of the breed and should prove useful as sires of cavalry horses of good size and conformation. The sire of Prince M., Ethan Allen, 3d, has left a remarkable impress on the character of the Morgans of the east side of Vermont.

The Department of Agriculture expects to make other purchases during the winter.

Best Load on the Market.

On the last day of December, 1912, Cherry & Son, of Macoupin county, Ill., marketed twenty-four head of 1,294-pound beef steers at $8.75 per 100 pounds. It was the best load of cattle on the market that day. Other sales included forty head, 1,203 pounds, at $8.50 per 100 pounds; forty head, 1,356 pounds, at $8.25 per 100 pounds.

Colorado Lambs at St. Louis.

H. E. Spencer, of San Luis Valley, Colorado, marketed 204 head of 80-pound lambs at St. Louis that sold at $8.90 per 100 pounds. It was on the last day of 1912 and the price the highest of the season. H. J. Gilbraith, another well-known sheepman of the San Luis Valley, Colorado, marketed 247 lambs that averaged 72 pounds and brought $8.80 per 100 pounds.

A $10,000.00 Horse.

Trumans' Pioneer Stud Farm, of Bushnell, Ill., writing under date of December 24th, said: "We have sold our International (Olympia) champion Percheron stallion Intitule to Samuel Insull, Esq., President of the Commonwealth Edison Company, to place at the head of his stud of Percherons at Hawthorne Farm, Libertyville, Ill. Intitule was placed second in the aged class at the last International and was considered by good judges one of the grandest specimens of the breed ever imported to this country. The price paid for this horse was $10,000. We also sold our grand champion Percheron mare at the International to Thomas O. Plant, Esq., of New York."

THE HERCULES TRIPLE-POWER STUMP PULLER AT WORK.—The scene is on the farm of Mr. Tony Sump, near Winkler, Kansas, who writes to the editor of The National Farmer and Stock Grower as follows: "About a year ago I purchased a Triple-power Stump Puller from the Hercules Company, of Centerville, Iowa. I have given it a test of the severest kind—pulled white elm stumps, green, eighteen inches in diameter and four to five feet deep in ground to first root. (These trees were in an old creek bed.) This, I must say, as for strength and power, it is impossible to express in words." The advt. of the Hercules Stump Puller is on page 14.

Look Out

For Worms This Month

Look Out

M. Feil Is a Registered Pharmacist Under Ohio State Laws.

Read These Letters

I have been in the hog business for 30 years and have tried every known remedy for hogs, but have never found anything equal to your Sal-Vet. It certainly does the work and is easy to feed. I feed it to little pigs, boars, pregnant sows and find it O. K. I will never be without Sal-Vet.

C. F. MARSHALL & SON,
Per G. F. M. Monroe, Ia.

"I had a lot of sick hogs and I lost five of them. I began feeding them Sal-Vet, my losses stopped and the hogs soon got into a fine, healthy condition.

V. P. UNDERWOOD,
R. D. No. 1, Roachdale, Ind.

While I cannot say positively Sal-Vet kept my hogs from having Cholera, I had no such sickness while my neighbors almost without exception lost hogs from Cholera. I certainly have great faith in Sal-Vet and it is all and more than you claim for it.

J. C. CONOVER,
Chrisman, Ill.

I used your Sal-Vet regularly while feeding a bunch of fattening hogs and can say it is just the article. It made my hogs double their weight in 50 days. It is a great conditioner and worm destroyer.—E. E. SHULL, LaCygne.

I'll Stop Your Worm Losses I'll Prove It Before You Pay

Don't let worms breed **contagious diseases** among your hogs this year. Don't let them kill off the young pigs and rob you of your season's profits. You can **prevent it** if you will just take "a stitch in time." **Now** is the time when worms begin to get in their **deadly** work. **Now** they are breeding, multiplying by the millions in the stomach and intestines, and if you don't get the best of them, they will surely get the best of you. Let me show you how. I'll get rid of stomach and free intestinal worms in your hogs, sheep, horses and cattle and prove it to your satisfaction (not mine) before you pay me a cent. I'll do it with

Beware of Imitations — **SAL-VET** — **Look at the Name Carefully**

The Great Worm Destroyer and Conditioner

I've done it for thousands and in addition they write me they never had stock thrive better, look better and bring them such profitable returns. Here is my offer to you.

Send No Money—Just the Coupon

Simply fill in the coupon, tell me how many head of hogs, sheep, horses and cattle you have. I will then ship you enough Sal-Vet to last them 60 days. You pay the small freight charge when it arrives—put it where all your stock can get free access to it—**and they will doctor themselves.** They eat it as they do salt—just as they need it, and at the end of the 60 days if you don't feel **satisfied,** write me and I'll cancel the charge. I take your word as final—I let you act as judge of its merit—I put everything up to you. How can you risk loss—how can you let your stock drag along when they should be thriving, growing into profit when such a fair, open offer like this is put at your disposal? You have all to gain—nothing to risk. Fill out and mail the coupon **now.** Don't put it off—lest you forget. Read the letters above.

Sidney R. Feil, Pres.—*The S. R. FEIL CO.*—Dept. NFSG Cleveland, Ohio

Prices: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12

60-day trial shipments based on 1-lb. of "Sal-Vet" for each hog or sheep, and 4-lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

(57)

Sal-Vet always comes in original "Trade-Marked" Packages. Never sold loose in bulk or by the pound. Look for the "Sal-Vet" trade-mark.

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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight and report results in 60 days and will then pay for it if it does what you claim. If it does not, you are to cancel the charge.

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Shipping Sta. ..... State .....
Hogs ..... Sheep .....
Cattle ..... Horses .....
No. of Hogs .....

Get Your Canadian Home From the Canadian Pacific

THE richest virgin soil is waiting for you in **Manitoba, Saskatchewan** and **Alberta.** Go where you can prosper, earn a farm home in a few years—farmers have paid for their farms with one crop. First prize of $1000.00 for best wheat in the world was awarded by American judges at the New York Land Show to a western Canadian farmer. Anyone can own land in Western Canada.

Land From $10 to $30 An Acre Ten Years in Which to Pay

The Canadian Pacific Railway offers you the finest irrigated lands for intensive farming, and non-irrigated lands with ample rainfall for mixed and grain farming near established towns along its lines. Land adapted to grain growing, to poultry raising, dairying, mixed farming, and cattle, hog, sheep and horse raising. Select your own land. Decide what kind of farming you want to follow, and let the Canadian Pacific Railway put you on the road to fortune.

To workers of farms in the United States having sufficient agricultural experience and equipment, the Canadian Pacific will loan money for a period of ten years at 6% for the purposes of erecting buildings and completing the improvements on their newly purchased Western Canadian farms.

Ask for our handsome illustrated books on Manitoba, Saskatchewan and Alberta—mention the one you wish. Also maps with full information **free.** Write today.

C.M. Thornton, Colonization Commissioner

Canadian Pacific Railway

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FOR SALE—Town lots in all growing towns—Ask for information concerning Industrial and Business openings in all towns.

A QUESTION OF FOODS.

Remarks on Rations and Climates—Also on Winter and Summer Feeding.

We have been taught that the average composition of animal and human bodies run about five parts of carbohydrate material to one of protein, and that a feed should be balanced in about that proportion. Now comes an English chemist and says that he has been making some experiments and that the proportion of carbohydrates is too low and the proportion of protein too high. He says we should feed about nine parts of carbohydrates to one of protein. At least he says this will apply to human nutrition.

This is important, if true, as the old saying goes. If it is true, it explains why the Chinaman can keep strong on a diet of rice, which has in it a very large proportion of carbohydrate material. It also would make corn a better feeding ration than we have figured on its being. If this latter estimate is near the truth, it will be a great thing for the farmers living east of the Rocky Mountains, for it will make it easier for them to compound rations, since they have a surplus of carbohydrate materials and a deficiency of protein materials.

But the most important bearing will be on the meat foods of human beings. We have leaned strongly towards the lean meats, lean bacon, lean ham, lean mutton, lean beef, if not too lean, when it is tough. It will mean an appreciation of more fat in meats of all kinds. All these fats are made from the carbon of the air; they do not draw anything from the fertility of the soil. Hence the production of fat meat costs less in soil fertility than the production of an equal weight of lean meat.

If we can get along with less protein in our food, we can live more cheaply, for the starchy matter and fatty matter cost less to produce than the proteins, which form the basis for all the lean of meat and the albumen of eggs.

However, the question may not be considered settled. Digestion experiments have to be made with all kinds of animals and in all kinds of temperatures. This makes a great variety of results possible. The person living in a cold climate needs more fat in food than the person living in a warm climate, and the same would be true of animals. Thus, the Esquimo is a fat eater, for he lives where ice fields and snow form most of his landscape and seascape the year around. In his case, the proportion of carbohydrate material to protein should certainly be as high as ten to one. But in the tropics, where the sun supplies more heat than is necessary, man does not need a food with large fuel content, and it should be true that not more than five parts of carbohydrates to one of protein are needed. The carbohydrates are burned up to give force, while the proteins are utilized in the making of muscles, sinews, skin, and the like.

The tendency towards a wider ration is greatly in favor of the feeding of more silage. The one objection to silage has been the fact that it has in it a very large proportion of the carbohydrate material to the protein present. At least in cold weather this is not as objectionable as it might seem, for the animals are using up a very great quantity of heat-making food.

There ought really to be a wider ration fed in the winter than in the summer, because of the demands on the food for heat production. This applies to both men and animals. We have not generally taken much account of it in the making of our balanced rations; but it is certain that a wider ration is profitable in the winter than in the summer.

"He That Ruleth Himself."

Rufus Bailey, an overgrown lad of sixteen, was the despair of his little, rather weak mother and also of his big, burly father, as well as the trial of every teacher who taught the County Line School. Regularly each term he was suspended from the school and re-enrolled at the intercession of his mother, who, with tears, declared she tried to make Rufus a good boy. And the burly father did the best he knew, too, and was continually threatening the boy with punishment if he misbehaved. The punishment was frequently administered.

When Miss Carmen came to teach the County Line School the President of the Board of Directors took it upon himself to "post" her regarding every child in the school. She held up her hand to silence him. "Don't tell me a thing. I do not care to be prejudiced." Thus it came that she knew not that Rufus' deportment mark had several times been zero, and that it had never been above fifty.

The first day she was at the school she wrote upon the square of blackboard behind her desk the words: "He that ruleth himself is greater than he that taketh a city." She drew a small scroll beneath the words and in the scroll she wrote the name of every pupil in the room. She read aloud the accounts of the taking of several cities. The big boys, especially, drank in every word and thrilled with a vague hope that perhaps some day they might be the actors in some such scenes. Then Miss Carmen said: "It is a great thing to win such victories. 'But he that ruleth himself is greater than he that taketh a city.' When I find that a boy or girl does not know how to rule himself or herself, I will erase his or her name from this roll of honor. The name will be put back on again only after the pupil has proved that he can rule himself."

Rufus was puzzled. His mother had begged him to be good and weakly scolded him when he was bad ever since he could remember. His father had strongly scolded him and many times whipped him. Teachers had striven to compel obedience by force. But no one had ever told him it was his business to rule himself, and that by so doing he could achieve greatness. It was a wholly new phase of the matter. Hitherto he had openly defied his teachers and thought himself a great fellow for so doing. Now he began dimly to see that in making necessary all of those previous punishments he had shown himself a weakling incapable of ruling himself. Half a dozen times that day Rufus forced wandering thoughts back to the lessons. Twice his hand was extended to give a black-and-blue pinch to the arm of the boy in front of him, but the hand was withdrawn and the arm went unpinched. He started to shuffle across the room—one of his old tricks of annoying the teacher—then drew himself up and crossed the room swiftly and quietly. When evening came his name was still on the roll of honor, and he let out a yell of victory and suppressed energy as he tore down the path toward home. He felt many times a conqueror. Ruling himself! Gee, why hadn't somebody thought of it before!

When, at the end of the first month, Rufus presented a report card, showing his deportment to be one hundred, his mother cried for joy, but his father said: "So you've got an easy mark for a teacher, have you. I didn't think she'd be any good. Doesn't know a bad boy from a good one."

The two following report cards showed the same record for deportment. Then Mr. Bailey seized his cap and started for the school, muttering darkly: "I'll break in on their bedlam and give her a surprise. Then I'll ask how she dares to give the lie like that and mark all those cantankerous youngsters one hundred in deportment!"

But the school room seemed to Mr. Bailey a strangely unfamiliar place. For one thing, he did not have to dodge spitballs and another when he wished to speak to the teacher; he did not have to get close to her and shout in her ear.

"How do you make them mind and make them study so hard!" he demanded when he had a chance to speak to Miss Carmen.

"Why, I don't make them," replied Miss Carmen. "They make themselves mind and they make themselves work. See, here is our motto: 'He that ruleth himself is greater than he that taketh a city.' The boys are striving for that greatness, and they won't allow themselves to be beaten at their game of ruling themselves."

"Well, well, you sure are a bright one!" said Mr. Bailey, admiringly. "Here ma and myself have been working our hardest, using a stick to help along, trying to rule Rufus, but we never once thought of making him take a hand in it himself."—Janet Thomas Van Osdel.

Banish Those Ugly Pimples

Skin Cleared in a Short Time by Stuart's Calcium Wafers, the Greatest Blood Purifier Known.

Pimples, blotches, skin eruptions of all kinds, are simply the impurities in the blood coming to the surface. All the external treatment in the world won't do a particle of good

Clean Your Back and Face of Pimples.

unless you purify the blood. And there's nothing so humiliating as a face that's all "broken out" and spotted.

Stuart's Calcium Wafers will clear the most obstinate complexion, because they go right into the blood and remove the cause of the trouble. The blood is cleansed of all impurities and foreign substances and these are quickly eliminated from the system. You'll notice a wonderful change in a few days—you will hardly know yourself in a week.

And Stuart's Calcium Wafers are absolutely harmless to any one. Their ingredients are just what a physician prescribes in most cases of skin eruptions and poor blood. These wafers are put up in a concentrated form, which makes them act quickly and thoroughly.

Begin taking Stuart's Calcium Wafers today and then look at yourself in the mirror in a few days and find all those awful pimples, blackheads, acne, boils, liver spots, rash, eczema and that muddy complexion rapidly disappearing and your face cleared like the petal of a flower.

You can obtain Stuart's Calcium Wafers at any drug store at 50 cents and there is now no reason why anyone should be disfigured by pimples or any other skin eruption.

Mome-made Dressmaking Form.

A woman who does her own sewing can do more satisfactory work if she has a form counterparting her own measurements on which to fit garments. The cost of the bought forms is an item, but one can be made at home at almost no expense. Take a plain waist which fits perfectly. Cut oval pieces of material to fit in the neck, the ends of the sleeves and the bottom of the waist. Sew the pieces on the neck and the ends of the sleeves. Then fill the form with sawdust or bran, cramming the filling well into the sleeves and all of the curves. When filled, sew on the bottom piece of goods. Mount this form on a table, stand or broomstick—anything that will bring it to the exact height of the figure it duplicates. Thus skirts can be hung upon it as well as waists fitted.—Janet Thomas Van Osdel.

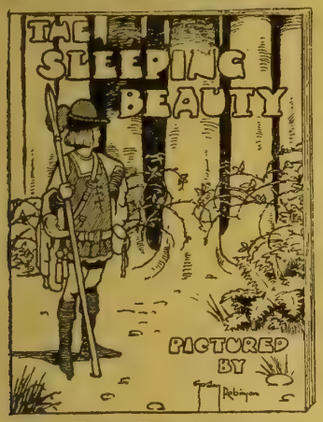
Don't forget the National Corn Show.

TOY BOOK PREMIUMS.

Pleasure and Instruction For Children, Especially During the Holiday Season.

We are always on the lookout for something that will please the children and at the same time be of an educational advantage to them. Our beautiful toy books, the first we have ever used as a subscription premium, are delighting the hearts of the little ones, and we are greatly pleased to consider these books as one of our very best premiums. We are issuing these toy books as supplementary premiums to The National Farmer and Stock Grower. These toy books are substantial, beautifully colored, illuminated. The illustrations are wonderfully beautiful. They are astonishing in the delightful coloring. There are four sets. They are as follows:

Animal Series.
No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Aark.



Fairy Tale Series.
No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

Mother Goose Series.
No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 116—Little Red Riding Hood.

Little Darling Series.
No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.

In offering these delightful toy books we make two propositions:

1. Send us twenty-five (25) cents for six-months' subscription to The National Farmer and Stock Grower and you can select one set of four (4) toy books.

2. We publish the Universal Magazine. It is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. Send us twenty-five (25) cents and we will send you the Universal Magazine for one year and you can select a set of four (4) toy books as a premium.

Order toy books by numbers. Select either four you desire. Address your orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Variety From One Recipe.

Some years ago we knew a friend who always prided herself on having three kinds of cake for company; and this is how she did it: A small light cake and a dark one of equal size were made at the time. When ready to bake, part of one was put in one end of a long pan and the same amount of the other at the opposite end. The dough that was left in each dish was put in the middle of the pan, a spoonful at a time, the light and dark parts being artistically arranged. And thus she had white cake, spice or chocolote cake and marble cake with a very little extra work.

A single recipe may be varied only a little and still give the variety wished by the family without the deviations which mean new recipes to confuse and test the skill. One tried-and-true way may always be depended upon, and this without the necessity of hunting up the cook book or of burdening the mind with a load of rules. One woman finds her favorite recipe for molasses ginger cake capable of several variations. It originally reads: Porto Rico molasses, two cups; good half cup shortening. Melt, turn in molasses, then add two teaspoonfuls dry soda, and when it foams stir in a cup of water, a teaspoonful of ginger, one of salt, and three and one-half cups of flour. Bake slowly.

If a ginger cake is not wanted, she follows the same recipe, but substitutes cinnamon or other spices for the ginger. Again, a small piece of chocolate is melted and added to the dough, and if company is expected a dark cake, relished by all, results with the aid of a little frosting. If the molasses is very dark, half sugar may be used. Your own favorite recipe will doubtless admit of as many changes, though the above is a cheap cake, especially when eggs are scarce. The idea of departing from iron-clad rules may prove helpful to secure variety and at the same time solve the problem when one regular ingredient is lacking.—Bessie L. Putnam.

Taffy Apples.

These are toothsome goodies of which few country children know, but they are easily prepared. Select sound, ripe apples and rub them clean. Cut pine sticks eight or ten inches long, sharpen to a point on one end and insert one in each apple. For the syrup, boil two cupfuls of granulated sugar and one-fourth cup of water until it hairs. To tell when it hairs, let some of the boiling sugar drop from a fork and when a strand of it, instead of dropping into the pan, runs off into a fluffy hair, it is time to remove the syrup. Let it cool for two minutes, then twirl the apples around and around in it until they are well coated. Set them upon waxed paper or a buttered platter in a cool place until the taffy hardens. —Janet Thomas Van Osdel.

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

START YOUR LIBRARY.

The First Book to Buy is the Most Valuable Book Placed on the Market in Twenty Years.

Every man and boy should own a library. It is easy to obtain a nice lot of books. A splendid book to begin with is "The American Government," by Frederick J. Haskin, which is a valuable book for any American between the age of nine and ninety years.

No other book explains so clearly what our government consists of. The articles upon the Presidency, the Senate, the House of Representatives are alone sufficient to place the book on the top shelf of the home libraries and in the 386 pages there are thirty distinct articles, each one of them complete with information concerning a government department.

The "American Government" clears the mind of many doubts and answers many questions. A Congressman serving his first term needs such a book before he goes to Washington, and Mr. Haskin has produced a book of which 175,000 copies were sold the first year.

We will recommend other books, but "The American Government" is a first-class book for No. 1 in a farm library. We have adopted "The American Government," handsome cloth-bound edition, as a subscription premium in connection with The National Farmer and Stock Grower. Anyone who will send One Dollar for two-years subscription to The National Farmer and Stock Grower can select a copy of "The American Government" as a subscription premium, and we will send it postpaid, safe delivery and satisfaction guaranteed. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Rent Money Buys Farms Southwest

This year has been one of the best and most productive the Southwest has ever enjoyed. On land as good as you are now farming enormous crops of all kinds have been raised. The land is so cheap that you can buy a farm for your rent money—thousands of acres of highly productive land at $15, $20 and $25 an acre. This land is tributary to

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In Kansas, Missouri, Oklahoma, Texas, the Panhandle Country, Louisiana, Arkansas and New Mexico opportunities for successful farming at low cost are numerous.

An exhaustive study has been made by Prof. H. M. Cottrell, Agricultural Commissioner of Rock Island Lines, of the various sections as to climate, soil, rainfall, what crops bring best returns, etc. This literature is of inestimable value and should be in your hands for study at the earliest moment. A postal card brings it.

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8 Hardy Rose Plants Free.

The **Universal Magazine** is a splendid monthly publication; nice, bright, cheerful, illustrated; 32 pages, three columns to page. Devoted to stories, the homestead, good literature, poetry, patterns, embroidery, etc. We have a very liberal offer to make in connection with a subscription to the **Universal Magazine.** Anyone who will send us fifty cents to pay for two-years' subscription to the **Universal Magazine** can select as a Free Premium **Eight Hardy, Ever-blooming Roses,** one-year plants. They are splendid varieties, as follows: **Etoile de France, Yellow Kaiserin, Helen Gould, Clothilde Soupert, President Taft, White Killarney, Marigold** and **Ever-blooming Rambler.** No such collection was ever offered before as a subscription premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Of What Use is Chemistry?

This question has been asked with a bit of contempt, especially as applied to the farm boy and girl. Yet every year is proving more and more that it is of practical value on the farm. Every new fact about soils and soil feeding is of practical adaptation of the principles of chemistry. Every feeding ration based upon the laws of food values is another application. Nor do the boys alone need the study. The increased cost of living has made the food problem one of the utmost importance; and not only what we eat that is of food value, but what we eat that is a positive nutriment must be considered.

And here chemistry steps in, proving the adulterants and injurious preservatives to be in our midst where we least think it. We are shown through the buildings of one of the biggest food-manufacturing concerns, and are more than pleased with the sanitary arrangements throughout, and yet we find later that there are preservatives employed in this very factory that are entirely against the law. Surely we should be glad that our home-grown products are in the majority, so far as our own table is concerned.

Some of the tests for the common adulterants require little skill, while others can only be detected by a complicated process. Yet the results are so useful that the value of chemistry is assured. Anyone can apply the test for oleomargarine or rejuvenated butter by melting the suspected material in a porcelain dish and stirring with a piece of wood. Pure butter boils quietly with much foam, while the spurious products sputter with no foam. For alum in baking powder, put water on logwood chips and bring to a boil, then throw the water away, and renew three times, saving the fourth solution. Fill a small bottle or test tube half full of water and add a teaspoonful of baking powder. Shake until it ceases to foam, then add a little hydrochloric acid. Now add four or five drops of the logwood and see whether the result will be yellow or of a bluish red color, the latter indicating the presence of alum. And thus we may find that the cheap baking powder is in the end an injurious one.

Coffee is one of the staple articles which have of late soared in price, and yet which we cannot ourselves grow. There are so many different kinds on the market that it is well worth the while to compare them as to strength and flavor. Some may cost a few cents more a pound and yet require a less amount per cup, while you get the extra flavor of the pure grain thrown in. Pure coffee usually inclines to float on the surface when cold water is poured over it, while the most common adulterant, chicory, sinks. Pour some of it on a piece of white paper and examine with a small microscope. The surface of pure coffee grains is dull; that of chickory dark and gummy; and broken beans and peas have a polished finish. This, you may say, is not chemistry; but there are other tests which decidedly are, though almost as simple. A common one is a solution of salt, to which the coffee grains are added. If they float, and the color is pale yellow, the coffee is pure. Adulterants usually impart a dark yellow or brown color. Now, some prefer to roast wheat or brown bran and mix with the coffee. This is all very well if it suits your taste, being a saving of money and equally a more wholesome drink. But why pay the grocer more for this amalgamation when you can do it yourself cheaper?

There are many other little kinks which the subtle art reveals. The next generation will consider it as important to know about chemistry as you consider it to know about arithmetic. They will be handicapped in an unequal competition without a general understanding of the underlying principles of the study. It permeates all life, but most surely that of the farm.—Bessie L. Putnam.

World's Greatest Horse Tamer Tells His Secrets in New Book.

Owners of horses will find disclosed secrets of rare value in training horses and breaking colts if they send for a copy of the advanced edition of Prof. Jesse Beery's 1913 prospectus, now off the press. Prof. Beery is recognized by professional trainers as the world's greatest master of horses. His new book is free to those who write for it while the edition lasts.

Prof. Beery, known the world over as the King of Tamers and Trainers, has had a marvelous career. When a boy, his love of horses and amazing insight into their natures led him to the stables. His astonishing control over unruly horses attracted attention, and vicious horse were brought from long distances to be subdued and trained by the "boy wonder." His fame spread and the demand for his services came from widely-scattered communities.

The methods which made Prof. Beery successful in taking vicious, unmanageable and dangerous horses and turning them over in a few days gentle and broken of bad habits have now been written by this master of horses in simple, clear form. Any man can understand them and apply them in breaking and training his own horses or those of others.

Thousands of men who have lost money, time and property through not being able to manage animals which develop bad habits have adopted the Beery system, and with its methods have in a few days accomplished what was before impossible to them. Horses with bad habits can be bought at low cost, and after training by this method are sold at high prices. Hundreds make a business of breaking and training horses by the Beery system. Owners usually pay from $15 to $25 to have their horses tamed, trained, cured of bad habits, or to have their colts broken. A good trainer can always keep his stable full.

If you want to get into a big money-making business, or if you you have a balky, tricky, vicious, dangerous horse that you want to quickly cure of its faults, write for the Beery prospectus on horse training and colt breaking. It will give you valuable knowledge about horses. It may save you a lot of money. It may lead you into a big, profitable business. Write for your copy to-day, before the advance edition is exhausted. Prof. Jesse Beery, Dept. 67, Pleasant Hill, Ohio. See page 9.

DOLLY DIMPLE DRESSING DOLLS.

A Subscription Premium With the Universal Magazine, Published at St. Louis, Mo.

The Dolly Dimple Dressing Dolls are furnished in a cardboard box, and each box contains a cut-out doll with easel back, four dresses and four hats. The dolls are nine inches high. The names of the dolls are "Affectionate Alice," "Baby Betty," "Chubby Caroline" and "Dainty Dorothy." Nothing more satisfactory has ever been offered as a subscription premium with a publication. We have adopted the Dolly Dimple Dressing Dolls as a subscription premium. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication for the money.

In offering such a premium we are actuated by a desire to place in rural homes these delightful Dolls, which gratify the children, besides having a good influence upon them.

Anyone who will send us 25 cents to pay for one-year's subscription to the UNIVERSAL MAGAZINE can select the Dolly Dimple Series of Dressing Dolls as a subscription premium, and we will send the box postage prepaid, safe delivery guaranteed.

If you don't care to obtain the set of Dolly Dimple Dressing Dolls by subscribing for the UNIVERSAL MAGAZINE, you can obtain a set by sending in 25 cents for six-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, which will serve the purpose equally as well. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Horse and Mule Receipts.

The St.Louis National Stock Yards received 163,500 horses and mules in the year 1912; Chicago, 93,000; Kansas City, 73,000; Omaha, 33,000; St. Joseph, 38,500; and Indianapolis, 18,000. The largest receipts at St. Louis in one year were 181,341 head, in 1904; largest month's receipts, 30,322 head, in January, 1911, largest week's receipts, 7,970, in February, 1911; and largest day's receipts, 4,257, on January 30, 1911.

During the last week in December, D. Cresswell, of Prairie Point, Miss., marketed a load of steers at St.Louis, 920 pounds average, that sold at $6.25 per 100 pounds.

A splendid line of farm land advertising will be found on pages 6, 8, 14 and 23. Buy land before prices advance and make money by doing so.

WE PAY $80 A MONTH SALARY and furnish rig and all expenses to introduce our guaranteed poultry and stock powders. Address BIGLER COMPANY, X356 SPRINGFIELD, ILLINOIS

WE PAY $36 A WEEK AND EXPENSES to men with rigs to introduce poultry compound. Year's contract. IMPERIAL MFG. CO., Dept. 38, Parsons, Kans.

The Army and Navy Needle Book.

A TEN-CENT PROPOSITION WORTH TEN TIMES AS MUCH. The Army and Navy Needle Book contains five packages of Peerless Steel Needles, warranted; sizes, 3 to 9, 5 to 10, 6 to 7. There is no needle in the market better. There is also an assortment of fifteen other cloth-stuck needles, such as darners, mending needles, stitching needles, crewel needles, glove needles, straw-working needles, worsted needles, etc. The book as a whole cannot be beat. We have adopted the Army and Navy Needle Book as a subscription premium with the **Universal Magazine,** our own publication. It is a thirty-two-page, three-column illustrated monthly magazine. It contains interesting reading, stories, poetry, history, and useful information, fashions, patterns, etc. It is a magazine that recommends itself. Send us 10 cents in silver and we will send you the **Universal Magazine** on a trial subscription for three months, and we will send you one Army and Navy Needle Book. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo. TO CLUB RAISERS:**—Anyone who will get up a club of four subscriptions to the **Universal Magazine** in accordance with this advertisement will be credited with an extra three-months' subscription to the **Universal Magazine** and an extra package of needles will be sent for getting up the club. Don't wait. Remember, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

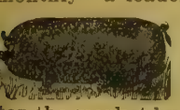
BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

Name.. .....

P. O. Box..... R. F. D.....

Postoffice.... .....

Profitable Dairying is a handy book advertised on page 4..

Uncle Edward's First Ride on an Elevated Train.

When first the elevated electric road was built in Chicago every little boy longed to ride in one of the new trains, running so smoothly above the streets of the city. Any boy having a five-cent fare could ride to the down-town district of the city, and if he did not get off the train he could go around the loop and home again all on the one fare.

Uncle Edward was then a little boy, and he was quite as anxious to take the ride as were any of the other boys. His mother promised that some day when she went to the down-town stores she would take him with her, but there was a wee baby, and always so much work to be done that she seldom went away from home. So the day of keeping that promise looked far away to Edward.

Spare nickels are scarce in Boydom, and it was some time before any of Edward's chums tried the new road. Then one day two of the most daring of the boys climbed the iron supports that run up the side of the station and so got onto the platform without passing the agent at the gate. When they came back they talked of nothing but that ride, and, of course, it grew more wonderful with each telling.

Edward liked to listen to them, but his legs were rather short and he was not a very good climber. Besides, "sneaking" a ride wasn't exactly to his fancy. He wanted to go to the agent, pay his fare and be rung through the turnstile. But a five-cent piece seemed to be a long time coming his way. He made most of his money selling rags, all of which were turned over to him.

Then there came a glorious surprise! In the back entry, where his mother always put the rags for him, he discovered a big roll of carpet! With a great deal of tugging and pulling and resting in between, he managed to roll it out to the alley and then sat down beside it to watch for a rag collector.

To the first one that came he called: "Want to buy this carpet?" He was a very little boy or perhaps he would have understood that the sudden brightening of the peddler's eyes meant that the man saw a bargain in the carpet. But he only watched eagerly as the man weighed the carpet strip by strip and then grunted out: "Eighty-eight pounds." And Edward promptly told the peddler that he wanted forty-four cents, which was paid without grumbling, to Edward's surprise, for he usually had to argue for his one-half cent a pound.

You can imagine what a fortune that seemed to Edward, who for days had been longing for only five cents. He could have eight rides and four cents left, or he could—then he began to think of some of the other boys who were hoping for a ride. There was lame little Stanley, who never had a penny to spend, because his family wore their rags on their backs; and there was big Joe, who had to watch his little sister while his mother went out washing. Joe would not have been above scaling the elevated supports, but it was quite impossible with a little, two-year-old sister in his arms. The little sister wouldn't cost anything, and Joe could carry her up the stairs.

There were some joyful boys in that neighborhood when Edward told big Joe and lame Stanley about the treat in store for them, and even Baby Rose, big Joe's little sister, gave a crow of delight. Edward felt like a gentleman when he walked up to the little window and said: "I'll pay for three." Behind came big Joe, carrying Baby Rose, and next was little lame Stanley, his crutches clicking joyfully upon the floor. It was a glorious ride and greatly sweetened by the two packages of cracker-jack which Edward bought.

Several weeks after that, when the forty-four cents had all been spent, and Edward was looking about for another chance to earn money, he heard his mother say: "I could hardly believe that Abe did it, but he was the only one working about the place that day and he did look confused when I spoke to him about it."

Abe was the old colored man who cleaned out the furnace and did odd jobs about the place. Edward always had fun with him, so he looked up with interest and asked: "What did Abe do, mamma?"

His mother hesitated a moment before she replied: "I am afraid that he took my carpet that I left out in the entry for him to clean. It was the back parlor carpet. When he went to clean it, he told me it was gone. His son drove up to the back gate that morning to speak with him and I'm afraid that the temptation proved too much."

"Why, mamma, Abe wouldn't steal!" cried Edward. "I took that carpet and sold it for forty-fo r cents to the peddler, but I thought you put it out there for old rags for me."

"Oh, Edward!" groaned his mother. "And that carpet was worth fifteen dollars to me!"

Edward was very sorry, of course, but what could he do about it? His mother saw how badly her boy felt, and so she sent him to tell old Abe his story and bring the old man back to work.—Janet Thomas Van Osdel.

St. Louis Apple Market.

On December 31st, on the St.Louis market, apples in round lots were quoted as follows: Ben Davis at $2.00 to $2.25; choice to fancy Willowtwig at $2.75 to $3.25; Winesap at $2.75 to $4.00; Geniting at $2.75 to $3.00; fancy Grimes' Golden at $3.00 to $3.50; Jonathan at $2.50 to $4.00; Huntsman's Favorite at $2.75 to $3.25; No. 2 and inferior fruit of all kinds at $1.50 to $1.75; New York Greenings at $2.25 to $3.00, delivered; Baldwins at $1.75 to $1.90 for No. 2 to $2.35 to $2.40 for fancy, delivered; Kings at $2.75 to $3.00, delivered; fancy Virginia Yorks at $3.25, delivered; bulk Baldwins dull and lower—car selling at $1.60 to $1.75 per barrel measure, delivered. Sales: Load Eastern mixed varieties at $2.26, delivered; load Baldwins at $2.35, delivered; twenty-three barrels Greenings at $3.00 per barrel, delivered.

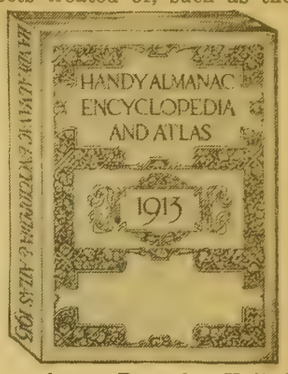
Population has increased 18 per cent. in the last ten years and cattle decreased 2 per cent.

THE HANDY ALMANAC, ENCYCLOPEDIA AND BUSINESS ATLAS FOR THE YEAR 1913.

A Book of Knowledge For Home or Office—Book Mailed Promptly on Receipt of Order.

For the purpose of furnishing the subscribers of THE NATIONAL FARMER AND STOCK GROWER a splendid book of up-to-date information we have published the HANDY ALMANAC AND ENCYCLOPEDIA, a book of 216 pages, 6x9 inches, including a carefully-prepared index and a number of maps printed in colors.

To give an idea of some of the good things it contains we mention the subjects treated of, such as the Postal Banks—the Parcels Post Mail — new Pension Law — new Eight-hour Law — Highest Structures in World — Olympic Records — World's Crops—Aeroplane Records—United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—the Panama Canal—the Panama Exposition—Astronomical Calculations and Eclipses For 1913—How to Foretell the Weather—Average Weather in Various States—Domesic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains—Goverments of the World—Sporting World's Records—Important Dates in American History—Rules For Spelling and Punctuation — Household Hints — Cooking Time Table—First Aid to the Injured—Etc.



There is very much more in the book than we have stated, and in addition thereto there is the vote at the Presidential election.

THE NATIONAL FARMER AND STOCK GROWER, issued monthly at St. Louis, Mo., is a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general grain-growing farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains good poultry facts and market information. There are thirty-two pages, four columns to the page.

A Subscription Proposition.

Anyone who pays fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied.

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For One Subscriber.

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Gentlemen:—Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS, the new Book of Knowledge.

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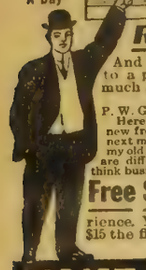


Read This Letter

And write today for an appointment to a position that will pay you just as much as we are paying Mr. Horton.

Texas, 1912.

P. W. Goodman, Pres. Regal Tailoring Co
Here is a picture of my store, showing you the new front I just had put in. It will be two years next month that I started with you. When I left my old position I was earning $12 a week. Things are different now. If I don't make $15 a day I think business is bad.—RALPH N. HORTON.

Free Sample Suit We back you with our capital and experience. You start making money at once—$15 the first day. Work all or spare time—at home or traveling. We furnish everything—free—complete outfit—samples—measuring system—full instructions. We want Agents, Salesmen, General Agents—quick. Send your name and address on a postal card today—investigate. Act immediately.

MAKE $15 A DAY

REGAL TAILORING CO.
418 Regal Bldg., Chicago, Ill.

MAY MANTON PATTERNS.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering.

CHARMING MODELS THAT ARE NOVEL AND NEW.

No. 7674.—Girl's Empire Dress. Ten to fourteen years. With straight skirt that can be machine plaited or gathered. Five yards 36 inches wide, with ½ yard 27 inches wide for collar and cuffs, 2⅝ yards of plaited edging, to make as illustrated with plaited skirt; 4½ yards 27 inches wide, 3¼ yards 36 inches wide, 2⅝ yards 44 inches wide, to make with gathered skirt, for the twelve-year size.

No. 7652.—Child's Bishop Dress. Six months, one, two and four years. With high or round neck, short or long sleeves, with or without shirring at long waist line. 2⅝ yards of flouncing 25 inches wide, with ½ yard plain material 36 inches wide; or of plain material 1¾ yards 36 inches wide, for the two-year size.

No. 7643.—Semi-Princess Dress For Misses and Small Women. Sixteen to eighteen years.

No. 7661.—Child's Coat. One, two and four years. No. 698 Embroidery Pattern. With collar that can be made square or round at the back, with or without shield. Two yards 36 inches wide, for the two-year size.

No. 7665.—Doll's Coat and Hat. Eighteen, twenty-two and twenty-nine inches high. ⅞ yard 36 inches wide, with 2½ yards of fur banding, for the medium size.

The price of each pattern is 10 cents.

MISCELLANEOUS MODELS.

No. 7669.—Fancy Collars. One size. ⅞ yard of material 21 or 27 inches wide for No. 1, with ¼ yard for front portion and lining; ¼ yard 21 or 27 inches wide for No. 2, with ⅞ yard of lace 12 inches wide for jabots; ⅜ yard 21 or 27 inches wide, with ¾ yard of lace 12 inches wide for No. 3; ⅛ yard, any width, for No. 4, with ¾ yard of plaiting or ⅝ yard of lace for frill.

No. 7648.—Fancy Tucked Aprons. One size. ⅝ yard of material 36 or 44 inches wide for either apron, with 3 yards of insertion, 2 yards of edging for No. 1; 5 yards of insertion, 2½ yards of edging for No. 2.

No. 7646.—Scarf and Muff. One size. 2¾ yards 36 inches wide, with 2¾ yards of fringe to trim as illustrated.

No. 7653.—Girl's Cap With Four-piece Crown. Six or eight, ten or twelve years. With or without revers. ½ yard 36 inches wide, with 2 yards of fur banding or 1 yard or ruffling, for either size.

No. 7673.—Girl's Princess Petticoat. Four to eight years. 1½ yards of material 36 inches wide, 2 yards of embroidery, 3¼ yards of insertion, 2 yards of edging, for the six-year size.

No. 7654.—Pullman Apron. One size. 1⅛ yards of material 21 or 27 inches wide, with ⅞ yard 36 inches wide for lining, 4 yards of ribbon for ties and rosettes, 5 yards for binding.

The price of each pattern is 10 cents.

FASHION MODELS.

No. 7651.—Fancy Waist. 34 to 40 bust. With or without loose panier and chemisette. 3½ yards 36 inches wide, with ¾ yard 27 inches wide for vest and collar, ½ yard 18 inches wide for chemisette, for the medium size.

No. 7659.—Single-breasted Coat. 36 to 46 bust. With cutaway or straight fronts. 2⅝ yards 44 inches wide, ⅛ yard 21 inches wide for collar, 4½ yards of braid for binding, for the medium size.

No. 7272.—Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. With three-piece skirt, with revers and high neck or shawl collar and open neck, with long or elbow sleeves. 3½ yards 36 inches wide, with 1¾ yards 27 inches wide for the trimming and ⅜ yard 18 inches wide for the chemisette; width of skirt at lower edge, 2 yards, for the sixteen-year size.

No. 7675.—Two-piece Skirt For Misses and Small Women. Sixteen and eighteen years. With or without tunic, with high or natural waist line. 3½ yards 36 inches wide, with 1⅛ yards 27 inches wide for trimming band; width of skirt, 1⅞ yards, for the sixteen-year size.

No. 7236.—Three-piece Skirt. 22 to 32 waist. With round or square corners at side-front, with high or natural waist line. 3¾ yards 36 inches wide; width of skirt at lower edge, 2⅜ yards, for the medium size.

The price of each pattern is 10 cents.

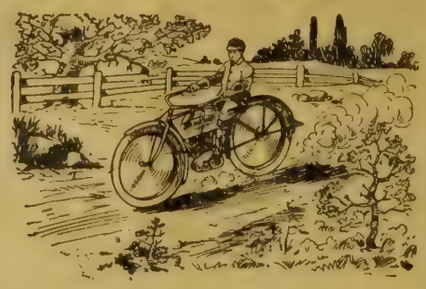
ATTRACTIVE GARMENTS FOR ALL OCCASIONS.

No. 7472 A.—Blouse With Robespierre Collar. 34 to 42 bust. 2⅛ yards 36 inches wide, with ⅞ yard 27 inches wide for collar, ⅝ yard of lace 6 inches wide for frill, 1 yard of narrower lace for wrist frills, 2 yards of lace for frills at wrists and sleeve openings, as shown in the back view, for the medium size.

No. 7663.—Fancy Blouse. 34 to 40 bust. 2¼ yards 36 inches wide, with ⅝ yard 21 inches wide for trimming portions, ⅜ yard 27 inches wide for girdle, ⅜ yard 18 inches wide for yoke and collar, ¾ yard lace for under sleeves, for the medium size.

No. 7657.—Semi-Princess Norfolk Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. 4¼ yards 36 inches wide, with ¾ yard 27 inches wide for collar and shield, for the sixteen-year size.

$250 Motorcycle Given Away



YOU see in this picture a boy riding one of the $250 Excelsior Motorcycles we are giving away. In other parts of the picture are the faces of several other boys. They are hard to find but by turning the picture about you will be able to see them. Mark at least two of the faces with a cross (X) and send the picture to me with your name and address and I will tell you all about the contest and how to win the seven horse power motorcycle and many other prizes.

1500 Votes Free I will send you a special coupon good for 1500 votes toward the motorcycle. All you got to do to get this coupon is to send your name and address at once. **PEOPLE'S CO., 538 Popular Building, Des Moines, Iowa.**

No. 7649.—Girl's Dress. Ten to fourteen years. With or without trimming in front and chemisette. To be worn over any guimpe or made with chemisette and under sleeves. 3¼ yards 36 inches wide, with ½ yard 27 inches wide for trimming, ⅝ yard 18 inches wide for chemisette, ⅞ yard for chemisette and under sleeves.

No. 7664.—Three-piece Skirt. 22 to 30 waist. With or without panel, with high or natural waist line. 3¾ yards 36 inches wide, with ⅞ yard 12 inches wide for panel, 2 yards of braid; width of skirt at lower edge, 1⅞ yards, for the medium size.

The price of each pattern is 10 cents.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Very Nicely Broken.

Patient (who has met with an accident)—"Is it a bad fracture, doctor?"

Doctor (a surgical enthusiast)—"Bad? Why, it's beautiful, sir; beautiful! The bone is broken in no fewer than thirteen places."—Republic.

No Man in the House.

"John, John!" cried Mrs. Dubbleigh, shaking her husband by the shoulder. "Wake up—there is a man in the house!"

"Nonsense, Susan!" retorted Dubbleigh, shivering with apprehension and hiding his head under the pillow. "Nothing of the sort—"

"Humph!" said Mrs. Dubbleigh. guess you are right. I was referring to you!"—Harper's Weekly.

Returning the Goods.

Madge—"What, you've made up with Jack? Why, I thought you demanded that everything you'd given each other must be returned."

Ethel—"Well, so I did; but he insisted that we begin with the kisses, and then, of course, the jig was up."—Boston Transcript.

Judge of an Omelet.

Two men were hotly discussing the merits of a book. Finally one of them, himself an author, said to the other:

"No, John; you can't appreciate it. You never wrote a book yourself."

"No," retorted John, "and I never laid an egg; but I'm a better judge of an omelet than any hen in the state."—Publisher and Retailer.

South America is turning ranch lands into grain farms.

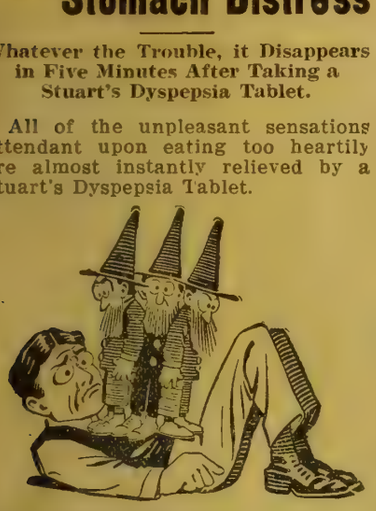
25cts. a week Buys this High Grade Drop Head Sew Easy Sewing Machine

Guaranteed 25 years. Shipped direct from factory. We save you money. You use machine while paying for it. It has all the latest improvements. Write us to day. Sheffield Mfg. Co., 1421 Olive St., Dept 271 St. Louis, Mo.

Quickly Dispels Stomach Distress

Whatever the Trouble, it Disappears in Five Minutes After Taking a Stuart's Dyspepsia Tablet.

All of the unpleasant sensations attendant upon eating too heartily are almost instantly relieved by a Stuart's Dyspepsia Tablet.



Heaviness of the Stomach from Undigested Food Quickly Relieved by a Stuart's Dyspepsia Tablet.

When you take food into a stomach that is tired and over-taxed, the gastric juices do not form fast enough to digest it properly. So the food becomes sour and at once begins to throw off gases. Your stomach becomes inflated just as surely as if you attached a toy balloon to a gas jet. Then the gases and foul odors issue forth and pollute your breath. Your tongue quickly becomes coated and you can taste the foulness that is within you.

Now all this condition is changed almost instantly by a Stuart's Dyspepsia Tablet. This little digester gets busy at once—supplies all the digestive elements that were lacking—digests the food in a jiffy and sweetens and refreshes the mucous lining of the stomach and bowels and restores peace and content.

One grain of a single ingredient in Stuart's Dyspepsia Tablets will digest 3,000 grains of food. This saves your stomach and gives it the rest it needs. All muscles require occasional rest if they are ever over-taxed. The stomach is no exception to this rule.

Try a box of Stuart's Dyspepsia Tablets and you will wonder how you ever got along without them. They are sold at 50 cents by all druggists everywhere.

Care of Men's Clothing.

It is a good plan to keep a good cleaning fluid on hand and remove all spots as soon as they appear, and an excellent cleaning fluid is made by shaving two ounces of Castile soap in two quarts of soft water and boiling until thoroughly dissolved. Strain, and when cool add one ounce of sulphuric ether and two ounces of wood alcohol and keep in a closely-corked bottle and shake it well before using.

For removing spots from men's clothing, a small roll of rather heavy, dark cloth tied or sewed together as tightly as possible will be found a great convenience. Dip one end in the cleaning fluid, brush the spots gently with it and rub dry with the other end. This is much better for cleaning than a brush, cloth or sponge.

The best and easiest way to clean the dirty overalls and shirts that are worn by the men on the farm is to soak them in a little lye water, then wash through the last suds. Pull the garments up over the washboard and scrub with a stiff brush with a handle, but rub soap over the most soiled spots first.

When a garment seems clean after the scrubbing, lift it out of the suds without wringing into the rinse water, then into clean water, and do not put the overalls through the wringer, but hang from the line by the hems, inside seams together, as the water will stretch them smooth, so there will be no need of ironing, and when they are cleaned in this way the fabric is saved as well as time and strength.

An old vest can be made to last a long time to work in when the back is worn out by making a new back from the bottom of an old, every-day shirt, leaving it double, and if a vest is too small it can be made large enough by putting a V-shaped piece in the back. Cut the back in the center from the bottom to the collar and set the piece in with the wide part at the bottom of the vest.

When pants and vests have become much soiled it is easier to wash them in hot suds than to try to remove the spots from the fabric.

Sometimes a suit becomes rusty or faded and the cloth is still quite good, and in such cases they are well worth recoloring. One economical woman renewed a rusty black suit by removing all linings and buttons, then the garments were washed clean and recolored a jet black with Diamond dye for wool, and after pressing the cloth carefully, new linings, buttons and braid were used for the new suit, and they looked as nice as new garments. This same woman colored the best parts of an old tan cloth overcoat a rich dark red with the dye for wool and made them into a stylish jacket for her young daughter.

In pressing garments, the cloth should never be pressed so hard as to make it shiny or show marks of the iron, and a seam should never be pressed dry on the outside edges, as they will show through on the right side of the garment, and it takes time and care to press a garment as it should be pressed.—A. M. H.

Among the Culls.

It is easy enough to dispose of the standard cuts of pork, but there are some pieces not so choice which some may discard, while others have each a way of their own for working them up. The head is one of these, head cheese being in the estimation of many as not worth the bother, while others regard it as one of the choicest offerings of the porker. Still others add the liver and find in this an agreeable variety.

The liver cooked alone is a dish not to be despised. The old German way is to slice across the grain, pour boiling water over it and then fry. Some prefer to soak it an hour in cold water; in either case, the rank flavor being largely removed. Those who like fried onions will relish it treated to the boiling water and then placed in hot fat. Over the liver place a layer of sliced onions. Fry all to a rich brown.

The legs are another part which is hard to dispose of, few caring for the meat alone when cooked. Some pickle them, though we prefer to cook them until the flesh cleaves easily from the bones. When cold, chop into mince meat. The hearts may be cooked at the same time and used in the same way. When ready for use, add twice the amount of chopped apples, with boiled cider, sugar, raisins and spices, suet or butter, and you have a mince meat which you know has meat in it—an ingredient notably absent from most of the prepared "mince meats" now on the market.

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Get the real facts of the Kalamazoo offer—the $5 to $40 saving—the $100,000 Bank Bond Guarantee—shipment made the day order arrives. Learn about the new glass oven door ranges—and other Kalamazoo improvements though prices are lower than before.
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TRADE MARK REGISTERED
A Kalamazoo Direct to You
And Gas Stoves Too

The "scraps" left after rendering the lard are good mixed with the chicken feed once or twice a week, and if salted a little and kept in a cool place they will remain in good condition for some time. And any other parts which cannot be utilized as food will do the fowls as much good as the refuse purchased from the butcher. It may be partly a matter of individual taste, but almost every one can find some use for almost every portion—the question up to you is to decide for yourself on the way you best like the culls.—Bessie L. Putnam.

Top Prices For Durum Wheat.

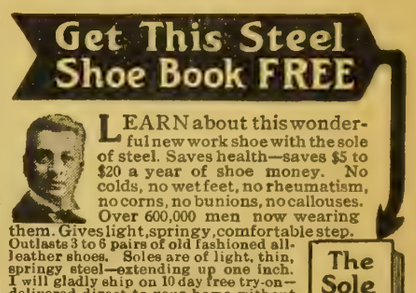
In a conversation had with Secretary Wilson, of the Department of Agriculture, several days ago, he called attention to the fact that the market prices for Durum wheat grown in this country are higher than ever before.

It will be remembered that Durum or Macaroni wheat was introduced to this country by the Secretary of Agriculture in 1898. It came from the dry regions of Southeastern Russia and was introduced as a crop probably adapted to successful cultivation on the semi-arid plains of the West. From the point of view of the dry-land farmer, the crop proved all that was claimed for it by the Federal Department.

The total acreage in this country has advanced rapidly until two or three million acres are grown annually. Exact figures on production are difficult to give because complete statistics on this crop separate from the other classes of wheat have been taken but once, namely in 1899. The states of North Dakota, South Dakota and Minnesota are the leading producers, while Nebraska, Kansas, Colorado, Wyoming and Montana plant smaller areas.

When this wheat first began to appear on the market, a considerable prejudice against it developed on the part of the milling trade, and the price paid for it was as much as 15 cents a bushel lower than for other wheat of a similar quality. This difference in price has been gradually decreasing until for the last three or four weeks; highest cash prices paid daily for Durum wheat on the Duluth and Minneapolis markets have been equal to or as much as five-eighths to seven-eighths cents in advance of those paid for No. 1 Northern, which is the standard and usually the highest-priced wheat on these markets.

The present comparatively high prices of the Durum flour in the making of bread, either alone or in combination with common wheat flour, together with the inability of the Mediterranean markets to obtain Durum wheats from Russia and the Balkan States at present, are responsible for the record prices.

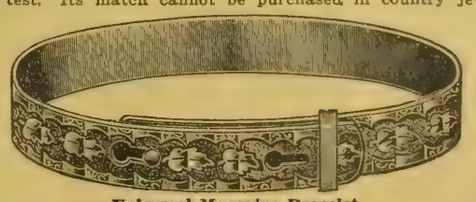

Get This Steel Shoe Book FREE
LEARN about this wonderful new work shoe with the sole of steel. Saves health—saves $5 to $20 a year of shoe money. No colds, no wet feet, no rheumatism, no corns, no bunions, no callouses. Over 600,000 men now wearing them. Gives light, springy, comfortable step. Outlasts 3 to 6 pairs of old fashioned all-leather shoes. Soles are of light, thin, springy steel—extending up one inch. I will gladly ship on 10 day free try-on—delivered direct to your home without any delay by parcels post. Send today for my great free book "The Sole of Steel" and learn all about this wonderful shoe.
The Sole of Steel
N. M. Ruthstein, The Steel Shoe Man
117 Racine St. Racine, Wis.

The Book of Champions.

"Philip H. Hale, editor of The National Farmer and Stock Grower, in St. Louis, has just published a picture book of 'Live Stock Champions,' which is full of interest to horsemen. It contains 720 indexed portraits of noted animals, among which are scores of thoroughbreds, trotters, Hackneys and draught horses. Schreiber's photographs of Rysdick's Hambletonian, Ethan Allen, George Wilkes and other old-time trotters make the book of lasting value to votaries of harness racing."—New York Herald. See page 7.

The Universal Magazine Bracelet.

This is all the rage. And Adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.** To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.



Universal Magazine Bracelet.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use oil. He calls it powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 66 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

The Home Dressmaker.

Many housewives are compelled to do their own dressmaking through lack of means to hire. Some of these regard it as a hardship—not so often because of the extra work required as because they do not know how to do it properly; and after they have ripped out and re-sewed or fitted over over until thoroughly tired of the whole thing, it lacks the "style" desired, and is permanently stamped for what it is—amateurish.

Some of us are inclined to look back longingly at the times of grandmother, whose sampler was the A B C of the necessary sewing; who had her daily stint and worked on every kind of task until the stitch and all the necessary kinks were mastered. But then sewing was a far less complicated process, and the making of a dress could be done at home in a creditable manner.

We know one young girl who has been put through the old-fashioned way until she has mastered the details of hand sewing from the over-and-over to the dainty hemstitch on mi-lady's handkerchief. And now, with natural ability along this line, and good taste, she has gone on until she is an expert in plain sewing and has made some dresses of which the owners are jusly proud. Though never apprenticed to the trade, faithfulness to the little details has brought to her success. She has much yet to learn; part of what she has gained has come in a laborious way, through hard plodding. But she looks back with pleasure to the stints of childhood, the nucleus around which all of her progress has centered.

In the maze of short-cuts to training of the head as well as of the hand—some of them too short to be of any real worth—it is a pleasure to find in Madam Carens' "Dressmaking in Ten Weeks" the practical nature promised in the title. Here again we find thoroughness as the underlying principle, the entire mastery of one lesson before another is attempted. The warning, that some work should be done every day if the best results are expected—a modern application of grandmother's "stint." The general directions teem with common sense, things which every one should know without being told, yet which most of us have never thought of or applied in sewing. For instance, the position, as important to the sewing woman as to the aspirant to penmanship. Then how many who are vexed with the thread knotting know that it makes a difference whether you thread the needle with the end broken from the spool or the reverse?

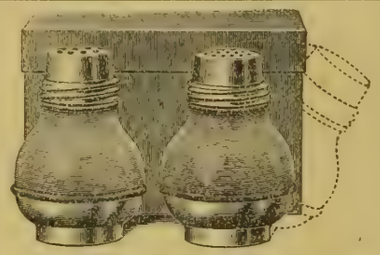
Hand sewing, since the advent of the machine, is more or less neglected, and, though we may think we know enough about it, the average person will be surprised to learn tha there are three ways of basting, eac especially adapted to a certain use and we really do not know how t baste and do it right! Then ther are the various other stitches, som adapted to one purpose, some t another, and while we may hav mastered them in detail, there ar still applications of their use of th utmost value.

Some of the countless "kinks" of the professional are simple enough when we know how, but without understanding them a multitude of trouble and a final botch are the result. No wonder why our seams will pucker when by the simple trimming of the selvedge all this trouble is eliminated. We are appalled at the complications of changing a pattern to fit the individual, yet the directions given in these pages reveal the system which overcomes our peculiar needs. Proper pressing is just as essential as the making, and there are rules for this of great value. Even the direction of cutting the lining makes or mars a good fit. The wonders of this little book must be tested to be appreciated, and we realize from it more and more the complications which beset the one going haphazard—the simplicity of methodical study.—Bessie L.Putnam.

A POPULAR PREMIUM.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

When we send out the Universal Magazine we also like to send out a useful and meritorious subscription premium with it. To this end we have adopted a pair of Aluminum Salt and Pepper Shakers, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always bright, and will last a lifetime.



UNIVERSAL SALT AND PEPPER SHAKERS—Reduced Size.

To anyone who will send us twenty-five (25) cents we will send the Universal Magazine for ten months, and we will send the pair of Universal Aluminum Salt and Pepper Shakers as a premium, postage paid, safe delivery and satisfaction guaranteed.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find Twenty-five (25) Cents to pay for ten-months' subscription to the Universal Magazine, for which please give me credit. You will please send me as a subscription premium, post free, safe delivery guaranteed, one pair of Universal Salt and Pepper Shakers.

Name.. .....

Address.. .....

A Pocket Book Circulation Premium.

THE NATIONAL FARMER Folding Bill Book.

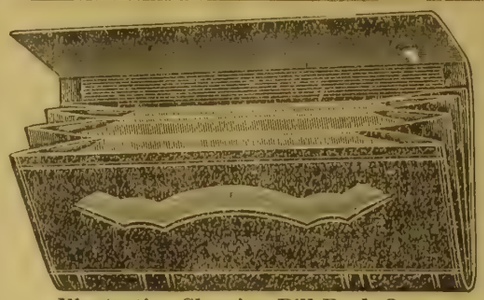
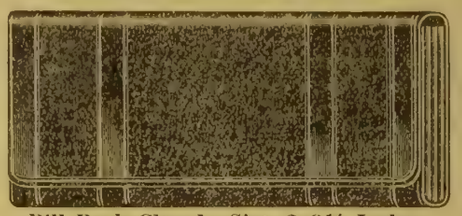


Illustration Showing Bill Book Open.



Bill Book Closed—Size, 3x8½ Inches.

Convenient to carry Currency, Bills, Notes, Receipts, Railroad Tickets, Lodge Identification Cards, Stamps, Etc.

BEST VALUE AND MOST SERVICEABLE PREMIUM EVER OFFERED.

Every Prospective Subscriber Wants One and Needs One.

National Farmer Folding Pocket Bill Book, Genuine Seal Grain Leather Cover, Very Fine Finish, Fancy Embossed, Good Quality Throughout.

Our Subscription Offer.

WE have adopted THE NATIONAL FARMER FOLDING BILL BOOK as a subscription premium with the best monthly farm paper in the United States.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Sale and Slaughter.

According to the census of 1910, stockmen of the United States marketed 20,572,997 cattle and 6,742,748 calves in the year 1909, and slaughtered 1,408,640 cattle and 1,131,600 calves on their own farms.

Big Tailoring House Sends Out Beautiful Line of Samples.

The spring and summer suit samples now being sent out by The Regal Tailoring Company surpass anything this leading Chicago firm has ever produced. The new styles are striking, and not only please the eye, but look as though they would feel encouraging and comfortable upon the back.

As no man considers himself well dressed unless his suit is tailor-made to measure, the new Regal sample book is a treat to everyone interested in styles, fabrics and fine workmanship.

This new book is sent out free, and you can get one by writing promptly to the company at 418 Regal Building, Chicago, Ill. The firm is also anxious to secure good salesmen in each county, and offer an exceedingly attractive position to men who are worthy of appointment and big salary.

8 Hardy Rose Plants Free.

The **Universal Magazine** is a splendid monthly publication; nice, bright, cheerful, illustrated; 32 pages, three columns to page. Devoted to stories, the homestead, good literature, poetry, patterns, embroidery, etc.

We have a very liberal offer to make in connection with a subscription to the **Universal Magazine.** Anyone who will send us fifty cents to pay for two-years' subscription to the **Universal Magazine** can select as a Free Premium **Eight Hardy, Ever-blooming Roses,** one-year plants. They are splendid varieties, as follows: **Etoile de France, Yellow Kaiserin, Helen Gould, Clothilde Soupert, President Taft, White Killarney, Marigold** and **Ever-blooming Rambler.** No such collection was ever offered before as a subscription premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

VIOLIN FREE

This is a fine, handsome, clear toned, good sized Violin of highly polished, beautiful wood, ebony-finished pegs, finger board and tail piece, one silver string, three gut strings, long bow of white horse-hair, box of resin and FINE SELF-INSTRUCTION BOOK.

Send us your name and address for 24 packages of BLUINE to sell at 10 cents a package. When sold return our $2.40 and we will send you this beautiful Violin and outfit just exactly as represented.

BLUINE MFG. CO.,
588 Mill Street,
Concord Junction, Mass.

For Home and Health.

The housekeeper can do very much ng the line of preventing disease ner family by looking after certain itary precautions; but too often it found that little heed is paid to n the most simple means of pre- tion against disease, and the nily suffers from this neglect. ch illness and malaria have been ced to drain pipes that are not efully looked after, as they have ome clogged with poisonous ter, and when anything is wrong h the pipes the whole family is in ger, for half the disease con- cted in winter, the time when ple are more or less closely sed, may be traced to bad pipes drainage.

A plumber says that sink stoppage usually caused by grease and metimes by coffee grounds, and if se things are kept out of the sink the pipes scalded daily with an water and plenty of common shing soda, you run very little k of stoppage. Have a funnel to in the bath tub and basins, that soda may not touch any of the al save that in the pipes.

Every housekeeper should look l to all corners of the pantry, ars and outbuildings, that all aying vegetables or fruits may be ared away, and she should allow scent of decay from whatever se.

Housekeepers are learning rapidly t food is more important than gs, and to value the physician re for hygienic advice than his dical services.

Never leave canned goods in the after it has been opened. Their tents should be placed in an then dish immediately. Many ple have been poisoned from eat- goods that have stood in open s. Tea that stands a long time eping, or tea that boils, develops nic acid, and is consequently a verful astringent and very un- blesome.

There is nothing more useful in home than a bottle of borax solu- n, and this is prepared by dissolv- a heaping tablespoonful of vdered borax in a quart of hot ter, and this should be kept on the shstand always ready for use. If ittle of this solution is snuffed up nostrils and used as a gargle ry morning, it will go a long way vard preventing sore throat and d in the head, and its persistent as a gargle will strengthen the mbranes and overcome any tend- y to tonsilitis or laryngitis. Also the bath a like agency is valuable insure thorough cleanliness and keep the skin free from odors and ptions, and a little of the borax ution added to the water not only tens the water but it tends to an the skin thoroughly, and the ax is especially good to use if re are any skin eruptions, and to prevent sore and chapped skin.—M. A. T.

Broom Corn at Wholesale.

Poor to fair grade undesirable, being plentiful, dull, low-priced and weak, while real good corn is scarce, in demand and firm. Prices at from $40 for common up to $90 per ton for choice—mainly at $70 to $75 per ton in car lots, on track—damaged less.

A TEN-CENT PROPOSITION.

In the Interest of a Publication That is Rapidly Coming to the Front.

The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the UNIVERSAL MAGAZINE is, that it is not loaded down with advertisements. Notwithstanding it is a cheap magazine, the subscription

Universal Magazine.
Vol. V. DECEMBER, 1909. No. 6.
A MERRY CHRISTMAS AND HAPPY NEW YEAR TO THE READERS OF THE UNIVERSAL MAGAZINE.
Published by THE HALE PUBLISHING CO., 3550 Vista Ave., ST. LOUIS, MO.

price being 25 cents a year, it was supported by subscriptions alone for five years.

The UNIVERSAL BOOK OF ORIGINAL AND SELECTED POETRY consists of one hundred pages, containing three hundred and ninety beautiful, interesting, pathetic, descriptive, humorous and delightful poems. These poems have been selected from the very best of the ancient and modern authors and the occasional pieces which have attracted favorable attention. It is a book to be kept by the bedside to compose one to sleep, a book to carry in the satchel or to read on the train and street car. It is a book for all people at all times. We issued the UNIVERSAL POETRY BOOK for the purpose of using it as a subscription premium in connection with our new successful paper, the UNIVERSAL MAGAZINE.

A TEN-CENT PROPOSITION.

Anyone who will send 10 cents to pay for four-months' trial subscription to the UNIVERSAL MAGAZINE can select one copy of the UNIVERSAL POETRY BOOK as a free premium, and we will send it by mail, prepaid, safe delivery in good order guaranteed. Address,

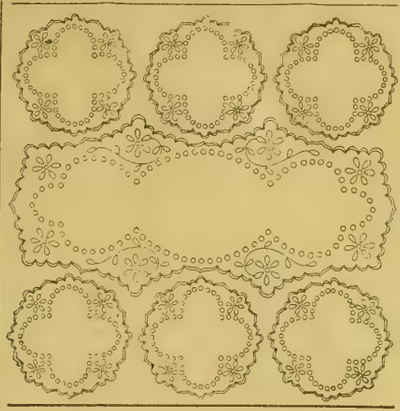
THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

UNIVERSAL EMBROIDERY SET.

A Subscription Premium in Connection With the Universal Magazine.

The most beautiful of all trays and doilies are those which display a great deal of eyelet work; there is nothing more attractive on the dining room table than white linens embroidered in open work through which the polished wood may show

The pretty Universal Embroidery Set illustrated above shows a dainty pattern that should be carried wholly in eyelets, both ovals and rounds. This set was made especially for us and consists of one



large tray, size 8x17 inches; six doilies to match, size 5½x5½ inches, all stamped on fine white imported linen.

Send us thirty cents and we will send you this dainty set for a short time only, absolutely safe delivery guaranteed, and the Universal Magazine for one year. The extra five cents is to pay postage thereon. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

To Club Raisers:—Anyone who will get up a club of four subscriptions in accordance with this advertisement and send us one dollar and twenty cents to pay for same will be credited with an extra year's subscription to the Universal Magazine and we will send one extra Universal Embroidery Set for getting up the club.

Times Have Changed.

"I did not have a very nice time when I first went to Annabel's,' little Madge announced on her return home. "Annabel was cross as could be; she wouldn't let me play with her doll or touch one of her playthings."

"Well," replied her mother, "when I was of your age, had I gone to see a little friend and she wouldn't let me touch her playthings I should have gone straight home."

"But times have changed since you were a little girl, mother," Madge replied after due reflection. "I slapped her face and stayed."

Wholesale Dried Fruit.

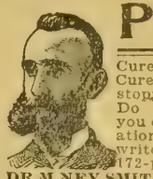
Offerings, December 31st, at St. Louis, were scarce. Quotations were as follows: Apples, evaporated rings—Inferior at 4c.; fair to prime at 4¼ to 4½c.; fancy more; chops, cores and peelings at ½ to ¾c. for sun-dried to 1c. for bleached evaporated; sun-dried, dark and poor, at 3¼ to 3½c.; large bright quarters at 4¼c.; peaches, sun-dried halves, at 8c.

At the St. Louis market, late in December, canning cows were selling at $3.50 to $3.60 per 100 pounds. In the good old times, twenty years ago, many cows just as good sold at $1.50 to $1.75 per 100 pounds.

Let Us Send You a Genuine Edison Phonograph On FREE TRIAL

right to your own home. Entertain your family and your friends. Send it back at our expense if you don't want to keep it. $2 a month now pays for a genuine Edison Phonograph at Rock Bottom prices and without even interest on monthly payments. Send today for our beautiful Free Edison Catalog. A postal will do. But send it at once.

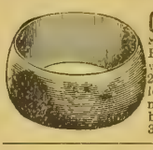
BABSON BROS., Edison Phonograph Distrib'g Dept. Suite 3911 Edison Bldg. Chicago



PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases.

DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.



GOLD WEDDING RING FREE

Send for four of our beautiful 12x16 Enameled Art Pictures to distribute with Mammoth Pattern Collection at 25c each. Return us the $1.00 when collected and we will send you, by return mail this very fine 14K gold filled heavy band ring. Address S. F. MOSER, 382 Household Bldg., Topeka, Kan.

STEM WIND & SET **WATCH** RING & CHAIN **FREE**

FOR SELLING POST CARDS

We positively give FREE a STEM WIND, STEM SET, BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 5 years and a beautiful Ring set with an Im. Diamond, for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the Watch, Ring & Chain. WILLARD WATCH CO., Dept. 127, CHICAGO

This Beautiful 20 Year Watch $3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, 7 jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for

$3.75 Gents Free. THIN

MODEL

20 Year Guarantee

EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it, if you think it is a bargain and equal to any $15.00 watch, pay the express agent our Special price $3.75. Mention Ladies', Men's or Boys' size.

HUNTER WATCH CO., DEPT. 123, CHICAGO, ILL.

Beacon Burner FREE

FITS YOUR OLD LAMP.

100 Candle Power Incandescent pure white light from (kerosene) coal oil. Beats either gas or electricity.

COSTS ONLY 1 CENT FOR 6 HOURS

We want one person in each locality to whom we can refer new customers. Take advantage of our Special Offer to secure a Beacon Burner FREE. Write today. AGENTS WANTED.

HOME SUPPLY CO., 94 Home Bldg., Kansas City, Mo.

DEAFNESS, HEAD NOISES

At last you may rejoice in a speedy and lasting cure. Unlike others. Wonderfully successful. Book Free.

DR. G. E. COUTANT, P.O. Sta F, 270 A, New York, N.Y.

STEM WIND & SET **WATCH** RING & CHAIN **FREE**

FOR SELLING POST CARDS

We positively give FREE a STEM WIND, STEM SET, BEAUTIFULLY ENGRAVED, Plated WATCH, equal in appearance to Solid Gold Watch, American made, guaranteed 5 years, and a beautiful Ring set with an Im. Diamond, for selling only 20 packages of beautiful high grade art post cards at 10c a package. Order 20 packages, and when sold, send us $2, and we will positively send you the

Watch, Ring & Chain. GRIT MFG. CO., Dept. 170, CHICAGO

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

THE DARK HORSE.

Origin of One of the Most Familiar Terms Used in Politics.

The political term "dark horse" is thought to have had its origin in the following circumstances:

In the last century there lived in Tennessee a "character" named Flynn, an elderly person who dealt in horses. Flynn generally contrived to own a speedy nag or two for racing purposes if he could arrange for "a good thing" during his peregrinations throughout the state.

The best of Flynn's flyers was a coal-black stallion named Dusky Pete, almost a thoroughbred and able to go in the best of company.

One day Flynn visited a town where a race meeting was in progress. He entered Pete. The people, knowing nothing of the horse's antecedents, and not being overimpressed by his appearance, backed the local favorite heavily against the stranger.

Just as the horses were being saddled for the race a certain Judge McMinamee, who was the "oracle" of that part of the state, arrived on the course and was made one of the race judges.

As he took his place on the stand he was told of the folly of the owner of the strange entry. Running his eye over the track the Judge instantly recognized Pete. "Gentlemen," said McMinamee, "there's a dark horse in this race, as you'll soon find out."

He was right. Peter, "the dark horse," lay back until the three-quarter pole was reached, when he went to the front with a rush and won the race. — American Horse Breeder.

MISSOURI FARMERS' ANNUAL REUNION.

A Great Get-together Time For Farmers of the State.

Four days of solid pleasure and profit, four days of personal contact with the most wide-awake farmers of Missouri—this is Farmers' Week in the abstract. The time is January 13th to 17th; the place is the College of Agriculture, Columbia, Mo. During this time the College of Agriculture is turned over bodily to the farmers of the state. The entire equipment of the college, every building, every class room and laboratory, as well as the entire time of the whole teaching staff, are all given over to the purpose of enabling the visiting farmers to make every moment of their time pleasant and profitable.

The day's programme, from 8:30 a. m. to 3:00 p. m., is under the direction of the College of Agriculture. This is the Farmers' Short Course. The hours from 3 to 5:30 p. m. are set aside for the annual meetings of the various live stock and general agricultural associations of this state. The evening programmes are given under the auspices of the State Board of Agriculture. The first meeting of the week will be held Monday evening, January 13th.

At 8:30 o'clock, Tuesday morning, five different departments of the College of Agriculture will start work in five different lecture rooms at the same time. In general, each department will offer two periods of lecture and discussion and two practical demonstrations during the day. This is the plan for every day of the Farmers' Short Course, so that visiting farmers at any hour of the day have a choice of five different lines of agriculture, representing animal husbandry, dairy husbandry, farm crops, soils and mechanics, farm management and horticulture. In connection with the live stock work the Veterinary Department will offer special exercises on diseases of farm animals. The Department of Agricultural Chemistry will discuss commercial fertilizers and how to buy them. This is a new feature of the course which is offered this year for the first time. Other new features are the exercises on farm buildings and machinery and a series of lectures and discussions on automobiles and automobile construction.

Free admission everywhere. No admission fees are charged to the Short Course or for the evening programme. Everything free. The eighth annual banquet—coming, as it does, the last thing on the programme of Farmers' Week—the annual farmers' banquet makes a decidedly appropriate close for the week, Friday evening, January 17th.

Human and Mechanical Energy.

The Department of Agriculture has determined by tests with a newly-perfected instrument called the "Respiration Calorimeter," that the human body is capable of 20 units of work to 100 units of feed as against the best steam engine that being fed with 100 units of energy is only capable of 14 per cent. in units of work.

Whether or not physical energy must be expended for mental work as well as for muscular work is a question of interest. Judged by the results of a long series of experiments with the "Respiration Calorimeter," severe mental work does not make demands for physical energy, at least in amounts that were measurable even with so accurate an instrument.

The discovery that the "Respiration Calorimeter" is equally as valuable for studying ripening-fruit processes and other problems of vegetable life and for the study of man's food and the way to use it, has opened a new line of work. With the apparatus which has been built for this purpose and the larger "Respiration Calorimeter" for experiments with man, the Department is in a position to continue its investigations of technical and practical problems and to accumulate very useful and valuable information. The first stages in a valuable kind of work has long been passed, the apparatus and methods have been perfected and facts of great value have been secured. New fields of usefulness are being entered upon and the outlook for rapid accumulation of additional data of great importance to all who are interested in the profitable and proper use of agricultural products is assured.

The Farmer's Reply.

In the summer of 1911, B. A. Worthington, President of the Chicago and Alton Railroad, took his family to a farm house in Indiana, where quiet and rest seemed to be secured. Close by, however, was a pig sty, the presence of which was indicated under certain wind conditions. Mr. Worthington planned to go there again in 1912, but wrote the farmer that the piggery would have to be attended to before he engaged accommodations.

The farmer's reply was brief:

"Can accommodate you all right. There have been no hogs on the place since you left."—Pittsburg Post.

Live stock raising is the most profitable branch of agriculture.

Don't Wear a Truss!

Brooks' New Scientific Appliance--Adjustable to Any Size Person--Easy, Comfortable, Affording Instant Relief--Made for Men, Women and Children.

SENT ON TRIAL.

No risk in ordering--Money will be refunded if not satisfied.

After thirty years' experience in curing rupture, I have invented an Appliance which will absolutely hold the rupture and never slip, yet is light, cool and comfortable. It conforms to every movement of the body without chafing or hurting, and costs less than many common trusses. There are no springs or hard, lumpy pads, and yet it holds the rupture safely and firmly without pain or inconvenience. I make it to your measure, and send it to you on a **strict guarantee of satisfaction or money refunded**, and I have put my price so low that anybody, rich or poor, can buy it.

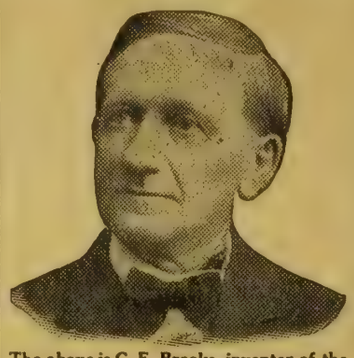
DOUBLE RUPTURE CURED.

Lecompton, Kans.,
R. F. D. No. 2, Feb. 7, 1911.

Mr. Brooks.

Dear Sir:—I drop you these few lines to say I am well pleased with your Appliance, as it has effected a permanent cure in my case. I have been ruptured eighteen years. Am now forty-two and wore a great many trusses before I got your Appliance. The ruptures disappeared after wearing the Appliance a few months. Mr. Brooks, I will do all in my power to recommend your Appliance, not only for your benefit, but to help others who suffer from rupture.

Your True Friend,
W. F. BUCHHEIM.



The above is C. E. Brooks, inventor of the Appliance, who cured himself and who has been curing others for over 30 years. If ruptured, write him today.

"COMPLETELY CURED."

Hebron, Douglas Co., Mo.,
June 12, 1911.

C. E. Brooks.

Dear Sir:—Some time ago I purchased an Appliance from you and am now pleased to inform you I am not wearing it nor will I ever need it again, for to my great surprise, it has completely cured me. I hardly hoped to be cured at all, but the cure was effected in about seven months. Many thanks for the kind way in which you have treated me.

Yours gratefully,
S. B. LITTELL.

I have received thousands of letters like these from grateful patients the world over. This appliance gives **instant relief**, and effects permanent cures when everything else has failed. Remember, I use no salves, no harness, no lies. Fill out the attached coupon and mail today, and I will send you free my illustrated Book on Rupture and its Cure, showing my Appliance, and giving you the names of many people who have tried it and are now permanently and soundly cured. Remember, I send my appliance **on trial** to prove what I say is true. You are to be the judge. Send free coupon **now**.

C. E. BROOKS,
59-D State St., Marshall, Mich.

FREE INFORMATION COUPON.

C. E. BROOKS, 59-D State St.,
Marshall, Mich.

Please send me by mail, in plain wrapper, your illustrated book and full information about your Appliance for the cure of rupture.

Name.....

Address.....

.....

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

Get our Thresher Tank for water.

O. K. HARRY STEEL CO., 2353 Papin St., St. Louis, Mo.

SELECTED POETRY.

HISTORY OF A JOKE.

A toiling, sweating journalist,
A humble man, and broke,
Once clawed his hair and chewed his fist
Until he wrote a joke.

The joke a vaudeville actor saw
And stole it right away,
And thus two hundred plunks could draw
Each joyous Saturday.

A lecturer of wide renown
Next filched the morsel bright,
And, telling it as all his own,
Got sixty bucks a night.

One man who heard him tell it had
Few shekels in his jeans,
And sold it to (the clever lad)
Three comic magazines.

A noted after-dinner wit
Next swiped and let it fly,
And then, with him as author, it
Got in "Who's Who—and Why."

And, since a hundred papers quote
What there their clippers scan,
It traveled as an anecdote
About a noted man.

So, though the joke won pelf and fame,
And had results immense,
Poor old Anon, who wrote the same,
Got only fifty cents.

And so this fact began to dawn
On him and make him pout:
Full many a goodly joke is "on"
The man who ground it out.
—Kansas City Star.

REPORTING THE AFTER-DINNER SPEECH.

They called on him to give a speech,
The chairman praised his eloquence,
And told the heights that he could reach,
Referred to his pre-eminence.
Worked in a story, old and trite,
(Toastmasters always have to do it),
Got off: "We have with us to-night,"
Then called his name and said: "Go to it."
And this, as well as I recall,
Is how he thrilled us, one and all:

"Er-hem—kind friends. I didn't know
That you were going to call on me;
I haven't much to say, and so
I won't say much. I do not see
Ahem—er, hem, I do not see
Why I was called on, anyway;
I don't know why they called on me,
I really haven't much to say.

"I always like to be with you,
I hope I make my meaning clear,
I'm very proud and happy, too,
I'm very glad that I am here.
I hope to meet with you again,
I'm very glad, let me repeat,
To be with all you splendid men,
I hope again with you to meet.

"I haven't much to say to you,
Except that I am very glad
That I am here. I thank you, too,
For such a splendid time I've had.
I'm very glad that I am here,
I hope to come again some day;
That I am here I'm glad—I fear
That this is all I've got to say."
—Detroit Free Press.

BEGONE, DULL CARE!

Begone, dull care!
I prithee, begone from me;
Begone, dull care!
Thou and I can never agree.
Long while thou hast been tarrying here,
And fain thou wouldst me kill;
But i' faith, dull care,
Thou never shalt have thy will.

Too much care
Will make a young man gray;
Too much care
Will turn an old man to clay.
My wife shall dance, and I will sing,
So merrily pass the day;
For I hold it is the wisest thing
To drive dull care away.

Hence, dull care,
I'll none of thy company;
Hence, dull care,
Thou art no pair for me.
We'll hunt the wild boar through the wold,
So merrily pass the day;
And then at night, o'er a cheerful bowl,
We'll drive dull care away.
—Author Unknown.

IF BOASTING DELIVERED THE GOODS.

The world would be crowded with horses,
The hills would be thronged with great men
And many about us we'd hail as
The masters of brush and of pen;
Full many a path would be broken
Where now are the thickest of woods;
Oh, the world wouldn't hunger for service
If boasting delivered the goods.

There'd be not a wrong to be righted,
And few would be known as unjust,
And no one would go down in failure,
And never a wheel go to rust.
The widows would cease their sad wailing
And smile 'neath their shawls and their hoods;
There'd be little left for our striving,
If boasting delivered the goods.

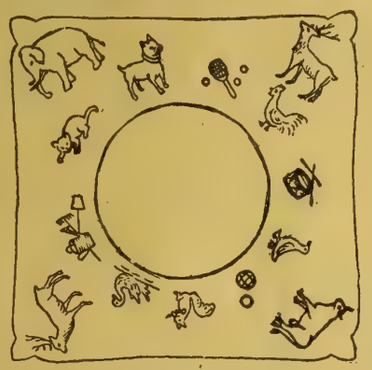
But with all of the boasting and bragging,
And all of the promises fair,
The widows and orphans are wailing,
And no one has banished despair;
And with all the conceit of the spouters,
Real service the world sadly needs;
Humble men who will bend to their toiling
And help it along with their deeds.
—Detroit Free Press.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.

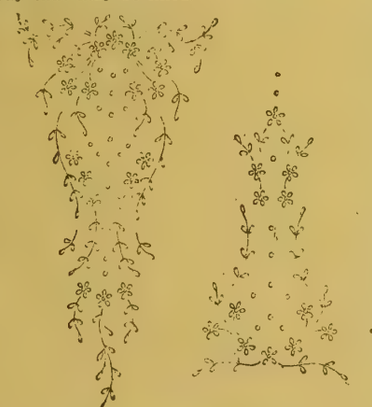
Edging For Baby's Towel.

No. 704.—Design for embroidering an infant's towel, fifteen inches wide. The entire design for one end is given, scallops for two ends. The design can be used for eyelets or for solid embroidery.



Animals and Toys.

No. 705.—Design for outlining animals and toys. The designs are given separately and can be arranged as illustrated or in the way that may be liked.



Embroidered Panels.

No. 707.—These embroidered panels are very handsome and will give good satisfaction.

Pretty Pillow Case.

No. 702.—Design for an embroidered pillow case. One complete transfer is given, with scallops for two yards.

One-piece Handkerchief Case.

No. 706.—Design for an embroidered handkerchief case. The case is made from one piece of material folded on indicated lines.

Envelope Glove Case.

No. 703.—Design for an embroidered glove case in envelope style. The case is sixteen inches long by seven inches deep. The dots may be used for punched work or French knots.

Each embroidery pattern is 10 cents, and is well worth the money.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

National Good Roads.

That the movement for federal participation in highway construction is not confined to motorists, but is also being agitated by the farmers, is one of the most hopeful indications of its ultimate success.

On this point the recent convention of the National Grange, Patrons of Husbandry, took a decidedly favorable stand. Hon. Oliver Wilson, Master of the National Grange, in his annual address stated:

"The public highway is a matter of general concern. The old idea that the country road should be constructed and maintained by the farmer has disappeared. It is now recognized that good roads are of as much importance to the consumer as to the producer, as anything that lessens the cost of transportation is a benefit to the consumer.

"The Grange stands for and advocates federal aid for road improvement. There can be no good reason given why the government should not appropriate money for the maintaining and the improving of the public highway, the same as for our public water works. Seventy-five per cent. of the product of this country must pass over the public highway before it can be transported over our railway or water systems. While the government has spent millions of dollars for highway improvement in our foreign possessions, it has never appropriated one dollar to be used on the highway in continental United States.

"The Grange membership is unanimously in favor of Congress making suitable appropriations for highway construction and maintenance. This appropriation should be expended by a National Highway Commission or Board, working in conjunction with similar commissions from the states.

"The Legislative Committee of the National Grange should be instructed to use all the influence of the Grange upon Congress for a passage of a bill appropriating a sufficient sum under proper regulations for the improvement of our public highways."

C. O. Raine, of Canton, Mo., Chairman of the Grange National Committee on Good Roads, offered a report, which was adopted, endorsing the plan for a system of national roads, and the Legislative Committee of the Grange also included federal aid for road improvement among its recommendations.

Florida is the leading state of the Union in the production of phosphate rock, according to the United States Geological Survey. In 1911 the phosphate product was valued at $9,473,638, compared with $7,647,774 in 1910.

A GARDEN OF ROSES.

Fine, Sturdy Plants—The Most Delightful Premium Offered by Any Farm Paper.

THE NATIONAL FARMER AND STOCK GROWER has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition, and with each package we send complete directions for planting, care and culture. The time to send the order is now—before you forget it—and you will receive the plants at the best time for planting in your section.

The collection, briefly stated, is: ETOILE DE FRANCE, the acme of perfection of hardy red roses; PRESIDENT TAFT, an ever-blooming pink rose of superior merit; YELLOW KAISERIN, rich canary yellow, that will thrive under most unfavorable conditions; WHITE KILLARNEY, the wonderful new "Irish Beauty," of surpassing elegance; HELEN GOULD, vigorous growing velvety red; MARIGOLD, a most valuable variety for outdoor planting, producing deep, full, saffron-yellow flowers; CLOTHILDE SOUPERT, the premium bedding rose with white, pink-tinted flowers, which always appear charmingly fresh and sweet; EVER-BLOOMING CRIMSON RAMBLER is the eighth of the collection, making a total of the grandest family of rose plants ever grown.

Our Grand Special Offer.

Send us a money order for fifty cents. ONLY fifty (50) cents. We will credit you with ten-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, and at the proper time we will also send you the full set of EIGHT ONE-YEAR ROSE PLANTS as described. The roses are sent out directly it is safe to dig them in the spring. Send in your order at once with fifty (50) cents and it will receive prompt attention.

Here is a Subscription Blank.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:—Gentlemen: Herewith please find fifty (50) cents. Please send me THE NATIONAL FARMER AND STOCK GROWER for ten months and the full set of EIGHT HARDY, EVER-BLOOMING ROSES, one-year plants, when it is safe to dig and mail them in the spring.

Name.....

Address.....

Mr. Stock Raiser—READ THIS BIG OFFER

$10,000,000 WORTH

of hogs, horses, cattle and sheep died last year from *worms*, careless feeding, bad blood, intestinal troubles and run down condition

Just Listen to Me One Moment

Right in *your own county* thousands of dollars were spent in veterinary bills. Tons upon tons of feed were wasted through malnutrition. Read the death statistics from your own State Agricultural Dept.

I Will Prove to YOU What I Proved to this Man

and the proof won't cost you a cent. Read what Dr. Pruitt says:

E. B. MARSHALL, Pres., Vance, Alabama.
WILBUR STOCK FOOD CO., Milwaukee, Wis.

Dear Sir:—I have been using your stock remedies for three years and I want to say that they are far superior to anything of the kind I have ever used. I have not had a sick horse, cow, hog or anything else in the line of domestic animals since I began to use them.

Yours very truly, E. A. PRUITT, M. D.
Surgeon for Big Sandy Iron & Steel Co.

Wilbur's Worm-Kill

(The Great Stock Conditioner and Worm Destroyer)

There is no secret about this wonderful remedy. Is composed of tumeric, elecampane, African ginger, gentian, soda, blood root, anise seed, golden seal, quasia, wheat middlings, elm bark and powdered charcoal. Ask any veterinarian or M. D., if there is a better worm killer, fattener, conditioner, blood cleanser or feed saver on the market.

Here is My Free Offer to You

I want to send you enough WORM-KILL for 60 days feeding at my risk. You don't send me one cent—simply feed Worm-Kill according to directions and judge the results for yourself. See what it does for your horses—watch your milk pails fill up—watch your little pigs grow big and your big pigs fat—your lambs or sheep will be worm-free and have no scours.

12k

Positively No Strings to this Offer

You simply fill out and mail me the coupon—I ship you 60 days feeding of WORM-KILL at my own risk. You don't pay me one cent unless you are satisfied after 60 days trial.

YOU ARE BOTH JUDGE AND JURY —MAIL THE COUPON TODAY

E B Marshall *President*

WILBUR STOCK FOOD COMPANY

Manufacturers of WILBUR'S WORM-KILL
(The Great Stock Conditioner and Worm Destroyer)

621 Huron Street Milwaukee, Wis.

FREE FEEDING COUPON

E. B. MARSHALL, Pres.
621 Huron St., Milwaukee, Wis.

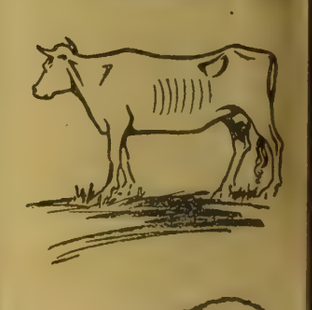
Ship me enough Worm-Kill for 60 days feeding. I will only pay freight and feed to my stock according to directions and will pay for same if found as you say at end of 60 days, otherwise the Worm-Kill you send is to be Absolutely Free.

Name_____ P. O. _____

Freight Station_____ County_____ State_____

WORMS

CAUSE 90% OF SUCH CASES AS THESE



WORM-KILL STOPS ALL THIS

National FARMER

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HARDY, EVER-BLOOMING ROSES.

The Most Delightful Subscription Premium Offered by a Farm Paper.

THE NATIONAL FARMER AND STOCK GROWER has again decided to send out a collection of eight choice, hardy, ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants, and will give good satisfaction. We guarantee them to reach you in good condition, and with directions for planting, care and culture. We have a new collection this year, far surpassing any previous set we have ever before sent out. The collection consists of:

1. THE OLIVIA—A most gorgeous, distinct rose of deep, brilliant rosy red, and one which excites the admiration of everyone beholding it.

2. THE SUNBURST—An intense exquisitely beautiful rose of orange-copper and golden yellow.

3. THE BRIDE—The most satisfactory white rose of dainty, chaste, beautiful flowers and healthy growth.

4. MY MARYLAND — A pink beauty, rapidly developing a sturdy, shapely plant and large flowers.

5. SOUV. DE PRESIDENT CARNOT — A wonderfully handsome rosy-blush color creation.

6. THE METEOR—For intense, rich, velvety, crimson color no other rose compares. The flowers are large and double.

7. THE BLUMENSCHMIDT — A pure citron-yellow; a first-prize winner at every show.

8. DOROTHY PERKINS — A shell-pink, hardy climber and one that should be extensively planted.

OUR SPECIAL OFFER.

Send us fifty (50) cents, by money order preferred. We will send you THE NATIONAL FARMER AND STOCK GROWER for ten months. We will send you direct by mail, postpaid, the full set of EIGHT HARDY, EVER-BLOOMING ROSES. The subscription begins at once. The roses are sent out directly it is safe to dig them in the spring. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

(Note.—See page 31 of this paper and send in the subscription coupon.)

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GETTING ABOUT.

A Short Practical Talk Upon the Subject of Transportation Facilities and Road Making.

The greatest mechanical problem of the age, as touching agriculture, is the problem of transportation. If one will stop to consider it, he will see that this is the factor that enters most into the welfare of the world, when we consider that welfare only in the light of material things.

The great problems of agriculture to-day concern not so much the production of things as the selling of them at a fair price. Much of the land in this country is still low-priced, because the facilities for disposing of produce are poor and there is no encouragement for the producing of things in those localities.

It is not only necessary that there be railroads, but that there be an available railway service. Many a farmer lives in sight of a railroad, but it does him no good, for the trains do not stop to take on his produce, and when he drives several miles to the station he finds no service adapted to his needs. Meantime there are other vast regions where the railroad lines are many scores of miles apart, and freight service is slow and uncertain. More than one farmer has shipped perishable produce which has been sidetracked and left to spoil.

But country life is not only hemmed in by the difficulty of getting produce to market but by the inability to get about, on the part of the people themselves. This inability constitutes the greatest obstacle to happy country life. In the city one can get anywhere by means of the electric cars, steam railroads, 'bus lines and asphaltum pavements. But in the country all of these facilities are wanting, in most localities.

It is a hard problem to solve, but must be worked out in every way possible. Road improvement seems to be the most feasible way of attacking the problem, with the electric road second.

It is safe to say that the way out will not be found by every locality working alone, for we have several hundred years of that kind of effort. With each country district going its own pace, most of the work done on the roads is unscientifically done, and, what is worse, most of the planning and direction of the work is without knowledge or the help of scientific investigation. Larger political units than townships must be interested in the work, especially where the townships are sparsely populated.

It is the worst piece of road that determines the size of loads drawn over the whole road. A while ago the writer was passing on a bicycle over a country road. There was one piece of many rods in length where dirt and gravel had been hauled onto the road and dumped without being rolled. The theory of the road supervisors evidently was that traffic would do the work. The writer had to walk, for he could not ride over this piece of road. Now, that piece of road reduced the size of all the loads drawn over it. It was an absurdity, and yet the same method is practiced in many places. The writer has noted such cases in three states, Illinois, Missouri and Indiana.

Getting about has a cash value to the farmers as well as a social value. The antiquated ways of repairing roads should be no longer tolerated by our rural communities.

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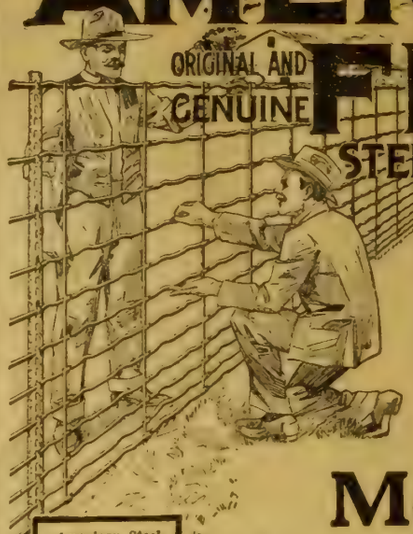

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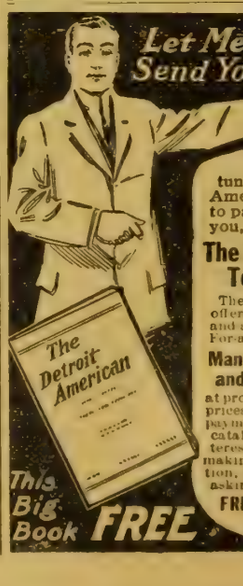

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THE HEALTH OF ANIMALS

Depends Upon Their Food and Drink and Condiments, the Same as With Human Beings.

Animals will not thrive on moldy foods, neither will they thrive on tasteless foods, no matter how much hunger may force them to eat it. The cry of disease is often rampant when there is no disease; the cry of epidemic is spread broadcast when there is no epidemic, and the cry of "cholera" is aloud through the land, when there is no real cholera, but where there is ample need of conditioners and tonics.

If we follow all the teachings of the veterinary school we must continually be inoculating animals for one thing or another. Undoubtedly we are approaching the time when for every farm there must be a doctor and a teacher and a government inspector, whereas what we need most in the case of live stock is industry and common sense; industry to carry out the plans that common sense dictates.

This has a bearing upon the health of animals. The animal is different from man, but in some respects has the same requirements. Man will not eat tasteless, unattractive foods; with his oatmeal he needs cream, sometimes sugar and sometimes salt; with his bread he needs butter, and with his meats he requires pepper and salt and sauces; with his oysters he must have catsup. He needs a conditioner, and is miserable without it.

And now let's go out to the stables and feed pens and see if there is any condiment to feed with the corn, or the oats, or the hay. Are the offgrade feeds tasty and appetizing when fed to the dairy cow, the work horse, the hog and the sheep? Do they need a little sugar with their oatmeal or catsup with their hay? Yes, they do. They need pure water and pure foods, and correctives and tonics and medicants. Judgment must be exercised in using these things, but the way to keep a healthy barn yard is very much the same as to keep a healthy household. The wormy boy will not thrive much better than the wormy hog, and it often happens that the hog is treated for cholera when he needs but a medicine to expel the worms, and simple conditioners to restore the appetite. This article has special reference to live stock tonics and conditioners, feeds and medicants advertised in this paper, which are put out on such liberal conditions that no man can lose by purchasing them. The only way that money can be made on such goods by the proprietor is in the after orders that come regularly from satisfied customers, and which are the result of continual use of them. They save many a doctor's bill and cost but very little compared with the benefits derived. We do not by any means advocate promiscuous feeding of these foods and tonics, but the use of them according to directions as medicines are that are obtained through a doctor's prescription.

IMPROVE THE PASTURE.

Give It a Fair Start and all the Plant Food Necessary—It May Then Become the Most Profitable Land on the Farm.

Unlike European farmers, American farmers pay little attention to their pastures. This custom must change in time, for, rightly handled, the pasture may be made one of the most profitable parts of the farm. Its neglect has been the cause of its frequent unprofitableness in our method of farming.

Purchased feed is coming to be too expensive an article for the ordinary farmer to indulge in it largely. Henceforth, the farmer that has much stock will find it necessary to develop his three main supplies of feed, namely, his pasture, his silo and his clover field or alfalfa field.

Formerly, no manure was applied on the permanent pasture except such as fell on it during the time the stock were on it. As that is in dry weather, the manure that falls on it in the summer time is partly dissipated into the air. The manure that does good on the pasture is that applied in the fall or winter, which is washed into the soil by the rains of winter or spring and by the melting snows. It will pay also to apply potash and other commercial fertilizers, especially to the thin parts.

An attempt should be made to put back on the pasture as much fertilizer as is taken off every year, just as is now being advocated for the rest of the farm. This is a thing that has been quite generally lost sight of, and the pastures have been pastured to death, almost, in many localities.

It is full time to begin a new regime with the pasture and place it on the same basis as the rest of the farm, knowing that every blade of grass produced is harvested without cost to the owner, the animals themselves dong the work of ingathering. It is probable that every pound of fertilizer judiciously applied to the pasture will yield as much profit as when applied to any other part of the farm.

Be generous with the pasture this spring, when the grass is just starting and the ground is still soft with the spring rain. It is better to feed a little longer and permit it to get a good start and at the same time protect it from the tramping feet that will pack the upper soil so compactly that air cannot get through.

At some of our Experiment Stations splendid results have been obtained in bringing up the permanent pasture with the idea of making it model of productiveness and of profit. These pastures at the Experiment Stations have been not only fertilized regularly and in a scientific manner, but some of them have been extensively drained by tiling. They have been relieved of their bushes, which were taking plant food from a part of the soil and shading some more of the soil, thus preventing the sunshine from doing its work in the development of the growing grass.

Disking the surface of the ground and applying manure or commercial fertilizers has proved of great benefit to some spots in these pastures, while in others the early mowing of the tall weeds has made it possible for the sod to thicken and give a supply of nutritious grass where noxious plants grew before. Be generous to the pasture and it will astonish you with liberal returns.

The Shade Tree.

The city man who is so fortunate as to own a genuine forest tree is justly proud of it. He knows its value from the aesthetic point of view, and this is usually many times greater than could be measured by the lumberman's foot rule. He knows how much of beauty and of pleasure are added to his home through its shade, and he also has a realization of the fact that should he ever want to dispose of his property, that tree will increase its value materially.

Yet where the shade trees are most easily available, around the farm home, they are too often neglected. There is in every community some quick-growing tree which should in a few years at most become a source of pride and comfort to its owner. It may be in your own woodland you have such material. If not, the nurseryman will furnish it and will advise as to the best for your special locality and needs. While it takes years to grow a large tree, those of useful size come into existence much quicker than one would think.

The chief thing is to treat them well. Dig large holes, and do not hesitate to give them good soil A specialist who was superintending the transplanting of native trees was noticed tying a string around a certain root of each as it was uplifted. Inquiry proved that this was simply to mark the east side of the tree, as it had originally grown, and this precaution was taken that the tree might be replanted in the same position as regards the cardinal points, thus insuring to it a similar distribution of the sun's rays. This was a little thing to do, but it illustrates the point that we can in numerous ways break the shock of any abrupt change and still not inconvenience ourselves. If you have not already plenty of shade for the hammock and then some, plan to make amends for the deficiency this spring. The fruit tree may have objectionable features on the front lawn; but the clean forest tree, which is a place for rest, a home for the birds, will become each year more of a source of pleasure.—Bessie L. Putnam.

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COMMERCIAL FERTILIZERS.

A Few Remarks Concerning Them by the Editor.

Anyone who wishes to get into trouble quickly with a fair chance of never getting out of trouble again should begin to tell all he knows about fertilizer.

We were thirty years an editor before we fell into the trap, and, being in it, never expect to get out again. We were also an editor of a farm paper eight years before the United States Department of Agriculture issued a farmers' bulletin, and from that statement it would appear that the editor ought to know enough to keep out of trouble.

We well remember the first time we had a talk on the subject of fertilizer. It was in the year 1869, and at the boarding house where we stopped we made the acquaintance of a French market gardener, who claimed to be looking for a piece of land for the purpose of starting a market garden, and the funny part of it was, that he desired to obtain the land in New York City. There was plenty of land out towards Harlem that he could get, but he was determined to get in closer. He only wanted an acre, and he was not studying soils so much as he was studying location. He said that he would guarantee to raise and sell twelve hundred dollars' worth of vegetables on one acre of ground without assistance if he could pick the location.

He explained that he needed horse manure for warmth, and he could get it in the city better than in the country, and that in order to insure abundant crops, and, as he said, "keep them coming all the time," he required other fertilizing material that he could buy. He said that where he was raised they did not consider what the soil contained; they did not trust it to produce the crops they must raise, but they built up the soil with fertilizer until they knew it contained all the elements that were necessary for the growth of abundant crops of superior quality.

Since then we have read about the application of fertilizers to different crops, and we have found it to be, on the one hand, a very difficult subject, and on the other a very simple matter. The difficulty grows out of the fact that there are more opinions on the subject of fertilizer than there were languages at the Tower of Babel. Take the leading soil experts, as shown by the positions they hold, and you would expect them to agree like two doctors who have been in consultation over one patient. But these doctors of soils disagree upon almost any proposition they can put up for argument. They are working conscientiously, but they cannot agree even upon the fundamental question. If all the advice they have been able to agree upon was tabulated by a committee of language experts it could not be brought to a clear statement that any farmer could understand, unless it be that high-grade fertilizers, which are the highest in cost per ton, are the cheapest in the end, upon which they appear to agree.

It has been left for the man who sells the fertilizer to educate the people by putting up different formulas for different crops, and his basis is to fertilize with the constituents that the crop takes from the soil. In other words, you have to put into the ground in fertilizer the same proportion of nitrogen, phosphoric acid and potash that you take out. You put in little but you expect to take out much more than that soil naturally contains, and by growing plants that take nitrogen from the air, and by the use of barn-yard manure, you reduce the purchase of commercial fertilizer to the actual necessities of the situation.

The simple side of the subject, however, is, that farmers can experiment for themselves in good-sized tracts far better than it can be done on the small experimental blocks set out at Agricultural Colleges. The usual farm practice is to fertilize one strip and not to fertilize another strip, and so get at the different results without disturbing the general farm operations. Buy moderately of commercial fertilizer and study the subject from the practical standpoint of your own operations. That is all one can do when soil doctors disagree.

Low Prices For Vegetables.

On February 1st, at St. Louis, in car lots at wholesale, Rural potatoes were selling at 46 to 50 cents a bushel; onions, fancy sacked and Red Globe, at 25 to 35 cents; sacked white at 50 to 57 cents; Danish and Wisconsin Holland seed cabbage at $6.00 to $8.00 per ton; on orders, 60 cents per 100 pounds in sacks; red cabbage at $8.00 to $10 per ton.

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P&O

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THE draft of a plow depends nearly altogether upon the construction of the bottom, the shape of the share, the curve of the mold, and the position of the side plate. These necessary details must be worked out on a scientific basis, the secrets of which can only be discovered by actual experiments in the field. As the soil differs, so also must the shape of the plow. The greater the variety of soils the greater the number of plows necessary to meet the conditions.

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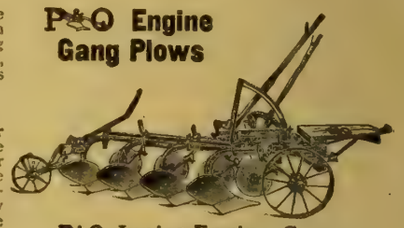

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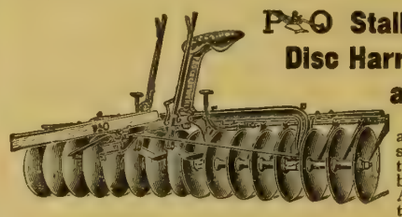

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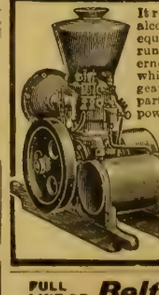


It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—throttle governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year iron-clad guarantee—15-day money-back trial. Sizes 2 to 20 H. P. Send a postal today for free catalog, which shows how Sandow will be useful to you. Our special advertising proposition saves you one-half cost of first engine sold in your county. (167)

Detroit Motor Car Supply Co. 86 Canton Ave., Detroit, Mich.

FULL LINE OF **Belting** AND LUBRICATING **Oils**

Ask for very low prices and our Free SUPPLY BOOK. Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

IF YOU

are at all interested in

Home-Mixed Fertilizers

I would like to send you my book on the subject. It contains formulas and plenty of information for farmers who want to get the most and the best for their money. The book will be sent free upon request.

Dr. William S. Myers
Director Chilean Nitrate Propaganda
17 Madison Ave., New York
No Branch Offices

THE OATS MARKET SITUATION.

A Short Reference to Past, Present and Future Prices on the End-of-the-Month Basis.

We have every reason to congratulate ourselves that oats prices have gone no lower. A year ago (January 31, 1912) oats were selling on the St. Louis market at 52½ cents per bushel, and this year the cash quotation of No. 2 oats on January 31st was 34 cents. Not much to be thankful for, one may say, but we continue to congratulate ourselves that it is no worse.

Six months ago, on August 31st, cash oats were sold at St. Louis at 31 to 32 cents a bushel, and the outlook was dark and gloomy. The largest crop of oats ever grown was just ready to be dumped on the community, and the weight of it was depressing the market. All our readers know how we stood at that time. We said that farmers could raise the price of oats by holding them and letting the actual buyers get out and hustle for oats.

Not over one-third of the crop is sold to be consumed in cities, and the balance is consumed in small towns and on farms and ranches, and it ought to be understood that prices must be higher if such crops are to be repeated. Thirty-five cents a bushel for oats, with freight and expenses from the farm to the market, will only leave 30 cents a bushel, which is less than a cent a pound for threshed oats grading as No. 2.

So long as large crops must be sold at less than cost of production farmers are always considering whether or not they will continue to produce grain crops, with the inclination on the Not; and it is especially aggravating, while the farmer is not getting enough, the consumer who buys from the retailer is paying too much.

You cannot rush into the market and upset all methods of business and rip and tear things that have grown up in a hundred years, but it is absolutely certain that the farmers' products are mismanaged in sale for the reason that they are practically unconstrollable until they reach the centers of traffic, and then most of those products have already passed from the hands of the farmer. The principal difficulty is, that the average farmer does not produce and market a finished product and a shipping unit. The finished product in grain is a car-load of No. 2 wheat, oats, corn or barley, as the case may be. The shipping unit is a car-load. A car-load is usually a thousand bushels of corn or wheat and 1,500 bushels of oats, but now, on account of shortage of cars, cars are often loaded with 1,100 to 1,500 bushels of corn, 1,600 to 2,000 bushels of oats and 1,000 to 1,200 bushels of wheat.

So many farmers cannot themselves produce or prepare a shipping unit, and that puts them in the hands of the local dealer, who gets money from the commission man and who buys the small lots at a discount and shapes them into grades that the market recognizes and forwards the grain in shipping units that the market will accept. Buyers do not care for anything irregular, and they do not buy parts of car-loads and mixed grades, so long as ninety per cent. of the offerings are put up properly. We wish that it was different, for the reason that it is these made-up car-loads in the hands of speculators anl not the consignments of farmers that form the bulk of the receipts at the grain markets.

Cash Grain at St. Louis.

The following were Merchants' Exchange quotations for cash grain at St. Louis, January 31st, 1913:

Wheat.—No. 2 red wheat, $1.08 to $1.12½; No. 3 red, $1.04 to $1.07; No. 4 red, 85c. to $1.04; No. 2 hard, 90 to 92c.; No. 3 hard, 89 to 93c.

Corn.—No. 2 corn, 49 to 49½c.; No. 3 corn, 48¼c.; No. 4 corn, 48c.; No. 2 yellow, 50½c.; No. 3 yellow, 48½ to 49½c.; No. 4 yellow, 48½c.; No. 2 white, 50¾ to 52c.; No. 2 white, 49½ to 50½c.; No. 4 white, 48½c.

Oats.—No. 2 oats, 34c.; No. 3 oats, 33c.; No. 4 oats, 32½c.; No. 2 white, 35 to 36c.; standard, 34¾ to 35c.; No. 3 white, 34c.; No. 4 white, 33 to 33½c.; No. 2 rye, 63½c.

Low Steel Wheels
Save Work and Money
Put them on your old running gear or get a complete Low-Wheel Handy Wagon.

ELECTRIC

Steel Wheels and handy wagons save high lifts, prevent rutting fields and roads, are 30 to 50% lighter draft, not affected by heat or cold, spokes and rims never loosen. Write now for illustrated free book. Address
ELECTRIC WHEEL CO.
40 Elm St., Quincy, Ill.

Get This FREE Book

Rebuilt Traction Engines

Low Prices for Quick Sale.

Minneapolis.

No. 596	Return Flue,	14 h.-p.	$650
No. 1677	" "	18 h.-p.	550
No. 1170	" "	16 h.-p.	550
No. 1565	" "	19 h.-p.	450
No. 1566	" "	22 h.-p.	750

Buffalo-Pitts.

No. 3232	Return Fire-box,	18 h.-p.	450
No. ——	Return Flue,	25 h.-p.	550
No. ——	" "	16 h.-p.	450

Rumely.

No. 3064	Direct Flue,	15 h.-p.	400

Nichols & Shepard.

No. 6488	Return Fire-box,	20 h.-p.	450
No. 4181	" "	18 h.-p.	450

Gaar-Scott.

No. 7959	Direct Flue,	15 h.-p.	400
No. 11074	Return Fire-box,	24 h.-p.	800

Full description on application. Terms:—Part cash, balance notes in 4, 8 and 12 months.
WEBER IMPLEMENT AND AUTO CO.,
1900 Locust Street, St. Louis, Mo.

STRAWBERRY PLANTS FREE!
Answer and we will send you, postpaid, free, 12 Ever-bearing Strawberry Plants.
BANNER NURSERY CO., St. Louis, Mo.

WE WILL MAKE YOU PROSPEROUS

If you are honest and ambitious write us today. No matter where you live or what your occupation, we will teach you the Real Estate business by mail; appoint you Special Representative of our Company in your town; start you in a profitable business of your own, and help you make big money at once. Can arrange for spare time only if desired.

Unusual opportunity for men without capital to become independent for life. Valuable Book and full particulars Free. Write today.

NATIONAL CO-OPERATIVE REALTY CO.
J-90 Marden Building, Washington, D. C.

Power FREE!

I'll Give You the Use of a Genuine Galloway Gasoline Engine on Your Own Farm for Three Months ABSOLUTELY FREE! Read My Great Offer NOW!

1¾ H. P. to 15 H. P. $29.75 Up

Listen! Read this carefully! There isn't one farmer in the country—no, not a single one—who can afford to miss this offer. I positively know this to be the most liberal engine offer that has ever been made. I'll let you take a genuine Galloway Engine—let you pick any size or style you want from 1¾ H. P. to 15 H. P.—let you take it right to your own farm for 30, 60 or 90 days' trial **absolutely free.** Yes, I mean it, **absolutely free;** you don't take a **cent's** worth of risk. Don't take anybody's word about a gasoline engine—find out the truth for yourself. Get my engine and put it right to work. Use it just as though it were your own. Test it any way you want to. **Make it prove its SUPERIORITY to engines costing two or three times as much!** Take your time. I won't hurry you—don't you let anybody else hurry you. If you aren't ready at the end of a month, tell me and I'll let you keep it two or three months longer—all free. **Then you'll know!** Then you'll either tell me, "Galloway, I know I can't beat your engine at any price"—or you'll send it right back to me and I'll pay the freight both ways, so that **you won't be a cent out of pocket!**

The Only Way Is the Galloway ***Selling Direct from Factory to Farm***

I'm going to turn the engine world upside down with this offer. It's a wonderful offer— the most liberal engine offer anybody ever thought of. But that's the way I do business. I won't take a man's money until he is thoroughly, absolutely and permanently satisfied. That's why 125,000 farmers say: "The **only** way is the **Galloway.**"

Here Is the Strongest Proof of All

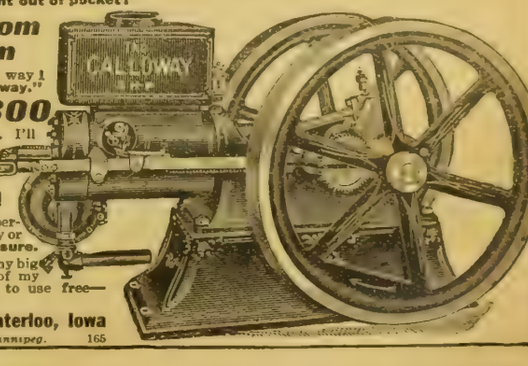
E. L. Davis, South Gibson, Pa. I wish to say that the 5 H. P. gasoline engine I bought of you has given perfect satisfaction. I have used it on a three-horse threshing cleaner this fall, and have recommended your make of engine to everyone, both in price and quality. Two parties, especially, who own an _____ engine, admitted to me that my Galloway Engine was much simpler than theirs and run just as nice. I will do what I can for your business in my neighborhood.

Joe A. Oliver, Seneca, Neb. Received your 5 H. P. engine about six months ago and it has never given me a minute's trouble since. Had an _____ and a _____ but the Galloway has them all skinned a city block. Have been working two days on another make to get it to run, but it isn't built to run.

Em Probst, Kennedale, Texas. I received the engine all O. K. and it is the simplest and smoothest running engine I ever saw. I have been running engines over 25 years and I would not give the 5 H. P. Galloway for any one I ever saw. Everyone that sees my engine says its a dandy. I am running a ten-cow dairy and I run a cream separator, and churn and pump, sausage mill and grist mill and am to get me a wood saw and an emery wheel and grindstone attached to engine. Anyone can run it. I can start it and go about my work, and I want to say it has the best governor that I ever saw.

Then I'll Save You from $50 to $300

If you do keep the Galloway, you won't have to pay for anything but **pure engine** value. I'll sell it to you **at actual cost to make** with just one small factory profit added. I'll save you all the middleman's profits—**put $50 to $300 in your pocket right at the start.**



Special! Get My Great 1913 Proposition

It's the biggest, finest thing I ever did. I can't explain it here—I'll have to write you a personal letter. But here's the gist of it. I'll show you how to get a Galloway engine partly or entirely **without a cent of cost to you,** no canvassing or soliciting either. **Get this offer sure.**

Big Engine Book FREE A postal or letter brings you a copy of my big 1913 Engine Book and full explanation of my Special 1913 Proposition absolutely free. Get this catalog—pick out the engine you want to use free—that's all. Now don't wait. Let me hear from you RIGHT AWAY.

Wm. Galloway, Pres., WM. GALLOWAY CO., 1285 Galloway Station, Waterloo, Iowa

We carry Engines in stock at Chicago, Kansas City, Council Bluffs, Minneapolis and Winnipeg. 165

BOSTROM'S FARM LEVEL

has been on the market nearly **30 years** and the sales get bigger every year.

We are proud of that record, and as the

which has **Telescope** enabling you to read the Target over 400 yards away, is the most simple, accurate, durable and complete outfit ever made for

Irrigating, Ditching, Tile Draining, Etc.

Many of the largest hardware dealers from the Atlantic to the Pacific now carry it in stock.

Write today for description of Level and we will advise name and address of nearest dealer to you and give details of our **Money Back Guarantee.**

Bostrom-Brady Manufacturing Co.

107 Madison Avenue, Atlanta, Ga.

THE EXPERIENCE OF OTHERS

Basis of All Education—The Accumulated Evidence Obtained From the Works of Thousands of People.

All scientific education is based mostly on the experience of others. The great advantage the educated man has over the uneducated is, that he is trained to take the experience of others to heart and profit by it. The uneducated man will tell you that he does not need to learn from others, for he has his own experience for his guide. That kind of a guide has ditched many a man.

All the courses of instruction in our universities are based on the experience of thousands of persons. In our Agricultural Colleges the instructors systematically arrange the experience of thousands of men in many regions of the earth to point the lessons they give. The young man that completes an Agricultural College course has availed himself of the experience of others and has acquired the habit of taking advantage of those experiences.

The lack of this power is always a great obstacle in the way of agricultural success. It is the main factor in keeping some of the foreign agricultural countries in a state of great poverty. We read of some countries where the same primeval methods are being used in farming that were used thousands of years ago. The ground is scratched with a crooked stick drawn by a cow; the hoeing of crops is with a heavy iron implement that requires a great waste of strength to use it; the grain is harvested by means of a sickle, and the reaped grain is carried by armfuls. There the rewards of agriculture are few and the peasant ekes out a scanty living.

Yet in those lands our missionaries and others have tried to get the natives to adopt the ways of the more advanced nations and profit by the experiences of others. But the ruts are too deep as yet.

It is not an easy thing to get people to look away from themselves and change their habits because of the experiences of others. The law of inertia holds good in human minds as well as elsewhere. That is the law that a body not moving tends to remain motionless, and that a mody moving in any direction tends to continue to move in that direction.

Our Experiment Stations and our Agricultural Colleges are doing a great work in inducing people to overcome this mental inertia, or rather in changing its operation. Where it has been preventing action it is being so changed as to induce motion.

Many a farmer is spending all of his time in work, never looking inside of an agricultural book or giving much heed to an agricultural newspaper, who would make much more money by working less and giving some time to finding out what the experiences of others have been.

The agricultural paper is the first great means of bringing the experiences of others to the farmer, for it has the whole world of agriculture to draw from. Moreover, its editors know the needs of the farmers in the regions in which it has the bulk of its circulation. Thus, a first-class agricultural paper well studied will prove a gold mine to the intelligent agriculturist who has developed enough to be able to look away from himself and profit by the work and thought of others.

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

THE NATIONAL FARMER AND STOCK GROWER is in favor of the United Staes Custom House collecting a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government should be collected at the custom houses, besides furnishing the farmer and manfacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm produce free of duty because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers.

"Baby beef" is bringing Ozark farmers $50 per head profit in one year

IF there is one thing that emphasizes the special advantages in the Ozarks for stock raising, it is the unusual success and big profits which farmers there are making with baby beef. Good stock, after one year's feed, is bringing them $50 per head profit!

Here is the plan that the Ozark farmer is following to get such profits. He buys up good grade calves at $15 to $20 a head (providing he dosn't raise them himself). Then, instead of letting them "mosey along" until the second year with just enough rations to keep them in good trim, he starts feeding them for quick flesh gains *right away*. The calves are put on flesh-producing field grasses until after corn is harvested; then the shocks, with a little extra now and then, keep them going until January. That leaves only three months of winter feeding (for pasture is green again by April 1st).

By that time the beef will weigh around a thousand to twelve hundred pounds easily, and will top the market at $8 a thousand or more. The feeding, on account of the short winter and other advantages in the Ozarks, doesn't cost more than $25 per head, all told—that's a clean profit of around $50 from every baby beef.

It's a mighty profitable business, and Ozark farmers are not slow to take it up.

Baby beef is just *one* way of making money in the Ozarks. It is *just one* example going to show why all kinds of stock raising is so profitable in the Ozarks. Hogs, for example, bring Ozark farmers around 5 cents a pound profit, because they cost so little to produce per pound—only 2½ cents, or less. Sheep make $12 per ewe easily, and Ozark dairymen are getting $8 to $10 per cow per month, regularly.

The reasons for these profits are easy to understand. The Ozarks have very mild, short winters—good pasture from April 1st to January 1st—only three months of winter feeding. Right there is a mighty big cut in costs.

The soils of the Ozarks will grow practically every variety of grass, and forage crops—alfalfa, peanuts, cowpeas, corn—all the quick-fattening products.

The Ozarks have an unlimited supply of pure water, splendid drainage and a healthful climate that keeps stock sickness down to the minimum.

The Ozarks are *right at the doors* of St. Louis, Kansas City and Memphis—big markets offering the very highest quotations for all kinds of stock and farm products.

But all these advantages mean more when it is realized that good land can be bought now in the Ozarks at $12 to $15 per acre. It's a proposition that deserves any man's serious thought and investigation right *now!*

A free book for you!

It's not the kind you can pick up anywhere. Double sized pages, 75 actual photo pictures of farms—some in full color. Written by a man who knows farming. Takes up the Ozark sections, county by county, and describes the farming conditions there. Also tells actual experiences of Ozark farmers. I haven't many copies of this book on hand; please drop me a postal to-day for your free copy.

FRISCO LINES

A. HILTON, General Passenger Agent, 1512 Frisco Building, St. Louis, Mo.

The Crocodile Wrench.

We have only recently used the Crocodile Wrench as advertised on page 15 as a subscription premium. Although it is heavy, weighing twelve ounces, we send it as merchandise by parcels post, and it is a welcome wrench on every farm.

THE CORN CROP.

Disposition and Use Made of It—A Compilation by the United States Department of Agriculture.

One of the most valuable contributions to the statistics of agricultural products was issued in the Crop Reporter for January, 1913. It shows the disposition of the corn crop, as near as can be ascertained, as follows:

"The corn crop is by far the most valuable single crop grown in the United States. It is distinctly an American crop, about 75 per cent. of the 'world' yearly production of approximately three and a half billion bushels being grown in the United States. What becomes of this vast quantity of corn is frequently asked. Answers to inquiries sent to crop correspondents of the Bureau of Statistics of the United States Department of Agriculture permit some interesting deductions to be made upon this subject.

The average annual production of corn in the United States in the last few years (not including the bumper crop of 1912) was about 2,700,000,000 bushels. Of this it is estimated that about 26 per cent., or 702,000,000 bushels, were marketed, 8 per cent. (216,000,000 bushels) remaining in the nearby towns, 11 per cent. (297,000,000 bushels) going to distant towns or for export, and 7 per cent. (189,000,000 bushels) going to distant farms.

The disposition of the 513,000,000 bushels estimated as used in 'towns' (as distinguished from 'farm' consumption) was approximately as follows:

Used in flour and grist mills, 245,000,000 bushels, or 9.1 per cent. of the total crop; used for making glucose and starch, 40,000,000 bushels, 1.5 per cent. of total crop; used to manufacture distilled liquors, 21,000,000 bushels, 0.8 per cent. of total crop; used in the manufacture of malt liquors, 14,000,000 bushels, which is 0.5 per cent. of the crop; used for feed in towns, 120,000,000 bushels, or 4.4 per cent. of the total crop; exported, 45,000,000 bushels, or 1.7 per cent. of the crop; and 28,000,000 bushels, amounting to 1 per cent. of the crop, unaccounted for.

Of the quantity exported, less than 2,000,000 bushels were in the form of meal.

Of the 245,000,000 bushels used in flour and grist mills, a portion returns to the farm for consumption. This quantity may be estimated at about 125,000,000 bushels. If we include this quantity, 125,000,000 bushels, with the farm consumption, the total farm consumption would be about 2,312,000,000 bushels, or 85.6 per cent. of the total crop.

Of the total 'farm' consumption, it is estimated that horses and mules consumed 31.5 per cent.; swine, 31.3 per cent.; cattle, other than milch cows, 11.0 per cent.; milch cows, 10 per cent.; poultry, 4.2 per cent.; human beings, 4 per cent.; sheep, 2.6 per cent.; seed, 1 per cent.; balance (for other or doubtful purposes) 4.4 per cent. Applying these percentages to the 2,312,000,000 bushels, the estimated total farm consumption of recent years gives the following totals and percentages of the entire crop:

It is shown as near as possible that there were fed to horses and mules 728,000,000 bushels, or 27 per cent. of the crop; the estimate of corn devoted to swine feeding is 724,000,000 bushels, or 26.8 per cent. of the crop. The amount fed to cattle (not including dairy cows) is 250,000,000 bushels, of 9.4 per cent. of the crop; the amount fed to dairy cows is 231,000,000 bushels, or 8.6 per cent. of the crop; poultry is credited with 97,000,000 bushels, or 3.6 per cent. of the crop; and human beings (consumers who are complaining of the high cost of living) use about 92,000,000 bushels, or 3.4 per cent. of the crop; sheep feeding consumes 60,000,000 bushels, or 2.2 per cent. of the crop. Then there are 23,000,000 bushels of corn used for seed, which is 0.8 per cent. of the crop. Then there are other uses estimated at 103,000,000 bushels, or 3.8 per cent. of the crop. Of course, all these figures are estimates, but there have never before been placed such satisfactory figures before the people. The proportion of the crop utilized for different purposes varies from year to year, according to the size of the crop. For instance, when the crop is large a relatively larger proportion in consumed by meat-producing animals, the proportion used by swine increasing more than that used by horses because the number of horses is more uniform from year to year than the number of swine. The estimated production in 1912 is large, 3,124,000,000 bushels—424,000,000 bushels more than the 2,700,000,000 to which the percentages above are applied. Hence, of this year's crop a larger percentage than given above will probably be consumed by meat-producing animals."

The Source of Sorghum Cane Seed.

Out of a total of 833,707 bushels of sorghum cane seed raised in the United States during the year 1909, Kansas produced 656,522 bushels; Nebraska, 83,134 bushels; Texas, 38,683 bushels; and Oklahoma, 30,435 bushels.

NUT-GROWING INDUSTRY.

The Nut Grower, published at Waycross, Ga., says: "The edible portion of nuts, with very few exceptions, is highly-concentrated food, consisting chiefly of much fat and little water. In general, nuts are also rich in protein, the peanut containing 29.8 per cent. of this nutriment, while the butternut, beechnut, almond and Brazil nut also rank high. The nut richest in fat is the pecan, which contains 70.7 per cent., with the Brazil nut a close second, with 65 per cent."

North Carolina is the great peanut state, having produced 5,980,919 bushels in the census year 1909, against 4,284,340 bushels in Virginia the same year. These two states produced more than half the present peanut crop of the United States, the total of the whole country being 19,415,816 bushels.

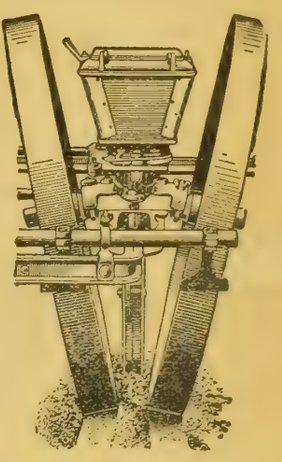
Ladies' World and Grapevines.

We are again offering a very valuable subscription combination in the matter of one-year's subscription to the Ladies' World; one-year's subscription to The National Farmer and Stock Grower; and eight selected two-year grapevines, which are grown at the best grape nursery in New York state, all for one dollar ($1.00.) There are magazines published at $1.50 a year that are not equal to the Ladies' World, and the grapevines will be satisfactory to all who get them. Such a combination ought to bring us ten thousand subscriptions in the month of February. See page 5.

In the year 1912 this country exported 30,113,868 bushels of oats, and that amount was far in excess of the exports of the two previous years.

Abyssinia uses American crackers.

Good Seed Isn't All—



Good seed and good soil is only the *starting point* in raising a big corn crop. You can no more afford to plant with an old worn out corn planter or a complicated new one full of fads and fandangles than you can to plant *poor seed.*

You can't afford to waste your time and labor or *risk your entire crop* with a planter that covers unevenly, misses hills or does not check accurately.

Uneven depth of planting means a bigger loss than many realize. It's *especially bad* in cold, backward seasons; often amounts to several times the cost of a planter in a single year. Avoid a planter that covers part of the corn so deep that no matter how good the seed or how rich the soil *many of the hills never come up*—or leaves other hills uncovered so that the sun and wind *destroy or stunt their growth.*

Hayes Four-Wheels regulate depth of planting to the fraction of an inch—this planter plants every kernel *exactly the same depth.* Here's why: Runners set back between the wheels, within 10 inches of the covering point. In going over ridges, dead furrows or uneven ground the shoe *rises and falls* with the wheels. **Hayes** planted corn all comes up at the same time, (proof of even depth of planting) and *allows earlier cultivation.*

Four-Wheels—Bigger Yields

Hayes Four-Wheels guarantee *surer germination and quicker growth.* Wheels pack the dirt from the sides to hold moisture and leave a ridge on top so that the corn sprouts quickly and comes up several days sooner. The ridge gives greater surface for sun's heat and prevents washouts in hilly fields. This method *assists the budding sprout.* protects its vitality and makes stronger and healthier stalks.

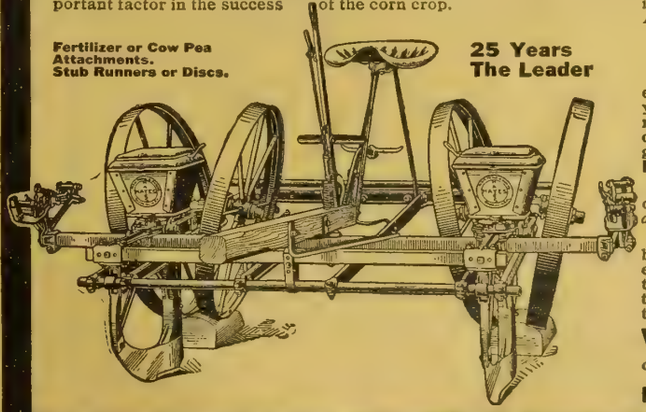
Hayes Four-Wheels *cover where all ordinary open wheels fail.* They open at the top and clean themselves. Guaranteed not to clog or carry the corn over even in wet and sticky soil. Insures a stand even in low wet spots of field and *allows earlier planting.*

Checks With Absolute Accuracy

No matter how fast you drive the **Hayes** *always plants in perfect check.* Cross rows are straighter than the way you drive. Easiest handled planter. Also shortest coupled, making it the *lightest draft* and turns in *shortest space.* For these reasons you can plant from *three to five more acres a day* with the **Hayes** and get your corn in *earlier*—an important factor in the success of the corn crop.

Fertilizer or Cow Pea Attachments. Stub Runners or Discs.

25 Years The Leader



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Hayes Four Wheel Corn Planter

THE PERFECT POTATO.

Also a Large Crop—Grown With and by the Stockbridge Potato Manure, a Commercial Fertilizer.

The Stockbridge Fertilizer For Potatoes is composed of 4 per cent. ammonia, 6 per cent. soluble and available phosphoric acid and 10 per cent. potash. This fertilizer is constructed upon the potato, its analysis, habits and conditions of growth. It is customary to apply half to three-quarters of a ton per acre.

In the New England States the Bowker Fertilizer Company offers prizes to potato growers who apply Stockbridge Fertilizer, and this is done to increase the yield of table-size potatoes.

The "perfect potato," according to potato authorities, is a medium-sized (eight-ounce), oval, shallow-eyed tuber, well ripened and grown rather deep in the ground with commercial fertilizer.

Seven prizes, amounting in all to $500, were offered for the largest yields of the best quality table-size potatoes, grown exclusively on the Stockbridge Potato Manure, using not less than 1,000 pounds per acre.

We have not the space to go into all the particulars, but the result was eighteen crops over 300 bushels to the acre, eleven crops over 400 bushels per acre, and three of them over 500 bushels per acre. The average crop of potatoes in New England is 148 bushels per acre; the average of the United States is 94 bushels, and the average of the contest was 334.76 bushels per acre.

The Record-quality Crop.

The first prize of $200 was awarded to No. 26, who is Mr. L. A. Littlefield, of Lincoln, Penobscot county, Maine, for a yield of 545.4 bushels from one measured acre; variety, Green Mountain. Of this yield, 77 per cent. was of table size, which included all potatoes of four to twelve ounces; 17 per cent. were small potatoes, or under four ounces; and 6 per cent. were very large potatoes, or over twelve ounces. The crop scored perfect as to mealiness and color when cooked and in flavor. It also scored 46 points out of a possible 50 in appearance, which included shape, type, skin and flesh. The test for starch showed 16.37 per cent., being 4.37 per cent. in excess of the minimum standard of 12 per cent. The total score was 714 points, the highest in the contest.

Mr. Littlefield's acre was planted on sandy loam soil, which yielded about one ton of hay in 1911. The rows were 32 inches apart and seeded with medium-sized Green Mountains cut one to four eyes to each piece, planted 10 inches apart in the rows by machine and covered 4 inches deep. In ten days the piece was cultivated, then brushed and "buried;" ten days later it was cultivated and hoed again, this being repeated in another ten days. All the work was done by machinery. The acre was sprayed with Pyrox. Twenty-five hundred pounds of Stockbridge Potato Manure was applied, divided into three applications. No other fertilizer or dressing of any kind was used. The entire crop weighed 32,729 pounds, which is equal to 545.4 bushels per acre.

Mr. Littlefield is a young man, about thirty years of age, who makes a specialty of potato growing. His total production that year in addition to the prize acre was 1,095 barrels. He also owns a small herd of fine Jersey cows. He raises some corn and other mixed crops. His farm contains about 150 acres. His ambition is to raise good crops and to produce good cream and butter as well as prize potatoes.

The second prize of $100 was awarded to No. 53, who is Mr. Geo. E. Burditt, of Rochester, Vermont. His acre was planted on soil which he describes as "stony loam," and which produced in 1911, with a light dressing of manure and 300 pounds of fertilizer, a fair crop of ensilage corn. In 1912 it was planted with potatoes in rows 32 inches apart and seeded with Pride of Vermont, cut two to four eyes, dropped 18 inches apart in the rows, covered three to four inches deep with a horse hoe. The piece was cultivated three times with a weeder, with a five-tooth cultivator and hilled up with a horse hoe. He applied 1,100 pounds of Stockbridge, half in the drill and half broadcast. It was sprayed with Pyrox. The yield was 527.2 bushels, of which 73 per cent. was table size, 12 per cent. under four ounces, and 15 per cent. above 12 ounces. In cooking qualities they scored 49 points and in appearance 42 points out of a possible 50. The starch content was 16.65 per cent., very nearly corresponding to Mr. Littlefield's crop. Total score, 696 points.

Mr. Burditt is a young man, about twenty-one years old, who resides with his father. He took the Short Course in agriculture at the Vermont University and evidently has made good use of the advanced methods taught there.

The remaining five prizes were awarded as follows: Third prize, $75, to Gerald Thompson, East Holden, Maine, 511.2 bushels, 658 points: fourth prize, $50, to B. L. Aborn, Brooks, Maine, 465.6 bushels, 640 points; fifth prize, $35, to J. M. Pease & Son, Hope, Maine, 400.6 bushels, 635 points; sixth prize, $25, to E. D. Page, Bangor, Maine, 423.7 bushels, 621 points; seventh prize, $15, to F. E. Chandler, Dover, Maine, 453.1 bushels, 612 points.

738 Bushels Per Acre.

The largest authenticated record crop in New England is a yield of 738 bushels, which was grown on the Stockbridge Potato Manure in Aroostook county by Mr. Coy in 1880. This crop took the grand prize of $1,100 in gold offered jointly by the American Agriculturist and the Bowker Company. This prize was offered for the largest yield without regard to quality. The variety grown was the "Dakota Red," a coarse variety, grown mainly for stock food.

As stated in our January edition, we received by parcels post one of the potatoes grown by Mr. Littlefield that in appearance, baking and tasting qualities was entitled to be called the "Perfect Potato." The account of this contest, a full report, showing yield of every contestant, is published for the benefit of inquiring potato growers. The Stockbridge Fertilizers, manufactured by the Bowker Fertilizer Company, are sold by the Empire Carbon Works, 421 Locust street, St. Louis, Mo., and all applications for free copies of the Perfect Potato Contest Report will be attended to by that company.

Draft Horse and Hackney Catalogue.

A new catalogue by Trumans' Pioneer Stud Farm, Bushnell, Ill., is worth sending for. It contains the history, breeding and illustrations of Shire, Percheron, Suffolk, Belgian, Hackney stallions and mares that are for sale, including the get of some of the stallions they have imported, exhibited and sold. Anyone contemplating the purchase of pure-bred horses of the breeds mentioned should send for this catalogue. It is full of famous animals and their offspring.

Top-priced Native Steers.

During the last week in January, F. E. Heiman, a well-known feeder of Chariton county, Missouri, furnished the top of the steer market with a load of 1,433-pound bullocks that sold at $8.30 per 100 pounds, the highest price obtained on the market for this grade of cattle. The consignment included sixteen head, which came directly from Mr. Heiman's feed lots, where he has had them on a ration of mixed cottonseed meal and cracked corn for the past four months.

In the state of New Jersey, about 85 per cent. of the milk produced is sold as such. Very little is sold as cream or butter-fat. New York City is the principal market.

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Our Seed Corn Premiums.

On page 20 our readers will find mention of our seed corn premiums. We do this work to encourage experimental farming and to encourage farmers in sending subscriptions to this paper. On forty thousand farms in the United States there are corn-growing plots that have had considerable influence in the enlargement of the corn crop of the United States, and the seed was sent out by The National Farmer and Stock Grower.

We Must Work Together.

All those farmers who believe in "Our Industrial Policy" as published on page 6 should do their part towards it by recommending the paper to others who believe the same. Every time we publish that article we lose some subscribers who do not believe in the protection of American interests. Where we lose one we ought to get two in return. Very few farm papers have any industrial policy to speak of, but The National Farmer and Stock Grower has a policy and does not hesitate to place it before our legislators for their information.

The Reliable Poultry Journal.

The poultry journals are all excellent, but the best of them all is the Reliable Poultry Journal, published at 50 cents a year. Another publication almost as good has advanced the price to $1.00 a year, but we stand by the Reliable and club it with our own paper. See page 28. The club offered is like buying gold dollars at 10 cents each.

Empire Fertilizers.

Every farmer should know something about fertilizers. It is the easiest experimental work in the world—one field fertilized, another one not; both the same soil, the same seed bed, the same time of planting, the same cultivation, the same season, the same method in harvesting. Compare one with another. Write to the Empire Carbon Works, 421 Locust street, St. Louis, Mo., for a book on fertilizers, with formulas for all crops. Use some of these fertilizers and get your experience, so that you may know if it is profitable, and to what extent it is profitable, to use commercial fertilizers. Write for the book anyway. It costs nothing, and it will teach you something.

ST. LOUIS MARKET FOR HAY.

An Average of the Different Kinds That Supply the Market.

In conversation with one of the most capable and experienced hay salesmen, he said that in a general way about 25 per cent. of the hay received on the St. Louis market was straight timothy; that timothy and clover-mixed constituted about 35 per cent.; straight clover constituted about 12 per cent.; alfalfa had increased to about 16 per cent.; and clover hay was about 12 per cent., which makes up the total. He also said that St. Louis was a pretty active, competitive market for hay, and that any shipper who can get his hay to St. Louis at a freight charge of $5.00 per ton or less should consider himself in his own interest a shipper to St. Louis.

On the last day of January the following sales were made on the market of St. Louis, which includes both sides of the river:

St. Louis Side: One car clover-mixed at $14; one car choice light do. at $15. Timothy—One car and part car No. 3 at $10.50; one car and part car do. at $11.50; one car No. 2 at $12; one car and half car do. at $13; three cars do. at $13.50; one car and part car good No. 2 at $14; two cars No. 1 at $16.50. Prairie—One car No. 2 at $10; one car do. at $10.50; part car do. at $11; three cars No. 1 at $12; one car do. at $12.50; two cars do. at $12; $13; one car good do. at $13.50. Clover—One car No. 3 at $11. Alfalfa—One car No. 3 at $11; one car No. 2 at $12; one car do. at $13; one car good No. 2 at $14. On the East Side: Timothy—Four cars No. 2 at $13, two delivered to St. Louis. Clover—One car No. 3 at $11. Alfalfa—One car No. 2 at $13.50; three cars high No. 1 at $16.50, delivered to St. Louis.

CORN SHOW AWARDS.

The Best Single Ear of Corn, the Ten-ear Awards and the Best Peck of Oats.

The principal awards at the National Corn Show, now being held at Columbia, South Carolina, were announced on January 30th.

The grand championshpip award for the best single ear of corn exhibited, being the Kellogg Trophy, was awarded to Joseph Helms, of Richmond, Wayne county, Indiana.

The championship for mixed corn was awarded to C. A. Brown, of Franklin, Johnson county, Indiana; the championship for white corn was awarded to J. T. Henderson & Sons, of Shelbyville, Shelby county, Kentucky; the championship for yellow corn was awarded to Charles Short, of Greensburg, Decatur county, Indiana. The Indiana Trophy for the best tenears of corn, any yvariety, best ten ears of corn, any variety, awarded to Charles Short, of Greensburg, Ind.

The Colorado Trophy for the best peck of oats exhibited was awarded to J. C. Hill & Sons, of Lloydminster, Saskatchewan, Canada.

Hon. Geo. J. Kindel, of Colorado, member of the Sixty-third Congress, has discovered a number of inequalities in the parcels post law. He has proposed a simple, fair and square basis to remedy discriminations, which has received many endorsements, including the Colorado State Grange.

GOOD BOOKS AND PAPERS.

AUTOMOBILE BOOKS.—The two most interesting and instructive automobile books ever published are offered free if you write to Department 89, the Willys-Overland Company, and ask for them. The automobile has come to stay, and all people should understand them. The first book gives the points to consider in buying a car, and the second how to operate a car. We advise our readers to read the advertisement on page 7 and then write for the books to Department 89, the Willys-Overland Company, Toledo, Ohio.

CUCUMBERS AND POTASH.—This is a pamphlet showing that a farmer who is farming for profit and not for his health derived considerable profit by a small investment in potash for the purpose of fertilizing cucumbers. He paid out $2.70 and gets back $156.25. His non-fertilized plot yielded 369.5 bushels to the acre; his plot furnished nitrogen and phosphoric acid yielded 498.5 bushels per acre, and his crop was 748.5 bushels when treated with complete fertilizer, including 10 per cent. potash. The pamphlet can be obtained of the German Kali Works, 448 Monadnock Block, Chicago, Ill., by simply writing for it.

HOME MIXED FERTILIZERS.—A book that will be sent free on request. It is by Dr. Wm. S. Myers, 17 Madison ave., New York City, N. Y., and gives proportion of fertilizers to be used for different crops. Dr. Myers is specially interested in nitrate of potash and is very careful to do justice to other fertilizing materials. The book is very satisfactory to those who are earnestly desirous of increasing crop production.

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500 MEN 20 TO 40 YEARS OLD wanted at once in every state for Electric Railway Motormen and Conductors; $60 to $100 a month; no experience necessary; fine opportunity; no strike. Write immediately for application blank. Address, **MANAGER, W-275 Dwight Bldg., Kansas City, Mo.**

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AGENTS—$173 IN TWO WEEKS, MADE by Mr. Williams, Illinois, selling the Automatic Jack. Combination 12 tools in one. Used by auto owners, teamsters, liveries, factories, mills, miners, farmers, etc. Easy sales, big profit. Exclusive county rights if you write QUICK. Automatic Jack Company, Box O, Bloomfield, Indiana.

FREE!—Boys, a dandy Hunting Rifle free. 22 Cal. Hamilton Safety, and many other prizes for a few hours of easy work, selling only 30 Pkgs. of our new household Bluine, at 10 cts. a Pkg. **BURLINGTON SPECIALTY CO., Washington St., Burlington, Iowa.**

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ARKANSAS.—Land is low in value but continually advancing. The Cotton Belt Route is one of the great railroad systems leading to the Southwest from St. Louis and the lands traversed capable of the greatest degree of development. Read about Cotton Belt Excursions on page 14 and write to **E. W. LaBeaume,** G. P. A., 1466 Pierce Building, St. Louis, Mo., for Free Book on Arkansas and Texas.

ARKANSAS FARM.—160 acres, near town; all level; 100 acres in cultivation; two good houses, barns, wells, orchards, etc. Price, $12.50 acre. Terms. Other bargains. **L. E. Moore,** Searcy, Ark.

ARKANSAS.—405 acres of land, nine miles from Warren, Bradley county; 100 acres in cultivation, balance in pine, oak, gum and hickory, estimated at $500.00. Good four-room house; wire and rail fence. Part of land has good growth of switch cane; ideal stock proposition; unlimited range. Price for sixty days, $12.50 per acre, cash. **A. L. Greene Company,** Warren, Ark.

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MICHIGAN.—WE SELL OCEANA FARMS—Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

MISSISSIPPI.—CATTLE PEOPLE, LOOK! Eight thousand acres of pasture; seventeen miles south of Vicksburg, Miss.; fenced and counter-fenced. Cane in the hills for the winter. Level, open fields in grass for the summer; overflow lands for the fall. NO WINTER FEEDING REQUIRED. Rental price, 40 cents per acre per annum. Allen Station, Y. & M. V., is on the place. Address, **C B. Allen,** Nanachehaw P. O. Warren county, Mississippi.

MISSISSIPPI.—Well improved farm, situated in Yazoo county, Mississippi; eight miles from good town on main line of I. C. R. R.; 1,290 acres; equipped with four miles of woven wire fence; about two miles of barbed wire fence. All in cultivation except about 200 acres, which is in wood and pastures. Seven tenant houses in first-class condition; one seven-room residence; good orchard, wells, barns, cribs, etc. One good gasoline grist mill goes with it. Soil is black and deep. Japan clover grown naturally on the place, making it one of the best and cheapest stock farms in this county. 175 bales long-staple cotton, besides an abundance of corn, hay, etc., grown on this place yearly. Land is mostly level; no hills; only part of it is gently rolling. No overflows Two creeks furnish plenty water for stock. Owner has other interests and desires to sell. Price only $17.00 per acre. For further information call on or write **R. C. Jarnagin,** Goodman, Miss.

MISSOURI.—For Sale: Farms of 40 to 600 acres at reasonable prices and terms. Choice locations on main line Frisco Railway. List mailed free on application. **John Ross,** Bourbon, Mo.

MISSOURI LANDS IN THE OZARKS.—Corn and cows are a winning combination. Farmers in older states who wish to obtain new locations for one-third of actual value should write for Free Book of the Ozarks. Address, **A. Hilton,** G. P. A., 1512 Frisco Building, St. Louis, Mo. See page 6.

MISSOURI.—For Sale: Fine cattle ranch, 447 acres; 250 of river-bottom land in cultivation. Located on the Frisco Railroad at Wesco, 110 miles from St. Louis. Up-to-date eight-room frame house. Concrete walks. Large barn; all necessary outbuildings and two small orchards. Dept 200 yards from the house. Price, $15,000.00. **A. J. Schwieder,** Steelville, Mo.

TEXAS.—Farms in Texas on the Cotton Belt Route can be had cheap. Most of the fruit and vegetable farms sending early shipments to St. Louis are from the sections traversed by this road. Write for Free Book on Texas Excursion Rates to **E. W. LaBeaume,** G. P. A., 1466 Pierce Building, St. Louis Mo.

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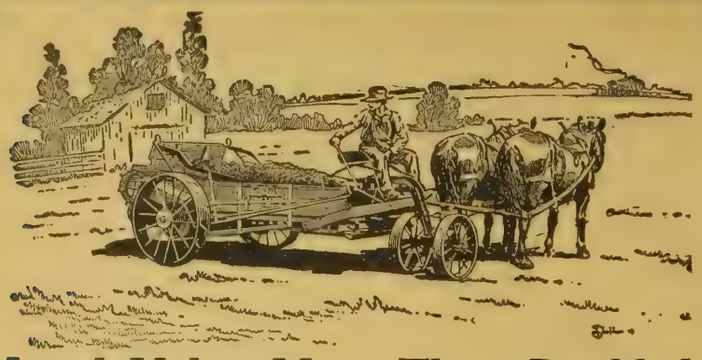

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After three years' soil treatment by scientific methods, he raised more than eighty bushels of corn to the acre on land that produced less than thirty bushels the first year he farmed it.

At forty cents a bushel, that figures about $42.00 an acre, not less than $14.00 of which is clear profit, representing 7 per cent on a valuation of $200 an acre. Mr. Honeycutt paid less than half that price for his land, which is not by any means the best in the state. In all probability it is not as good as the land you are farming. His success is due entirely to his up-to-date, common-sense methods of stock feeding and soil fertilizing. You can do as well or better than he has done, when you begin to supply your soil with the kind and quantity of fertilizer it needs, and spread manure evenly with an

I H C Manure Spreader

I H C Manure Spreaders are made in various styles and sizes to meet any and all conditions. There are low machines and high; steel frames, and wood; wide, medium and narrow machines, all of guaranteed capacity; return and endless aprons; in short, a spreader built to meet your conditions and made to spread manure, straw, lime, or ashes as required.

I H C Spreaders will spread manure evenly on the level, going up hill, or down. The wheel rims are wide and are equipped with Z-shaped lugs, which provide ample tractive power without jarring the machines excessively. The apron moves on large rollers. The beater drive is positive, but the chain wears only one side. The I H C dealer will show you the most effective machine for your work. Ask to see an I H C manure spreader. You can get catalogues from him, or, if you prefer, write

International Harvester Company of America
(Incorporated)
Chicago U S A

IMPROVED DAIRY BREED.

Its Mission and Purpose—A Milk or Butter Test of a Cow Equal to the Track Record of a Horse.

In one of his recent bulletins Mr. Malcolm H. Gardner, Superintendent of the Advanced Registry of Holstein Cattle, says:

"The mission of an improved dairy breed is to increase the productive capacity of the dairy herds of the country. This may be accomplished directly by using pure-bred cows in whole or in part for milk production, and indirectly by grading up the common herds to greater production by the use of pure-bred bulls. To conserve purity of blood, pedigree registers are used for the improved breeds, no animal being eligible to registration whose sire and dam are not recorded. Advanced Registry rests wholly upon merit; the animal must prove itself worthy before it can be accepted. All advanced-registry animals were first entered in the pedigree register to guarantee purity of blood, and then advanced to a higher register upon proving that they were worthy of such advancement. Cows are admitted to advanced registration on their own performance; bulls, on the performance of their daughters. The test record to the cow is what the track record is to the horse; provided the test record is well authenticated. A test record may be worth much or nothing; all depends upon the confidence of the public in its authentication."

Potash Pays the Farmer.

On page 14 will be found an example of fertilizers containing enough potash and another example of fertilizers not containing enough potash. Many low-grade fertilizers are stuffed with phosphoric acid, because it is cheap, and the other elements, nitrogen and potash, are short. Read the advertisement of the German Kali Works on page 14.

Good For Milk or Beef.

A writer in the National Stockman and Farmer, referring to Holstein milk that does not come up to the commercial butter-fat standards, said that cows that gave milk that by the Babcock test does not come up to 3.3 per cent. fat, if fed properly, not for milk, but for beef, will soon put on beef fat, and sell well, especially under present conditions. The culling-out process is not so expensive as it looks, and many a thousand unprofitable animals as dairy cows are good sellers as beef cows.

Holstein-Friesian Records.

During the period from December 24th, 1912, to January 3d, 1913, records for 200 cows were received and have been accepted for entry in the Holstein-Friesian Advanced Register, twenty-four of which were begun not less than eight months after the freshening of the cows making them, and sixty-five of which were semi-official yearly or lactation records.

This herd of 111 animals, of which nearly one-half were heifers with first or second calves, produced in seven consecutive days 46,251.1 pounds of milk, containing 1,578.947 pounds of butter-fat, thus showing an average of 3.41 per cent. fat. The average production for each animal was 416.7 pounds of milk, containing 14.225 pounds of butter-fat, equivalent to 59.53 pounds or 28.35 quarts of milk per day, and 16.59 pounds of commercial butter per week. These averages are computed from tests as carefully and accurately made as it is possible to make them, and some wonder why breeders of pure-bred cattle go to the trouble and expense that is necessary in the making of records. Breeders make the records to show that their cows have the goods, and that they are able to furnish reliable stock for improvement.

Alfalfa in Milk Production.

"An Illinois Experiment Station test showed that with an acre yield of four tons of alfalfa hay and 1½ tons of timothy, the timothy worth $10 per ton, an acre of alfalfa was worth $68.44 more than an acre of timothy in milk production, under the conditions of the experiment, and with milk at $1.30 per 100 pounds. The New Jersey Station concludes that in feeding value three pounds of alfalfa are equivalent to one of cotton-seed meal. Where alfalfa was tested against wheat bran and dried brewers' grain, the saving in cost of milk was 12.7 cents per 100 and 2.3 cents per pound of butter. The milk value of an acre of alfalfa was $74."
—Holstein-Friesian Register.

DAIRY AND CREAMERY NOTES.

During the year 1912 Canada exported 165,000,000 pounds of cheese. Most of it went to England. In the year the Canadian exports of cheese reached the high mark of 234,000,000 pounds. In 1912 the average price for cheese obtained by the Canadian farmers was 13 cents a pound.

The closer the restrictions are imposed in the sale of dairy products the easier it is for the big fish to eat up the little fish. And that many measures ostensibly advocated as health laws are really agitated in the interest of monopoly.

From Brockville, Ontario, Canada, it was reported in January that Thos. C. Singleton, aged 72, in his day one of the most extensive cheese manufacturers in Leeds county, died there recently. He controlled a large combination of cheese factories throughout Leeds and adjoining counties, and he controlled them before consolidations became fashionable in the United States.

From Madison, Wis., it was reported that the first parcel mailed at the local postoffice by parcels post was an eight-pound cheese sent by T. E. Evans to Texico, New Mexico.

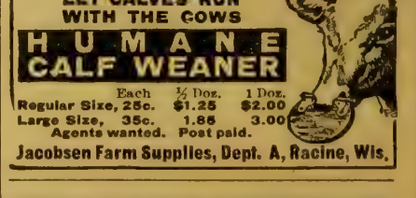
Twelve creameries in Bradford and Wyoming counties, Pennsylvania, have gone under one management by purchase. This is only one of a hundred items of that kind.

LOUDEN'S LABOR SAVING LITTER CARRIER
Tickles the Boy because it makes a man of him—enables him to do a man's work with ease.
You clean your barn with half the effort in half the time. The
LOUDEN CARRIER
makes this heavy job fun for the boy. Curves and switches take the carrier to any part of the barn. The cost is small. It's a money making investment in any size stable. Send for Catalogs. Ask your dealer about the LOUDEN CARRIER.
BARN PLANS FREE
If you expect to rebuild or remodel a barn our Architectural Department will work your ideas into a real plan without cost or obligation to you. Tell us the number and kind of stock you wish to stable and give other information. We may be able to save you a good many dollars.
We manufacture every equipment for Dairy, Horse and Hog barns, and hay unloading tools.
LOUDEN MACHINERY CO.
651 WEST BROADWAY
FAIRFIELD, IOWA.

The Nationall Farmer and Stock Grower, one year with another, has sent out fifty to sixty thousand rose plants. See page 31.

In North Dakota, during the census year, currants were the most important small fruits raised in the state.

15 95 AND UPWARD
AMERICAN
SEPARATOR
THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for $15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Gears thoroughly protected. Western orders filled from Western points. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:
AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N.Y.


LET CALVES RUN WITH THE COWS
HUMANE CALF WEANER
Each ½ Doz. 1 Doz.
Regular Size, 25c. $1.25 $2.00
Large Size, 35c. 1.85 3.00
Agents wanted. Post paid.
Jacobsen Farm Supplies, Dept. A, Racine, Wis.

FIRE PROOF
FROST PROOF
NO PAINT OR CEMENT TILE
HOW TO BUILD IN CEMENT WITH MATERIAL FOUND ON FARM. WITH UNSKILLED LABOR. WHEN OUTDOOR WORK CANNOT BE DONE. IN TILE BLOCKS SHIPPED DIRECT FROM KILN. WRITE FOR BOOKLET AND SPECIAL OFFER NO. 30
CEMENT & TILE SILO CO.
KALAMAZOO, MICH.

DE LAVAL
CREAM
SEPARATORS

Don't Delay Buying One a Single Day Longer

If you are selling cream or making butter and have no separator or are using an inferior machine, you are wasting cream every day you delay the purchase of a De Laval Separator.

There can only be two real reasons why you should put off buying a De Laval; either you do not really appreciate how great your loss in dollars and cents actually is or else you do not believe that the De Laval Cream Separator will make the saving claimed for it.

In either case there is one conclusive answer: "Let the De Laval agent in your locality set up a machine for you on your place and see for yourself what the De Laval will do."

You have nothing to risk and a million other cow owners who have made this test have found they had much to gain.

Don't wait till Spring. Even if you have only two or three cows in milk you can buy a De Laval now and save half its cost by Spring. If you can't conveniently pay cash you can buy a De Laval machine on such liberal terms that it will actually pay for itself.

The new 72-page De Laval Dairy Hand Book, in which important dairy questions are ably discussed by the best authorities, is a book that every cow owner should have. Mailed free upon request if you mention this paper. New 1913 De Laval catalog also mailed upon request. Write to nearest office.

THE DE LAVAL SEPARATOR CO.
NEW YORK
CHICAGO
SAN FRANCISCO
SEATTLE
MONTREAL
WINNIPEG

Dairy Bull Associations.

"One of the hindering factors working against improvement of the dairy stock in communities where there are few if any pure-bred herds is the inability of the dairyman to get good sires.

This inability may be through lack of information, lack of money, or too few cows to warrant the individual purchasing a good bull.

In such communities an organization might be effected that would to a large measure solve the problem.

Bull associations are well known in Europe, but the American dairy farmer knows but little about them. The European plan, changed to meet conditions in this country, has been advocated. The Federal Dairy Division has assisted in forming a few associations of this kind. The territory covered by such an association is divided into four breeding blocks of not more than sixty cows each. The association purchases a bull for each block. At the end of two years the bulls are exchanged, No. 4 going to No. 1, No. 1 to No. 2, No. 2 to No. 3, and No. 3 to No. 4. By this method of transfer a farmer may have the use of four bulls in eight years at a cost of but a part of the purchase price of one bull.

The plan also makes it possible to secure a better class of bulls than any one farmer would be likely to buy.

There is another advantage in that a whole community will be breeding along the same line. This will enable the community to establish a reputation in a very few years for high-class stock of the breed purchased by the association. Such a reputation brings buyers for this kind of stock and results in an average higher selling price for the surplus."

Thus far the article is taken from Hoard's Dairyman of January 24th, and it is good reading. Farmers located within milk-shipping distance of big cities will have no difficulty in agreeing upon forming Holstein Bull Associations, Milk Durham Associations, or some other breed that has obtained a good start; on the other hand, at distances too far out for milk shipping, farmers can form Jersey Bull Associations or adopt the Guernsey Bull Association, or such other as may have a good start in the neighborhood. The shortest cut to economical dairy production is by the improvement of the dairy herds by using pure-bred bulls.

How to Speak to a Cow.

One of the most successful of the early Wisconsin dairymen had for his motto: "Speak to a cow as you would to a lady;" and when he was asked if he removed his hat when entering the stable door in the morning he replied that he certainly would do so if he thought he could get more milk thereby. What owner, especially in testing, has not noticed that some one of his milkers was able to get more milk from the cows than were the other milkers? It is the personal equation, the regard the cow has for her attendant, that gives hand milking an advantage over the machine; and the more nearly the cow has adopted her milker in the place of her calf, the greater will be his success as a milker. There is usually a vast difference in results between the milker who gets a cow into position by pushing the leg of the stool into her flank and then kicks her on the shin to make her step back, and the one who gains the same end with patience and gentleness. Who can blame the cow for wanting to kick the first man?—Malcolm H. Gardner.

Three Men on Silage.

The thousands of farmers who are feeding corn silage this year for the first time will find much help for their problem in a circular on silage feeding just issued by the Iowa Agricultural Experiment Station at Ames, Iowa. It was written by three men who are thoroughly informed on the management of live stock—Prof. W. H. Pew, head of the Department of Animal Industry of the Iowa State College; John M. Evvard, Animal Husbandry Experimentalist, who has had large experience in feeding; and Prof. H. H. Kildee, Dairy Husbandman. It is called Circular No. 6 and deals with silage as a ration for all kinds of live stock. If interested, write for it to the Director Agricultural Experiment Station, Ames, Iowa.

A Modern Dairy Farm.

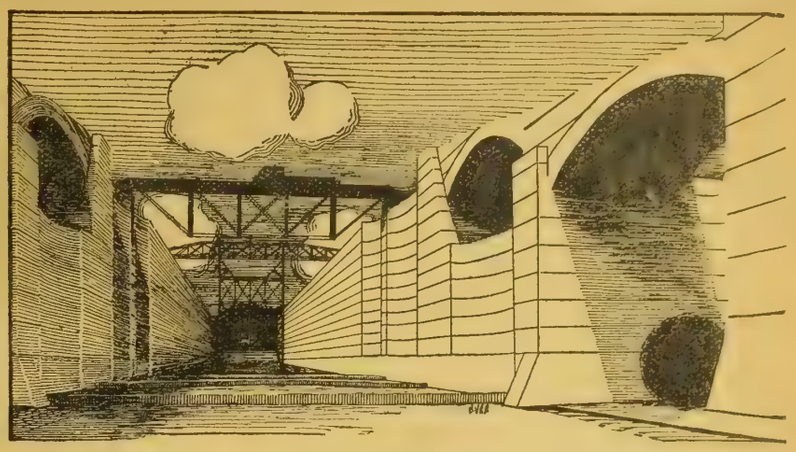
During the week ending January 25th, Dr. Alfred Knight, Dairy Commissioner of British Columbia, and Dr. W. P. Cutler, Missouri Dairy Commissioner, and Dr. Sheldon, of the State University, inspected Col. William F. Phelps' dairy farm near Carthage, Mo. Dr. Knight says Phelps has the most modern dairy farm in the West, if not in America. Every scientific appliance is used, including milking machines, so that the milk does not come in contact with the air until poured in the glass on the table. He has seventy Jerseys and a fine silo.

World's Record Ayrshire.

Jean Armour, a typical Ayrshire cow, weighing 1,100 pounds, has recently gone through a year's test. Her production was 20,174 pounds of milk, which is for the breed a world's record. She gave 774.73 pounds fat, equal to 904 pounds butter, with an average of 3.84 per cent. fat. She is owned by Mrs. F. D. Erhardt, of West Berlin, Vt.

Exports of Butter and Cheese.

During the year 1912 butter to the amount of 4,605,234 pounds was exported from this country; in 1911 the quantity was 6,040,965 pounds; and in 1910 the butter exported was 2,760,974 pounds. Of cheese, the exports were 2,726,065 pounds in 1912, 11,745,880 pounds in 1911, and 2,418,859 pounds in 1910. Our exports are very small, compared with the total butter production of cheese and butter.



Panama Canal

Your attention

is respectfully directed to the fact, that the five million barrels of Atlas Portland Cement, already supplied by this Company for the construction of the Panama Canal, have been accepted without the rejection of a single barrel.

The United States Government has ordered this Company to supply, in addition, all the cement necessary to complete the work in the entire Canal Zone.

Have you our FREE 168 page Farm Book on concrete work? Write us for it now.

If your dealer cannot supply you with Atlas, write to
THE ATLAS PORTLAND CEMENT CO., Dept 165, 30 Broad St., N.Y.
Chicago – Philadelphia
Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

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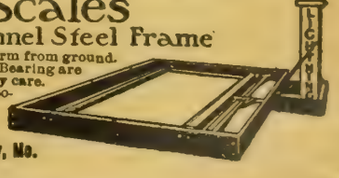
FRAZIER'S DISTEMPER CURE

DISTEMPER QUICKLY CURED

Any druggist will supply you with Frazier's Distemper Cure on a guarantee to give satisfaction or return your money. One dose acts as a preventive. One bottle a Cure. Distemper, Coughs, Colds, Influenza, Pink-Eye and Catarrhal Fever cured in 4 to 8 days. No bad after effects; leaves the Colt, Mare or Stallion in good condition. Free Booklet on request. $1.00 bottle holds three 50-cent bottles, at druggists, or prepaid from
BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

Lightning Pitless Scales
New Pattern. Solid Channel Steel Frame
Channels are seven inches which is the height of platform from ground. Levers are octagon in shape giving greater strength. Bearing are Toolsteel. This scale will last a life time with ordinary care. Equipped with compound Beam Free. Furnished absolutely complete except platform planks. Guaranteed accurate and tested to more than its capacity. Write for our prices and description before buying.
KANSAS CITY HAY PRESS CO., 425 Mill St., Kansas City, Mo.



ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS. EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

GOOD SEEDS

BEST IN THE WORLD
Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

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CLOVER CHEAP

Now is the Time to Buy

Prices bound to be higher later. Buy before advance and save money. Write today for special low price and free samples of our Pure Iowa Grown New Crop Recleaned Tested Clover and Timothy Seed. Have alfalfa, alsike, sweet clover, all kinds grass seed. Write us now.

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Evergreen Bargains

$4.50 and up per thousand. Hill's fine, hardy nursery-grown evergreens never disappoint. Protect crops—increase value of land—make house and barn warmer—save fuel—save feed. Free Evergreen Book illustrated in colors tells how and lists 50 Bargain Offers. Write today.

D. Hill Nursery Co., Inc. *Evergreen Specialists*
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For Only 10 Cts.

Celosia Castle Gould, most brilliant of flowers.
Crego Aster, monster white, enormous in size.
Carnation Everblooming, finest white, large double.
Giant Portulaca, a glorious new sort of marvelous brilliancy.
Orchid-flowered Pansies, wonderful colors and forms.

These 5 most superb Novelties sold last year for one dollar. Nothing better in cultivaton. We mail all 5 with cultural directions and big Catalogue *FOR ONLY TEN CENTS.*

Our big **Catalogue** of Flower and Veg. Seeds, Bulbs, Plants and new Fruits *free* to all who apply. We are the largest growers in the world of Gladiolus, Cannas, Dahlias, Lilies, etc, and our stocks are the best and cheapest.

JOHN LEWIS CHILDS, Floral Park, N. Y.

CLOVER AND TIMOTHY $4.50 Per Bu.

INVESTIGATE—Best and Cheapest Seeding Known.

Alsike Clover and Timothy mixed. Fully 1-3 alsike, a big bargain. Greatest hay and pasture combination grown. Write for **Free Sample** and 76-page catalog and circulars describing this wonderful grass mixture. Beats anything you can sow and ridiculously cheap. We handle only best tested recleaned seed guaranteed. Write before advance.

A. A. BERRY SEED CO., Box 533, Clarinda, Iowa

Every Home Should Have a Berry Bed

One man made $200 with berries in his yard. YOU can do likewise. Get your sets from ALLEN, largest grower of true-to-name strawberry plants. 28 years' experience. Allen's

Strawberry Book

tells how to grow berries for profit. Has valuable information on small fruits. Sent FREE on request. Full line of small fruit plants, shrubs, privet, asparagus, etc. All shipments guaranteed fresh and vigorous. Allen's plants are best.

W. F. ALLEN
110 Market St. Salisbury, Md.

MANAGING ORCHARDS.

Relation of Proper Pruning to Thorough Spraying.

The necessity for thoroughness in spraying is recognized by every one who has had any experience in fighting our worst insect pests. Writers on spraying have urged that thoroughness is one of the most important factors entering into the spraying operations. While such urging is entirely justifiable, I sometimes feel that too little has been said about preparation for thoroughness. This is certainly true in the case of many of our orchards where, if more time was spent in heavy and intelligent pruning, and less in spraying, the result would be much more effective work than is sometimes done. Orchards have been observed time and again which had not seen a pruning saw for years, where the growth of the branches was such as to exclude the sun almost entirely from the center of the tree; where the fruit was small and poorly colored; where codling-moth found conditions entirely favorable for its survival, and yet when the owner was asked why his fruit was wormy he would reply that the arsenate of lead that he sprayed with was not good. Such orchards defy proper spraying, or at least require so much spray to do the work well that the average orchardist would rather grub up the trees than spend the necessary money to spray them. While the statement may be slightly overdrawn, it is not far from the truth, as any investigator who has studied spraying problems will have to admit.

The horticulturist urges regular and systematic pruning of the orchard just as emphatically as the entomologist urges thorough spraying. Heavy pruning of old trees does not usually become necessary when each season after planting moderate, careful pruning is done. It does become necessary in extreme cases where earlier pruning has been neglected, and the time has come when a serious pest infects the orchard, else the spraying in all probability will be insufficient to control this pest.

Many striking examples of this relation between pruning and spraying were observed in orchards where the leaf-roller has been doing so much damage of late years. Where trees have been allowed to grow to an abnormal height and the upper branches have not been reached with the spray, they have lost a much higher percentage of their foliage from the attack of the larvae than branches lower down, where spraying could be more easily done. The same condition has very often been observed where codling-moth was the pest sprayed for instead of leaf-roller. It must hold true when spraying for any pest, whether it feeds on the bark, fruit or foliage, if it is at all prevalent.

There are orchards in Colorado and other states that offer a resistance to thorough spraying so great that our high-pressure power sprayers are insufficient to overcome it altogether. Before spraying should be attempted in such cases, the trees should be cut back to a reasonable height and all the interfering and surplus braches should be taken out, thus making the tree low enough so that the topmost branches may be easily sprayed, and the head open enough so that each branch may get its share of the liquid.

Trees that would properly require from twenty to thirty-five gallons of spray for the most thorough work could probably be well sprayed with ten gallons when pruned as they should be.

The control of a well-established insect pest is often no easy matter, notwithstanding the fact that we may have access to the improved modern power spraying machines; the insecticide used may be perfectly reliable in controlling the pests we spray for, and yet we may fail because of having to do our spraying under unfavorable conditions. In the orchard nothing can be more unfavorable than tall, bushy, neglected trees.—George P. Weldon, Colorado Experiment Station, Fort Collins, Colo.

Keep the Grain Out of Your Straw Pile

All threshing machines are not alike. There is one different from all others. It has a different way of taking the grain out of the straw. **It beats it out** just as you would do by hand with a pitchfork. All other machines depend upon its dropping out.

This one different machine is the Red River Special and you should insist upon having it do your threshing. It will save all your grain and waste none of your time.

It saves the Farmer's Thresh Bill.

It has the Big Cylinder, the "Man Behind the Gun," the patented Grate and Check Plate, the greatest separating devices ever built.

The Big Cylinder drives the intermingled straw, chaff and grain against the separating grate, **beating** the grain through where the check plate catches it and delivers it to the grain pan and mill.

Ninety-five per cent of the grain is taken out right there.

The straw goes over upon the shakers which hold it and **beat** it until all the grain is **beaten out.**

In all other kinds the straw is hurried out of the machine and the grain is expected to drop out.

It doesn't. Thousands of green straw stacks every year loudly say it doesn't.

The Red River Special saves all this. Insist upon its doing your work this year. **It will save your thresh bill.** Write for proof.

To Whom It May Concern:

I, J. Knudson, farmer, of McHenry County, North Dakota, do depose and say that during the summer of 1908 I bought of Nichols & Shepard Company a threshing outfit, consisting of one 20-horse power, double cylinder traction engine and one 32x62 Red River Special Separator with wind stacker, self-feeder and weigher attached.

That on or about August 23, 1908, I started this outfit near a stack of old straw that had been threshed in 1907 by a ——— separator, and to stretch the belts on the new machine I caused a small load of old straw from the stack in question to be run through the new machine and was surprised to get over sixteen bushels of oats from this load of straw.

I afterward threshed out the balance of this stack and got 347 bushels of grain.

(Signed) JAMES KNUDSON.

Subscribed and sworn to before me, a Notary Public, in and for McHenry County, North Dakota, this 6th day of Feb., 1909.

[Seal] J. EDGAR WAGAR, Notary Public.

My commission expires March 27, 1914.

NICHOLS & SHEPARD COMPANY, Battle Creek, Michigan
Builders of Threshing Machinery, Engines and Oil-Gas Tractors

GADDIS PROLIFIC SEED CORN.

We have left three thousand bushels of carefully-selected Gaddis Prolific Seed Corn. This corn makes from seven to ten ears to the stalk and from 75 to 150 bushels to the acre. There has never been a crop failure when Gaddis Prolific was planted. Price, $3.50 per bushel, delivered your station. No orders filled for less than two bushels. Reference: State Bank & Trust Co., Jackson, Miss., and Merchants & Planters Bank, Raymond, Miss.

GADDIS, McLAURIN & CO., Raymond, Miss.

RATEKIN'S 100 BU. OATS

Ratekin's Big Banner 100 Bushel White Oats—The biggest, prettiest, plumpest oat in existence. Side by side with common sorts they yield 100 bushels per acre where other sorts make but 25 to 35 bushels. Strong, stiff straw; sprangled heads; ripens early; never rusts, blights or lodges. **There is none like them,** and when our stock is exhausted there is no more to be had. **Samples Mailed Free.** Also our Big Illustrated Catalog of farm, field, grass and garden seeds. A postal card will bring them to your door. Address,

Box 10, RATEKIN'S SEED HOUSE, Shenandoah, Iowa.

A Bright New Book of 180 Pages for 1913

Telling the Plain Truth about BURPEE-QUALITY SEEDS, is mailed Free of Cost to Gardeners everywhere upon Application to

W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia

SEED CORN 146 BU. ACRE

DIAMOND JOE'S BIG WHITE—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—Because it was bred for most Big Bushels, not fancy show points; because grown from pure inherited stock; every stalk bearing one or more good ears, because scientifically handled, thoroughly dried and properly cured and had the most rigid inspection. Also all other leading standard varieties at **FARMER PRICES. OUR BIG ILLUSTRATED FARM AND GARDEN SEED CATALOG** mailed **FREE.** A postal card will bring it to you. Write for it today. **Address, RATEKIN'S SEED HOUSE, Shenandoah, Iowa. Box 10.**

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Catalogue FREE.

ONLY $10.00

Cash, balance $5 per month, buys this 3-year-guaranteed buggy. Buggies $29.50 up; Surries $45.00 up; Farm Wagons $40.00 up. We trust honest people located in all parts of the world.

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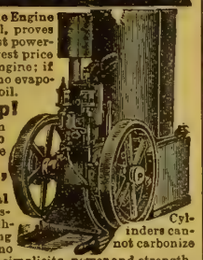
Use KEROSENE Engine Free!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.



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Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

Amazing "DETROIT"

—only engine running on coal oil successfully, uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate the money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

Cylinders cannot carbonize

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

PEERLESS GATES

GALVANIZED

SELF-RAISING

No lugging or dragging the Peerless—it lifts itself. Springs up the moment it is unlatched and may be latched in raised position.

HEAVILY GALVANIZED

throughout—the Peerless is rust proof—no painting every year or two.

Big, Extra Heavy, high carbon, steel frames filled with close woven all No. 9 wire. Heavy enough to last a lifetime.

Fully described in our big free Fence and Gate catalog. Get a copy before you buy a rod of fence or a single gate.

Peerless Wire Fence Co.,
242 Mich. St.
Adrian, Mich.

Stover HIGH GRADE *Gasoline Engines*
From 1 to 60 h. p. Circulars & prices on applicatio
Weber Imp. & Auto Co., 1900 Locust st., St. Louis

Strongest FENCE Made

Made of DOUBLE STRENGTH Coiled Spring Wire. Requires fewer posts. Always tight. Is heavily Galvanized with PURE ZINC.

Will outlast all others. Sixty different styles and heights to choose from. A FENCE for every purpose.

WE SELL DIRECT TO THE FARMER AT DEALER'S PRICES.

Be your own merchant and put the Dealer's Profit in your own pocket where it belongs. Prices the lowest ever quoted on first-class wire fence.

26-inch Hog Fence, - - 14c. per rod.
41-inch Farm Fence, - - 21c. per rod.
48-inch Poultry Fence, - 22½c. per rod.

Special Barbed Wire, $1.55 per 80-rod Spool.

Biggest values ever offered and sold under our 30-DAYS-FREE-TRIAL-MONEY-BACK GUARANTEE-CONTRACT. Our big Catalogue contains information you should have. Write for it today It's FREE

COILED SPRING FENCE CO.
Box 258 Winchester, Indiana.

BROWN

WE PAY THE FREIGHT

Heaviest Fence Made
Heaviest Galvanizing

We make 160 styles. Horse cattle, sheep, hog, and bull proof fences made of No. 9 double galvanized wires and absolutely rust proof

Bargain Prices:
13 cents per Rod Up

Poultry and Rabbit Proof Fences, Lawn Fences and Gates. Send for Catalog and Free sample for test.

The Brown Fence & Wire Co.
Dept. 45 Cleveland, Ohio

SAMPLE FREE

FENCE

Mississippi Cattle at St. Louis.

The cattle from Mississippi bring better net results at St. Louis than at any other market, especially so when they are sold by a first-class commission firm. Messrs. Milton, Marshall Live Stock Commission Company sell a good number of Southern cattle at the National Stock Yards, Ill., including many mixed loads, including cows, bulls, oxen, stags, etc. Late in January they sold for J. W. Wright, Montgomery county, Mississippi, 1,500-pound steers at $6.00 per 100 pounds; 850-pound cows at $4.90; a lot of yearlings, 223 pounds, at $5.75; 800-pound cows at $4.75. They sold for Hood & Orr, of Morgan county, Alabama, 505-pound bulls at $4.75; 550-pound cows at $4.15; 285-pound yearlings at $4.70; and 150-pound calves at $6.50. For J. W. Gresham, Prentiss county, Mississippi, 193-pound calves at $5.75; 715-pound bulls at $4.50; 544-pound canners at $4.10. For R. W. Holland, Morgan county, Alabama, 826-pound cows at $5.40; 610-pound bulls at $4.35; 1,066-pound oxen at $5.25; 932-pound oxen at $4.50. For Ki Harrington, Holmes county, Mississippi, 506-pound heifers at $4.65; 388-pound heifers at $4.00; and 565-pound bulls at $4.65—all sales being at the price quoted per 100 pounds.

In this connection, taking the last week of January, 1913, Mississippi steers, 609 pounds average, sold up to $6.40; a load from Louisiana, averaging 1,026 pounds, sold at $6.90; another lot 796 pounds at $6.10; and a straight load of 613-pound Louisiana steers at $6.15 per 100 pounds. We close this article with Milton-Marshall & Company's quotations for Southern States butcher cattle:

"Cows are in good demand, especially the good grades, and are selling from $5.25 to $5.50. Canners are still finding a ready outlet at strong prices. Bulk selling from $4.15 to $4.25, with common kinds around $4.10. Cutters from $4.40 to $4.65. Best heavy calves from $5.50 to $6.50, with the light from $5.75 to $6.75, a few selected selling as high as 7 cents. Yearlings mostly from $4.50 to $5.00 per 100 pounds."

NATIONAL CORN SHOW NOTES.

The National Corn Show opened at Columbia, South Carolina, on January 27, and remains open until February 8, 1913. It was estimated as being equal in exhibits and the fullness of variety to displays at twenty State Fairs.

At the National Corn Show, the United States Department of Agriculture exhibited moving pictures, showing the life history of the cattle tick, also a demonstration entitled "From the Cow to Consumer," and other views of considerable interest.

The famous champion corn grower, Mr. L. B. Clore, of Indiana, stated at the National Corn Show that crop improvement by seed selection had added an average of seven bushels of corn to the acre in the past ten years.

Some few grains of original Indian corn, supposed to be 1,000 years old, were exhibited at the National Corn Show. The corn was found some years ago in the tomb of a mound-builder near Fort Ancient, Ohio.

For the present the office of Mr. R. W. Brown, Secretary of the American Galloway Breeders' Association, is at Carrollton, Mo. This is not a removal of the headquarters, but a temporary arrangement, because Mr. Brown is obliged to be at Carrollton, and the association has agreed to the temporary removal of the Secretary's office to that town.

There's a Certain-teed Roofing for every building on your farm—large or small

There is a simple method of applying *Certain-teed* Ready-to-lay Roofing on all kinds of buildings—farm houses, barns, garages, poultry houses, silos.

It comes in rolls, also red, green and slate gray shingles.

Certain-teed

(Quality *Cert*-ified—Durability Guaran-*teed*)

Roofing in Rolls and Shingles

Cold weather cracks tile, rains wash and rot shingles, wash gravel off, and the sun melts tar. *Certain-teed* Roofing contains no tar or paper, it will not crack, warp or blow off, it is weather-proof and we guarantee it to wear fifteen years—*costs less* and is *easy to lay.*

Look for the *Certain-teed* label of quality—your dealer can save you money.

Valuable Book Free You will find many valuable suggestions in our new book, **"Modern Building Ideas and Plans."** It tells you what to do and what not to do—it suggests economies and conveniences that will save you money.

A book of this kind would ordinarily sell for $1, but as it shows the use of our *Certain-teed* Roofing on all kinds of model homes and farm buildings, we offer it to you at 25 cents. We prefer to have you go to your lumber, hardware or building material dealer, who will gladly get you a copy FREE. If you write us, enclose 25 cents to cover cost, postage and mailing.

General Roofing Mfg. Co.

E. St. Louis, Ill. York, Pa. Marseilles, Ill. Minneapolis
San Francisco Winnipeg, Can.

General Roofing
The World's largest manufacturer of Roofings and Building Papers

Wyoming's Highest Mountain.

Wyoming has a mountain nearly 14,000 feet in height. It is called Gannett Peak and is located in Fremont county, in the western part of the state. Its height above sea level, according to the United States Geological Survey, is 13,785 feet. The lowest point in the state is on Belle Fourche river, 3,100 feet above sea level. Wyoming, which has an average elevation estimated at 6,700 feet, is the second highest state in the Union, being exceeded only by Colorado.

Get It From the Factory Direct

KITSELMAN FENCE

We were the first to sell wire fence direct to the Farmer.

We make you the same price we would make the Dealer or Jobber. THAT IS WHY WE CAN SAVE YOU MONEY. Look over these prices on just a few of our many styles.

14 cents a rod for 26 inch Hog Fence.
23¼ cents a rod for 49 inch Farm Fence.
25½ cents a rod for 60 inch Poultry Fence.
$1.55 for 80-rod spool Ideal galv. Barbed Wire.

Kitselman Fence wears best and lasts longest. Read the following letter, one of hundreds recently received.

"Nearly 20 years ago I built corals for wild Texas cattle with Kitselman Fence. These pens are still good although the fence is on its third set of posts."
W. C. POWELL, Baird, Texas.

We make over 100 different styles of Fencing. Won't you write for our Free Catalogue today?

KITSELMAN BROS., 261 Council St. Muncie, Ind.

CUT OUT AND MAIL TO
KITSELMAN BROTHERS
261 Council St. MUNCIE, IND.
Send me your free Catalog of Fence.

Name ----------
Town ----------
R.F.D. ---------- State ----------

Land cost him $600 $6000 profit now!

Mr. Hall, a former Michigan man, bought 100 acres of land in East Texas, at $10 per acre, a few years ago; planted 60 acres to peach trees; made a good living from melons and berries until trees came to bear—and *now* he is getting $6000 *net* from his sixty-acre orchard alone.

[Monkress Farm Jacksonville, Texas.]

You can not only buy lands at far less than yours would sell for; but you can raise more crops with the same effort and at less expense; because of the rich fertility of these lands and the milder climate, which cuts winter expenses *'way down*, along the

Cotton Belt Route in Arkansas and Texas

A. Frank Federer says, who came here from Rhineland, Wis.: "I can raise here on $15 land as much as I could in Wisconsin on $200 land." S. N. Jackson of Piggott, Ark., declared that "This is better fruit country than in Tennessee; our orchard crops bring more money here, and there is a better market for what we raise." Jackson only paid $700 for his place. These lands won't stay cheap. They have already doubled in value since 1905; but even this year you can buy at $12 to $25 per acre, as good land there as you are farming now. And you'd have *every* advantage of schools, churches, close neighbors, good local markets, phones, rural free delivery, etc. This proposition deserves serious thought.

On the 1st and 3rd Tuesdays of each month there are low round trip excursions to Arkansas and Texas via Cotton Belt Route, allowing 25 days' time and free stopovers. Go on the *next* one.

Get our free books!

Written by a farm man who knows farming from A to Z. He traveled over thousands of miles in these sections to learn where the *real* farm opportunities were—the kind he knew *you* would grasp if you saw them. He tells you, in plain words, all about them. 100 pages and farm pictures. Send a postal today for your *free* copies.

E. W. LaBEAUME,
General Passenger Agent
1466 Pierce Bldg., St. Louis

COTTON BELT ROUTE

Value of Fertilizer.

In Parker county, Texas, the Agricultural Agent is Mr. J. J. Caldwell, who makes the following report upon the five-acre demonstration tract which G. G. Cannon had in cultivation on his farm, seven miles northwest from Weatherford. On two and one-half acres of cotton cultivated under scientific methods and with the use of 200 pounds of available acid phosphate per acre the yield per acre was 2,480 pounds of seed cotton. The phosphate cost 90 cents per 100 pounds, or $1.80 an acre as used. On Mr. Cannon's adjoining land of the same quality, worked along the old method, the yield was 800 pounds per acre. On two and one-half acres of corn cultivated under scientific methods and with the use of 200 pounds of phosphate per acre, the yield was forty-five bushels by weight per acre, as against twenty-five bushels per acre on adjoining land of the same quality worked after the old method. Mr. Cannon's eleven-year-old son cultivated one acre in cotton, following Mr. Caldwell's directions, and fertilizing as his father had, and from the one acre picked 2,818 pounds of seed cotton. He did all the work himself except the heavy breaking. Mr. Caldwell says Mr. Cannon is a convert to the scientific method of farming.

FORMALIN TREATMENT

For Smut in Wheat, Oats, Barley and Potato Scab.

Many good agricultural bulletins are issued by the New Mexico College of Agriculture, and one of the recent issues is on the formalin treatment for smut.

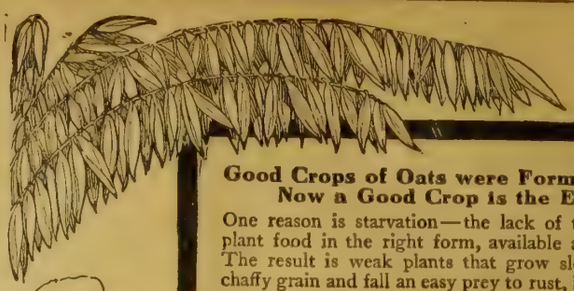
The formalin treatment of seed to prevent smut is simple, cheap and effective. It is also safe, there being but little danger of doing injury to the vitality of the seed. It will prevent (1) stinking smut or closed smut of wheat; (2) loose smut of oats; (3) covered smut of oats; and (4) covered smut of barley. (Potato scab is also treated successfully with formalin). The formalin treatment is not entirely effective in controlling loose smut of wheat or loose smut of barley. It does, however, help considerably with these two loose smuts. The loose smuts are more successfully combated with the hot-water treatment, but its use is not so easy and there is more danger of doing injury to the seed. No effective treatment for corn smut is known. Loose smut of wheat and barley can be distinguished from the closed by the fact that, to see the black spores of the closed smut, the kernel or mass between the glumes must be crushed. The black spores of the loose smut are visible on the surface.

Treatment.—Mix one pint of formalin with fifty gallons of water. The seed may be dipped into this solution in a basket or sack, or the solution may be sprinkled upon the seed. The essential point is, that all of the kernels are thoroughly wet. Fifty gallons of the solution should treat about fifty bushels of seed. The treated seed should be dried soon after the treatment.

Farmers should treat their seed wheat and seed oats and seed barley every year. The cost of treating sufficient seed is small and the loss due to smutted grain is large. Those smuts which are not controlled by this treatment are of comparatively little importance.

Profit in Nineteen Fall Pigs.

An Ohio farmer who has had the experience which teaches him that there is money to be made with fall litters, gives results with two Duroc-Jersey sows and their fall litters. These sows farrowed August 30th and September 1st, thirteen and eleven pigs, and raised nineteen in all. The feed they consumed, counting from the time the sows were bred until the offspring were sold, May 19th, 1911, was as follows: Pasture, $5.90; tankage, $12.25; ground wheat, $9.50; skim milk, $2.00; linseed meal, $2.00; soy beans, $2.00; 193 bushels of corn, $86.85. Total cost, $120.50. When these nineteen pigs were sold they averaged 196 pounds and weighed in all 3,725 pounds. He received $6.00 per 100 pounds, net, on the farm, or $223.50, making $105 profit on the nineteen pigs, or, to put it the other way, he cashed the corn consumed at 98 cents a bushel by sending it to market on foot.



Good Crops of Oats were Formerly the Rule; Now a Good Crop is the Exception.

One reason is starvation—the lack of the right kinds of plant food in the right form, available at the right time. The result is weak plants that grow slowly, yield light, chaffy grain and fall an easy prey to rust, blight and insects.

POTASH

has been shown to greatly decrease the liability of the small grains to attacks of rust, as well as lodging because of weak straw. Be sure that your oats fertilizer contains 6 to 8 per cent. Potash. Ask your dealer to carry such brands, or Potash Salts, to enable you to bring the brands up to this standard.

If he will not, we will sell you Potash in any amount from a 200-pound bag up. Write for prices and for free book on fertilizer formulas and how to adjust them.

GERMAN KALI WORKS
New York: 42 Broadway Chicago: Monadnock Block
New Orleans: Whitney Central Bank Building
Savannah: Bank & Trust Bldg. Atlanta: Empire Bldg.

Elkhart Vehicles and Harness

have a world-wide reputation for high quality and our prices have made them famous.

FORTY YEARS'

experience selling to the consumer means success. We ship for examination, guaranteeing safe delivery, satisfaction and to save you money. Catalog shows all styles of pleasure vehicles and harness, pony vehicles and harness, spring wagons, delivery wagons and harness.

May we send you large catalog?

We also make the "Pratt" Automobiles.

Elkhart Carriage & Harness Mfg. Company
Elkhart, Indiana

Save $25

[Please mention National Farmer and Stock Grower.]

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

Get our Thresher Tank for water.

O. K. HARRY STEEL CO., 2353 Papin St., St. Louis, Mo.

Wholesale and Retail Profit Saved! FREIGHT PAID

RUBBER ROOFING

1-Ply, 35 lb. 108 sq. ft., $1.10 per roll.
2-Ply, 45 lb. 108 sq. ft., $1.30 per roll.
3-Ply, 55 lb. 108 sq. ft., $1.50 per roll.

Warranted For 25 Years. Terms Cash. These Special Prices Only Hold Good for Immediate Shipment.

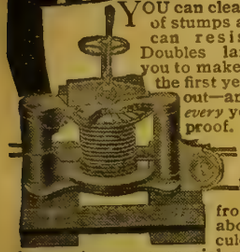
FREIGHT PAID to any station east of Rocky Mountains except Tex., Okla., Colo., N.D., S.D., Wyo., Mont., N.M., La., Ga., Ala., Miss. and Fla. on orders of three rolls or more. Special prices to these States on request.

INDESTRUCTIBLE BY HEAT, COLD, SUN OR RAIN.

FIRST-CLASS IN EVERY RESPECT. NO SECONDS, REMNANTS OR MILL ENDS. Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to the Southern Illinois National Bank.

Century Manufacturing Co., Department 127, East St. Louis, Illinois.

Pull 100 Stumps A Day—With The Hercules



YOU can clear an acre or more of stumps a day. No stumps can resist the Hercules. Doubles land value—enables you to make $1200.00 on 40 acres the first year after stumps are out—and $750.00 in crops *every* year after. Get the proof. Why not

Write Us Now

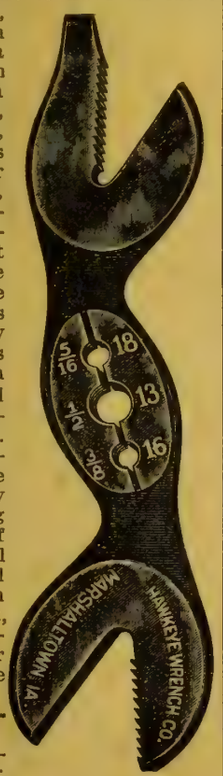
Book tells all the facts—shows many photos and letters from owners—tells all about the many Hercules features. We'll also quote you a special money-saving price proposition that *will interest you.* Address

HERCULES MFG. CO. 1402 1st St., **Centerville, Iowa**

NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screw-driver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.



Special Inducements.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Farm Level Necessary.

A farm level is just as useful and as necessary as a two-foot rule. Every farmer does not have to be a surveyor or an engineer to conduct a farm, but he should know enough to establish his grades and levels in laying out his fields for cultivation, in terracing to prevent the land washing,, in ditching and draining, etc. The best farm level on the market is made by the Bostrom-Brady Mfg. Co., Atlanta, Ga. It is sold through hardware dealers, but the way to get acquainted with the uses and purposes of a farm level is to answer the advertisement on page 6.

THE COUNTRY SCHOOL OUTFIT.

Points in Favor of the One-story School House—Land For the Play Ground—The Time to Buy is Now.

In our cities the building of school houses has become a matter of greater importance than formerly, and the most modern edifices meant for school work are very different from those erected a few generations ago. The same improvements should be found in our country schools.

Where country school houses are to have more than one room, the building should in no instance be given two stories. The day of two-story school houses is passing, except in cities where land is too expensive to give the school houses the land they should have.

In quite a number of places now school houses are being spread over a large area, but are made but one story high. It is found that this method does not cost much more than the old method of construction. Even where there are as many as eight rooms in a school house, the one-story edifice is preferred. It means more light for the children and the elimination of danger from fire, for it is not possible for children in a one-story school house to lose their lives in case of fire.

Another improvement in school house building is the making of the roof flat and furnished with sky-lights, so that much of the light comes from the top. Then, on certain days it is found advisable to draw down the shades at the side windows and receive all the light from the top. This gives a more perfect distribution of light and is a help to the eyes of the children. In some of the suburbs of Chicago, even where land is expensive, the new school houses are being constructed on this plan, and the Boards in those places say they will never again construct school houses more than one story in height.

In the country the price of land is so low that there is no reason why school houses should not be spread out rather than built up. Climbing stairs is not a desirable kind of exercise for children, especially those that have weak hearts. Since a spread-out school house costs no more than the other kind, why not build that kind? The old argument used to be that it was the roof that cost, and therefore one roof should be made to cover as many stories as possible. But the flat roofs are not so expensive as the slanting roofs, and this does away with the old argument.

The play ground is now assuming great importance in the modern city school equipments. In the country it is not perhaps possible to have supervised play, but the ground can be provided for the children. Especially should there be provided a good, big base ball field in connection with every country school. Five acres of land should be added to every school ground where there are a goodly number of pupils. There can be no better investment in connection with any school.

The cost of the additional land would not generally exceed $1,000, even in localities where land is high-priced. There are many other localities where the cost would not be more than half that sum. Bonds can be voted for the purchase, paying four per cent. interest and payable in light installments spread over a term of years. Land should be purchased now, for it will never be cheaper.

What other things should be added to the outfit will depend on the size of the school and the importance it has in the eyes of the people. In some localities domestic science and manual training equipments in country schools are becoming common.

The European wheat crop of 1912 was in bulk larger than in 1911, due entirely to 218,000,000 bushels increase in the Russian harvest. A total of 727,010,852 bushels in 1912, against 509,491,420 bushels in 1911.

The Chance to Save the Dollar

It is right here. Your seed is right, your cultivation is right, and the weather is right for a bumper crop; but if the manure or fertilizer is not right you stand to lose the bumper crop even if you do succeed in making a small one. When you want a big crop, (and most farmers do) it is up to you to feed for it, because your soil does not contain enough **available** plant food. That is where

EMPIRE FERTILIZERS

do their work. They supply to growing crops in available form the plant food elements required which in connection with good seed, cultivation and weather and the plant food supplied by the soil and air, are producing good crops of profitable size and quality. Farmers depend upon them as upon other old friends, and have done so for years.

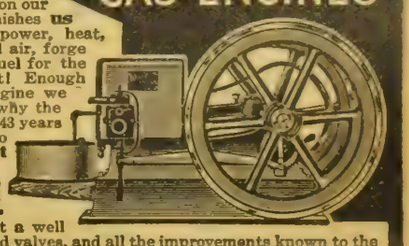
Agents wanted where we have none. Address early for prices and terms,

EMPIRE CARBON WORKS

421 Locust Street, St. Louis, Mo.

WE SAVE $50.000 A YEAR IN BUILDING GAS ENGINES

Because we have an immense Natural Gas Well on our property which furnishes **us absolutely free,** power, heat, light, water, compressed air, forge and foundry fuel, and fuel for the test floor. Just think of it! Enough profit in itself for every engine we make. Do you still wonder why the famous **WITTE ENGINE,** for 43 years the standard of America, is sold to you at other manufacturers' **cost prices.**



Profit By Our Good Luck!

Share with us this immense saving and get a well tested engine—one with detached cylinder and valves, and all the improvements known to the trade today—an engine built by one firm for the past 43 years with a **REAL 5-YEAR GUARANTEE.** They run on any grade of fuel and are made in 54 styles and sizes. Write for **Free Trial Offer and Catalog,** stating size wanted.

WITTE IRON WORKS CO. 1726 Oakland Ave., KANSAS CITY, MO.

RED TIP CALKS

cannot drop out and will not break off; wear sharpest and last longest. They are the best and safest for YOUR HORSE.

Beware of Imitations.
LOOK FOR THE RED TIP.
Booklet L tells why. Send for it.
NEVERSLIP MANUFACTURING CO.
NEW BRUNSWICK N.J.

Hog Book Free.

Book of facts on care and diseases of hogs Tells how to prevent and cure disease, and destroy worms. Greatest discovery known Sent free. Write Dr. D. C. Snoddy Co. Dept H, Nashville, Tenn

Death to Heaves
"Guaranteed or Money Back. Coughs, Distemper, Indigestion.
NEWTON'S 50c, $1.00 per can. Large for Heaves.
At druggists' or sent postpaid.
THE NEWTON REMEDY CO., TOLEDO, OHIO

Don't Have a Blind One

"VISIO"

An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis
Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

GORDINE

A white liniment. Positive, permanent remedy for live stock ailments. For reducing swellings, healing cuts, burns scratches, curing galls, allaying pain. GORDINE has no equal for all outward applications, especially in lameness. Guaranteed not to blister or remove the hair. Good for man and beast. Every farmer and stockman should keep a bottle on hand. Delivered by parcels post anywhere in the United States for one dollar ($1.00) per bottle. Send now; don't allow these ailments to eat away your profits.

GRAND CHEMICAL CO.,
Dept. C., 1426 South Grand Ave., St. Louis, Mo.

Gone to South Africa.

Bauhard Bros., of Nashville, Tenn., sold fifteen jacks and six jennets to Gunn & Sinclair, Free Orange State, South Africa. This shipment left Nashville by express and will leave New York on the City of Edinburgh for South Africa. They were a nice lot of jacks, and among them was a jack called Tennessee Perfection that won several ribbons in the jack shows, and one of the best to be found anywhere.—Farmers' Home Journal.

Annual Jack and Jennet Sale.

Our readers are advised that on Tuesday, March 4th, 1913, L. M. Monsees & Sons will hold their thirty-fifth auction sale of jacks and jennets. This is always an event of great interest, because the Monsees stock is widely known for superiority and uniformity in breeding, quality and appearance and all that goes toward perfection in jacks and jennets. The record of the herd goes back to the year 1870, and at one auction sale in 1910 the year's output, at bidders' own prices, amounted to over sixty-seven thousand dollars. The number offered this year, sixty-five head, is large enough to be interesting. Catalogues are ready and will be sent to those who write. See advertisement and address L. M. Monsees & Sons, Smithton, Mo., and mention The National Farmer and Stock Grower when you write.

Government Horse Breeding.

In his annual report the Secretary of Agriculture gives an account of government horse breeding as follows:

"The horse-breeding investigations in Colorado, Vermont and Iowa have continued with good progress. In the Colorado experiments in breeding carriage horses there were in the stud at the close of the fiscal year seventy-seven animals, including twenty-two stallions and fifty-five mares Of fourteen foals dropped during the year eleven are alive and thrifty. The average excellence of the foals is above that of previous years.

At the government Morgan horse farm at Middlebury, Vt., there were at the close of the fiscal year sixty-nine animals, consisting of nineteen stallions, forty-four mares and six geldings (work horses). One stallion, one mare and two fillies of approved type and breeding were purchased in Kansas and added to the stud during the year. One of the stallions is still leased to the Massachusetts Agricultural College for breeding purposes. During the breeding season of 1912 an opportunity was given to farmers in Vermont to breed to stallions at the Morgan horse farm under the provisions of the plan for army-horse breeding.

The culling of inferior animals is continued each year by a Board of Survey, so as to retain in the Colorado and Vermont studs only such individuals as conform to the desired types.

In the co-operative work of breeding gray draft horses at the Iowa Experiment Station there are three stallions and nine mares. Four foals were produced during the year.

A good start has been made with the plan of breeding horses suitable for army use, as outlined in last year's report. Two stallions were stationed in Virginia for breeding with approved mares, and during the year thirty-eight mares were bred and eleven foals produced. It is too early to report upon the foals, but it is evident that farmers owning mares of satisfactory type are willing to have them bred to the government stallions on the terms proposed by the government. With the provision made by Congress this work will be extended during the coming year, and it is hoped that within a few years a considerable number of suitable horses will be available for the army."

First-class Commission House.

The best-organized live stock market is St. Louis, and one of the best firms doing business in that market is the Milton, Marshall Live Stock Commission Company. Shippers who consign stock to this firm to be sold can be assured of obtaining the best results possible. Mr. A. J. Milton, President of the company, is an expert cattle salesman, and, assisted by his brother, L. H. Milton, make splendid sales. J. S. Jackson and J. S. Mulberry, selling hogs, are equally expert in their department; and Thos. Freels, Sheep Salesman, is noted for skill, ability and good judgment. It is a finely-equipped firm, doing business efficiently in the interest of their customers. All who will apply to Mr. R. E. Marshall, Secretary, P. O. Box 94, National Stock Yards, Ill., stating what they have to ship, will receive special information concerning the market prospect, coming directly from the salesmen.

HORSE AND MULE NOTES.

During the year 1912 the Kansas City horse and mule market received 73,445 head, against 84,861 head received at the same market in the year 1911. As far back as the year 1900, Kansas City received 103,308 horses and mules in one year.

It was in the year 1907 that Kansas City received the largest number of cattle, 2,384,294 head. Last year 1,943,390 cattle were received at that market.

It has recently been discovered that the mule is a blight on horse breeding, because the mare does not produce a breeding generation. It is a pretty good blight when a weanling mule colt will sell for more money than the government used to pay for a first-class, five-year-old cavalry horse, and for more than the mare will bring in market to-day.

On the New York market, big draft geldings weighing 2,000 pounds are not plentiful, but matched teams of that character are often bought and sold. When the New York brewers, coal dealers and contractors are in need of horses they buy wheelers that come close to the limit of weight in horseflesh.

During the first week in January, Holland, Nugent & Maxwell Bros. sold twelve hundred mules at the St. Louis National Stock Yards. It was a good week for them in mules, but not unusual, as they sell many thousands during the year.

The Great Hog States.

During the census year 1909 the state of Missouri marketed 4,425,425 hogs and slaughtered 949,318 on the farms, accounting thus for a total of 5,374,742 head as the year's product. The state of Iowa shipped to market 5,524,519 hogs and slaughtered at home 507,167 head, together making a total of 6,031,686 head. The state of Illinois marketed 3,745,309 hogs and slaughtered 762,545 at home, making the Illinois total 4,507,854 head.

These three states combined raised, slaughtered and sold a total of 15,914,283 hogs in one year.

The next three states in hog raising bring up their combined total to 9,988,420 head—Indiana with 3,677,128; Kansas with 3,235,490; and Ohio with 3,085,702.

These six states raise one-half of the marketable hogs in the United States, the total for the country being 52,878,675 head of hogs marketed and slaughtered.

Pointer to Horse Shippers.

Holland, Nugent & Maxwell Bros., holding horse auctions at the National Stock Yards Monday and Tuesday of each week, are doing a large and satisfactory business, and they can sell more horses, especially chunks weighing 1,200 to 1,350 pounds, and farm mares and drafters. Any shipper who can put up a carload of horses and who will specify what class of horses he can buy and ship, can get the benefit of the best market in the world by opening communication with Mr. T. H. Holland, National Stock Yards, Ill. The St. Louis market can easily sell a quarter of a million horses and mules in a year.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

SAVE-THE-HORSE
(Trade Mark Registered.)

EVERYONE ASKS HIM, "HOW DID YOU DO IT?"

WILBUR HOLMES of Somers, Conn., Aug. 5, 1912, writes: The very day I ordered Save-the-Horse our horse got so bad we telephoned for a doctor. He ordered poultices on several days. It finally broke and ran, and the foot looked to be coming off; we were frightened. Did not know what to do about using Save-the-Horse. The crack kept growing wider and we expected to lose him. Finally I said we might as well try it; we had spent the money and had the medicine; it can't surely make him worse. We began with Save-the-Horse and SURE AS THE WORLD the crack began to close and finally healed and he now steps SQUARE on that foot. Every one says, "How did you do it?" and "What did you use?" People are surprised. I have been sick or you would have heard from me before, we are so pleased. It surely did save my horse.

Save-The-Horse has stood alone and unique among veterinary remedies for over seventeen years.

Every bottle of Save-the-Horse is sold with an iron-clad contract that has $60,000 paid-up capital back of it, guaranteeing to permanently cure or refund the money; no matter whether it is Bone or Bog Spavin, Tendon disease or Puffs—nor how aged, serious or complicated the lameness or blemish may be. But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers).

Write! AND STOP THE LOSS.

TROY CHEMICAL CO. 62 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid)

is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other. Doesn't imitate and can't be imitated. Easy to use, only a little required, and **your money back if it ever fails.**

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes and tells you how to treat them. Covers over 200 veterinary subjects. 192 pages. 69 illustrations. Write for a free copy.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

Milton, Marshall
LIVE STOCK
Commission Company

Shipments of Cattle, Hogs and Sheep solicited for sale upon the St. Louis Live Stock Market.

The St. Louis Market is the most active and competitive of all markets. Many shippers selling elsewhere will obtain better returns at St. Louis.

We are thoroughly equipped to obtain the very best results in the interests of our customers, and in all market matters we will be found to be leading the procession.

For market information, special letters on Native and Southern Cattle, Stock Cattle and Feeders, Hog Prospects, Stock Sheep, Fat Sheep and Lambs, write to

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LIVE STOCK
Commission Company

P. O. Box 94,

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Please mention Nat. Farmer and Stock Grower.

You Can't Cut Out A BOG SPAVIN, PUFF or THOROUGHPIN, but

Before After

ABSORBINE

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. $2.00 per bottle, delivered. Book 4 E free.

ABSORBINE, JR., liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Goitres, Wens, Cysts. Allays pain quickly. Price $1.00 and $2.00 a bottle at druggists or delivered. Will tell you more if you write. Manufactured only by

W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.

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Guaranteed Rupture Holder On 60 Days Trial

Won't Cost You A Cent If The Two Months Test Doesn't Prove All Our Claims

You can make a thorough 60 day test of this guaranteed rupture holder without having to risk a single cent. We'll make one especially for your case and let you see for yourself how it takes all the misery out of being ruptured.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial — the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times —including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why druggists should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—CluthCo., 125 E. 23rd St., New York City

Please mention Nat. Farmer and Stock Grower.

SOLD AND SLAUGHTERED.

Enumeration of Domestic Animals Slaughtered at Home and of the Total Shipped to Market.

One of the statistical tables compiled by the Bureau of the Census and applying to the census year 1909 is something not easily obtained, even by a census enumeration, and is certainly not available any other year, because it requires a very close count to obtain the figures.

This reference is to the official statement showing the number of domestic meat animals shipped to market and the number slaughtered at home.

It appears that during this census year 20,572,997 head of grown cattle were marketed and only 1,408,640 were slaughtered at home; the entire cattle crop being 21,981,637 head, averaging in value $31.36 per head, and a grand total of $689,375,710 for all the cattle disposed of that year.

In the matter of calves, the home slaughter is very much greater in proportion to the number shipped to market. The total number of calves marketed was 6,742,748, and the number slaughtered at home was 1,131,600, the grand total being 7,874,348 head, averaging in value $7.59 per head, and a grand total money value of $7,446,998 for the calf crop.

In the matter of swine the figures are surprising. The number sold in market reached the amazing total of 37,500,158; the number slaughtered at home was 15,378,517; the grand total hog crop of one year was 52,878,675 head, an average value of $13.08 and a grand money total of $691,611,885.

The number of sheep shipped to market during this census year was 18,991,456 head; the number slaughtered at home, 529,526, a grand total of 19,520,982, valued at $4.34 per head, a total of $84,774,271.

The number of goats shipped to market was 407,563, and 118,989 were slaughtered at home, making a total of 526,552; valuation, $2.24 per head; a total of $1,181,312 for goats.

Anyone who will follow these figures will be satisfied that the amount per head received by the farmer for cattle, calves, hogs, sheep or goats does not by any means furnish any reason for the "high cost of living."

STOCK YARD NOTES.

At the St. Louis National Stock Yards the Milton-Marshall Live Stock Commission Company sold for L. M. Stingley, of Pelahatchee, Miss., a load of 298-pound hogs at $7.10 per 100 pounds. These hogs were of fair quality and sold high, considering that the top of 10,000 native, corn-fed hogs on the same day sold at $7.70.

The wool clip is lighter in Australia and the number of sheep and lambs twenty-five millions less than usual in consequence of a severe drouth last winter. Australia, however, is accustomed to drouth, and if it were not for troubles of that kind, sheep would increase very much faster and overstock the country.

Last year 2,523,331 hogs were received at Kansas City, against 3,167,816 received during the year 1911. The largest receipts of hogs at Kansas City were 3,716,404, in the year 1901.

The first year that Kansas City received over a million hogs was in the year 1897, when the total was 1,134,236 head. In the year 1912 the receipts were 2,133,976 head, and the largest yearly receipts of sheep at that market amounted to 2,175,493 head, in the year 1911.

Where Hogs Are Slaughtered.

Missouri slaughters more hogs on the farm than any other state, the total for a year being 949,318 in one year. Other states slaughtering over a half million hogs on farms are Texas, 885,260; Georgia, 860,409; North Carolina, 783,247; Ohio, 768,195; Illinois, 742,123; Kentucky, 733,642; Pennsylvania, 675,939; Indiana, 646,581; Arkansas, 616,350; Alabama, 581,615; Iowa, 507,167; and Virginia, 537,797.

It's HOG WORMS—Not Cholera That Kills The Most Hogs

E. Myers, President, E. Myers Lye Company

Real hog cholera—the disease that is caused by a certain germ—is by no means as common as many farmers and hog raisers seem to think. In fact, it is rather rare. Yet every year an epidemic breaks out and sweeps the country like wildfire, killing thousands of hogs and causing millions of dollars loss. An enormous part of this disease is caused by **worms.** The symptoms are similar to those of cholera—the hog snoops around, his flanks "flop," hair sticks up, tail hangs down, he coughs, eats little, gets thin. You think he has cholera, but he hasn't. **Rid him of the stomach and intestinal worms that are sapping his vitality and strength and he'll get well. You can quickly rid all your hogs of worms by mixing with their feed twice every day according to directions on every can a little**

Merry War Powdered Lye

Hog raisers declare it is a **dependable destroyer** of hog worms. It makes hogs strong, healthy, fat and sleek, tones up the digestion so that all feed is changed into firm flesh and juicy fat. MERRY WAR POWDERED LYE is likewise the **safest preventive of real hog cholera and the best hog conditioner** the world has ever known. Keep your hogs on a MERRY WAR POWDERED LYE feeding from weaning until marketing time—they'll never know a day's sickness and will weigh heavy. Feed **twice every day** according to directions printed on every label.

About Vaccination I've no doubt that vaccination, as a preventive of cholera, has done some good. But it is an expensive and difficult treatment. It guards only against the specific cholera germ. It does **not** destroy hog worms, make sick hogs well, or thin hogs fat. So why use a treatment which is more or less of an experiment, when you can so easily get MERRY WAR POWDERED LYE, which **actual experience** in thousands of cases has **proved** to be a **dependable, safe preventive of cholera, destroyer of worms** and a **wonderful hog fattener?**

Beats Everything As A Worm Destroyer **A. U. PATE, Blue Jacket, Okla.** "I have been feeding Merry War Powdered Lye to my hogs for worms. It beats everything I ever saw."

10c A Can At All Dealers

MERRY WAR POWDERED LYE is for sale at most grocers, druggists and feed dealers everywhere, 10c per can (**120 feeds**). It is convenient to buy in case lots—4 dozen cans $4.80. **Costs only 5c per hog, per month, to feed regularly**—by far the best and much the cheapest hog insurance you can buy. If your dealers can't supply you, write us, stating their names. We will see that you are supplied, and also send you, **free,** a valuable booklet "How To Get The Biggest Profits From Hog Raising." **Order direct from us in case lots (4 dozen cans $4.80) if your dealers won't supply you.**

There Are No Substitutes

Don't experiment with ordinary, old-fashioned lye. **It might prove dangerous.** MERRY WAR POWDERED LYE is the specially prepared lye that is **safe** to feed to hogs. Full directions on each can.

Which Kind Do You Want?

E. Myers Lye Co., Dept. 22 St. Louis, Mo.

DR. LEGEAR'S STOCK POWDERS

Healthy, Vigorous Stock Is The Only Kind That Makes Money For You

A horse, whether for work or to drive, can't give you first-class service unless he feels right. Your steers and cows can't create beef or milk to advantage if they are feeling "under the weather". Sheep and hogs won't yield wool and pork profitably unless they are healthy and vigorous. Put your horses, cattle, sheep and hogs into fine condition, and then keep them in that fine condition by feeding the famous Dr. LeGear's Stock Powders. A tip-top Tonic—an unrivalled Milk Producer. Gives horses strength and endurance, sleek coats and good spirits. A money maker for every man who owns stock.

Large 25c, 50c and $1.00 size boxes; also 25-pound pails at $2.50, and 100-pound pails at $9.00.

Write for free copy of Dr. LeGear's Stock Book. It contains 112 pages of information about stock and poultry. Invaluable to all owners of stock.

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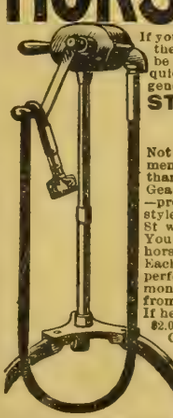
HORSES FEEL YOUNGER AND WORK BETTER WHEN CLIPPED



If your horses are clipped before the spring work begins they will get all the nourishment from their feed—be healthier and look better. They will dry off quickly, be more easily cleaned and feel better generally—that means work better. Use a

STEWART'S BALL BEARING ENCLOSED GEAR CLIPPING MACHINE

Not an expense—but a highly profitable investment. It turns easily, does more and closer work than any other machine—can't get out of order. Gears all file hard and cut from solid steel bar—protected and run in oil. Includes 6 feet new style easy running flexible shaft and celebrated Stewart's Single-Tension Clipping Head. You can make money clipping your neighbors' horses while yours will do better work. Each machine guaranteed. If it doesn't give perfect satisfaction, return it and get your money back. Complete from your dealer at ..... $7.50 If he can't supply you send $2.00 and we will ship one C. O. D. for balance.

CHICAGO FLEXIBLE SHAFT CO., 182 Ontario St., Chicago, Ill.

WOOL

Stewart No. 9 Ball Bearing Shearing Machine

Is a real profit device. Gives 15c to 40c more from each sheep. You know the size of your flock, so figure your profit and you'll find the machine will more than pay for itself the **first** season. Any boy can run it all day without tiring. All joints ball bearing with ball bearing shearing head. The equipment includes four sets of knives fully guaranteed. Price.... $11.50 If your dealer hasn't it send $2.00 and pay balance C. O. D.

Expert instruction on Sheep Shearing FREE

My X-RAY Saves You From 75¢ To $1.25 Every Hatch

GREATEST hatcher ever invented! Shipped *direct* to you from factory. No agents—no dealers. *Guaranteed* to please. Orders filled *same* day received. No delays.

I place my lamp underneath, square in the center, and not on the side. Thus I get an absolutely even temperature throughout the egg-chamber all the time—and there is no cold side. I use a big oil tank on my X-Ray—holding 4 to 8 quarts of oil—fill this up just once and you don't have to touch it again until after the hatch. One gallon of oil is all that is needed for a hatch—just one gallon! Why! Because every bit of heat in my

X-RAY Incubator

"Built Different From all Other Machines"

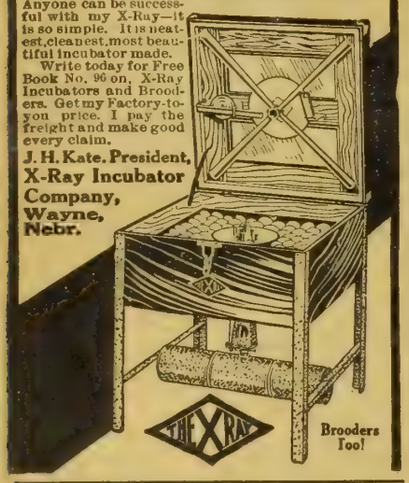
is used to best advantage, because my automatic trip cuts down flame at the burner when egg-chamber gets too hot. Others burn high all the time and let excess heat escape. My machine controls it!—saving both oil and money. You never have to touch the regulator of my X-Ray—it's automatic; it's the most perfect heat regulating device ever invented. My heater being so centrally located (underneath) conveys equally a direct heat from the lamp into every part of the egg-chamber. Door of my X-Ray is on top—where there are two double-glass panels through which you can see the thermometer any time—without raising lid and chilling eggs.

Uses Only One Gallon Oil to Hatch Requires Only One Filling of Lamp

To use my X-Ray means less egg-handling, less oil, less heat generated, absolutely no waste, no filling of lamp during hatch, no fumes, no danger of "cooking" eggs—but an even heat always over the WHOLE egg-chamber. My X-Ray weighs ¼ to ½ less than the old-style machines of same egg-capacity. I, personally, guarantee it to please you—to give you the biggest and best hatches you ever had. Anyone can be successful with my X-Ray—it is so simple. It is neatest, cleanest, most beautiful incubator made.

Write today for Free Book No. 96 on X-Ray Incubators and Brooders. Get my Factory-to-you price. I pay the freight and make good every claim.

J. H. Kate, President, X-Ray Incubator Company, Wayne, Nebr.



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NOW is the time to get in the money-making poultry business with one of my Successful Incubators—**only $6.75 up.** With the "Successful" no experiments or trial hatches are necessary—you can be sure of success every time.

SUCCESSFUL INCUBATORS
(Life Producers)
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give most chicks—raise more chicks—and are guaranteed with the strongest guarantee ever put behind any machine on the market. Don't buy an incubator that guarantees less than I do. Send your name *now* for catalog, low price proposition, guarantee, and *Free Lessons in Poultry Raising* that insure success.

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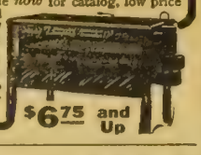
161 Second St., Des Moines, Ia.
NOTE—Book "How to Raise 48 out of 50 Chicks", 10c—Catalog is FREE. Get it.



$6.75 and Up

140 and 140 EGG INCUBATOR CHICK BROODER

The Incubator is California Redwood, covered with asbestos and galvanized iron; has triple walls, copper tank, nursery, egg tester, thermometer, ready to use. 30 DAYS' TRIAL—money back if not O. K. Write for FREE Catalog today NOW.

Both For **$10**

Ironclad Incubator Co., Dept. 37 Racine, Wis. (2)

200 EGG INCUBATOR $3. Actual hen controls all. Over 500,000 sold. Agents wanted. Catg. free. Natl. H. I. Co. Sta. H. Dept. 39, Los Angeles, Cal

TEN-YEARS' WORK

In Egg-laying Competitions at the Hawkesbury Agricultural College, New South Wales, Australia.

It was the Daily Telegraph, a newspaper publication, that organized the egg-laying competitions of Australia, and the contests were conducted at the Hawkesbury Agricultural College at Richmond. The competitions were intended to be and have been a source of education and inspiration to poultry keepers.

In ten years the average number of eggs laid per hen were 130, 163, 152, 166, 171, 173, 180, 181, 168, 184, with a ten-year average of 166.8. The profit per hen ranged from $1.92 to $2.96.

In tests where the laying continued the second year the pen laying 184 the first year lay 124 the second; another year the figures were 179 to 127; another 190 to 140; another 194 to 134; another and last, 184 the first year and 140 the second.

The first-year average of pens that were tested two years was 185 eggs per hen for the first year and 133 for the second year.

Some of the hens were tested three years. Fifty-four White Leghorns averaged 209 the first year, 148 the second and 134 the third. Six Black Orpingtons averaged 189 the first year, 156 the second, and 100 the third.

The average of the winning pen for ten years was 224 eggs per hen, per pen of six layers. The lowest average was 106 eggs per hen.

There were also three years of duck competitions. First contest average eggs per duck, 156.5; second contest, 170.5; third contest, 173.

The first ducks that were tested two years lay an average of 185.3 the first year and 175.6 the second. The second lot of ducks that were tested two years lay an average of 185 the first year and 136 the second.

It is stated upon the best authority that the influence of these contests has caused an increase in the laying average on the farms in Australia. Our information is from Farmers' Bulletin No. 57, issued August, 1912, and is by D. S. Thompson, the poultry expert in charge of the contests.

Weights of Market Poultry.

Quotations on the New York market for dressed poultry are instructive, for in many instances weights are given in addition to prices. The following were middle of January quotations from the New York Produce Review:

Chickens — Broilers — Twelve to box, milk-fed, 24 pounds to dozen, and under, 26c.; 26 to 30 pounds to dozen, 24c.; corn-fed, 24 pounds to dozen, and under, 21 to 22c.; 26 to 30 pounds to dozen, 18 to 20c.

Chickens—Fryers—Twelve to box, milk-fed, 31 to 36 pounds to dozen, 19c.; 37 to 45 pounds to dozen, 19c.; corn-fed, 31 to 36 pounds to dozen, 16½ to 17c.; 27 to 45 pounds to dozen, 16c.

Chickens — Roasters — Twelve to box, milk-fed, 48 pounds and over to dozen, 20c.; corn-fed, 48 pounds and over to dozen, 18 to 18½c.

Chickens, barrels, Philadelphia and other nearby squab broilers, per pair, 80 to 90c.; do. fancy broilers, per pound, 27 to 28c.; roasting, 23c.; average, 18 to 20c.; Pennsylvania broilers, per pound, 24 to 25c.; roasting, 18 to 20c.; average, 15 to 16c.; Western dry-picked, milk-fed, 4 pounds and over each, 20c.; mixed weights, 18c.; corn-fed broilers, 18 to 19c.; corn-fed, roasting, 4 pounds and over, average each, 17½c.; mixed sizes, 16½c.; Ohio and Michigan, scalded, selected large, 17½c.; mixed weights, 16c.; other Western scalded selected, large, 17c.; mixed weights, 15½c.; Kentucky and Southern dry-picked, 15c.; Western and Southern poor, 12 to 13c.; chickens, large, coarse and staggy, 14 to 16c.

Capons—Philadelphia, 8 pounds and over, 26 to 27c.; 6 to 7 pounds, 23 to 24c.; small and slips, 20 to 21c.; Ohio, selected large, 23c.; 6 to 7 pounds, 21 to 22c.; small and slips, 18 to 20c.; other Western, selected, large, 22c.; small and slips, 18 to 19c.

Fowls, dry-picked—Western, boxes, 60 pounds and over to dozen, 17c.; 42 to 55 pounds to dozen, 16c.; do. 36 to 42 pounds to dozen, 15 to 15½c.; under 36 pounds to dozen, 14 to 14½c.; Western dry-picked, average best, 4 pounds and over each, 16c.; 3½ pounds and under, 15c.; Southwestern, 15½c.; Ohio and Michigan, scalded, 16c.; do. other Western scalded, 15½c.; Western Southern dry-picked and scalded, small and poor, 13 to 13½c.

Other poultry—Old cocks, per pound, 12½c.; spring ducks, Western, large and plump, 19c.; do. average, 16 to 17c.; inferior, 10 to 12c.; spring geese, Maryland, choice, 16 to 17c.; Western, fancy, 15 to 16c.; fair to good, 12 to 14c.; inferior, 8 to 10c.; squabs, prime white, 10 pounds to dozen, $5.50; do., 9 pounds to dozen, per dozen, $5.00 to $5.25; do., 8 pounds to dozen, $4.50 to $4.75; do., 7 pounds to dozen, $3.50 to $3.75; 6 to 6½ pounds to dozen, $2.25 to $2.50; do., dark, per dozen, $1.75; culls, per dozen, 50 to 60c.; spring guineas, per pair, $1.10; old, 60 to 75c.

The Connecticut Contest.

At the egg-laying contest that was conducted at Storrs, Conn., F. G. Yost, of Pennsylvania, owned the winning pen of five White Leghorns that averaged 214.2 each. The second prize went to a Canadian pen of White Wyandottes with 213.8. A S. C. Rhode Island Red pullet belonging to Mrs. Harris Lehman, of Kentucky, lay 254 eggs, the largest record of a single bird.

Ireland is the greatest poultry-growing country in the world. It is far ahead of France, though we have always considered the latter as the leading country in this industry. Ireland, with a population of not quite 5,000,000, has 14,000,000 fowls, while France, with a population of seven times greater, has only 40,000,000.

Read about our industrial policy on page 6. It is good reading.

Uncle Sam's Poultry Book

The world's only complete official guide to poultry raising. Written by government experts—every page means money in your pocket. Price 20 cents, worth $10.00 to you, and by our plan you can have 50 cents back. Send us 10 2-cent stamps, or 2 dimes. Edition limited: send quick. Uncle Sam says you should use an incubator and tells how a good one is built. There's no other machine made coming up to the standard but

The Sure Hatch Incubator

which is built Uncle Sam's way. Heavy, strong, best materials, many modern features not found in others. Complete control of heat and **hatches chicks that live. Guaranteed five years. Big book free.** Send for it. Get to work at once and put your chicks on the early high-priced market. Poultry and eggs will be higher the coming season than you ever knew them to be.

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60 DAYS FREE TRIAL
FREIGHT PREPAID.

Let Me Tell You How To Get Into The Champion Hatching Class

SEND your name for my World's Championship Hatching Facts. I will tell you about the Six World's Championships won by my famous Belle City Incubator—will tell you about the folks who won the prizes, how they did it and how **you** can get championship hatches **right from the start.** My

Six-Time World's Champion

Belle City

has defeated all other incubators, many costing two to five times more than my price. **Used by U. S. Government after a careful investigation.** I want to tell you about the features I have embodied in the Belle City which made them the Championship Hatchers of the World. **I want to tell you about my famous Double-Walled Hot Water Top-Heat Brooders guaranteed to raise the chicks.** I'll tell you all about my manufacturing, selling and shipping plan that makes my remarkably low price possible.

Get My Lowest Price

Just say, "Send World's Championship Hatching Facts." I'll quote you my lowest price, freight prepaid—**tell you how you can have 1, 2, or 3 months home test at my risk**—how I protect you by my personal 10 year guarantee. I'll send you my portfolio of all these hatching facts—free, if you write me a postal. Address Jim Rohan, Pres.

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Our 1913 Poultry Book

IT'S FREE—the most complete and practical guide to money-making poultry raising yet published. *Eight new special chapters*—worth hundreds of dollars to you. 244 pages actual experiences, illustrations, advice.

CYPHERS Incubators and Brooders

World's Standard Poultry Equipment. Book tells about Cyphers Company's Free Bulletin and Personal Letter Service. Prepare for *America's greatest poultry year*—highest prices, low cost production. Send postal for **Big Free Book** today. Address

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SHOEMAKER'S BOOK on POULTRY

and Almanac for 1913 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. **Only 15c.** **C. C. SHOEMAKER, Box 945 Freeport, Ill.**

THE MISSOURI NATIONAL.

The Egg-laying Contest That is Nearest Home.

The Second National Egg-laying Contest at Mountain Grove, Mo., is proving to be more satisfactory than the first in every particular. The contest began in the middle of November and will close November 15th, 1913.

There are seventy pens in the contest with ten hens to the pen.

The total for the first six weeks is 5,954 eggs.

An English pen of Single Comb White Leghorns is leading the procession with 263 eggs.

A pen of Silver Wyandottes is second with 217 eggs.

The third pen so far consists of White Wyandottes, with 185 eggs.

Many birds in the contest are not mature, yet every pen had laid some eggs before the end of the first month.

The birds this year are practically all pullets and are expected to make grand records when they get fairly started.

In the month of December, White Leghorns led with a pen laying 222 eggs, followed by S. C. Reds with 162 eggs to their credit, and the birds of the third pen were Silver Wyandottes, with 157 eggs.

In addition to the egg-laying contest by breeds, ten pens are used to demonstrate different methods of feeding, and so far the demonstration indicates that liberality in feeding is necessary during the winter. The Maine method of feeding is leading.

The prime necessity in getting a good start in a contest is getting early chicks. Most of the hatching ought to be done by April 15th.

The pen that has 160 eggs to its credit in six months has a big start over the pen of immature pullets of the same breed that had only seven eggs laid by that time.

The leading ten pens lay from 129 to 222 eggs in December, with an average of 1,119 eggs for the ten of them.

The leading breeds from the commencement are White Leghorns, White Wyandottes and Silver Wyandottes, but it is too soon to count eggs that are not yet hatched.

Mr. T. E. Quisenberry is Director of the State Poultry Experiment Station at Mountain Grove, Mo., having the contest in charge. He has three pens, and no more, of each breed contesting.

Authentic Egg Laying.

Lady Cornell, a Single Combed White Leghorn hen owned by the Cornell (New York) Agricultural College, has a two-year egg record that probably has not been excelled by any other hen. Lady Cornell weighs but 3.2 pounds, but, notwithstanding this, she laid 257 eggs during one year, and the following year laid 200 eggs, making a total of 457 eggs for the two years, which weighed 57.19 pounds. Lady Cornell consumed about eighty-eight pounds of grain and mash to produce the above large egg output.

The New York Produce Review says: "Juiciness in broilers is due to pure food and rapid maturity. As a broiler cannot be secured on free range, and as it can attain the required weight in a given time only by a systematic feeding of pure foods, it carries with it a repuation and demand on account of its juiciness, tenderness and purity."

Cut Down Upkeep

By R. E. Olds, Designer

I have built cars for 26 years—60,000 of them.

But of all I have learned, nothing else compares with these ways for cutting upkeep—shown in Reo the Fifth.

The Final Cost

The buyer sees just the car's first price. But the vital thing is the after cost.

That may be little or it may be much. It depends on the builder largely. And the difference to you, in the course of five years, may be $1,000.

How I Reduce It

One big item is tires.

In Reo the Fifth I cut this cost by using tires 34x4. They cost $60 per set more than tires often used on a car of this weight. But they save many times that in tire bills.

I use in this car 15 roller bearings —11 Timken, 4 Hyatt. They cost five times as much as common ball bearings. But they do not break.

I use 190 drop forgings, at twice the cost of steel castings. But drop forgings don't have flaws.

Margin of Safety

Axles and driving parts should show very large over-capacity. I build them all to stand the tests for a 45 h. p. car. That leaves enormous margin.

I have all steel made to formula. Then I analyze each lot twice.

For testing my gears I use a crushing machine of 50 tons' capacity.

I use 7-leaf springs, two inches wide. And I test them for 100,000 vibrations.

Each engine is tested for 48 hours —20 hours on blocks, 28 hours in the chassis. I employ unusual tests.

Each car in the making gets over 1,000 separate tests and inspections.

Costly Items

I use a $75 magneto to save ignition troubles. I doubly heat my carburetor, for low-grade gasoline. I use a centrifugal pump, not a syphon. That adds about $10.

I use 14-inch brake drums.

I give each body 17 coats, so the finish will endure. I use the best genuine leather in upholstering. Also the best curled hair.

I am using flush electric dash lights in place of the old-style lamps.

All these things are costly. Yet I supply them, through factory economy, in a wonderfully low-priced car.

A car without them is likely to cost five times as much for upkeep. There may be costly repairs, and frequent.

I never would buy a lesser car. Therefore, I never shall build one.

Our $100 Control

Here is one feature worth $100 which costs not an extra penny.

It's the Reo center control. All the gear shifting is done by moving one little handle only three inches in each of four directions. It is as simple as moving the spark lever.

The driver sits on the left hand side, as in the latest high-priced cars. And this control lever is at his right hand.

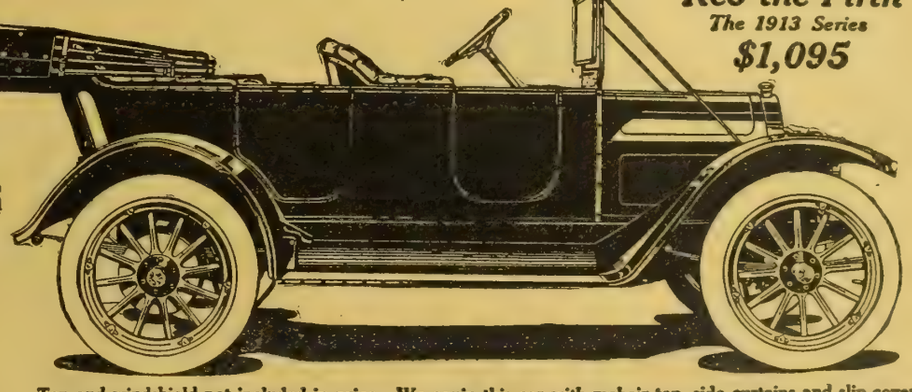
Both brakes are operated by foot pedals. There are no brake levers, so both front doors are clear.

A car in these days should have these modern features.

Sold by 1,000 dealers. Write for our 1913 catalog and we'll tell you the nearest show-room.

R. M. Owen & Co., General Sales Agents for Reo Motor Car Co., Lansing, Mich.
Canadian Factory, St. Catharines, Ont.

Reo the Fifth
The 1913 Series
$1,095



30-35 Horsepower
Wheel Base—112 Inches
Tires—34 x 4 Inches
Center Control
15 Roller Bearings
Demountable Rims
Three electric lights
190 Drop Forgings
Made with 5 and 2 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for $100 extra (list price $170).

English Ducklings Bred Early.

Tegetmeir, the famous English authority, says in England ducklings are bred for the London markets as early in the year as possible. At Christmas time, in the neighborhood of Aylesbury, as much as $2.88 per dozen will occasionally be given for eggs of good Aylesbury ducks, in order that the ducklings may be reared and fattened early, for in the spring months from $2.88 to $3.60 a couple is no uncommon price for good Aylesbury ducklings. Formerly the struggle was to get the ducklings ready for the peas; now the position of things is reversed, and the difficulty is to produce the peas to accompany the early ducklings. The birds, owing to the prices named, are reared and fattened in many cases in the laborers' cottages, are never allowed to go into the water, are forced upon mixed vegetable and animal food, and are killed at from eight to ten weeks old, before they have molted a single nestling feather. The meat is tender, the flavor delicate, not at all assimilating to that of the wild duck.

In Germany, in the year 1912, 3,928,395 acres of barley planted produced 40 bushels per acre (figuring 48 pounds per bushel), a yield only surpassed in 1909. The quality in general was so poor that it will be impossible to use much of the barley for brewing.

Rose premiums on page 31.

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINA HEADQUARTERS.

We have bred and established a herd of the greatest producing Brood Sows in the world. Write for information and prices. Satisfaction guaranteed.
KIRBY STOCK FARM, Marmaduke, Ark.

CARPENTER'S BARGAINS.

100 HOGS. 2 STALLIONS. 1 JACK. Registered Poland-Chinas and Duroc-Jersey Hogs.
TWO STALLIONS AND ONE JACK. Write for private sale list. It will please you very much.
WILDER CARPENTER,
The Grand View Breeding Farm, Marmaduke, Arkansas.

MY BIG-TYPE HOGS

POLAND CHINAS

have a tendency to grow into 1,000 lbs., with plenty of bone. I offer now only tried bred Sows, bred Gilts and Fall Pigs not akin. and low-down, compact-built Angus Cattle.
J. P. VISSERING, Box 1, Alton, Ill.

The NATIONAL FARMER and STOCK GROWER

is a first-class medium for the purpose of advertising pure-bred beef or dairy cattle, hogs and sheep, horses, jacks and jennets, goats and poultry. The circulation is always upwards of a hundred thousand copies, and the average of all editions in 1912 was 123,483 copies. We can let live stock breeders state what they have to sell for very little money. Breeders will find it to do astonishingly good service. Send your copy for an estimate to
HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE,
PERCHERON and
HACKNEY
STALLIONS.

Write for catalogue.

Address,
J.G.TRUMAN, Manager, Bushnell, Ill.

SALE OF HOLSTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.
50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.
100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.
250 Matured Cows, very heavy producers, springing up, ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds. Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me regarding your wants.
JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

BLUES GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.
WILLARD MILLER, R. F. D. 2, Anita, Iowa.

Get a Yesterlaid hatch

of vigorous, heavy laying Ranged Raised Leghorns. 95% fertility! Ordered by 15 Experiment Stations! Special introductory offer on 30-egg order includes "Poultrology" free—most valuable poultry book published. 144 pages; 70 pictures.
Lady Leymary
Yesterlaid Egg Farms, Dept 23 Pacific, Mo.

TEMPLE HILL STOCK FARM,

Breeder of Jersey Cattle, Registered and Non-registered Saddle-bred Horses of the best blood lines. Young things by and Mares in foal to Bohemian King and other noted sires. My patrons are profiting by my lifetime experience breeding and showing stock. Can supply car lots of Cows to dairies.

Address, R. E. GODDARD, Owner, Harrodsburg, Kentucky.

JACKS AND SADDLERS.

KENTUCKY MAMMOTH JACKS from one to six years old. Saddle Stallions, Mares, Colts and Fillies of the very best breeding. Hampshire Swine and Big Black Pigs. Write your wants or visit the Cook Farms.
J. F. COOK, Lexington, Ky.

PURE-BRED REGISTERED ANGORA GOATS,

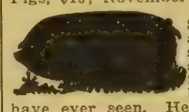
Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.
R. C. JOHNSTON, Lawrence, Kansas.

JACKS and PERCHERONS. We have forty-five of the biggest-bone and best Mammoth Jacks in Kentucky. Registered Percheron Stallions from $250 to $750. Percheron Mares, Saddlers, Hampshire and Tamworth Hogs. Write for circular and visit the Cloverdale Farm.
H. T. BROWN & CO., Lexington, Ky.

TAMWORTHS FOR SALE. The Bacon Hog, the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

POLAND-CHINAS OF BEST STRAINS.

For size and quality unsurpassed. Fall Pigs, $13; November Pigs, $10 to $12 for the choicest. Still have more Sows than I can keep after this and have to sell more of them. They are bred to Longfellow's Special, 64,200, the best big-boned, big Boar I have ever seen. He is by the great Longfellow, Jr., 59,403, and the great Sow, Expansion Lady (153,910.) Sows are priced to sell at once. Also Barred Plymouth Rocks of the Ringlet strain. Our stock was direct from E. B. Thompson, New York. Eggs for hatching, $1.00 for 15; $3.00 for 50; and $5.00 for 100. Many satisfied customers in thirty-seven states. Catalogue free.



A. F. SIEFKER, R. F. D. No. 1, Defiance, Mo.

HOGS! HOGS! For Sale: REGISTERED Poland-Chinas and big English Berkshires. Champion Boars of Mo. State Fair, 1912, for sale at right price. S. C. Brown Leghorns that lay and weigh.

See or write S. Y. BURKS, Bolivar, Mo.

POLAND-CHINA SWINE.

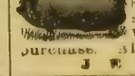
Spring Boars weigh 200 pounds, at $25; Fall Pigs weigh 75 to 100 pounds, $12 to $15. Great, big, fine Pigs every way. Write your wants to
D. F. BEAUCHAMP, Meredosia, Ill.

MISSOURI HERD OF TAMWORTH SWINE.

The hog that crosses best with the chunky breeds; the hog resistant to diseases; the hog of large litters; the hog that turns grass into pork. Write for prices.
W. J. WHITE, R. F. D. 2, Butler, Mo.

DUROC-JERSEY SWINE FOR SALE.

I have some extra good Duroc-Jerseys for sale. If you want something as good as will be found in any of the best herds, I have it of either sex, from pigs to yearlings. Write me what you wish to purchase. All inquiries promptly answered.



J. E. WELLER, Faucet, Mo.

55 BREEDS Pure-bred Chickens, Ducks, Geese, Turkeys, also Incubators, Supplies and Collie Dogs. Send 4c for large Poultry book, Incubator Catalog and Price list. H. A. HINIKER, Box 25, Mankato, Minn.

O. I. C. AND CHESTER WHITE BOARS AND GILTS. No. kin. Bred Sows, young herds, a specialty; prolific, large kind; all ages. Pedigrees furnished. Prices reasonable.
FRED RUEBUSCH, Sciota, Illinois.

43 VARIETIES poultry, pigeons, ducks, geese, water fowl, incubators, feed and supplies. Catalogue 4 cents. MISSOURI SQUAB CO., Dept. Z P, Kirkwood, Mo

MILL CREEK STOCK FARM.
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.
R. F. D. 7, - - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

LOANING MONEY TO FARMERS.

How It is Done by the Land Bank of the Union of South Africa.

In a recent issue of the South African Journal we find an interesting article as follows:

"Another landmark in the agricultural progress of South Africa is the establishment of the Land Bank. This bank has been provided for the purpose of aiding deserving agriculturists in the development of their farms. With the advent of Union the Provincial Agricultural Banks were amalgamated into one Union Bank with headquarters in Pretoria. As this combined bank has been modeled on the lines of the Transvaal Land Bank, it may be of interest to recall the nature and scope of the operations of the latter. The Transvaal Land Bank was started in 1907, and carried on business for four and a half years. During this period, moneys were advanced to the amount of £2,105,000 ($10,525,000), the security being farm property worth nearly £7,000,000 ($35,000,000). The average loan was £357 ($1,785), a figure which clearly shows that the directors kept in view the main object for which the bank was established, namely, to help the small farmer. No loan exceeded £2,500 ($12,500). The total number of loans issued was 5,661, which is approximately one-quarter of the rural population of the Transvaal, and indicates how widely the bank was appreciated. The Transvaal Land Bank not only enabled farmers to pay off mortgages by advancing money at reasonable rates, but it also brought down the general rate of interest on farm property. The bank proved that, in the past, many agriculturists had been paying too much for advances. The bank relieved them, and, at the same time, set free a large sum for beneficial development of the land instead of permitting it to swell the profits of Shylockian money lenders.

The capital of the new Union Bank is fixed at £6,000,000 ($30,000,000), and consists of the capital of the old Provincial Banks, together with such further moneys as Parliament may authorize. Its operations are controlled by a Central Board in Pretoria, assisted by four local Advisory Boards in other parts of the Union. Under the Union Land Bank the loans will vary from £50 ($250) to £2,000 ($10,000). The method of procedure is as follows: Any farmer who desires a loan goes to the nearest magistrate and fills in a form of application. He pays two fees, one on the amount of the loan, varying from £1 ($5.00) to £1 10s. ($7.50), and the other a valuator's fee of £1 ($5.00). The valuator then submits this valuation to the magistrate, who forwards the application with his recommendation to the Local Bank, who, in turn, forward it to the Central Board. The Local Board is purely advisory. The Central Board finally determines whether the application shall be approved. The interest for the first five years is at 5 per cent.; thereafter, capital and interest for twenty-five years at 7 per cent. These loans are for a period of thirty years. There is another form of loan called the cash credit loan, limited to £1,000 ($5,000) at 6 per cent. This loan is granted on a reasonable security, and is intended specially to encourage the purchase of live stock and any necessaries connected with farming operations."

Farm Canning Factories.

Farmer, you are the man of all men naturally fitted to can your own crops, and do so at home, using all of the family large enough to work to help you grow and can same. This gives you a home market for your crops and profitable employment for all of your family. Read this:

"Mr. Thos. M. Brown, Springfield, Mo.:

Dear Sir:—I have my canning business for 1912 rounded up. Packed 4,400 cases, or 105,600 No. 3 cans, tomatoes this year. Sold them for 95 cents per dozen, f. o. b. factory. I grew four acres myself and bought the rest from my neighbors at $8.00 per ton.

I made this year, after paying all expenses for canning and paying for the tomatoes I bought, over $1,800, and feel pretty good over results for a small farmer with small investment in your $330 canning outfit.

I have in the last five years got rid of a big mortgage on my farm; paid a lot of outside debts; improved my farm well, and stocked it up in good shape, and have money in the bank. Made it all on your factory.

When I bought it I was a poor man, badly in debt, with a family of a wife and several small children to care for. J. H. SPEARS."

If you want to start in the best business in your reach, write THOS. M. BROWN, of SPRINGFIELD, MISSOURI, for free booklet. It will give you over 100 testimonials with the addresses of the canners writing same, so you can investigate for yourself.

He sells his factories on time or 10 per cent. or 15 per cent. of the pack as payments until paid for. No chance to lose a dollar. He makes sixteen sizes for the farm or large community; prices, $85 to $850. You can own a home or pay the debt on the one you have if you will try. —(Advt.)

The silo is certainly in fashion, for here comes the sheep raiser demanding ensilage for his sheep. Ensilage was supposed to be the exclusive ration for the dairy cow, but now the cattle feeder and the sheep feeder are claiming it.

PUBLIC SALE

(4th ANNUAL SALE)
—of—

20 Head of High-Class REGISTERED BLACK JACKS and JENNETS

—and—

15 Head of Registered Poland-China Hogs,

consisting of Bred Sows, Gilts and young Boars, at

JACKSON, MO., Tuesday, Feb. 11, 1913.

Every animal guaranteed to be as represented. Nothing priced or sold privately after catalogued. If interested, write for catalogue and come to the sale. You will not be disappointed, but highly pleased with the offerings. Catalogues will be ready to mail February 1st, 1913.

W. F. SCHADE,
Cape Girardeau County. JACKSON, MO.

FARM HOG DRESSING.

Timely Article by an Expert Stockman, Who is a College Professor.

It is an easy matter to dress hogs neatly provided the temperature of the water is just right. The water for scalding should be heated to a temperature of 210-212 degrees Fahrenheit. On the farm, where it must be heated in the house, usually it should be boiling when removed from the stove. If turned into a cold barrel it will then be about the right temperature, 185-195 degrees, when the hog is ready to be scalded. Water at 165-175 degrees will scald a hog, but more time will be required and the results are not so satisfactory. It is not expected that a thermometer will always be used, but boiling water carried from the stove to a cold barrel out of doors will usually be at about the right temperature for scalding, when the hog is put in the barrel, unless there is unnecessary delay.

A small shovelful of hard-wood ashes added to the water aids materially in removing the scurf from the body, although it has a bad effect in loosening the hair. A lump of lime or a handful of soft soap will have the same effect.

While being scalded the hog should be kept moving constantly to avoid cooking the skin. As soon as the hair and scurf slip easily from the surface, scalding is complete. If it is suspected that water is too hot, scald the hind end of the hog first; if too cold, the front end, in order to always get a good scald on the head, which is difficult to clean.

The scraping should begin just as soon as the hog is removed from the water, and the more rapidly it is done the easier it will be. The head and feet should be cleaned first, as they cool quickly. A small hand "candlestick" scraper is a very convenient tool for the purpose. It may be purchased at almost any hardware store for from 25 to 35 cents.

After removing the hair from the body, the hog should be hung up and rinsed with hot water and then with cold, scraping down with a sharp knife to remove all hair and scurf from the body.—Andrew Boss, Agriculturist, University Farm, St. Paul.

CORN MARKET SITUATION.

Prices Advanced in January All Along the Line and Spread It Over the Present and Future.

Anyone who is interested in the disposition of the corn crop ought to read the article which appears in this publication on page 7. It shows what little business in actual fact the different centralized markets are doing in corn in proportion to the total crop. It proves the old saying, that the price of the surplus is the basic price of the whole crop. It is very valuable information, and we are glad to acknowledge our indebtedness to the United States Department of Agriculture for it. It shows very clearly that in this case, as in many others, the tail is wagging the dog.

The corn market gave a good account of itself in the month of January and closed higher than at the close of the previous month by several cents a bushel. On December 31st, cash corn at St. Louis was selling at 45 cents a bushel, and on January 31st the price had advanced to 49 and 49½ cents a bushel. That is not bad, considering the immensity of the crop, and we are only three months past crop maturity, when usually there is plenty of corn for sale.

Noticing the speculative market, as we must do to get a line on the future, we find that the May option advanced from 48⅜ cents, quoted on December 31st, to 52½ cents by January 31st, showing a snug advance of 4⅛ cents in the thirty days, notwithstanding an open winter and not much corn being fed. The July corn option, which closed at 49¼ cents on December 31st, advanced to 53⅜ cents a bushel by January 31st, a nice gain of 4⅛ cents in thirty days. There is very little more to be said about corn, except that a September quotation of 54⅛ cents appeared on the market, giving the comfortable assurance that somebody has an opinion that corn will not decline right up to the time when the coming crop of early and Southern corn is maturing. Cash corn at 49 to 49½ cents a bushel; the May option closing at 52½ cents, July at 53⅜ cents, and September at 54⅛ cents a bushel on January 31st, and it indicates strong values, considering the crop of 1913 is a record breaker.

Slaughter of Sheep in a Year.

In New York and New Mexico they slaughter a few sheep on the farms and ranches. New York slaughtered 51,217 and New Mexico 58,839. The slaughter of sheep in these states is far beyond sheep slaughter in other states. The total of all sheep slaughtered on farms in a year was only 529,526, against 18,991,456 sheep reaching market to be purchased by butchers and packers.

Average Butter Test.

The average butter-fat content of the milk produced by different breeds was ascertained by experimenters at the New York College of Agriculture several years ago. The Holstein, the largest producer of milk, was placed at 3.46; the Ayrshire at 3.57; the Devon at 3.70; the Guernsey at 5.12; and the Jersey at 5.61 per cent.

Eggs Selling Low.

Cold-storage eggs are being sold for less than original cost. On January 31st, at St. Louis, the best eggs were selling at 21 cents a dozen, and cold-storage eggs dull and nominal at 15 to 18 cents a dozen.

L. M. Monsees & Sons' 35th Auction Sale

—AT—

LIMESTONE VALLEY FARM,

Tuesday, March 4, 1913.

65 Head of High-Class Registered Jacks and Jennets.

TERMS CASH.

LIMESTONE MONARCH, 3,251—Grand champion Missouri State Fair, 1912. Famous jack, bred and exhibited by L. M. Monsees & Sons, Limestone Valley Farm, Smithton, Mo.

We guarantee this the best offering of the year from any firm, breeder or company. Nothing priced or sold before the sale. Every animal guaranteed as represented. Sale under cover with comfortable seats and fire. Special train from Sedalia to Smithton and return on day of sale. Free conveyance from Smithton to sale.

If interested, please write for fine illustrated catalogue, as we can send catalogues only to those who write for them.

LIMESTONE VALLEY FARM is located 188 miles west of St. Louis and 99 miles east of Kansas City, main line Mo. Pac. and M., K. & T. R. R's, six miles east of Sedalia and two miles north of Smithton, Pettis county, Missouri.

WRITE FOR CATALOGUE AND COME TO THIS GREAT SALE. RESPECTFULLY,

L. M. MONSEES & SONS, SMITHTON, MO.

Pigs Without Worms

I'll Stop Your Losses from Worms—I'll Prove It 60 Days Before You Pay

Little pigs only a few weeks old are often found loaded with worms. Hogs of all ages suffer from these deadly parasites. Then cholera, swine plague and other contagious diseases get in their destructive work. Stock troubled with worms don't thrive; they cough, have fever, act dull, and don't gain a pound. Your feed is wasted; your profits are stolen. Your animals frequently die, causing total loss of many dollars. I'll stop all this **quick** with Sal-Vet, the great worm destroyer and conditioner. I have done it for thousands of others. I'll do it for you, before you pay me a penny, if you will just send me the coupon.

Prices 40 lbs. $2.25, 100 lbs. $5.00, 200 lbs. $9.00, 300 lbs. $13.00, 500 lbs. $21.12. No order filled less than 40 lbs.

Read This Letter: "Have fed Sal-Vet to my hogs and lost none. Neighbors both sides of me, east and west, have had cholera bad. One west of me, on adjoining farm, lost about forty hogs and pigs with cholera; the one east, on adjoining farm, lost all he he had, excepting four."
A. J. HOFFMAN, Leipsic, Ohio.

SAL-VET

Send No Money—Just the Coupon

If you will fill out the coupon—tell me how many head of stock you have—mail it to me, I'll ship enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives, and when the 60 days are up report results. If it does not rid all your stock of the deadly stomach and free intestinal worms, I'll cancel the charge—you won't owe me a cent. [72]

S. R. Feil, Pres. THE S. R. FEIL CO., Dept NF&SG Cleveland, Ohio

60-day trial shipments are based on 1 lb. of "Sal-Vet" for each hog or sheep, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

SIDNEY R. FEIL, Pres. THE S. R. FEIL CO., Cleveland, Ohio
Ship me enough SAL-VET to last my stock 60 days. I will pay the freight and roll ort results in 60 days and will then pay for it if does what you claim. It it does not you are to cancel the charge

Name..... P. O..... Shipping State..... Sheep..... Hogs..... Cattle..... Horses..... NF&SG 2-13

LIVE STOCK FARMING.

Changed Conditions in Live Stock Raising—Expenses Added That Increase the Cost of Production, But the Best All the Same.

Live stock farming requires more brain power than some other kinds of farming. This was not always the case, for there was a time when a man simply let his live stock take care of itself and grow into a multitude. That was when range cost nothing and expenses were few. Now pasturage costs a good deal of money, and all other feed is high in price. The cost of producing farm animals and what can be obtained for them are quite close together. So close is the relative positions of cost and value that there is always the danger of the cost exceeding the value of a farm animal. It therefore behooves the stock raiser to be eternally vigilant.

The man that is producing live stock has a market on his own farm for some of the crops he raises, for the successful live stock grower must raise a large part of his feed. To be able to feed out on his own farm the crops he raises makes the farmer independent of market conditions as to hay, grain, roots, and such things as can be used for feed. He also is saved the trouble of hauling these things to market in all kinds of weather. In the marketing of his live stock he is not forced to market in a hurry, for the greatest preservative in the world is life, which is in his animals.

The rightly-managed live stock farm does not deteriorate in ability to produce crops. Its fertility is generally on the increase. This is a factor that has not been made enough of when we have figured the returns from our live stock, for fertile land has been such a common thing in this country that we have not fully valued it. It is safe to say that if live stock raising had been carried on extensively in New England and the Middle States those states would not now be reporting so many thousands of worn-out farms.

The productiveness of the farm of the future more than in the past will depend on the amount of manure put on it annually. It is hard to see how the farm that is not fairly well supplied with live stock will be able to make this annual application of fertilizer in the face of rising prices for fertilizers and deteriorating land. The manure from the stock is a good thing to apply with the fertilizers of a commercial nature.

The by-products that can be used by the live stock is an item of great importance. These by-products vary with different localites, but changing them into money through the medium of the live stock is frequently a matter of a difference very noticeable in the bank account. One of these by-products is the second crop that may be grown on a piece of land for the purpose of producing feed after another earlier crop has been removed, while the time would be too short to mature anything marketable.

Not to drift with the tide is a good way to make money out of live stock. When a whole community seems to be giving up the raising of any particular kind of stock is a good time to determine to hold on, for the time will come again when a particular kind of stock will bring good prices and the supply be inadequate. That means profit to the breeder in position to supply the kind of stock then in demand.

LAND VALUES DOUBLED

By the Use of an Up-to-Date Machine—The I. H. C. Mogul Tractor.

This article is inspired by the fact that the tractor engine is now and has been advancing the value of land. It is not ordinary plowing that is being done by such machines as the I. H. C. Mogul Tractor. Some cheap lands in Iowa have been doubled in value by being brought into use—lands that had no value so long as the horse was the motive power.

In the year 1911 A. L. and Bruce Rogers bought a 320-acre farm near Dennison, Iowa, for $52.50 an acre, and it was one of the lowest-priced pieces of land in the country, because of the heavy growth of underbrush and scrub oak, making it appear impossible to ever farm much of it without great expense for clearing it. The same farm is now one of the best in Iowa and would command $100 per acre if the owners would part with it.

Up-to-date machinery can work wonders, and this farm was rapidly turned from waste brush land into level plowed fields. The machinery used is a forty-five-horse-power I.H.C. Mogul Tractor, burning cheap kerosene oil, and a huge plow cutting a twenty-four-inch furrow twelve inches deep. The cost of operating the outfit is so small compared with the value of the work being done as hardly to be worth figuring. The engine consumes approximately twenty gallons of kerosene a day, costing seven cents a gallon, and required two men for the operation, one on the engine and one on the plow. This outfit is so powerful that it plunges along through stiff brush and saplings at the rate of two to two and a half miles an hour. Trees and roots three inches thick are cut off like paper, and the whole mass turned under a foot of sod, to disintegrate and become fertilizer for further crops. The engine walks right over the small saplings, crushing them down for the plow to turn under, and the outfit leaves a plowed furrow twenty-four inches wide and nearly twelve inches deep in its path, the earth and brush being literally turned upside down.

The owners figure that after the plow has cut through this land and the top brush burned, the land should reasonably be worth from $100 to $150 an acre, as the soil is very rich and full of vigor, and the owners are confident that the crops raised on it will more than justify these figures.

Many people from the nearby country are out every day watching this giant plowing outfit do its work, and a number of farmers who have scrub oak and brush land in the vicinity are making arrangements with the owner of the outfit to convert their land into tillable soil. In this way a good many acres of good, rich soil will be added to Iowa's wealth-producing land and another advance in the science of increasing land values is to be credited to the International Harvester Company of America.

The large plow being used to turn under hazel brush and shrubbery is known as the grub-breaker; size, twenty-four inches; three-ply steel beam, using a standing coulter. The plow is mounted on a two-wheel truck and regulated by levers. The weight of the plow is about 1,300 pounds. Mr. Rogers, the owner of the plow, advises us that from the results of this plowing he has fifty acres of corn which equals any of the corn in the vicinity of Dennison. He says, furthermore, that by the use of this engine plow he has converted the land which he purchased in 1911 for $52.50 per acre into a farm that he has already refused $125 an acre for. By reference to the illustration you will see that the land is very rough and uneven. Some of the pockets in the ravines they were plowing had a grade of 50 per cent., with 33⅓ per cent. on the side slope.

FREE $1,000,000 Worth of Elegant Silverware
This magnificent silverware is of warranted quality and made by the celebrated house of Wm. Rogers & Co. You can get anything you want in silver, absolutely without cost. Write quick for illustrated circular from which to make your selection.
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Our business has reached the enormous size where we own and operate our own forests, lumber mills, railways, factories, warehouses. Our manufacturing cost is the lowest on record. You get the direct and entire benefit. Not one middleman gets a profit. You buy of us at
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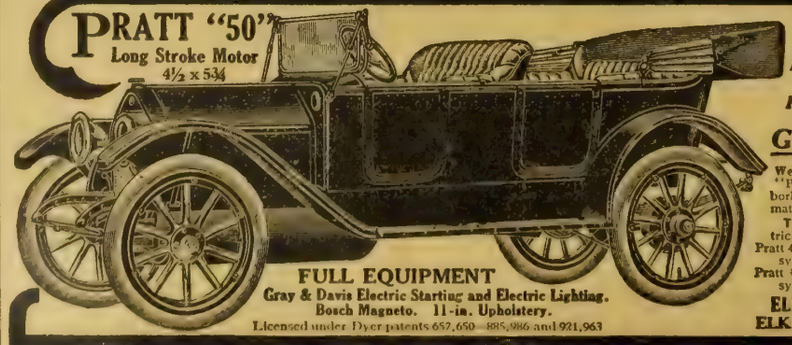
The I. H. C. Tractor at Work.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We have a business proposition for you. Our goal for 1913 is a "Pratt Car" in every locality. If there isn t one in your neighborhood—if there isn't a Pratt dealer near you it will be to your material advantage to write or wire and let us know.

Three Distinct Models—Pratt 50, 123-inch wheel base, electric starter and electric lighting system. Price $2,150.00.
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CHAMPION SEED CORN PREMIUMS.

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

Johnson County White Corn That Won Many Grand Championships.

The subject of seed corn is of the utmost importance, especially at this time. Pretty good seed corn is easy to get, but superior seed corn is scarce. Even the best seed corn growers have good and bad seasons, and there is great variation, one year with another, in vitality and quality of their seeds.

AN IMPROVED EAR OF CORN.

Only one thing can be guaranteed, and that is, pure-bred seeds, like pure-bred animals, produce true to type, and sometimes there is worked out an almost imperceptible improvement. The road to improvement is rough and rocky, and upon it there are many obstacles; but ultimate success is possible, and only possible by using seeds of the right breeding and quality. The backward road is easy to travel by using seeds of no breeding and only containing the qualities that even negligence cannot destroy. Promiscuous seeding of unknown corn results in smaller crops of low-grade corn. Nature may save the crop by an excellent season, but the general result is bad.

As a step towards general improvement, every corn grower should have one or more experimental plots each year, using small quantities of different seeds. The National Farmer and Stock Grower has furnished opportunities for farmers to obtain such seeds for the past five years.

We are now distributing small quanties of seed corn distinctly different and grown by two great corn improvers—one, D. L. Pascal, of Iowa, who has grown Reid's Yellow Dent Corn that he obtained pure from the originator. Mr. Pascal has won many prizes. The other eminent breeder is the famous L. B. Clore, of Indiana, growing Johnson County White Corn. His World's Fair and National Corn Show championships are many, and no corn improver on the face of the earth is his equal.

We have bought seed corn from Mr. Pascal and we have bought seed corn from Mr. Clore, and it will be delivered us in February. We will send it out in twenty-ounce packages as subscription premiums.

Our Subscription Proposition.

Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send as a premium a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal, or, if preferred, we will send twenty ounces of Johnson County White Corn grown by Mr. Clore. Take your pick of which corn you desire, and if you wish both kinds, send one dollar ($1.00) and be credited with two-years' subscription and two twenty-ounce packages of seed corn. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Big Day For the Editor.

The editor of a Kansas paper says that he picked up a Winchester rifle recently and started up the street to deliver the weapon to its owner. The delinquent subscribers got it into their heads that he was on the war path, and everyone he met insisted on paying all they owed. One man wiped out a debt of ten-years' standing. On returning to the office he found a load of hay, fifteen bushels of corn, ten bushels of potatoes, a load of wood and a barrel of turnips.—La Belle Star.

A Valuable Book For Cow Owners.

The De Laval Dairy Hand Book, now ready for distribution, is one of the most valuable small books for the dairyman we have ever seen. It is filled with good, practical matter from cover to cover, and its subject matter was prepared by men of the highest authority.

It contains a number of condensed discussions on subjects of every-day value to dairy farmers, including "Dairying For Profit" by Prof. John Michels; "Maintaining Soil Fertility on the Dairy Farm" by Prof. Elmer O. Fippin, of Cornell University; "Proper Dairy Feeding and Balanced Rations" by Prof. Hugh Van Pelt, of Iowa; "Alfalfa, the Wonderful" by Hon. F. D. Coburn, of Kansas; "Legumes For the Dairy" by Prof. C. W. Burkett; "The Silo and Silage" by Prof. C. S. Plumb, of the Ohio University; "Diseases of the Dairy Cow and Their Proper Treatments" by Dr. A. S. Alexander, of Wisconsin.

Other articles cover dairy cow judging, farm butter making, history of the dairy breeds, stable ventilation and other matter. The whole booklet is a valuable collection of facts and figures which every dairyman ought to know. The De-Laval Dairy Hand Book will be sent free to our readers who write the De Laval Company for it. Address, The De Laval Separator Co., New York City, N. Y., and please mention The National Farmer and Stock Grower.

Beef Product Exports.

We are not exporting cattle on foot to any great extent. In the year 1912 the total was 32,626; in 1911 the total was 148,611; and in the year 1910 the total was 94,355; but in 1910 we exported 8,177,961 pounds of canned beef, 8,821,812 pounds of fresh beef, 26,849,686 pounds of pickled beef, 3,283,744 pounds of oleo oil, and 27,416,451 pounds of tallow.

Book of Champions on page 2.

Give Hogs SalTone and Watch 'em Grow

There's money in raising sound, healthy, wormless hogs. But much of the expensive feed given to wormy animals is a dead loss. Because the worms eat at the first table, and the animals get nothing but the leavings. All animals like Sal Tone. They will take it without urging. But worms and parasites simply can't stand it. It drives them out "tops and all." One man wrote us recently—"Sal Tone drove the worms out by the gallon.

The Stock Tonic SAL TONE TRADE MARK **The Great Wormicide**

Sal Tone is a medicated salt tonic wormicide and conditioner. It is ready prepared. It requires no skill to use it. Simple directions accompany each package.

It contains the vegetable remedies the animal's instinct would lead it to look for if allowed free range.

Sal Tone is prepared under the personal direction of Mr. John E. Robbins, who is now and has been for thirty years, a successful stock raiser and breeder on a large scale. It is the result of *practical experience*, the only experience that amounts to anything in handling animals. There is no *theory* about it. It has been used by him for years.

Sal Tone, the tested-and-proved remedy, is just as easy to get as the poorly compounded kinds.

We Will Send You a Supply On 90 Days' Approval

We will ship Sal Tone to you on our big guarantee that it costs you nothing if it fails to do all we claim—to remove stomach and intestinal worms. You merely pay the small freight charge and use according to directions for 90 days. At the end of that time, after you have had a chance to fatten and market your stock, report results. If Sal Tone does not do all we claim, say so and it costs you nothing. We leave it to you. You are the judge and the jury. Your verdict is final with us. There will be no appeal. This offer means money in your pocket. Don't hesitate. Mail the coupon NOW.

THE JOHN E. ROBBINS COMPANY
Greensburg, Indiana

Prices: 40 lbs., $2.25; 100 lbs., $5; 200 lbs., $9; 300 lbs., $13. No mail orders filled for less than 40 lbs. Sal Tone is always sold in "trade marked" packages—never in bulk.

Ask Your Dealer for Sal Tone. If He Can Not Supply You, We Will Ship Direct.

The John E. Robbins Company, Greensburg, Indiana
Ship me your SPECIAL 100 LB. 90-DAY TRIAL ORDER OF SAL TONE. I will tell you in 90 days whether it does as you say, and if it does, will pay for it. If it does not I owe you nothing. N. F. 1112.

Name .....
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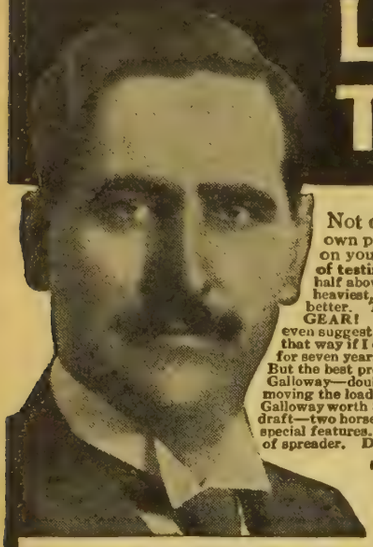
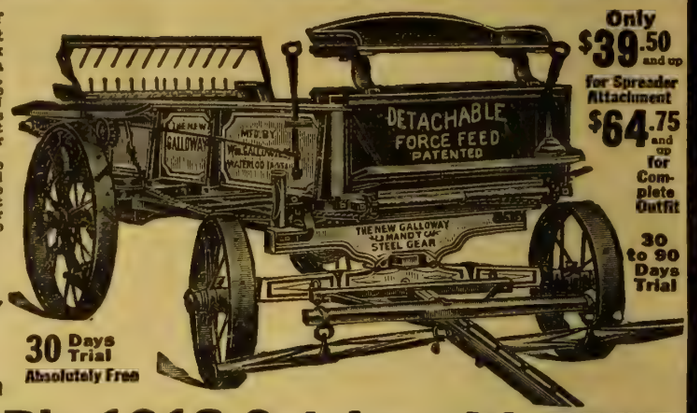
Hogs .... Sheep .... Cattle .... Horses.

Let Me Ship YOU This 1913 Spreader FREE



Not one cent down. No bank deposit. Keep your money in your own pocket. I just want you to **try** my new Spreader, **that's all.** Try it right on your own farm for a whole month **free. Test it out as you wouldn't think of testing any other spreader in the world.** Pile on the manure a foot and a half above the box. Put on all she'll hold. Take the fine, powdered stuff or the toughest, heaviest, tramped-down, slough-hay kind from the calf yard. If it's frozen, so much the better. **Take it into your field, whip your team to a gallop and SLAM IT IN GEAR!** Say, I know that's an awful test. So do you! A test no other manufacturer dares even suggest to you. But do you think for a minute I'd ship you a spreader and let you abuse it that way if I didn't know it would make good? I know what I'm doing. I've made the same offer for seven years, and the Galloway today is better than ever. 40,000 farmers have proved it. But the best proof of all is the machine itself—eleven patented features—all exclusive with the Galloway—double drive chains furnishing power from both wheels alike direct to the beater and moving the load. The only endless apron force feed, roller bearing feed spreader built. Makes the Galloway worth $25.00 more than any other spreader sold today. Low down—easy to load—light draft—two horses will handle it easily. Pull between wheels entirely on the reach—and many other special features. I can't tell them all—just get my catalog before you buy any other make or style of spreader. **Do it today.**



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Now, I'm out to break my own records.

I know I've done it, but I'm going to leave it to you. If you can figure out a **fairer** proposition than I'm making for 1913, I wish you'd write and tell me—I can't.

Write Me—Get My Special 1913 Proposition

Here comes the **best news of all.** I am going to help you get your spreader partly or even entirely free. No canvassing—no soliciting. When **I say free, I mean FREE.** I've been four years working out this plan, and say, **it's the biggest, fairest and most liberal co-operative offer ever made.** Now, I want you to get my offer **right away.** I don't want you to wait a minute. **I have a special reason for wanting you to hurry** and I'll tell you when you write me.

Here's the Proof:

Gentlemen: My Galloway Spreader was ordered about the first of February, 1909, and is a 50-bu. machine. I have run over a thousand loads of manure through it. Perfectly satisfied.—W. G. SUTFIN, Dundee, Ill.

Sir: My Galloway Spreader works as fine as silk, and I have the $30 left that it would have cost me if I had bought a trust spreader.—St E. TRENKS, Geddes, S. D.

Dear Sir: The spreader I bought of you is a dandy. I have hauled 150 loads with it without the least trouble and with two small horses not weighing over 1,100 pounds each. I use the 60-bu. size and I would advise anyone in need of a spreader to try the Galloway and see for themselves. It is the lightest running and the strongest in the market today. It is O. K.—GER. McCARTHY, Monona, Iowa.

Now Get My Big 1913 Catalog—It's FREE

Don't let this paper get out of your hands until you have sent for Galloway's wonderful big illustrated free spreader catalog. Find out how you can get a Galloway Spreader shipped right to your farm for 30 days' free test. And above all, get posted on my SPECIAL LIMITED OFFER. **I want you to get that offer sure.** Not another like it. Send me the coupon or letter or postal **today.**

"A Streak of Gold"

The only book of its kind in the world. It tells you just the practical facts every man ought to know about fertilizing. Tells how to handle manure, how to treat it, keep it and use it to the best possible advantage. Worth a hundred dollars to any business farmer. Regular price one dollar. Free to you when you write me.

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FREE COUPON

WILLIAM GALLOWAY, President,
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I want to know more about that 1913 offer of yours. Tell me all about it and send me your latest manure spreader book and your valuable book of information, "A Streak of Gold," free.

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William Galloway, Pres., WILLIAM GALLOWAY COMPANY, 1289 Galloway Station, Waterloo, Iowa

49 **Remember, we carry spreaders in stock at Chicago, Kansas City, Council Bluffs, Minneapolis and Winnipeg.**

WHEAT MARKET SITUATION.

Small But Satisfactory Differences in Wheat Prices, One Month With Another.

St. Louis is the market in which the bulk of the soft red wheat is sold, and the cash market has a way of acting very independent of outside conditions. In the wheat trade all people buying and selling hard wheat listen to the voice of Chicago, but when it comes to No. 2 red the voice that is listened to is the voice of St. Louis.

On December 31st the cash quotation at St. Louis was $1.06 to $1.10 per bushel, and thirty-one days later at St. Louis the selling price of No. 2 red was $1.08 to $1.12½, showing a 2 to 2½-cent gain for the month. Hard wheat on the cash market at St. Louis sold at 88 to 92½ cents on December 31st and advanced during the month of January until on the last day of the month hard wheat was selling on the cash market from 90 to 94 cents a bushel, a gain of 4 to 4½ cents a bushel.

As usual, we look towards Chicago for the market that gives actual contract transactions. We find then that the May quotation had advanced from 91½ cents a bushel on December 31st to 93⅞ cents a bushel on January 31st, and as the May quotation in wheat is the most important of the year, even so small an advance is a decided step in the right direction. The July quotation also advanced in the same time from 88¾ cents to 91½ cents, and a lone September quotation was recorded at 90 cents.

Wheat is selling too low to please the farmers who raise the crops, and unless wheat does sell better than 90 cents to a dollar a bushel there is but very little inducement to grow wheat, no matter how much clatter is going on about it.

Poland-China Swine Breeders.

The Annual Meeting of the National Poland-China Record Company was held in the Phillips Hotel, Dayton, Ohio, on Wednesday, January 22, 1913, when the new Board of Directors was elected as follows: E. E. Coler, Dayton, O.; W. W. Johnson, Danville, Ky.; M. C. Brown, Martinsville, O.; I. B. Morgan, Flora, Ind.; J. M. Klever, Bloomingburg, O.; Lloyd Mugg, Kokomo, Ind.; and J. S. Harmison, Woodstock, O.

The Board of Directors organized by electing E. E. Coler, President; Lloyd Mugg, Vice-President; J. M. Klever, Treasurer; and A. M. Brown, Secretary; and the Executive Committee, I. B. Morgan, J. S. Harmison and M. C. Brown.

The Treasurer's report showed all bills paid to date, with $367.49 remaining in the bank, and that he held a loan of $2,000.

The report of the Executive Committee showed that they had carefully examined the records, vouchers and bills of the office of the Secretary and Treasurer, finding the same to be true and correct.

The Secretary's report showed that Volume 34 was closed and now in the hands of the printer; also that the company had not done quite as large a volume of business during the last twelve months as for some previous years, which he attributed largely to the heavy loss of hogs by disease during that time; also the loss of pigs during the severe cold weather which prevailed all over the hog belt throughout the winter and early spring. The report of the Secretary further showed that there is a good demand for Poland-Chinas in the South and Far West, as many new herds are being built up in these sections, many of which are on a large scale and of our most popular breeding.

Among other things debated by the Board, considerable attention was given to the advisability of changing the printed form of pedigree in the volume, whereby the brackets would be left out and the book set straight matter. After careful thought on the part of the Board it was decided to make no change; that the present form of tabulated pedigree was the best used by any Record Company of any live stock, and that while some other concerns were shortening their pedigrees, about to the extent of no pedigree, now is the time to hold fast to that which is not only good but the very best. (Official.) A.M. Brown, Secretary.

GOV'T JOBS OPEN

The new Parcel Post will compel the appointment of thousands of Railway Mail Clerks.

Examinations Everywhere May 3rd

$900 to $1800 a year

Rapid advancement to higher Government Positions. No "lay-offs" because of STRIKES, FINANCIAL FLURRIES or THE WHIMS OF SOME PETTY BOSS. THE POSITION IS YOURS FOR LIFE. Country residents and city residents stand the same chance for immediate appointment. Common sense education sufficient. Political influence NOT REQUIRED.

We are Preparing Candidates Absolutely Free of Charge.

Send coupon immediately for schedule showing the places of the May 3d examinations. Don't delay. Every day you lose means the loss of just so much coaching before the rapidly approaching examinations.

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The coupon, filled out as directed, entitles the sender to free sample questions; a free copy of our book, "Government Positions and How to Obtain Them," and to consideration for Free Coaching for the examination here checked.

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Use this before you lose it. Write plainly.

THE GRANDEST
Subscription Offer.

A Splendid Magazine One Year —The Ladies' World—National Farmer and Stock Grower One Year—Eight Standard Grapevines—All For One Dollar.

This is a startling subscription offer, especially valuable to farmers' wives and families and to anyone who owns a home. **The Ladies' World** is a monthly magazine,

forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful, lovely stories, splendidly edited, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. No better, cleaner or more useful paper can possibly enter the farm home.

The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets and instructive matter concerning general farming, stock raising, dairy, poultry keeping and all the especial features that keep a farmer posted on his own interests in dealing with the world of business.

The subscription offer includes a magnificent collection of **Eight Two-year Standard Grapevines.** These

grapevines are ready for planting. They are two - year - old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe: **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar.

SUBSCRIPTION COUPON.

Please Cut Out and Mail to Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar ($1.00) for which send me **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Eight Two-year-old Standard Grapevines** as advertised.

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Address.... ....

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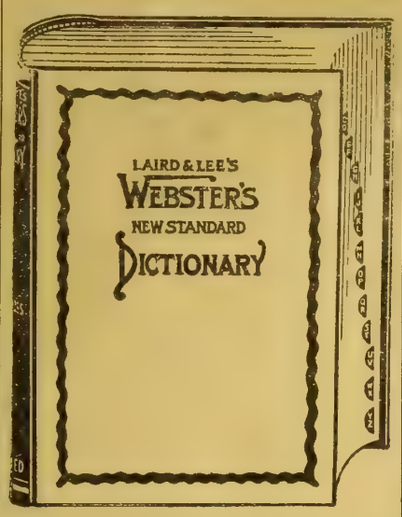
WEBSTER'S DICTIONARY.

This is Laird & Lee's Webster's New Standard Dictionary of the English Language, a wonderful book, 750 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography,



geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

Our offer to you: Send us One Dollar and we will send you The National Farmer and Stock Grower for two years, and we will also send you, postpaid, safe delivery guaranteed, one copy of this great Webster's Dictionary. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Fuel-saving, Perfect Heating Stove.

There is no reason why a stove should be wasteful of fuel, whether the fuel be coal or corn cobs. The

Kalamazoo Oak Heater, suitable for farms and country homes is constructed so as to represent perfection in radiation with the least fuel and very little attention. It is a quick heater—an emergency stove—and one that will fill the bill under any and all circumstances. You buy direct from factory, and to be sure of getting a fine-looking stove and one that is as lasting and good as it looks, all you have to do to select the size that suits is to write to the Kalamazoo Stove Company, Kalamazoo, Mich., and ask for Free Stove Book No. 328.

The Handy Almanac, Encyclopedia and Business Atlas For the Year 1913.

For the purpose of furnishing the subscribers of THE NATIONAL FARMER AND STOCK GROWER a splendid book of up-to-date information we have published the HANDY ALMANAC AND ENCYCLOPEDIA, a book of 216 pages, 6x9 inches, including a carefully-prepared index and a number of maps printed in colors.

To give an idea of some of the good things it contains we mention the subjects treated of, such as the Postal Banks—the Parcels Post Mail—new Pension Law—new Eight-hour Law — Highest Structures in the World — Olympic Records—World's Crops — Aeroplane Records— United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—the Panama Canal—the Panama Exposition—Astronomical Calculations and Eclipses For 1913—How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains—Governments of the World—Sporting World's Records—Important Dates in American History—Rules For Spelling and Punctuation — Household Hints — Cooking Time Table—First Aid to the Injured—Etc.

There is very much more in the book than we have stated, and in addition thereto there is the vote at the Presidential election.

A Subscription Proposition.

Anyone who pays fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied.

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For One Subscriber.

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Gentlemen:—Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS, the new Book of Knowledge.

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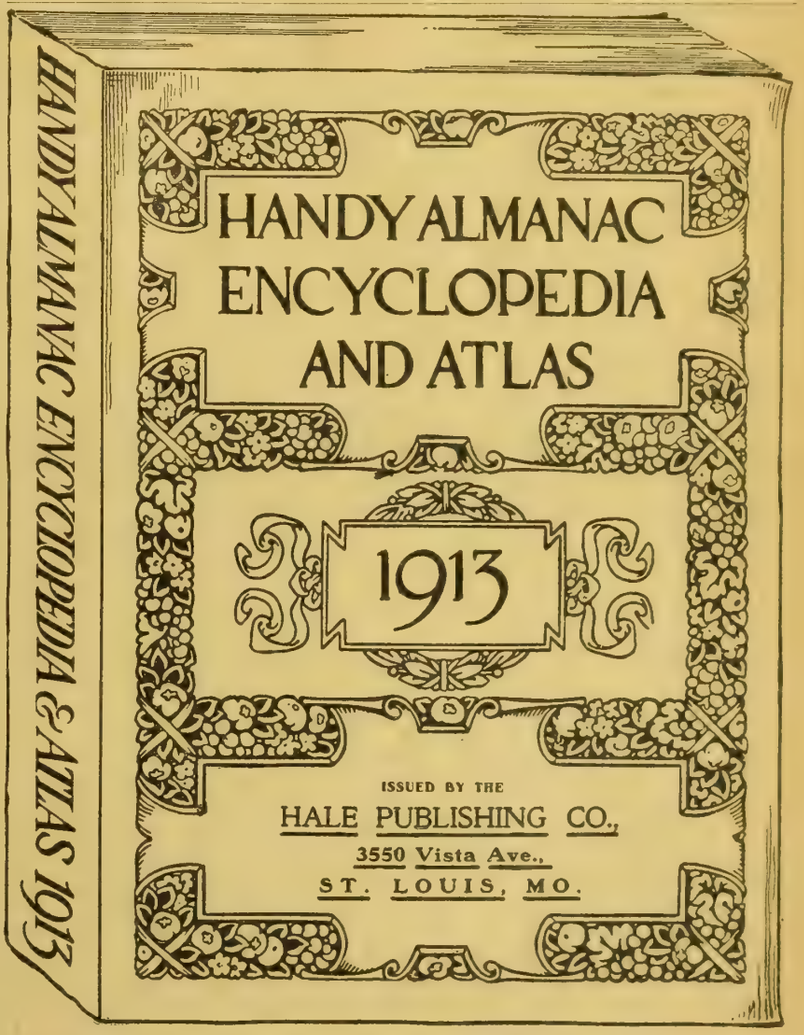

The Handy Almanac, Encyclopedia and Business Atlas—Half Size of Book.

Don't Fret About Pimples.

No More Humiliation; the Wonderful Stuart's Calcium Wafers "Get Right After" those Pimples, Boils and Skin Eruptions.

No need for anyone to go about any longer with a face covered with pimples, blotches, eruptions, blackheads, and liver-spots. These are all due to impurities in the blood. Cleanse the blood thoroughly and the blemishes will disappear.

"A Short Time Ago My Face was Full of Pimples. Now They're All Gone! I Used Stuart's Calcium Wafers."

That's what Stuart's Calcium Wafers are intended to accomplish and do accomplish. Their principal ingredient is Calcium Sulphide, the quickest and most thorough blood cleanser known.

These wonderful little wafers get right into the blood, and destroy eruptive substances present in it. In some cases a few days is sufficient to make a marked improvement. And when the blood is pure the whole system is a hundred per cent. better.

Go to any drug store and get a 50 cent box of Stuart's Calcium Wafers. Get them today.

Don't fret any longer about those blackheads, pimples, boils, tetter, eczema, spots or skin eruptions; they all go and "go quick" if you use Stuart's Calcium Wafers.

TOY BOOK PREMIUMS.

Pleasure and Instruction For Children, Especially During the Holiday Season.

We are always on the lookout for something that will please the children and at the same time be of an educational advantage to them. Our beautiful toy books, the first we have ever used as a subscription premium, are delighting the hearts of the little ones, and we are greatly pleased to

consider these books as one of our very best premiums. We are issuing these toy books as supplementary premiums to The National Farmer and Stock Grower. These toy books are substantial, beautifully colored, illuminated. The illustrations are wonderfully beautiful. They are astonishing in the delightful coloring. There are four sets. They are as follows:

Animal Series.

No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

Fairy Tale Series.

No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

Mother Goose Series.

No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
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In offering these delightful toy books we make several propositions:

1. Send us twenty-five (25) cents for six-months' subscription to The National Farmer and Stock Grower and you can select one set of four (4) toy books.

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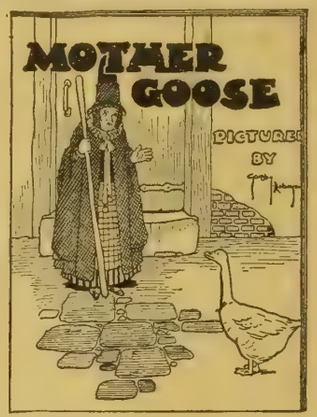
3. We publish the Universal Magazine. It is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry —a splendid publication. Send us twenty-five (25) cents and we will send you the Universal Magazine for



one year and you can select a set of four (4) toy books as a premium.

Order toy books by numbers. Select either four you desire. Address your orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Mother Who Took Time.

In the early part of the eighteen hundreds there was in Paris a small milliner shop owned and conducted by a Madame Corot. She loved beautiful colors and had the knack of turning a bow or twisting a hat to give it just the Frenchy effect that women love. This natural gift led her to open the milliner shop, but, being poor, she worked alone save for the assistance of her small son, who, out of school hours, helped his mother by sorting ribbons and matching colors.

As Madame Corot made hats she studied her boy, for after all, was not he her chief mission in life? She saw that little Jean had an unusual eye and brain for colors and she found many of his suggestions helpful. She well knew that his susceptibility in the matter of coloring was far greater than is found in the average child and she desired with her whole heart to give him a better training. Perhaps that paint brush with which he loved to daub might mean something some day if he had a chance.

The milliner shop was a crowded street, so Jean saw little of coloring except in the artificial. His mother wished to introduce him to Nature's art school, where he might learn to study real coloring. At last she decided to do a thing that she knew might cost her several customers and some money, which was badly enough needed. Still, what was money as compared with this which she would do for her boy? So on that afternoon of the week when half the woman world seeks a new bonnet—that is on Saturday afternoon—Madame Corot decreed a holiday. Closing up the shutters of her shop at noonday she took her hand of Jean and away the pair went far out from Paris to the woods, the real woods, with all of its wealth unspoiled by the hand of man. Not one Saturday, but every Saturday, did Madame Corot and her son Jean fare forth on their trips to the forest. A week's time wrought wonderful changes in coloring quickly noted by the delicate eye of the child. The twain studied the sky with its clouds and its sunsets, the shadows on the pools, the greens of the spring time, the flowers of the summer, the browns and golds of the autumn. Ever something new, ever something more wonderful appeared.

Then came a period later in life when Jean was apprenticed by his father to a draper. He hated the work but stayed with the draper until he was twenty-six years old. How could he stay longer with all that wonderful gallery of Saturday afternoon pictures crowding upon his brain and demanding expression? He wished to make others see the things he saw.

So he became the pupil of Michallon and Bertin. Then he went to Italy and studied alone for several years. He became exclusively a landscape painter, not a painter of elevations and depressions of earth, which somewhat remind one of a topographical map. Jean Corot was no prose painter; he painted the poetry of the landscape as he had read it from early childhood. With his brush he has attained the most delicate effects of light and shading, and he is called one of the most original painters. Anyone who gazes long at a Corot landscape cannot fail to capitulate to the charm of it.

Possibly Jean Baptiste Camille Corot might have become Corot even though his mother had not turned his eyes in the right direction; but suppose she had failed in her mother task and the boy had not found out his genius? What wealth might have been withheld from the world!

And the other little lads now peopling the earth and helping mothers about homely tasks, who are perhaps not incipient Corots or Mozarts or Lincolns—yet have they not some special gift which only a mother's discerning eye may detect and only the mother guidance find some means for its training?—Janet Thomas Van Osdel.

Governor Sulzer in the Street Called Straight.

Governor Sulzer, of New York, like the author of "The Street Called Straight," seems to have felt the apt significance of that particular Biblical passage, since he made use of it in his inaugural address: "In the future, as in the past," he said, "I will walk the street called straight." Though Biblical titles have sometimes proved a drag to books, this would not seem to be the case in the novel "The Street Called Straight." According to the figures of the January Bookman, it reached the high-water mark of the year in fiction, reaching 372 points.

The Medicinal Stride.

"I remember you cured me of the same trouble a dozen years ago. Why don't you use the same treatment now?"

"A dozen years ago?" echoed the doctor. "My dear sir, the medical profession has made wonderful strides since then, and I couldn't think of such a thing."—Puck.

Book of Champions. See page 2.

RISK A CENT

Make $15 a Day

We want Agents, Salesmen, General Agents—quick. Work all or spare time—traveling or at home. No experience necessary—no money needed. We back you with our capital and experience—furnish everything—free—complete outfit—samples—measuring system full instructions to start you at $10 to $15 a day, with chance to work up to several thousand dollars a year on commission basis.

Sample Suit FREE

We furnish your own sample suit at less than wholesale price and allow you to pay for it out of your commissions. Great, new, money-making offer. Send to-day—look at the new styles and weaves, at prices for made-to-measure suits, finest tailoring, that are less than your local prices for ready-mades. Call on ten men—take eight orders. This is a big, real, quick, sure, money-making proposition. EVERY GARMENT UNION MADE. Express prepaid.

Write Today. Risk a cent. Investigate. Send just your name and address on a postal card—give name of your county. SEND TODAY.

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STEM WIND & SET

WATCH RING & CHAIN FREE
FOR SELLING HAT PINS

We positively give FREE a STEM WIND, STEM SET BEAUTIFUL ENGRAVED, Watch, equal in appearance to a Solid Gold Watch, guaranteed 5 years, and a Beautiful Ring, for selling 20 beautiful, imported, oriental, inlaid novelty Lat pins at 10c each. Order 20 today and when sold send us $2 and we will positively send you the Watch, Ring and Chain.

WELLS MFG. CO., DEPT. 281, CHICAGO

25 cts. a week Buys this High Grade Drop Head Sew Easy Sewing Machine

Guaranteed 25 years. Shipped direct from factory. We save you money. You use machine while paying for it. It has all the latest improvements. Write us to day. Sheffield Mfg. Co., 1421 Olive St., Dept 271 St. Louis, Mo.

10 DAYS FREE TRIAL

We ship on approval without a cent deposit freight prepaid. DON'T PAY A CENT if you are not satisfied after using the bicycle 10 days.

DO NOT BUY *a bicycle or a pair of tires from anyone at any price* until you receive our latest art catalogs illustrating every kind of bicycle, and have learned our *unheard of prices* and *marvelous new offers.*

ONE CENT is all it will cost you to write a postal and everything will be sent you **free postpaid** by return mail. You will get much valuable information. Do not wait, write it **now.**

TIRES, Coaster - Brake rear wheels, lamps sundries at *half usual prices.*

MEAD CYCLE CO. Dept D263 CHICAGO

NEW RUPTURE CURE

DON'T WEAR A TRUSS.

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. **Binds and draws the broken parts together as you would a broken limb.** No salves. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01.

CATALOGUE FREE.

C. E. BROOKS, 59 C State Street, Marshall, Mich.

What'll Stop Sour Stomach?

They Act Quick and Relief Is Almost Immediate.

There are some things so exactly right that to mention them brings calm and repose. And to use Stuart's Dyspepsia Tablets gives the stomach just that kind of lift that makes you check up one hundred per cent. to the good. Particularly is this true with those who suffer with sour stomach. You feel so mean that you actually hate yourself. And yet in a few minutes these tablets sweeten the stomach, arrest unnatural fermentation, start a powerful digestive action and prevent the formation of gas.

They are composed of only such digestants as are approved by the very best of physicians.

Real, live, progressive people want to be around where the activities of life embrace whatever circumstances dictate. If a house party serves a Welsh rarebit, go to it. It isn't the easiest thing in the world to digest, 'tis true, but what of it? Stuart's Dyspepsia Tablets will take care of you, keep your stomach in control and your dreams won't see an army of hobgoblins playing hobs with your nerves. Many physicians regularly prescribe Stuart's Dyspepsia Tablets for the stomach disorders of patients who are ill with some constitutional malady. They do so for the reason that these tablets are not a patent medicine and their composition is known and recognized as the most approved and most powerful of all digestants.

Stuart's Dyspepsia Tablets are sold and recommended by all druggists at 50c. a box.

MAY MANTON PATTERNS.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering.

No. 7162.—Girl's Dress. Eight to fourteen years. With three-piece skirt, collar that can be made square or round at the back, with high or low shield.

No. 7464.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years.

No. 7265.—Long Coat Without Underarm Seams For Women and Misses. 34 or 46, 38 or 40 bust. With set-in sleeves in seven-eighths or full length, including pattern of bag. To be made from a rug or other material.

No. 7690.—Child's Coat. Two to six years. Three yards of material 27 inches wide, 1¾ yards 44 or 52 inches wide, with ¾ yard of velvet for collar and cuffs for the four-year size.

No. 7687.—Straight Jacket For Misses and Small Women. Fourteen, sixteen and eighteen years. To be laid in flat plaits, or accordion or flat plaited by machine, with or without yoke that can be made with plain or scalloped edge, with high or natural waist line.

No. 7383.—Fancy Blouse. 34 to 42 bust. With fitted lining, V-shaped, round, square or high neck, with or without under sleeves, with girdle and high or natural waist line, or without girdle and natural waist line. To be made over a fitted lining.

No. 7625.—Fancy Evening Waist. 34 to 42 bust. With low or high neck, short or long sleeves.

No. 7693.—Draped Coat. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust.

No. 7213.—Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. With five-gored skirt, high or low neck, with or without blouse lining with under sleeves.

No. 7696.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. Consisting of over-blouse and two-piece skirt with separate guimpe. With or without overskirt and Bertha, with low or high neck, short or long sleeves.

No. 7684.—Infant's Bishop Dress. One size. 2¼ yards of material 36 inches wide, 2⅛ yards 44 inches wide, with 1½ yards of edging.

No. 7683.—Combination Chemise or Corset Cover, with open drawers. 34 to 40 bust.

No. 7688.—Empire Night Gown. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust. With square or round neck, sleeves gathered into bands or plain.

No. 7705.—Girl's Tucked Night Gown. Four to twelve years. With V-shaped or high neck, long or short sleeves.

No. 7706.—Child's Under Coat. Two to six years.

No. 7692.—Child's Caps. Six months or one year and two years.

No. 7681.—Child's Tucked Dress. One, two and four years. With or without shirrings at long waist line. 707 Embroidery Design.

No. 7695.—Girl's Dress. Ten to fourteen years. With three-piece skirt, with round or square collar, long or elbow sleeves, high or low shield, with our without lacings.

No. 7686.—Boy's Knickerbocker Suit. Two to six years. With round or sailor collar.

No. 7697.—Child's Empire Dress. One, two and four years. With high or square neck, long or short sleeves, with straight lower edge. Adapted to bordered material.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Loves Life As It Is.

Theodore Dreiser, author of "The Financier," has often been accused of seeing only the dark side of life. In answer to one who asked him if he were a pessimist, he said: "That depends on what you mean by pessimism. One thing is sure: I love life just as it is. It is perfectly beautiful to me." Mr. Dreiser added that he found the spectacle of life so colossal and compact that he contented himself with seeing it and reproducing it in his books; that he could neither generalize nor philosophize about it.

Art Gum.

Something which every woman will appreciate having on hand is a piece of art gum. It is used by draughtsmen for cleaning their drawings, and it will quite as effectively clean many things about the house, such as soiled pictures, books, wall paper, slightly-soiled gloves and linen collars. It is used as a pencil eraser is used to rub out lead marks. So it is on firm surfaces that it does the best work. The gum may be purchased in the art stores or in most stationery stores. A piece which will last for a long while if used only on small articles may be purchased for ten cents.—Janet Thomas Van Osdel.

FARM-MADE meat products mean bigger profits for you and very little extra trouble. Always a salable market. No other way offers such a fine opening as for you to do your own "killing" and marketing. Every farmer who does, needs an

ENTERPRISE Meat AND Food Chopper

The one chopper that chops. Does not mangle, squeeze or crush, but has a four-bladed steel knife that cuts fast and clean. Make sure of getting it by remembering "AND"—Enterprise Meat AND Food Chopper.

Your wife will find it an everyday help in the kitchen, too, for making the many delicious dishes that farmers' wives know all about. So easy to clean, too. It repays its cost almost every week. Enterprise Meat AND Food Choppers are made in 45 sizes and styles—hand, steam and electric power.

No. 5—Family size	hand	$1.75
No. 12—Farmers' size	hand	2.25
No. 22—Farmers' size	hand	4.00

We also make cheaper food choppers, but recommend the above. Send 4c for "The Enterprising Housekeeper," a fine 200 recipe cook book. Your wife will like it.

THE ENTERPRISE MFG. CO. OF PA.
Dept. 87, Philadelphia, Pa.

The Test.

"You know, no wife really knows a man until she has eaten a peck of salt with him, as the saying goes."

"Bosh! If you wish to get the real insight on him, fail to get his first few breakfasts ready on time."—Exchange.

You Can't Buy New Hands

But you *can* buy gloves that will *keep* your hands good as new The best way to do this—to protect them from cold and hurt; to give them added quickness and skill is to buy

Hansen's Gloves

Coupon Brings Free Book

In all styles built just to suit your work from harvest time to winter chores. And for driving and motoring—for hunting there's a Hansen Glove—the *limit* of wear and of "free hand" comfort. Send coupon below for our Free Book. Select the glove you want. If your dealer hasn't it we send on approval.

Write us *now*.

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O. C. Hansen Mfg. Co., 132 Detroit St., Milwaukee, Wis.

You may send me Free and postpaid your book showing Hansen's Gloves. I am most interested in the styles for following purposes:

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Mention above what kind of work, driving or sport.

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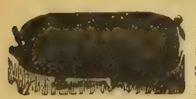
BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

Name.....

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Agriculture For Young People.

For some years there has been an endeavor to establish the teaching of agriculture as a regular part of the curriculum in district schools. In many cases it has become a part of the course of study, and most excellent would it be were the work done along the lines of the study of agriculture in the Agricultural Colleges with an Experiment Station in connection. Many of the prescribed courses are of little value to the country boy, as they consist of a set of printed questions to be asked by a teacher, usually from the city, who often knows considerably less on the subject of agriculture than do the pupils whom she in trying to instruct. And there is no Experiment Station connected with the schools in which the pupils may work.

Of practical value was this work made by S. A. Martin when teacher of agriculture in the high school of Watervliet, Mich., a couple of years ago. Through his instrumentality several men in the community contributed money to the amount of $55 for prizes to boys and girls. Twenty-five dollars was offered as a prize for the best ten ears of corn shown, and three other prizes of $15, $10 and $5 were offered. The corn was shown at an exhibit held a year ago last fall and competent judges awarded the prizes. So much interest was shown by young and old that last fall a second exhibition was held with an attendance of about six thousand people. In addition to the corn exhibits there was shown fruit and dairy produce. Three hundred dollars in prizes were awarded. No admission fee was charged, as it was in no way money-making affair.

Any community might carry out this idea to the good of all concerned. There are always a few public-spirited men who will help to establish a prize fund. It is wonderful what boys and girls can do when they are working in competition with one and another for a prize. They make it their business to find out the best way of doing things; they read and ask questions and then put into immediate use the knowledge gained. It is not the actual money that appeals as much to these young people as it is the thought that they have found the way of growing better corn or fruit or stock than their neighbor.—Janet Thomas Van Osdel.

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

St. Louis Apple Quotations.

On January 31st, at St. Louis, Mo., apple quotations were as follows, quotations by the barrel: Fancy Ben Davis at $2.25 to $2.40; fancy Gano and Missouri Pippin at $2.50; fancy Willowtwig at $3.00 to $3.25; Winesap at $3.00 to $4.00; Huntsman's Favorite at from $1.75 to $2.25 for scalded to $3.00 for fancy; Jonathan at $2.25 to $4.00; No. 2 and inferior fruit of various kinds at from $1.50 to $2.25; New York Greenings at from $2.25 to $2.50 for scalded to $2.75 to $3.10 for choice to fancy: Baldwins at $1.90 to $2.00 for No. 2 to $2.50 to $2.65 for No. 1 common storage and $2.75 for fancy cold-storage; No. 1 Russets at $2.50; Kings at $3.00 to $3.25; fancy Virginia Yorks at $3.25, delivered. Sales: One car No. 1 Baldwins (overripe) at $2.00, delivered; twenty-five barrels Gano and ten barrels Missouri Pippin at $2.50, delivered; fifteen barrels Winesap at $3.50, delivered: one car extra fancy- Greenings at $3.10, delivered.

Stockmen Are Stylish.

All stockmen desire to have stylish hats, boots and gloves. Most of the best gloves on farms and ranches are "Hansen's." Hansen, of Milwaukee, has a card on page 14. Hansen issues a free book on gloves. To buy Hansen's gloves you don't have to go to Milwaukee. He will tell you where to see and feel them before you buy. Use the coupon or write a post card to O. C. Hansen Mfg. Co., 132 Detroit street, Milwaukee, Wis., and ask for free glove book.

St. Louis Wool Quotations.

St. Louis quotations for wool, January 31st, 1913, were as follows: Near-by growth, 25c. for low to 26½c. for choice; fine at 17c. for heavy to 22c. for light; lambs' at 20 to 22c.; burry, 16c. for hard to 22c for slight; Southwestern, 13c. for hard burry to 20c. for clear; fall clip or loose, 18 to 22c., and fine 13c. for sandy to 20c. for light; Northern or Western, 22c. for dark to 25½c. for bright medium; 14 to 20c. for fine; and 14c. for hard burry to 21c. for slight; tub-washed, 25c. for burry to 37c. for clear; Angora goat, 15c. for burry to 29c. for choice.

$1 COUPON FREE
To every sufferer from
Rheumatism

Name.....
Address.....
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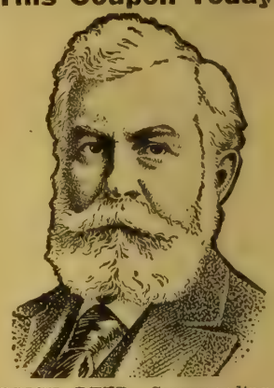
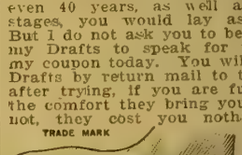
This coupon, when mailed to **Magic Foot Draft Co., Dept. 232 B, Jackson, Mich.**, will bring you a $1 Pair of Magic Foot Drafts, prepaid. TO TRY FREE, as explained below.

If You Have Rheumatism Sign and Mail This Coupon Today



FREDERICK DYER, Corresponding Sec'y.

My unbounded faith in Magic Foot Drafts is built on my record of results. If you could see the thousands of letters I get, telling of cures at every stage in the progress of this cruel torture called Rheumatism, cures of old chronics who have suffered 20, 30 and even 40 years, as well as all the milder stages, you would lay aside your doubts. But I do not ask you to believe. I send you my Drafts to speak for themselves. Send my coupon today. You will get a $1 pair of Drafts by return mail to try FREE. Then, after trying, if you are fully satisfied with the comfort they bring you, send me $1. If not, they cost you nothing. **You decide.**



Can't you see that I couldn't do this if my Drafts didn't satisfy? Wouldn't you mail a coupon to know for yourself, when I, knowing, as I do, risk my dollar treatment on your verdict? Address Magic Foot Draft Co., 232 B Oliver Bldg., Jackson, Mich. Send no money—only coupon. Do it now.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have made arrangements whereby we can send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. This is a bargain that should be accepted at once. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

In Germany, in 1912, 4,275,522 acres of winter wheat returned 33 bushels per acre, figuring 60 pounds to the bushel, and the 483,077 acres of summer wheat returned 34 bushels. This crop of wheat, however, cannot be credited to raw rock phosphate, for the reason that Germany does not use it.

FREE **DON'T WEAR A TRUSS**

Rupture Cured by Stuart's Plapao-Pads means that you can throw away the painful truss altogether, as the Plapao-Pads are made to cure rupture and not simply to hold it; being self-adhesive and when adhering to the body slipping is impossible, therefore, they are also an important factor in retaining rupture that cannot be held by a truss. **No straps,** buckles or springs—cannot slip, so **cannot** chafe or press against the pubic bone. Thousands have successfully treated themselves at home—no delay from work. **Soft as velvet—easy to apply—inexpensive.** Awarded Gold Medal. Process of recovery is natural, so no further use for truss. We **prove** what we say by sending you Trial of Plapao absolutely **FREE**—you pay nothing for it, now, or ever. Write **today.**

TRIAL OF PLAPAO Address—**PLAPAO LABORATORIES,** Block 688, **ST. LOUIS, MO.**

VIOLIN FREE

This is a fine, handsome, clear toned, good sized Violin of highly polished, beautiful wood, ebony-finished pegs, finger board and tail piece, one silver string, three gut strings, long bow of white horse-hair, box of resin and FINE SELF-INSTRUCTION BOOK.

Send us your name and address for 24 packages of BLUINE to sell at 10 cents a package. When sold return our $2.40 and we will send you this beautiful Violin and outfit just exactly as represented.

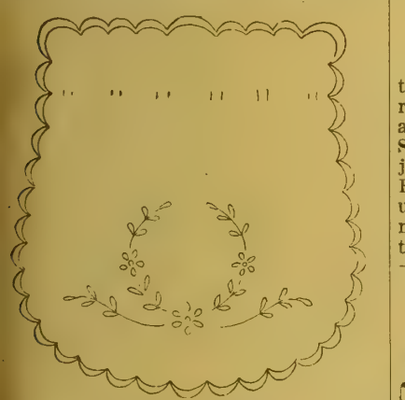
BLUINE MFG. CO.,
588 Mill Street,
Concord Junction, Mass.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.

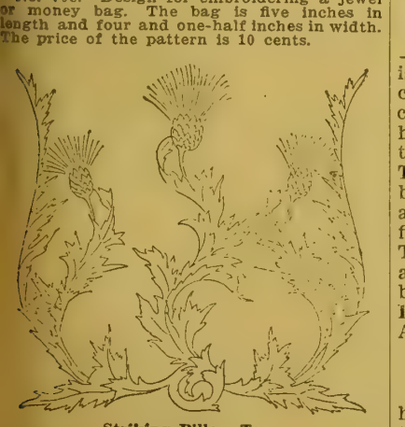
Fourteen-inch Tea Napkins.

No. 711.—Design for embroidering a luncheon or tea napkin, fourteen inches square. The price of the pattern is 10 cents.



For Jewels or Cash.

No. 708.—Design for embroidering a jewel or money bag. The bag is five inches in length and four and one-half inches in width. The price of the pattern is 10 cents.



Striking Pillow Top.

No. 713.—Design for an embroidered pillow top; very attractive when finished. The price of the pattern is 10 cents.

Laundry Bag Embroidery.

No. 712.—Design for embroidering or braiding a laundry bag; a very satisfactory pattern. The price of the pattern is 10 cents.

Each embroidery pattern is 10 cents, and is well worth the money.

Please address all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

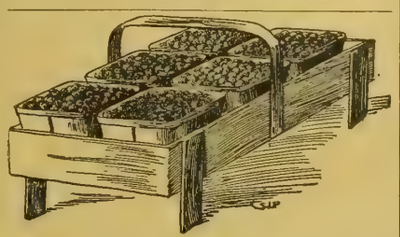
Ladies Are Invited.

On page 3 will be found an invitation that ought to be accepted quickly and with thanks. The farm idea is to get as close to the manufacturer in buying and as close to the consumer as possible in selling. In furtherance of this policy the National Cloak and Suit Company, of New York City, is placing farmers' wives and daughters upon the same plane as the buyer who can enter the store and be measured for a tailor-made suit. Thousands of dollars have been expended in preparing a style book that can be had for the asking; it is also possible by an additional request to obtain a suit booklet and samples of material. Do not fail to accept the invitation on the third page.

FRUIT-GROWING BOOK.

The Strawberry Crop Surpasses in Yield and Value All Other Small Fruits Combined.

According to the census enumeration, in nearly every state strawberries are by far the most important of all the small fruits raised. **The Strawberry Culturist** is a handy little jewel of a book. It is by Andrew S. Fuller, one of the greatest horticulturists. It contains all the information necessary to grow strawberries for the home or raise them for market. It



is fully illustrated; bound in flexible cloth; is 5x7 inches. This little book contains that which a beginner should have to start on and an expert needs to rely on. We will send a copy of **The Strawberry Culturist** post free by mail and The National Farmer and Stock Grower for one year for fifty (50) cents, payable with order. This is a splendid opportunity to get a good farm paper and a valuable book as a premium. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Constructing Farm Homes.

The matter of constructing farm homes economically and at the same time elegantly and substantially is now a simple matter, because there are factories that furnish the plans and construct all timbers and millwork, shipping them ready to be put up by ordinary carpenters. One of the best houses in this line of business is the Chicago Millwork and Supply Company, West 37th street, Chicago, Ill., who are advertising in this paper. Their special catalogue has 176 pages, describing 8,000 specialties in building material, and their House Plan Book shows plans of fifty house buildings that will range in cost when put up from $300 to $6,000. These valuable books are useful in repairing, remodeling and constructing all kinds of farm buildings. All who are interested in this subject should write to Chicago Millwork and Supply Company, 1463 West 37th street, Chicago, Ill., and ask for Catalogue 122 and House Plan Book No. 132. Mention The National Farmer and Stock Grower and the books will be sent free.

The Stitch in Time.

The old proverb is often exemplified, and a single stitch taken in time often saves hours of needless work, and there is nowhere that it is as useful as with table linen. The ever-diminishing supply of such things, which every housekeeper must contend with, can be overcome by small expense and little work.

Ravelings of new linen may be used for darning thin places, and if the work is neatly done it will show very little. Fine table linen is darned with soft, fine floss, always following the weave. Replace the warp first as an important beginning, then fill it in neatly over and under, and this is best done in an embroidery hoop.

No girl's home training is complete until she knows how to mend and darn neatly and when she once learns it will be a blessing to her all her life; and the mother who mends and sews for her daughter after she is old enough to do these things for herself, is doing her an injustice.

A glove-mender should be found on every toilet table, and if gloves are darned as soon as they begin to rip, they will repay their wearer by a long lease of service. When buying a pair of kid gloves, select a spool of cotton thread of the same shade as the gloves for mending them, and when ripped edges refuse to join, work all around the edges in buttonhole stitches, one row upon the other, until the space is entirely filled in.

Nice stockings will last twice as long if the heels and toes are strengthened by darning them for some distance on the wrong side before they are worn.

If you find that lace insertion in waists or dresses is beginning to pull or break, whip footing under it and darn the broken place, and it will never be noticed that the insertion is double. Great care must be taken with all work of this kind if it is to do credit to the wearer or be at all satisfactory.

When table linen, fine lace or nice white waists begin to wear, they should be cleaned without rubbing, and this can be done by shaving enough borax soap in warm, soft water to make a nice lather and then putting in the pieces and allowing them to soak for several hours. Clean the pieces by lifting up and down and pressing and squeezing between the hands, then shave some of the same soap in cold water, put in the pieces, place on the stove and let them boil for half an hour, then rinse through two waters. There is nothing better than this Twenty-mule Team Soap for washing all kinds of fine white goods and laces, such as lingerie waists, handkerchiefs and baby garments; and if every small hole is darned as soon as it appears in all such articles, and then they are cleaned in this way, they will come out beautifully white without any rubbing, and they will not only look well, but will last twice as long.—A. M. H.

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

This Beautiful 20 Year Watch $3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, 7 jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for Gents Free.

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20 Year Guarantee THIN MODEL

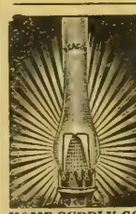
EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it, if you think it is a bargain and equal to any $15.00 watch, pay the express agent our Special price $3.75. Mention Ladies', Men's or Boys' size.

HUNTER WATCH CO., DEPT. 223, CHICAGO, ILL.

PILES, FISTULA, BLEEDING RECTAL ULCER,

Cured without surgical operation. Cures guaranteed. All protrusion stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 172-page Book on Rectal Diseases.

DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.



Beacon Burner FREE

FITS YOUR OLD LAMP.

100 Candle Power Incandescent pure white light from (kerosene) coal oil. Beats either gas or electricity. **COSTS ONLY 1 CENT FOR 6 HOURS** We want one person in each locality to whom we can refer new customers. Take advantage of our Special Offer to secure a Beacon Burner **FREE.** Write today. AGENTS WANTED.

HOME SUPPLY CO., 94 Home Bldg., Kansas City, Mo.

WANTED—SALESMEN AND SALESWOMEN

Hundreds of good positions now open paying from $1,000.00 to $5,000.00 a year. No former experience required to get one of them. We will teach you to be a high grade Traveling Salesman or Saleswoman by mail in eight weeks and assist you to secure a good position where you can earn good wages while you are learning Practical Salesmanship. Write today for full particulars and testimonials from hundreds of men and women we have recently placed in good positions; also list of good positions open. Address (nearest office) **Dept. 159 National Salesmen's Training Assn.**

Chicago New York Kansas City San Francisco New Orleans Toronto

WE PAY $80 A MONTH SALARY

and furnish rig and all expenses to introduce our guaranteed poultry and stock powders. Address **BIGLER COMPANY, X 356 SPRINGFIELD, ILLINOIS**

WE PAY $36 A WEEK AND EXPENSES

to men with rigs to introduce poultry compound. Year's contract. **IMPERIAL MFG. CO., Dept. 38, Parsons, Kans.**

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$9,000 offered for certain inventions. Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. Patents advertised for sale at our expense in Manufacturers' Journals.

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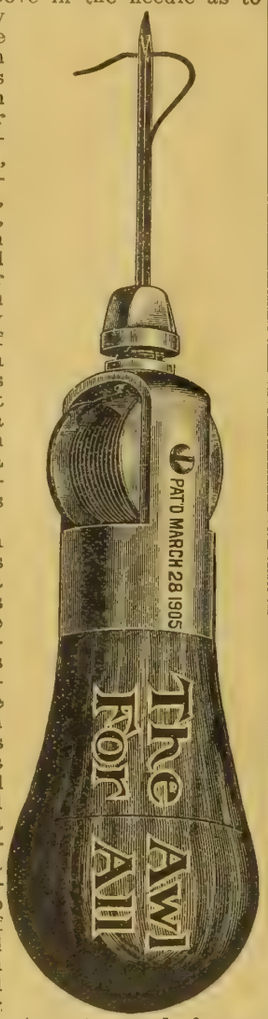
Expelled alive in 60 minutes with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE.

DR. M. NEY SMITH, Specialist,
Office, 302 N. 12th St., - ST. LOUIS, MO.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we well send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Gold Fish and Their Care.

Few pets require so little care, especially in winter; they will live for some years with the few simple requirements, continually affording entertainment as well as initiating the little folks into some of the wonders of aquatic life.

The chief mistakes in treatment are overfeeding, lack of oxygen and too high a temperature in the room. An aquarium is very much preferable to a globe, for aside from its greater capacity, the shape permits a more satisfactory arrangement of plants and shells or stones. The globe, however, is a cheap substitute, which does very nicely for only a few fish.

Fish like company. Do not entertain the thought of keeping one in solitude. A seven-inch globe will serve for two fish, though one an inch greater in diameter will give more pleasing returns, the water requiring renewal less frequently. Cover the bottom with clean sand, pebbles and shells. Growing plants are an essential in preserving the purity of the water, besides adding to the pleasure of the fish and to the artistic beauty of the globe. For this purpose nothing is better than the common aquarium moss, which roots and grows freely in water if the root is held stationary in the sand by means of a small pebble. Parot's feather or the umbrella plant may be substituted if preferred; but some growing plant is an essential at all times.

Select fish of nearly equal size. The one unpardonable sin of the gold fish is its proneness to turn cannibal, or at least to chew the scales from the back of a smaller comrade. There are numerous modifications of the species, the gay colors being a direct result of the art of the Chinese breeders, who have transformed a plain brown carp native to their waters into the fantastic forms with which we are familiar. Gold, pearl, amber and silver are variations too common to need description. The "oriole" is doubtless the most striking result of the piscatorial artist's skill, showing beautiful variegations of golden red and black.

Use spring, well or river water. Cistern water is insipid and usually not cold enough to give good results. Fish are cold-blooded animals, and one secret of success in their management is in keeping them cool. For this reason direct sunshine should never shine upon the tank for any length of time.

Change the water once or twice a week in winter, daily in warm weather, being careful not to fill the dish so full that they may flop out. This change can be readily made by pouring off nearly the entire contents of the globe and replenishing with fresh water, a thorough cleansing of the globe and pebbles being necessary not more than once or twice a week.

The actions of the fish are the best key to their thrift. If they remain well under water, all is going well; but if one comes to the surface and gasps as if for air or turns on its side, the water should be at once renewed.

A sick fish usually responds to a salt bath. Put a teaspoonful of salt in a quart of water, leaving the patient in it until it comes to the surface from sheer exhaustion, which usually occurs in about two minutes. Transfer to a vessel containing a saline solution in the proportion of half a teaspoonful of salt to a gallon of water. Bathe daily in the strong salt solution until better. A folden dorsel fin, faded color, and habit of swimming near the surface, are characteristics of the ailing fish.

Overfeeding must be avoided or the pets will be short-lived. Bread and cracker crumbs are objectionable. The prepared fish food is much safer, given strictly in accordance with directions accompanying. Feed regularly once a day, and only so much as will be devoured within a very few minutes. The fish soon learn to take the food from the finger, and this small show of friendship is one of the pleasures gained in their culture. Any stray bit of food allowed to remain in the tank clouds the water and renders it unfit for the fish. It seems almost beyond belief that a bit of thin wafer a quarter of an inch square will sustain the average-sized gold fish twenty-four hours; yet any great deviation from this amount is sure to prove disastrous. They vary the monotony of this one food to a certain extent by nibbling at the water plants.

The pleasure afforded by this simple bit of nature study is astonishing. The graceful movements of the fish are a constant delight to all, and the child who has owned such a treasure has been given not simply a valuable bit of nature study, but a lesson in kindness to and love for God's humblest creatures.—Bessie L. Putnam.

A Precaution.

A woman, feeling ill and cold, stood in front of a hot stove. While there, she was seized with a paralytic stroke and fell prone upon the stove. She was fearfully burned and disfigured for life.

In another case, a young girl in the first pangs of an appendicitis attack, toppled over upon the stove and was badly burned.

When not well, chills are often felt and there is a tendency to draw near the stove. The safe plan is to seat one's self in a chair, slightly turned from the stove. This will bring the back to the heat, which is the best way of checking a chill and at the same time, should there be a fall, it would be to the floor and not upon the stove.—Janet Thomas Van Osdel.

Plant Good Seeds.

The results of Prof. Holden's campaign for better corn are so well known that it would seem of little need to emphasize the same care in seed selection for every plant grown. And yet, we are careless, especially with the smaller seeds, and too much inclined to think that any seed which will grow is all right.

Now, some seeds will grow after they are several years old, at least a goodly percentage of them will produce fair plants, though others, like onions, salsify and parsnip, are decidedly uncertain, unless strictly fresh. But do not think for a minute that the seed which has just enough vitality to grow when all attendant circumstances are favorable, will produce the vigorous plant that the seed so full of life that it can scarcely wait to be put into the soil would furnish. The vegetables may mature, but the lack of vitality in the plant which just makes an existence greatly more than compensates for the extra cost of fresh seed.

Send in your order to a reliable seedsman, even though you do not get the extra packets of Wonderful North Pole Muskmelon and other marvelous novelties advertised by the other man. Send this order early, lest delay may bring disappointment in the ability to fill the order for certain popular strains. Or, if you do depend upon the local dealer, choose the one who makes a specialty, rather than the grocer, who will more than likely pass off upon you the remains of last year's stock. His hobby is something else and seeds are only a side issue. He cannot be expected to take the interest in them that those who make them a specialty will show. Gradually broaden your vegetable collection by adding something more each year. Study well the nature of your soil and climate and choose accordingly; but insist that the seed must be good, fresh, pure and of the best strain possible to obtain.—Bessie L. Putnam.

How He Punished Them.

"What have you done toward punishing lawbreakers?"

"Well," replied the shady police officer, "I have done a geat deal toward hurting their feelings by taking their money away from them."—Washington Star.

Now Selling at FACTORY Prices

FREIGHT PREPAID

This is a special 30-day sale of 10,000 sheets of Edwards Steel Shingles. Our direct-from-factory prices are suprisingly low. And we now pay all the freight. Here is a great bargain—an opportunity to buy the most durable, fireproof roof for much LESS than the commonplace kind.

Edwards STEEL Shingles

outwear FOUR ordinary shingle roofs, are ten times easier to put on, and yet, THEY ACTUALLY COST LESS THAN WOODEN SHINGLES. They cost LESS, mind you.

Do not judge Edwards Steel Shingles by common galvanized iron roofing—the kind that rusts. We have invented a method that absolutely prevents rust from ever getting a foothold, as 100,000 delighted owners of Edwards Roofs have found out. It's the famous Edwards Tightcote Process applied to genuine Open Hearth Steel.

STEEL Shingles Easily Put On

You don't have to nail these steel shingles, like wood shingles, ONE AT A TIME. Put on as high as 100 at once, for they come in big sheets ready to nail on sheathing or old roof. Much easier than putting on wood shingles. No extra materials to buy, no painting to do, no tools to borrow. Your hired man can do the job.

No Danger of Fire

No, Sir, you don't ever hear of any building burning up if it is roofed with Edwards STEEL Shingles.

It's the man who roofs with wooden shingles or composition paper who loses by fire his house or barn.

Why risk life and valuable property when you can make your buildings practically fireproof simply by roofing with Edwards STEEL Shingles?

Every Edwards roof is guaranteed against lightning by a $10,000 bond.

WRITE! Send postal at once for our latest Roofing Book No. 257 and Special Factory Prices. Give size of roof, if you can. (94)

THE EDWARDS MANUFACTURING CO.
207-257 Lock Street, CINCINNATI, OHIO

N. M. Ruthstein "The Steel Shoe Man"

10 Days Free Try-On

Before you think of buying a pair of shoes, get my free book and learn all about this new steel soled shoe. Learn how one pair will outlast 3 to 6 pairs of best all-leather shoes—how they are being sold by millions all over the world, all because of their economy, comfort and health protection. This book shows the different styles and sizes, for men and boys—and how the shoe is made from 6 to 16 in. high, to suit all purposes of work or outdoor sport.

Saves Health—Saves $5 to $20

No colds, no wet feet, no rheumatism, no corns, no bunions, no callouses, no broken down arches. **Keep the feet powder dry, comfortable and healthy in all kinds of weather.**

Shipment by Parcels Post

Delivery now made direct to your home anywhere by Parcels post at great saving of expense. Shipment made same day order is received. Learn about this shoe with the light, springy, airy "step"—the shoe that rests your foot naturally and comfortably, always holding its shape—never a "rundown" heel, broken arch, warped sole, worn toe, twisted uppers, or holes and leaks. For this free book address your postal to

N. M. Ruthstein "The Steel Shoe Man"
117 Racine St., Racine, Wis.

The Sole of Steel

WHO WANTS SOME FREE SILVERWARE

Lincoln, Leonard & Co., the Mammoth Home Furnishing Company of Chicago Are Giving Away a Fortune in Silverware

To celebrate their twenty-five years of selling direct from factory to user, this great concern is distributing free of cost upwards of a million dollars' worth of the celebrated Wm. Rogers silverware.

You can have spoons, knives, forks, in the new 1913 patterns, beautiful mesh bags, elaborate toilet sets or in fact, anything shown on their silverware sheet which they send to anyone who writes. This is a grand opportunity to get something for nothing, and the Lincoln-Leonard Company authorized us to tell our readers about it and permit them to share in the gifts if they want to.

This concern's business is unique in method and marvelous in its magic growth. They make all their own goods in their own factories and sell everything direct to the user, cutting out all the middlemen who are the usual factors in selling furniture.

This policy enables them to save the profits that go to the dealer, wholesaler, etc., and give it to the user instead.

As a result of this method, this concern has grown to such magnitude that they now own their own forests, railroads, sawmills, etc. They virtually control the market and secure their raw materials at as low a price as they want to pay.

The chair pictured here at $2.98 is a splendid example of how this factory to user selling idea saves you big money. Here is a chair on which the factory selling price is $2.98. The wholesaler pays $3.00 for it, the dealer or catalog house pays $3.25, and the retail price is $4.50. But bought from Lincoln-Leonard, right from their factory, the cost is only $2.98. You see all the middlemen are eliminated and so are their profits. Any one can get this chair at this price. Send for one and see for yourself.

This is only one of the items on which you can save a lot of furniture money. Their new 1913 catalog contains over 5,000 more—and every one a big bargain. If you will send your name to Lincoln, Leonard & Company, 937-37th St., Chicago, they will gladly send you this big money saving catalog, together with the circular showing pictures of the free silverware.

SELECTED POETRY.

THE WOMAN WHO WORRIED.

Let me sing you a song of a woman I knew,
Who always was fluttered and hurried;
Don't ask me her name, if it's all the same,
Just call her "the woman who worried."

There was ever the battle with rust and moth,
For moths were slyer than foxes;
And so, poor thing, she spent all the spring,
Putting things into bundles and boxes.

She worried at morn, and she worried at noon,
And worried when night descended,
For without some hurry and without some worry
The day hadn't been well ended.

And she'd carry her burden of household cares
Till sleep put an end to her labors;
And the dog ran away, and he went to stay,
And the cat went to live at a neighbor's.

And the children stayed out of doors when they could,
For mother was always hurried,
And noise and dirt were the things that hurt
The woman who worried and worried.

—Exchange.

WHEN IT'S WINTER.

You don't ketch me a-heavin' sighs when winter comes along the way;
Nor ketch me wishin' I could go back to a summer yesterday;
There's somethin' 'bout a rough an' ready winter day I can't but love!
The cold sneaks up an' tweaks your nose, the wind gives you a gentle shove—
Just like a little feller does that's full of mischief to his eyes,
That knows you love him, so he ain't afraid to give you a surprise
An' make you jump. An' when the snow comes slowly siftin' through the air,
It's like a baby all dolled up with powder on its tousled hair.

It's like a baby all rigged out, the way they do when they pretend,
An' rompin' to you bubblin' full of joy; it knows you are its friend.
An' it can treat you as it likes, can pull your nose or tweak your ears,
An' pinch your cheeks until you laugh, although your eyes are full of tears.
First thing you know you've up an' throwed the laziness of summer by,
An' there's a quickness in your step, an' there's a gladness in your eye,
An' somehow you can't help but love the whole wide world an' every place,
An' you go down the street an' grin right into everybody's face!

Well, say, I know the world well, an' I have knowed it for so long,
That watchin' winter's antics is like listenin' to a good old song,
When you know just what's comin' next, an' could take up the tune yourself;
You know that summer isn't dead—it's just been put up on the shelf.
That's why you know some mornin' you will see a crocus in the snow,
An' that'll be a sign the world is sort of stirrin' round below.
An' you will have to fix the strings for mother's mornin' glory vine,
An' git your muscle up to hang the carpets outdoors on the line.

—Chicago Daily News.

THE KING AND THE BEGGAR.

He sat upon his golden throne
In all his robes of state, alone;
And as he sat he sighed;
And though he drank from silver cup,
And at his word a host rose up,
His heart within him cried.
And though his face was bright and fair,
A specter touched his shining hair,
And at the touch he died.

And yet he was a reigning king,
With all that gold could buy;
And he was kind, and good, and young;
Oh, God, why did he die?

He sat upon the snowy ground,
And drew his ragged coat around,
To fight the bitter cold.
His feet and hands were cracked and bare;
No hat was on his grizzled hair;
That, even, had been sold.
He had no friend to press his hand;
He was a stranger in the land;
And he was wan and old

For he was just a beggar gray,
And oft his heart would sigh;
And oft his lips would murmuringly
Please God to let him die.

Oh, God, we question not Thy will;
And yet the query, never still,
Echoes from sea to sky;
And we shall always want to know
Why beggars live 'mid want and woe,
While kings grow sick and die!

—Christian Herald.

MY FRIEND.

Written by Colonel W. S. Hawkins, U.S.A., (prisoner of war at Camp Chase), a friend of a fellow-prisoner who was engaged to be married to a Southern lady. She proved faithless to him. The letter arrived soon after his death and was answered by Colonel Hawkins in the following lines:

Your letter came, but came too late,
For heaven had claimed its own;
Ah, sudden change! from prison bars,
Unto the Great White Throne.
And yet I think he would have stayed
For one more day of pain,
Could he have read these tardy words
Which you have sent in vain.

Why did you wait, fair lady,
Through so many a weary hour?
Had you other lovers with you,
In that silken, dainty bower?
Did others bow before your charms,
And twine bright garlands there?
And yet, I ween, in all the throng
His spirit had no peer.

I wish that you were by me now,
As I draw the sheet aside,
To see how pure the look he wore
A while before he died.
Yet the sorrow that you gave him
Still has left its weary trace,
And a meek and saintly sadness
Dwells upon that pallid face.

"Her love," said he, "could change for me
The winter's cold to spring;"
Ah! trust of thoughtless maiden's love,
Thou art a bitter thing!
For when these valleys, fair in May,
Once more with blossoms shall wave,
The Northern violets shall blow
Upon his humble grave.

Your dole of scanty words had been
But one more pang to bear;
Though to the last, he kissed with love
This tress of your soft hair.
I did not put it where he said,
For when the angels come,
I would not have them find the sign
Of falsehood in his tomb.

I've read your letter, and I know
The wiles that you have wrought
To win that noble breast of his.
And gain it—fearful thought!
What lavish wealth men sometimes give
For a trifle, light and small;
What manly forms are often held
In Folly's flimsy thrall.

You shall not pity him, for now
He's past your hope and fear.
Although I wish that you could stand
With me beside his bier.
Still, I forgive you! Heaven knows,
For mercy you'll have need,
Since God His awful judgment sends
On each unworthy deed.

To-night the cold wind whistles by,
As I my vigils keep
Within the prison dead house, where
Few mourners came to weep.
A rude, plank coffin holds him now,
Yet death gives always grace;
And I had rather see him thus
Than clasped in your embrace.

To-night your rooms are very gay,
With wit, and wine, and song;
And you are smiling just as if
You never did a wrong.
Your hand, so fair that none would think
It penned these words of pain;
Your skin so white—would to God your soul
Were half so free of stain!

I'd rather be this dear, dear friend,
Than you in all your glee;
For you are held in grievous bonds,
While he's forever free.
Whom serve we in this life, we serve
In that which is to come;
He chose his way; you yours; let God
Pronounce the fitting doom!

Camp Chase, December, 1861.

BIG SHOW.

Life's stage than hope is deeper
And wider than regret;
And for each generation
A newer scene is set;
And for each generation
The story thrills or palls;
But it goes on forever—
No curtain falls.

There is a wealth of tinsel
Set off by duller gold;
And in the great endeavor
Each strives his own to hold.
Forgetting cues together,
The foolish and the wise
Pass out into the shadows
With backward eyes.

Life's stage is deep as memory
And wide as new desire;
The light is strange, illusive,
Where players work for hire;
But of parts widely different
All claim one common lot;
For who has known the hero,
Or guessed the plot?

—Chicago News.

A YALLAH DOG'S ADVENTURE.

De polecat he say toh mah ole yallah dog:
"You bettah not come too clost toh dis log;
You bettah stay way from dis ole hollow tree,
Foh I ain't got nuffin dat you want to see."

Dat yallah dog bark an' he say: "Ki yi!
I'll stick toh dis hole an' you'll never git by.
I'se gwyin' toh git you outer dat hole;
It is no use toh scrammel an' it's no use toh scole."

Dat fool yallah dog he poke in his head
Whah dat pole cat wuz, an' heahs what he said:
"You smell pretty stout; you talk mighty big."
But right dah he quit, an' started toh dig.

Dat dog he lit out an' Oh! how he run;
'Twuz awful toh see what dat polecat had done.
He had scented dat dog wid a feahful perfume,
Dat lasted his hide toh de day ob his doom.

Dat yallah dog learned a lesson dat day,
An' you nevah can coax him toh go out ob his way.
He's a good 'possum dog; he'll tackle a rat,
But you'll nevah git him nigh a nuddah polecat.

—W. H. S., in Post-Dispatch.

WOMAN WINS.

I'm for patient, loving woman, whether mean or rich of gown,
She is on the road to glory—and you just can't keep her down!

There's my little wife, Roxana; she's as artless as can be;
Yet she's not so simple, mark you, but she gets the best of me!

If you try to beat a woman, when discussing something grave,
She'll come bobbing up in triumph like a cork upon the wave.

Then before you've time to meet her with a sermon on her doom,
She'll have floored you with an adjective and chased you from the room!

Though you try to stop her progress, put her momently to rout,
With her logic she'll attack you, knock you down and drag you out!

Man has sense, but woman senses of a kind to cause dismay,
And can tell a man's chief weakness when he's half a mile away.

She can scent a winter bargain with the cunning of a fox,
And beat all her male contenders to the shop by twenty blocks!

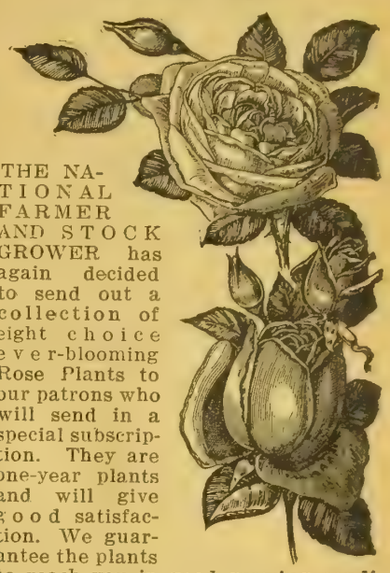
That is why I bow to woman, noble, pure and sweet witbal—
Bow before her gentle wisdom, kneel and knuckle, aye, and crawl!

—Chicago Daily News.

In the year 1912 Germany had 11,838,775 acres in oats, and the result was 47 bushels of 32 pounds to the acre.

A GARDEN OF ROSES.

Fine, Sturdy Plants—The Most Delightful Premium Offered by Any Farm Paper.



THE NATIONAL FARMER AND STOCK GROWER has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition, and with each package we send complete directions for planting, care and culture. The time to send the order is now—before you forget it—and you will receive the plants at the best time for planting in your section.

The collection consists of:

THE OLIVIA — A most gorgeous, distinct rose of deep, brilliant rosy red, and one which excites the admiration of everyone beholding it.

2. THE SUNBURST—An intense exquisitely beautiful rose of orange-copper and golden yellow.

3. THE BRIDE—The most satisfactory white rose of dainty, chaste, beautiful flowers and healthy growth.

4. MY YARYLAND — A pink beauty, rapidl developing a sturdy, shapely plant and large flowers.

5. SOUV. DE PRESIDENT CARNOT—A wonderfully handsome rosy-blush color creation.

6. THE METEOR—For intense, rich, velvety, crimson color no other rose compares. The flowers are large and double.

7. THE BLUMENSCHMIDT — A pure citron-yellow; a first-prize winner at every show.

8. DOROTHY PERKINS — A shell-pink, hardy climber and one that should be extensively planted.

Our Grand Special Offer.

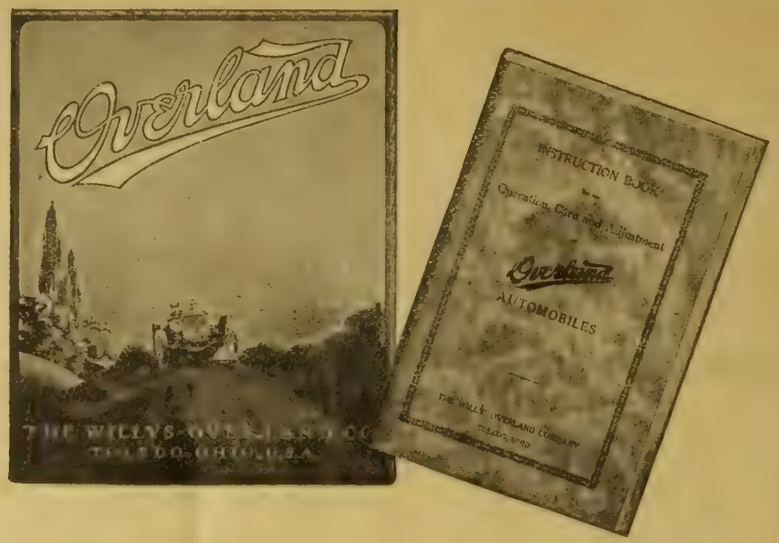
Send us a money order for fifty cents. ONLY fifty (50) cents. We will credit you with ten-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, and at the proper time we will also send you the full set of EIGHT ONE-YEAR ROSE PLANTS as described. The roses are sent out directly it is safe to dig them in the spring. Send in your order at once with fifty (50) cents and it will receive prompt attention.

Here is a Subscription Blank.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:—Gentlemen:—Herewith please find fifty (50) cents. Please send me THE NATIONAL FARMER AND STOCK GROWER for ten months, and the full set of EIGHT HARDY, EVER-BLOOMING ROSES, one-year plants, when it is safe to dig and mail them in the spring.

Name.. .....

Address.. .....



The most interesting and instructive automobile books ever published---FREE

HERE are the first *real* books ever published concerning the practical purchase and ***proper*** operation of an automobile. They were written by the best and biggest authority in the business---a man who understands and can make clear to you the very things you want to know most about. These books are so clever, clear and simple that your children can easily understand them. The publishing of these books cost us thousands of dollars. Both books are absolutely free.

HOW TO PURCHASE A CAR—Vol. I.

The first book tells you how to buy a car; how to weigh its quality; how to determine its real value; how to judge its construction.

You would not go into the grain, produce, hay, poultry, dairy or any other business without a good knowledge of that business. You would study existing prices, values and conditions. How, then, can you expect to make a practical automobile purchase without as much automobile intelligence as you can get? This book gives it all to you—FREE.

It clearly explains just which axle construction you should have in your car; it advises you on brakes; it judges a car's power; explains the modern gasoline motor; goes into spring suspension and all the other important points. In short, it simplifies; aids, bolsters and adds generally to your confidence when buying an automobile, because it thoroughly acquaints you with the subject.

HOW TO OPERATE A CAR—Vol. II.

Often a good car is put out of business simply because it was not properly operated or taken care of. Sometimes just one little false move, on the part of the driver, will put a car out of commission for life. We all live and learn.

So we got up an Overland book on the fundamentals of proper driving, operation and care. It will help every motorist in America. It tells you exactly how to run a car; when, where and how to lubricate it; how to make adjustments, etc., etc.

Here are some of the instructive chapters: "How to Start the Motor," "How to Start the Car," "The Best Way to Turn Corners," "Rules of the Road," "How to Find a Missing Cylinder," etc. Each point from starting to stopping is covered and covered thoroughly. It contains over 100 pages of clear information, all carefully illustrated with diagrams and drawings. Anywhere else this volume, with its profuse illustrations, would cost several dollars. You can have it free.

Write for these two free books to-day.

We want you to read these books for a selfish purpose. We know this valuable information, clear explanation and practical advice, in addition to helping you purchase and operate your car, will only go further in proving to you our high standard and great efficiency.

For in the Overland you get more real car for less money than from any other manufacturer in the world.

PLEASE ADDRESS DEPT. 89.

The Willys-Overland Company, Toledo, Ohio

$985

F. O. B. Toledo

Completely Equipped

Self-Starter

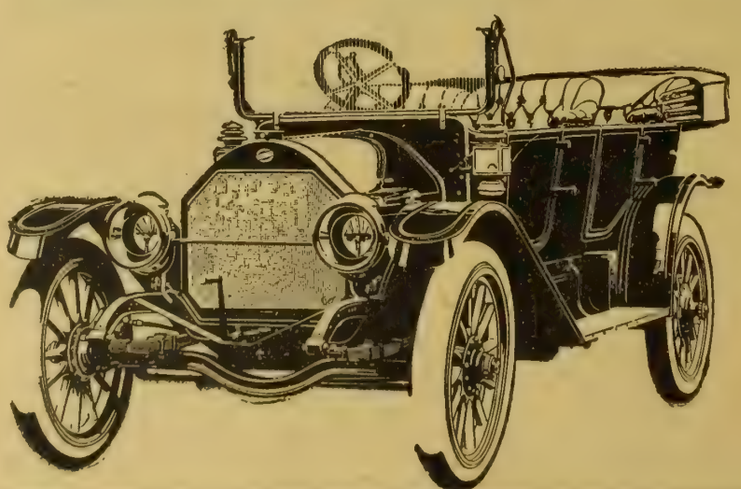
30 Horsepower

5-Passenger Touring Car

110-inch Wheel Base

Timken Bearings

Center Control



$985

F. O. B. Toledo

Completely Equipped

Remy Magneto

Warner Speedometer

Mohair Top and Boot

Clear Vision, Rain Vision Wind-Shield

Prest-O-Lite Tank

National FARMER

Vol. XXIX. St. Louis, Mo., March, 1913. No. 3.

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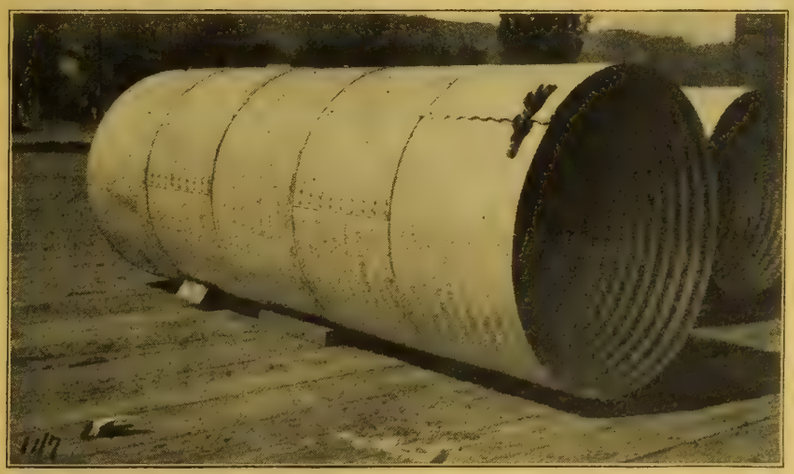
HARDY, EVER-BLOOMING ROSES.

The Most Delightful Subscription Premium Offered by a Farm Paper.

For several years The National Farmer and Stock Grower has offered a set of eight hardy, ever-blooming roses as a subscription premium. They are one-year plants and we estimate that there are now living not less than two hundred thousand rose plants that were sent out by us as subscription premiums. We are sending out more this year than ever before, mainly because our old friends and patrons wish to secure the new and beautiful collection, and they also wish to renew their subscriptions to a good paper. The rose offer in full will be found on page 31 with a coupon that can be cut out and sent to this office.



INGOT IRON CULVERTS.

The picture herewith represents one of the forty-eight-inch (in diameter) iron culverts used in road construction. We have in this connection a card on page 23 relating to the Highway Magazine, in which the American Ingot Iron Culverts, 99.84 per cent. pure, are illustrated and explained. We advise our friends who are interested in the subject to send for a copy of the Highway Magazine, 532 Walnut street, Cincinnati, Ohio.

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THE FARMER AS A PAINTER.

Something About Mixing Paints—When to Put on the Second Coat — Avoid Painting in Damp Weather.

The farmer is an all-around man and learns to do about everything. Every farmer boy learns to wield the paint brush, and, in time, he acquires a good deal of skill. As a usual thing, however, he learns his lessons at the expense of much labor to himself. He can profit by the experiences of others and so avoid some of the mistakes he would otherwise make.

A skilled painter tells the writer a few things about painting, which things are here set down:

There are two ways of getting paint—buying it ready-mixed or buying the white lead, oil and pigments and mixing them at home.

If the latter is undertaken, it must be remembered that enough paint must be mixed at one time to do the entire job of painting, whatever that job may be. The reason for this is that if the batch of paint at first mixed is used up and an attempt is made to mix more, it is likely to be off in color and so will not match with the first part of the job.

This may be, however, generally obviated by the man with a scientific turn of mind, who will go to the trouble of weighing the different elements he combines in the first batch of paint. Then in the second batch he can follow the same proportions. But the trouble is that almost all people are inclined to guess at the mixtures, and of course it is impossible to guess exactly the same each time.

Even in the big paint factories, where everything is done in exact proportions, the paint will sometimes vary in shades without the reason for it being fully understood. Perhaps it is clear carelessness.

Many painters prefer to buy their paints ready-mixed. This is far simpler for the amateur than trying to learn the science of mixing. But if a person expects to do much painting it may pay him to experiment with the crude materials and learn how to make any color he may want.

In the actual wielding of the paint brush the first coat must be put on thin and allowed to dry for a week or more. A good many painting jobs are hurried forward so fast that the first coat does not have time to thoroughly harden before the other is put on top of it. It then comes off quite easily under bad-weather conditions. The inexperinced painter, too, often begins to paint over the first coat as soon as it feels dry to the touch, which may be two or three-days' time. He should resist the temptation and permit it to dry for a week or ten days.

No painting should be done when the wood is damp. The pent-up moisture will cause the paint to peel off in a short time. Oil and water do not mix, and the oil can get a good grip on the pores of the wood only if the moisture is absent.

A wet day is not a good time in which to paint, even though the water does not fall directly on the part being painted.

Several coats put on and well rubbed in will last longer than a less number of thicker coats. Thick coats are to be avoided, as with thick coats it takes a long time to harden.

All farm buildings should be kept presentable with paint. It is one of the necessary factors in the keeping up of the farm, and a coat of paint is worth as much in preserving the wood as it is in the matter of keeping up appearances.

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JUDGING SHOW CORN.

How Experts Determine the Best Specimens.

What Constitutes "Class"—Evenness or Consistency a Highly Important Factor in Excellence—Other Things of Worth.

(By I. O. Schaub, one of the Judges for the Fifth National Corn Exposition.)

With the coming of the National Corn Exposition to the South, renewed interest has developed in the production of corn in our section. The great corn states of the Central West began a systematic study of corn many years ago, while it is only in comparatively recent years that the Southern farmer has taken up the work in earnest. Even at this time one finds many people who take it for granted that the largest or longest ear of corn is the best ear, while the best farmers know that such ears are undesirable, especially for seed purposes.

It is one of nature's laws that "like begets like," and most of us have recognized the value of this law in the improvement of animals. If we wish to produce a good dairy cow we breed only those animals having definite milk-giving characteristics. If we wish a beef animal, we get them from parents of the beef type. The same law applies in plant life, and students of corn recognize certain characteristics that are to be desired, especially when it is for seed purposes.

For convenience in comparing samples of corn, more or less arbitrary values have been assigned to these characters, and what is known as the score card for corn judges is used in most of the states where corn is grown. Each variety has its individuality, and, as environment has a marked influence on the characteristics of the plant and ear, even the same varieties will have differences according to where it is grown. However, the fundamental principles of corn judging will apply everywhere, and it remains for the judge to recognize these principles and apply them to the samples being judged.

From the above it may be seen that the individuality of the judge plays an important part, and where several judges work together there always comes a time when some one will disagree with the others as to the best sample.

At This Exposition.

I shall now discuss in a limited way some of the points that the judges of the National Corn Exposition will take into consideration in picking the champion ten ears of corn of the world for 1912.

Uniformity.—Ears in an exhibit should be of the same length, size, shape, and in the same manner the kernels should bear the same marks of identification, color, size and shape. In other words, each kernel should be exactly like its neighbor and each ear should be exactly like all the other ears in the sample. It is safe to predict that when the champion ten ears are selected there will not be more than a half-inch difference in the length of the shortest and the longest. One ear in an exhibit that differs to any marked extent from the others mars the appearance of the sample and should be replaced by a better one if possible.

Trueness to Type.—As was stated above, each variety has characteristics peculiar to itself, and even single varieties vary in different localities. However, each sample should contain ears of only one type, for otherwise it indicates that the exhibitor has no ideal in mind and is not breeding for any type. The man who plants smooth corn and dented corn may always expect to harvest both kinds.

Market and Seed Condition.—The sample should be dry and mature, and may be judged by the hardness and solidity of the ear as well as brightness of color and the size and color of the germ. Corn that contains a large amount of water may spoil if shelled and left in bulk, while if subjected to a severe freeze the vitality and germinating qualities may be injured.

The Length and Size of Ear.—These should conform to the variety and environment; as a rule, the circumference should be about three-fourths the length.

Width Between Rows.—The rows of kernels on the ear should be straight and close together, as this insures the maximum amount of corn on the cob. We have enough gullies on our hill sides without growing them on our ears of corn.

Tips and Butts.—The grains should run in rows well over the butt, completely filling in around the shank. The shank should be of medium size, or just large enough to hold the ear on the stalk in all kinds of weather. The tip should be well filled over with regular-sized grains. Neither should the tip be too tapering. Many farmers lay too much stress on getting ears completely capped over the tip. But it is more important to have a full-sized, well-shaped ear than to have the tip of the cob completely covered.

Size and Shape of Kernels.—Kernels should be wedge-shape with parallel sides, so as to touch the full length. They should be full and plump at the top, so as to fill in all the space around the cob. The kernels should be long but not carried to such an extreme as to form shoepegs. We get the best depth of kernels on a medium-sized cob. Round, shriveled, thin and pointed kernels are objectionable.

Color of Kernels.—All the kernels should be of the same color and conform to the color of the variety. Mixed colors on the same ear indicate impurity and should be avoided when selecting seed corn.

Color of Cob.—All cobs should be of the same color. Usually white corn has white cobs and yellow and red corn have red ones, yet there are white varieties in the South with pure red cobs. The color should be definite, however, and either pure white or pure red.

The above are some of the characteristics making up a good sample of corn. One judge may assign more value to one point than another judge, yet they are all fundamental and will be considered to a greater or less extent by the judges who select the grand champion sweepstakes of the world.

THE PROFITS OF AGRICULTURE

Going to the Middleman and Not to the Producer.

From Washington, D. C., on February 9th, it was reported that a blow had been struck at the high cost of living by a division of market section of the agricultural appropriation bill providing various ways of bringing producer and consumer together and establishing a system of market reports, etc., to cure the disease. Whether the disease will be cured or not by any means that legislation can bring about will be shown in the future, but for the present the statement made by the committee is interesting reading.

The report says that during 1912 New York City people paid $28,730,000 for eggs. All the farmers got for these eggs, however, was $17,238,000.

Cabbage to the value of $1,825,000 was sold in New York, that being the figure the farmers got. But what the consumers paid for this cabbage was $9,125,000.

Milk, for which the farmers received $22,912,000, was sold in the New York market to consumers for $48,880,000.

The farmers got $2,100,000 for the onions they sent to New York, and the consumers paid $8,212,000.

Potatoes, for which the farmers received $8,437,000, brought $60,000,000 in the New York market.

"In other words," says the report, "the producer gets $6,000,000,000, while the distributor gets $7,000,000,000, clearly showing that under our present system it is more profitable to distribute than to produce."

If we had said that it is more profitable to distribute than to produce we would be charged with discouraging farmers in their efforts to produce crops; it would be said that our figures did not represent the actual facts; it would be said that the farmer received more and the city people paid less; therefore we are very glad that the Agricultural Committee of the House of Representatives is responsible for the statement in regard to farm crops, that **"it is more profitable to distribute than to produce."**

The Most Wonderful Animal.

Mrs. Gamp was up from the country to see the sights of London, and, of course, she went to the Zoo.

She was very much struck by all the wonders, and, being one of these chatty old ladies, she went up to one of the keepers and spoke to him as follows:

"Which do you think is the most wonderful animal of all, keeper?" she demanded in a shrill voice.

The keeper scratched his head and thought for a long time.

"Well, mum," he said at last, "I think the laughing hyena about takes the cake."

"Why is that?" she asked.

"Because he only has a sleep once a week, one meal once a month and a drink once a year, and what he's got to laugh about is a perfect mystery to me."—Philadelphia Inquirer.

Read about the Book of Live Stock Champions on page 2.

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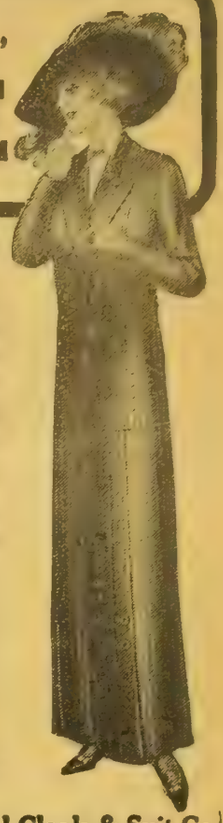

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THE WHEAT MARKET SITUATION.

Review of Prices at the End of the Month, Which Are Much the Same as Before.

We do not look for any excitement until the government report is issued, and even then it will take startling news to cause any great change in the market. There is no excitement in business now; there is no great activity; prosperity is an individual matter, for one man can thrive on conditions that will cause failure to another; but there are times when the majority of the people are prospering, and even failures are scarce. That is not now. Wheat is cheap, too cheap, and for that reason the state of Illinois has seeded 14 per cent. less in wheat than was grown last year. Illinois farmers are very much given to raising wheat, but they are only cashing their seed and their work when wheat sells in Chicago for less than $1.00 a bushel.

The government report is usually issued on March 8th, and indicates more clearly what the actual supplies of grain amount to than at any other time, and with the information about the condition of the winter wheat and the amount of acreage of the coming crop, it sometimes ' ause to suppose that supplies ar ' t plentiful. No well-posted grain dealers are excited about the future of wheat and it will require something of a jolt to get them started. We would like to see a couple of good years, with wheat at $1.25 to $1.35 a bushel, in order to encourage people to raise wheat. According to a late statement in regard to the tendency of crop yields per acre, there has been a small but steady gain in the average yield, and that would be encouraging if it were not that the gains in quantity have been usually offset by a reduction in the average price. The future, however, cannot reduce the consumption, because civilized nations are, as a rule, increasing in population and consuming force.

On February 28th the May wheat option sold at Chicago at 92⅞ cents, and that was a cent a bushel lower than on January 31st, when the May option closed at 93⅞ cents a bushel.

On January 31st, at Chicago, the July wheat option closed at 91½ cents a bushel, and when the market closed on February 28th the same option was quoted at 91⅜ cents a bushel, showing a very small decline.

The September wheat option closed on January 31st at 90 cents a bushel, and that was the price when the Board of Trade closed on February 28th. It surely was an inactive market.

When it comes to spot cash wheat, St. Louis stands pretty good. On February 28th St. Louis was selling No. 2 cash red (soft) wheat at $1.06 to $1.09 per bushel; Chicago was selling at $1.03 to $1.08½, and Kansas City was selling the same grade goods at $1.00 to $1.06 per bushel. A cent or two a bushel in a car-load of grain makes a handsome difference when it is going the right way.

At the close of trading on the last day of February two years ago May wheat was quoted at $1.15¾, and it was not considered high then.

Cash Grain at St. Louis.

On February 28th, at St. Louis, the cash grain sold as follows:

Wheat.—No. 2 red wheat, $1.06 to $1.09; No. 3 red, 99 cents to $1.03; No. 4 red, 90 to 98 cents; No. 2 hard, 90 to 92 cents; No. 3 hard, 89 to 89½ cents; No. 4 hard, 87 to 88 cents.

Corn.—No. 2 corn, 49½ to 50½ cents; No. 3 corn, 48½ to 49½ cents; No. 4 corn, 47½ cents; No. 2 yellow, 49¾ to 50½ cents; No. 3 yellow, 48¾ cents; No. 4 yellow, 47½ cents; No. 2 white, 52 cents; No. 3 white, 50 to 51c.; No. 4 white, 48 cents.

Oats.—No. 2 oats, 33 to 33½ cents; No. 3 oats, 32½ cents; No. 4 oats, 32 cents; No. 2 white, 35 cents; standard, 34½ cents; No. 3 white, 33½ to 34 cents; No. 4 white, 32½ to 33 cents.

Rye.—No. 2 rye, 62 cents a bushel.

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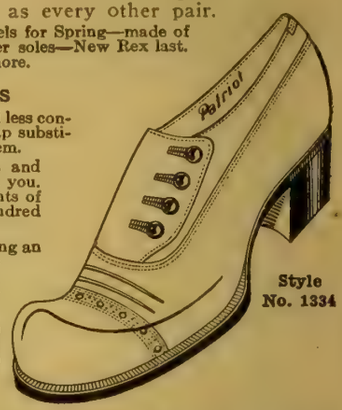


Style No. 1334

ROBERTS, JOHNSON & RAND
MANUFACTURERS Branch of International Shoe Co. ST. LOUIS

GENERAL FARM NOTES.

At Fort Worth, Texas, on February 17th, Mr. J. P. Burns, of Williamson county, marketed a load of 1,142-pound steers at $6.75 per 100 pounds. They were elegant cattle, fine-quality grade Herefords, but only in fair flesh, and were sold to Hood & Farmer, of Parker county, and by them will be fed and fattened for market. The price was the highest ever paid on the Fort Worth market for feeding steers.

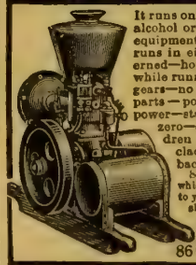
Raymond Ruebush, of Sciota, McDonough county, Ill., is advertising White Orpington eggs from the leading strains of this country. These favorite fowls are considered so highly by those who raise them that they think they have the best in the land. It is a good thing for people to start the breed they believe in and stand by it under any and all circumstances.

Wisconsin alfalfa hay, grown by P. A. Paulson, of Hudson, St. Croix county, a graduate of the Short Course in Agriculture at the University of Wisconsin, won the world's championship at the recent National Corn Show held at Columbia, S. C. This victory was won in the face of severe competition from farther Western States, where alfalfa is generally supposed to grow best.

Silo Owners **REMEMBER** that proper cutting and filling are as important as the Silo itself. ***The Dick Blizzard Ensilage Cutter,*** with very large capacity, works steadily, takes whatever is fed to it without a hitch, and outlasts any machine of its kind. It is the most profitable machine to buy and is fully guaranteed.
☞ Free Catalog, with full information, on request.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

RAILWAY MAIL CLERKS wanted. $900 first year, promotion to $1800. Examinations May 3 in every state. Common education sufficient with my coaching. Full information free. Write for booklet W 1109. Earl Hopkins, Washington, D. C.

20 Reasons Why You Should Investigate the SANDOW Kerosene Stationary ENGINE



It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—throttle governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year iron-clad guarantee—15-day money-back trial. Sizes 2 to 20 H. P. Send a postal today for free catalog, which shows how Sandow will be useful to you. Our special advertising proposition saves you one-half cost of first engine sold in your county. (167)
Detroit Motor Car Supply Co. 86 Canton Ave., Detroit, Mich.

Stover HIGH GRADE ***Gasoline Engines***
From 1 to 60 h. p. Circulars & prices on application.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Buckeye SAW MILL

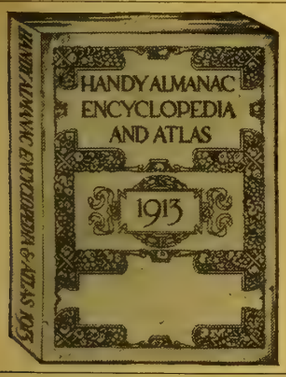
Simple in construction, economical in power, durable in every part and moderate in price. **Guaranteed the Most Up-to-Date Saw Mill on the Market. ALSO,** Engines & Boilers for Saw Mill work. Descriptive catalog free to interested parties. Write
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

THE HANDY ALMANAC, ENCYCLOPEDIA AND BUSINESS ATLAS FOR THE YEAR 1913.

A Book of Knowledge For Home or Office—Book Mailed Promptly on Receipt of Order.

For the purpose of furnishing the subscribers of THE NATIONAL FARMER AND STOCK GROWER a splendid book of up-to-date information we have published the HANDY ALMANAC AND ENCYCLOPEDIA, a book of 216 pages, 6x9 inches, including a carefully-prepared index and a number of maps printed in colors.

To give an idea of some of the good things it contains we mention the subjects treated of, such as the Postal Banks—the Parcels Post Mail —new Pension Law—new Eight-hour Law — Highest Structures in the World—Olympic Records—World's Crops —Aeroplane Records — United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—the Panama Canal—the Panama Exposition—Astronomical Calculations and Eclipses For 1913 — How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—



Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains—Governments of the World—Sporting World's Records —Important Dates in American History—Rules For Spelling and Punctuation—Household Hints—Cooking Time Table—First Aid to the Injured—Etc.

There is very much more in the book than we have stated, and in addition thereto there is the vote at the Presidential election.

A Subscription Proposition.

Anyone who will send us fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER con select the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.: Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY ALMANAC, ENCYCLOPEDIA AND ATLAS, the new Book of Knowledge.

Name.. .....

Address..... .....

Basket Willow Cuttings.

The Department of Agriculture is getting ready to fill requests for the basket willow cuttings grown last year on its experimental farm at Arlington, Va. Distribution of these cuttings takes place in March each spring to farmers and others who wish to make trials of basket willow on lands too wet for other crops. From fifty to one hundred cuttings are given each person.

The distribution is not a mere giving-away of government material to persons who desire to get something free, because it is required that each recipient of cuttings shall make a report of the treatment given and the results obtained. Several select varieties are included in each set that is distributed, and the aim is to secure information as to the best variety for each locality, since no one kind can be relied upon to yield maximum results over a wide range of territory.

In the basket-willow investigations carried on at the Arlington Farm, Arlington, Va., and at Ames, Iowa, by the Forest Service, particular attention has been given to the development of American species for basket-making purposes. The European species now commonly used have never proved themselves entirely adapted to American conditions, and are, as a rule, less thrifty than the native species. At present there is at Arlington a willow garden containing nearly 500 lots, gathered from all parts of the country and representing practically every species and variety found in the United States and Canada.

A system of selection which has been carried on for several years is already indicating which strains show the best basket willow characteristics for American conditions.

THE OATS MARKET SITUATION.

Very Little Change, But What There is Points Upward.

Considering the size of the crop, the oats market stacks up tolerably, for which let us again express our satisfaction. Farmers can congratulate themselves that the population is increasing, and it takes food to feed them. That is the reason why oats are not selling at 30 cents a bushel, the same as on February 28th, 1911.

We have encouraged farmers to sell their oats to their own live stock rather than to sell it to be sacrificed on the Board of Trade, and we still believe that farmers can advance the market because the demands of the cities for oatmeal is very much larger than formerly, and the profits are so large that the market buyers will not stand back from a squeeze of five cents a bushel.

When we look to the Chicago trading we find that oats advanced a little in February. We left the May option on January 31st quoted at 33⅞ cents, and we find at the close, on February 28th, the market had advanced to 34⅝ cents, and this little gain is appreciated, because it might have gone the other way. We left the July option quoted at 34 cents, and we find it a month later, on February 28th, at 34½ cents. September also changed from 33⅞ cents on January 31st to 34⅝ cents on February 28th.

When we turn from the Chicago trading in futures to the actual cash transactions at St. Louis we do not find any encouragement, because there was a decline instead of an advance. We left the trading on January 31st at 34 cents a bushel, and on February 28th the quotations were reduced to 33 and 33½ cents.

"Don't The Days Seem Long Working In The Fields?"
"No! I pass the time and improve my teeth and refresh my mouth with
WRIGLEY'S SPEARMINT
"It's almost as cheap as nothing at all. It's handy to carry and lasts as long as I like. Days would seem endless without it.
We Buy It by the Box
"It costs less that way—of any dealer—and we always have it when we want it—for ourselves and for company. It never gets stale and it always stays clean."
WRIGLEY'S SPEARMINT PEPSIN GUM
THE FLAVOR LASTS
CHICAGO
Look for the Spear
B D'Emo, Adv., Chicago

As previously observed, the market stacks up tolerably under the circumstances, and farmers may console themselves that, bad as it is now, a couple of years ago it was decidedly worse.

Legislation of a Kind.

Congress passed a resolution to appropriate $300,000 for the purpose of proseeuting violators of the anti-trust law, but they provided the money with the understanding that farmers' organizations and labor organizations should not be disturbed with it; in other words, farmers and union laborers are at liberty to violate the law and are not liable to be punished for it. We consider this an elegant example of pusillanimous legislation, and we assume that farmers were included in the negative provision in order to make the action in regard to labor organizations more popular. A law that cannot be enforced on all classes of citizens ought to be wiped out.

Sale of Fine Horses.

Messrs. Barham, Son & Butler, Milan, Tenn., will hold their fifth auction sale of Kentucky saddle-bred horses on March 19th and 20th. This firm is well and favorably known for raising and selling high-class, sound, serviceable and stylish horses, all registered or entitled to registry. They also include in the sale offerings from other first-class breeders in their section. This time there is a car from S. E. Terry, of Cave City, Ky., and another from Arch Dickinson and others of Trenton, Tenn. Barham, Son & Butler were prize winners at the last St. Louis Horse Show and their stock belongs to the aristocracy of saddle-horse breeding. See their sale card in the breeders' columns.

During the year 1912 the United States imported 1,731 breeding cattle free of duty and 323,986 head of meat animals that paid duty at the custom house.

BOSTROM'S FARM LEVEL

has been on the market nearly **30 years** and the sales get bigger every year.

We are proud of that record, and as the

which has **Telescope** enabling you to read the Target over 400 yards away, is the most simple, accurate, durable and complete outfit ever made for

Irrigating, Ditching, Tile Draining, Etc.

Many of the largest hardware dealers from the Atlantic to the Pacific now carry it in stock.

Write today for description of Level and we will advise name and address of nearest dealer to you and give details of our **Money Back Guarantee.**

Bostrom-Brady Manufacturing Co.

107 Madison Avenue, Atlanta, Ga.

THE FARM BOY IN COLLEGE.

The Financial Question Briefly Referred to—Increase in the Number of Schools to Reduce Expenses.

A good many farm boys are going to college these days, and with the passing of the years we may expect to see the number of farm boys in all of our colleges greatly increase. They are not only appearing in large numbers in the agricultural colleges, but are becoming numerous in schools of other kinds of training.

The number of agricultural colleges and schools is enormously increasing, and bills before the different Legislatures are being pushed to create more. Every county will soon have its own agricultural school, and, in addition, many agricultural high schools are springing up.

This means that the farmers everywhere are awakening to the value of school training for agricultural work. Therefore these new schools are finding students and some to spare.

Even in the South there is an awakening that bids fair to produce an economic revolution. Take, for instance, the congressional district agricultural schools of Georgia. Last year the attendance in those schools was more than 1,300, and they have just begun their work. It took some of our State Agricultural Colleges a generation to reach an enrollment as large as that.

But those schools have begun to settle the great question of financing the students. Ordinarily the cost of a college education has weeded out many of the students who were not financially strong. In the Georgia schools they have reduced the cost of board to the students to less than $10 per month. This means about $90 for the college year.

Compare this with some of the agricultural colleges of the North, where the total expenses are over $300 per year, and where board and room cost about $25 a month.

In the Georgia schools referred to the boys have to work free for the college about twenty to thirty-six hours per month. If they put in more than that amount of time they are paid for the extra labor. This further helps out with the expenses.

The biggest thing the country boy learns in the agricultural college or the agricultural school is to co-operate with others.

As a result we may expect to see the time when exploitation of the farmers will be a thing of the past. Neither the crooked commission man nor the slick land speculator will be able to grow rich on the deceptions practiced on the farmer. The boys in the colleges are learning all the games and are at the same time learning how to checkmate them. When the time comes that the farmer gets all that is coming to him, he and his family will no longer be in the depths of poverty, as some of them now are.

The question of expense at college is a burning one, and in many of our schools is becoming a deciding one, with the increase in the cost of living. The most encouraging condition is that there is temptation among the colleges. We have known boys living in states where expenses in colleges are high going to states in which living expenses in college are low.

The increase in the number of agricultural schools will to a considerable extent reduce the cost of living, both as to board and railroad fares.

WHEN THE TREES ARE BARE.

What to Do and Why—The Caterpillars—San Jose Scale—The Scale of the Maple.

When the orchard trees are bare is a good time to hunt the eggs of the caterpillars in the localities where these insects have been numerous the past year. As a boy, the writer had this annual duty to perform. The rings of eggs are found on the small branches and constitute a necklace of closely-packed eggs, extending in a uniform band around the limb. It is but the work of a moment to take a knife and cut this band, when it can be easily stripped off and put in a box for the purpose of burning. This latter work should never be neglected, as, if these eggs are dropped in the grass or elsewhere, it means that every egg will be a caterpillar, which must later be hunted and captured or allowed to re-begin its ravages.

Often these bands of eggs can be seen from the ground; but if any of them are present, the whole orchard should be gone over. It is much easier to destroy the caterpillars at this stage than at any other time. It also saves a considerable amount of defoliation.

When the trees are bare is the time to spray for the San Jose scale with the lime-sulphur wash or such other wash as may be employed to fight this dreaded pest. The winter is the time to apply this to the trees, as, after the leaves are out, the wash is destructive to the foliage. It takes a powerful remedy to destroy the scales, and in the winter is the only time to employ it. Every man about to do this kind of spraying should write to his Experiment Station for the latest information on modes of spraying and composition of spraying material.

When the soft maples are bare is the time to look for the cottony scale of the maple. This can be detected by the little mass of cotton about the size of a navy bean. To save a maple tree may look like a big job, but it is not so great as it looks. The soft maple is the variety generally affected, and that variety grows so fast that it needs a great deal of trimming. So, many of the worst-affected branches can be trimmed off and burned. With a cloth many of the cottony lumps can be wiped off the branches and the isolated ones can be picked off. A few-hours' work will make a great impression on any tree, and with some of the trees a few hours will suffice to rid the tree entirely. This seems about the only course that will save the soft-maple trees where they are badly infested. But there will generally be found trees with only a few colonies on each tree. A few-minutes' work will free each tree of these, and if an annual inspection is made, the trees can be kept free from these pests. The females of the scales have no wings, and this makes the spread of the scale insects slow. The first ones are brought on the feet of birds, and the subsequent infestation of a tree is from one or two isolated colonies. Inspection of the trees once a year will keep down the pest entirely, with the work that should go along with it. All soft maples should be inspected every year at this time, as when the first colonies do appear they be at once eliminated.

MISSOURI and ARKANSAS
OZARKS
Free, for you!
Over 50 double pages and 75 pictures showing farm scenes—brimful of facts about the opportunities in the Ozarks; where farmers make 5c a lb. profit from pork, $50 a head from baby beef (in 1 year's feeding), $10 a month per cow, 50 bu. corn per acre on land costing $12 to $40—where there's 9 months' pasture, short, mild winters, close big markets—where profits are big because expenses are little. Written by a man who knows farming. I have only a limited number of these books; to be sure of your free copy, send for it now.

(Fill out and mail this coupon to-day.)

Frank Anderson, Director of Development,
Frisco Lines, 1512 Frisco Bldg., St. Louis, Mo.

Please send me your free book about the Ozarks.

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FRISCO LINES

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Great Horse Story

"Kate and Queen"

By Prof. Jesse Beery

Free

A most wonderful and unheard of book offer. It equals the famous "Black Beauty" in human interest—surpasses it in practicability. "Kate" a victim of poor handling is vividly contrasted with "Queen" who was more fortunate. You sympathize with one—rejoice with the other—even as you sigh for the slum waif and laugh with the child of fortune.

Prof. Beery has skillfully woven into this intensely interesting and true story, many valuable suggestions for handling horses—a result of a lifetime's experience.

SPECIAL FREE OFFER

Prof. Beery desires that every horse owner, trainer, breeder—everyone interested in horses—should read this great story. To make it possible, for a short time he offers every interested horseman a copy FREE. He only asks that ten cents be sent to cover postage, and the names and addresses of five other horse owners. Send U. S. Stamps or coin. If you have even a passing interest in horses—if you own, train or breed them, you will gather from this book a fund of knowledge worth many dollars to you. Send for copy.

FREE With each book we also send free a beautiful colored picture of Queen—oil painting effect—suitable for framing.

PROF. JESSE BEERY, Box 714, Pleasant Hill, O.

THE BOARD OF TRADE

Charged With Attempting to Destroy Competition and Restrain Commerce.

In a civil anti-trust suit filed at Chicago on February 11th the Chicago Board of Trade was charged by the federal government with violating the Sherman anti-trust law by arbitrarily fixing and holding during the hours the exchange is closed, the price of corn, wheat, oats and rye to be received in Chicago. In other words, the Board of Trade is charged with preventing its members from changing prices in their trading from the close of one-day's market until the opening of the next.

The petition asks the United States District Court for a temporary restraining order to stop the practice complained of to be followed, after final hearing, with a permanent injunction prohibiting the members of the Board from continuing an alleged unlawful conspiracy to destroy competition and restrain interstate commerce.

The basis of action, as stated, is, that after the close of each day's session the Board of Trade establishes a public "call" for corn, oats, wheat and rye to arrive, by which the Exchange absolutely fixes the price to be offered for such staples by its members, from all parts of the country, contracted for from the closing hour of one business day to the opening the following day. Grain bought by members of the Board prior to its shipment or while in transit to Chicago is designated, the petition points out, as grain "to arrive," and the influence of the "call" applies to this particular branch of trade.

The petition charges conspiracy, alleging that as the Board is open less than four hours, or only one-half of the ordinary business day, it is declared that these fixed prices control the bids of grain dealers for the other half of the business day.

The rule has resulted, it is charged, in a conspiracy and combination. According to the petition, the Board dominates and controls the grain market, both as to price and the amount sold and shipped in interstate commerce in a large part of Illinois and adjoining states.

The case presented will require some time for legal delays and trial. In the meantime, the publicity given the case will do no harm. It has been understood that the closing values of one day always stood good until the opening market the next day, simply because no influence could be strong enough to change it. But it appears the Chicago Board of Trade leaves nothing to chance; by its rules it insists that the 1,500 or more members of the Board be under control and prevented from engaging in any transactions outside of Board of Trade hours except at the figures which were established by the "Call Board." How much of this is a restraint of trade we will be informed later on. In the meantime, we will not anticipate the verdict.

No-Rim-Cut Tires 10% Oversize

Nearly Half the New Cars Use Goodyears

Nearly half the cars which are built this year will be equipped with Goodyear tires.

At the New York Show, nearly half the show cars had Goodyear equipment.

Think of that—almost as many Goodyears as all other tires together.

And far more cars are now running on Goodyears than on any other tire in the world.

What Led to This Condition?

It is well to ask what led to this condition.

There must lie, somewhere, some immense economy. For men in these days keep good track of tire mileage.

And the result is this:

In the past year alone, more Goodyear tires have been sold than in the previous 12 years put together.

Two Savings

Two features in No-Rim-Cut tires mean an enormous saving.

One is the device which makes rim-cutting impossible. Without that device—with the old-type tire—23% of all tires become rim-cut.

The other is the fact that these patent tires are 10% oversize.

That 10% oversize, under average conditions, adds 25% to the tire mileage.

Non-Skid Treads

Then we invented a Non-Skid tread which excels every other non-skid.

It's a double-thick tread, made of very tough rubber, filled with deep-cut blocks. It grasps the road-surface with a bull-dog grip.

This thick, tough tread is immensely enduring. And the blocks spread out so the strains are distributed just as with smooth-tread tires.

This long-lived Non-Skid became at once the favorite Winter Tire.

Any Man Can See

Any man at one glance can see these advantages.

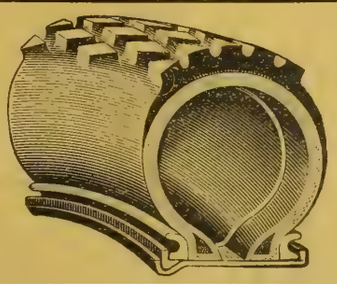
You can see why these tires can't rim-cut. You can see the oversize. And you know without telling that these things save money.

Then this tire, remember, is the final result of 14 years spent in tire building. For 14 years the ablest of experts have here worked to solve your tire problems.

About 2,000,000 Goodyear tires have now been tested out. As a result, these tires far outsell any other tire in the world.

You who pay tire bills should find out the reason. Make a test of No-Rim-Cut tires

Write for the Goodyear Tire Book—14th-year edition. It tells all known ways to economize on tires.



GOODYEAR
AKRON, OHIO

No-Rim-Cut Tires

With or Without Non-Skid Treads

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Branches in 103 Principal Cities — More Service Stations Than Any Other Tire
We Make All Kinds of Rubber Tires, Tire Accessories and Repair Outfits
Main Canadian Office, Toronto, Ont.—Canadian Factory, Bowmanville, Ont.

WORTHLESS GOODS.

Ground Rock, Mineral Fertilizer or Stone Meal.

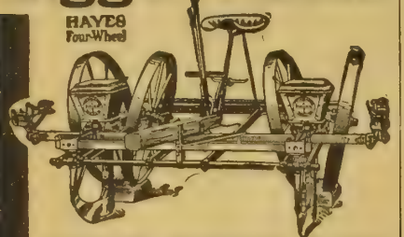
The indications are that not much of this class of materials has been sold in the Massachusetts markets. The inspectors were not able to find it in the hands of agents, and it was probably sold by the manufacturer through soliciting agents direct to the farmer.

A sample of New Mineral Fertilizer, manufactured by the New Mineral Fertilizer Company, Boston, was taken by one of our inspectors from stock carried by the manufacturer. The analysis of this showed the presence of .09 per cent. nitrogen, .38 per cent. total phosphoric acid and .10 per cent. water soluble potash. The calculated commercial value of the material was 57 cents per ton. Extravagant claims are made by the company for the fertilizing value of the silica, chlorine, sulphur, soda, lime, magnesia, iron and alumina which the material, like all rocks and soils, contains. The ordinary soil usually contains an abundance of these elements with the possible exception of lime. Assuming the ton price to be the same as last year ($17), a pound of nitrogen would have cost $5.67, a pound of insoluble phosphoric acid 60 cents and a pound of water soluble potash $1.27.

Dr. Charles D. Woods, Director of the Maine Agricultural Experiment Station, has conducted field experiments with this material. The results of the experiment were stated as follows by Director Woods:

"It will be noted that both with the corn and with the potatoes, there was a somewhat smaller yield on the plots to which New Mineral Fertilizer was applied than upon the plots which received no fertilizer. The comparative yields seem to clearly point out that there was no benefit from the use of the New Mineral Fertilizer."—From Bulletin No. 143, Massachusetts Agricultural Experiment Station, December, 1912.

Four Wheels Bigger Yields



HAYES Four-Wheels guarantee surer germination and quicker growth. Wheels pack the dirt from the sides to hold moisture and leave a loose ridge on top so that corn sprouts quickly and comes up several days sooner. The ridge gives greater surface for sun's heat and prevents washouts in hilly fields.

Hayes Four-Wheels

regulate depth of planting to the fraction of an inch—the only planter made that plants every kernel exactly the same depth. This is an important factor in the success of the corn crop. Corn all comes up at the same time, allows earlier cultivation and guards against missing hills from uneven planting.

HAYES Four-Wheels cover where all ordinary open wheels fail. They spread at the top and clean themselves. Guaranteed not to clog or carry the corn over even in wet and sticky soil. Insures a stand in low wet spots of field and allows earlier planting.

Never Misses a Hill

The HAYES Drop never fails. It is the simplest, most durable and most efficient ever made. Fewer parts than any other. Has no clutch to miss and give trouble. Never cracks or grinds the seed. Will drop accurately any size or shape kernel.

The HAYES leaves no bare spots in your fields. Increased yields soon pay for it. Farmers who have been disappointed with edge drop planters are now buying the HAYES never-fail drop.

Leads All Other Planters

Over 160,000 in use. Most perfect checking planter made. Short coupled, light draft and turns in shortest space. Twenty-five years success. Fully guaranteed.

Can be furnished with perfect working Fertilizer and Cow Pea Attachments, also Stub Runners or Discs if preferred.

Ask your neighbor and dealer about the HAYES and send postal for free booklet Z containing valuable planter facts.

HAYES PUMP & PLANTER CO., GALVA, ILL.

Hayes Four Wheel Corn Planter

THE CORN MARKET SITUATION.

A Few Remarks Regarding the End of February Conditions and Prospects.

We review the corn market at the end of each month for the purpose of affording a farmer a simple method of keeping at his hand some information that will be interesting. We think that it is well to fix a date as the time of our regular review and to make it the basis of all calculations. The closing hour on the last day of the month is the best time to consider market prices of grain, even though it is not thought of during the balance of the month.

On March 8th of each year the Department of Agriculture issues a statement showing the stocks of grain in farmers' hands, together with the visible supply of grain in the country, but at this writing, on February 28th, we can only anticipate that the report will show no scarcity of corn.

Some people may believe that the government reports are taken for gospel, but they are not. They are taken for what they are worth, and there are other interests that keep themselves posted and keyed up stronger with information than Uncle Sam, who is neither buying nor selling on the market.

We regard the government reports highly and believe they are getting better all the time, and we advise farmers to take the same view of them.

On February 28th we find the corn market no worse off than it was on January 31st. Indeed, the May option was quoted on January 31st at 52½ cents, and on February 28th the closing price for the May corn option was 53⅜ cents, which shows that there was a very moderate advance. The July option was left on January 31st at 53⅜ cents, and on the last day of February we find it at 54½ cents, showing another strengthening of the market. Then there is the September option, which is a good indicator for the future. We left it on January 31st at 54⅛ cents, and we find it a month later, on February 28th, at 55¾ cents, thus showing the slight gain was uniform on all the corn options, so far as Chicago trading is concerned.

When we turn from the speculative market at Chicago to deal with simple spot-cash transactions at St. Louis we find that cash corn is selling below the speculative market. We left the January 31st market at 49 to 49½ cents for a bushel of No. 2 corn, and on February 28th the No. 2 corn was selling from 49½ to 50½ cents a bushel. This is representative of a stronger market, and we hope the upward tendency will be continued, no matter how small and slow the movement may be.

Hay Sales at St. Louis.

Hay arriving in car lots is sold on two sides of the river, and there is considerable demand for hay of all grades and qualities. On February 28th receipts were thirty-four cars. Sales on the St. Louis side were: One car No. 2 clover-mixed (stained) at $9.00; one car Red Top mixed also at $9.00; one car No. 2 clover-mixed (headed) at $10; one car No. 1 do. at $12. Timothy—One car threshed at $7.00; one do. at $7.50; one do. at $8.00; two cars headed at $10; part car No. 3 at $10; part car No. 2 at $11; two cars No. 2 at $11.50; five cars and part car do. at $12; three cars No. 1 at $12.50; one car do. at $13; one car high No. 1 at $14. Prairie—One car No. 1 at $9.50; one do. at $10; one choice at $13. On East Side: Timothy—One car No. 2 at $10; one car No. 1 at $13.50. Any of our readers having hay to ship and wish to try the St. Louis market we will be glad to introduce them to a first-class firm.

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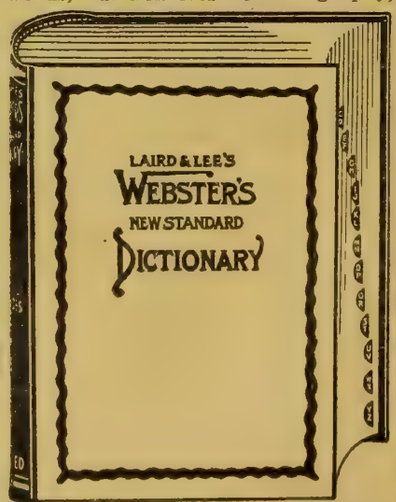

geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces.

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Each one of our readers will find it to their advantage to obtain a package of post cards before sitting down to read The National Farmer and Stock Grower for the purpose of writing on those cards to such advertisers as invite them to do so. The incubator catalogues, for instance, also the seed catalogues and the agricultural college and experimental bulletins in this paper. Agricultural implements also should be studied with the catalogues before you so as to receive the benefits of the manufacturer's claim of superiority and new points of excellence. We wish our friends and patrons to have the benefit of all that is to be obtained that will be a guide in their business of farming in all its branches, and a postal card will be found quite useful in this connection.

We Stand or Fall Together.

If we do not stand together in the protection of our own interests we cannot expect anyone to represent us. Congress intends to reduce customs duties upon most goods, and if farmers do not get busy they will admit all farm productions from foreign countries free of duty. Some of the lawmakers expect by taking the duty off wheat to be able to go round to the bakers and see the price of bread reduced. They also think by letting in meat from South America free of duty that meat will be cheaper at the butcher shop. They also believe that by making the Australian wool grower a present of the duty on wool that clothes here will be cheaper. They are mistaken, badly mistaken. They can injure and discourage American industries by reducing us to the poverty-stricken masses and wealthy classes of other countries, but they cannot cheapen bread, meat or clothing without at the same time reducing the earning power of the masses of city people, just the same as they will surely influence a decrease in farm productions. Anyone who will read "Our Industrial Policy" as published in this paper and agreeing with us should write to their Senators and members of the House of Representatives, endorsing these views. If requested to do so, we will furnish our subscribers with extra copies to send to Washington for that purpose. If we do not attend to our own business, no one will do it for us.

The Fruitman and Gardener.

On page 25 will be found an advertisement of what we call the Big Four Subscription Combination. We regard it as a splendid co-operative combination because it offers four excellent publications at half the publisher's price. Sometimes, however, a subscriber prefers to leave out one of the papers and asks for something else. We have now been able to add to the list the Fruitman and Gardener, which is published monthly at Mount Vernon, Iowa. The regular price is 50 cents a year, but we are able to include it in place of either The National Farmer and Stock Grower or the American Swineherd, or the Shepherds' Jounal, or the Reliable Poultry Journal. In other words, our readers can select any four of these papers, and we will send them for one year at **One Dollar** for the four. The Fruitman and Gardener is a very practical paper and runs very strong on strawberries, besides keeping up with all methods of fruit and vegetable culture. Be sure to send in your subscription to four out of five of the publications mentioned.

Our Secretary of Agriculture.

As we go to press, it is stated that our new Secretary of Agriculture is Dr. David F. Houston, Chancellor of the Washington University, St. Louis, Mo. Dr. Houston was born in North Carolina in 1866, and is therefore in his forty-eighth year. He was President of the Agricultural College of Texas for several years, also President of the University of Texas. We trust and believe he is fully capable of doing credit to the position of United States Secretary of Agriculture.

Cattle Exports Discontinued.

The comparative scarcity of beef cattle is shown by the general belief in the trade that it is no longer profitable to export cattle on the hoof to Great Britain. None were exported in January, 1913, and some of the men who have been in the export business have conluded to forget it. The export trade while it lasted served a purpose of taking the surplus of heavy-weight cattle and preventing them from glutting and depressing our own market. It did not stop until the population of the United States became sufficient to absorb our usual supplies. The export trade thrived on the poverty of stockmen, when we had only fifty to sixty millions of people to feed and when prices were very low. The export trade in dressed beef will take care of any surplus in production in the future.

Grand Average For Hereford Cattle.

A remarkable sale of Hereford cattle took place when on February 26th Mr. W. T. McCray, of Kentland, Ind., sold seventy-six head of Hereford cattle at $526.14 per head. The sale included a cow at $1,100, another at $1,025, two bulls at $2,500, and one at $2,150. The twenty-seven bulls averaged $735.92, and forty-nine cows averaged $405.

GOOD BOOKS AND PAPERS.

THE YOUNG FARMER—SOME THINGS HE SHOULD KNOW—By Dr. Thomas F. Hunt. Dean and Director of the University of California. Farming more and more is coming to be based on science, into which luck enters, the controlling factor. Here is a book which every man, young or old, taking up farming as a life work, will find an interesting, reliable, practical guide covering the whole subject. The author, who is one of the safest and wisest counselors in this country on agricultural matters, is himself a farmer and has had wide experience with young men and farmers, obtained through his many years' association in college work. This new book was written for the young man, although it is fully as useful to farm people of all ages and will prove extremely valuable to those who read it. The book is handsomely illustrated, 288 pages, 5x7 inches. Cloth. Net, $1.50. Orange Judd Company, 315-321 Fourth Ave., New York City, N. Y.

THE GASOLINE ENGINE ON THE FARM.—This is a splendid, comprehensive work by Xeno W. Putnam (brother to Bessie L. Putnam, well known to readers of this publication), who handles his subject in 527 pages, and every page interesting and instructive. The book is a practical treatise on the construction, repair, management and use of the farm power that has made up for the scarcity of farm labor by doing the work of several men at less than the cost price of a small boy. Mr. Putnam looks upon the gasoline engine as a necessity on every farm to do the farmer's work indoors and out of doors. He handles the subject perfectly and as simply as it can be done. It is absolutely impossible without using space we cannot spare in this edition to describe in detail even the index of this great work or the numberless uses to which the farm engine can be put. We advise our readers to send for the circulars describing this book to Norman W. Henley Publishing Company, 132 Nassau street, New York City, N. Y., and at leisure find out if the book is worth a place on a progressive farm. The price of the book is $2.50 per copy. We vote yes, the book is well worth the money.

BARN PLANS FREE.—The Louden Machine Company, address 651 West Broadway, Fairfield, Iowa, will send you a catalogue showing all kinds of dairy barn equipment and plans for a dairy barn, with special reference to their litter carriers and other sanitary labor-saving appliances. If you wish to construct a barn, they will send you a plan for your approval, and if you wish to remodel your barn they will arrange your ideas into a working plan. The first thing to do is to write to the Louden Machine Company at 651 West Broadway, Fairfield, Iowa, and ask for a copy of the booklet entitled "Dairy Barn Equipment." It will be a good introduction to the leading firm manufacturing dairy barn appliances.

FIRST PRINCIPLES OF FEEDING FARM ANIMALS.—By Prof. C. W. Burkett. This is the most comprehensive and best illustrated book on feeding the animals of the farm. As its title indicates, the book discusses the first principles of stock feeding. It is of simple construction, takes up the subject step by step, making it possible for the practical man or student to understand fully both the science and the practice of this important subject. The book is more than a statement of principles; it is an interpretation of the entire science of feeding. The stockman and farmer will find it as captivating as a novel, and the teacher in school or college the most teachable text they have in use on any subject. The book is superbly illustrated. 5x7 inches. 355 pages. Cloth. Price, net, $1.50. Orange Judd Company, 315-321 Fourth Ave., New York City, N. Y.

THE WESTERN HORSEMAN SOUVENIR EDITION is a magnificent publication, a four-column book of 150 pages, full of handsome illustrations of the leading trotting and pacing notables in harness, their owners and trainers. It contains the full list of up-to-date champion records, the new performers of 1912, and a vast collection of historical and news items to please and entertain the true horseman. The Western Horseman is published at Indianapolis, Ind., and is now issuing Volume 36. The subscription price is $2.00 per year, and the Souvenir number by itself is 25 cents.

PROFITABLE POULTRY AND EGG PRODUCTION is the title of the complete catalogue of the Cyphers Incubator Company, address Department 56, Buffalo, N. Y. It is a booklet of 250 pages, three-column size, 7½x10 inches, and is a work of art from beginning to end. The purpose of this catalogue is to show every size and make of the Cyphers Incubators and Brooders, and to insure the catalogue long life and to be kept as a valuable treasure it is loaded down with the most practical information in regard to all possible branches of the poultry industry. A free copy can be had by addressing the Cyphers Incubator Company, Dept. 56, Buffalo, N. Y.

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TEXAS.—Farms in Texas on the Cotton Belt Route can be had cheap. Most of the fruit and vegetable farms sending early shipments to St. Louis are from the sections traversed by this road. Write for Free Book on Texas Excursion Rates to **E. W. LaBeaume,** G. P. A., 1466 Pierce Building, St. Louis, Mo.

Farm Bargains For Sale by Frank P. Cleveland.

180 acres, Lenawee Co., Michigan, $21,600.
3700 acres, Otsego Co., Michigan, $6.00 per acre; will divide.
80 acres, Newago Co., Michigan, $2,200.
600 acres, Kankakee Co., Illinois, $75,000.
161 4-10 acres, Lincoln Co., Colorado, $3,200.
220 acres, Williamson Co., Illinois, $10,000.
640 acres near Madora, Manitoba, $20,480.
160 acres near Lipton, Saskatchewan, $2,400.
160 acres, Pembina Co., North Dakota, $5,000.
640 acres near Brocket, Alberta, $15,360.
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New Districts have recently been opened up for settlement, and into these railroads are now being built. The day will soon come when there will be no **Free Homesteading** land left.

A Swift Current, Saskatchewan farmer writes:—"I came here on my homestead March, 1906, with about $1000 worth of horses and machinery, and just $35 in cash. Today I have 900 acres of wh at, 300 acres of oats, and 50 acres of flax." Not bad for six years, but only an instance of what may be done in Western Canada, in Manitoba, Saskatchewan or Alberta.

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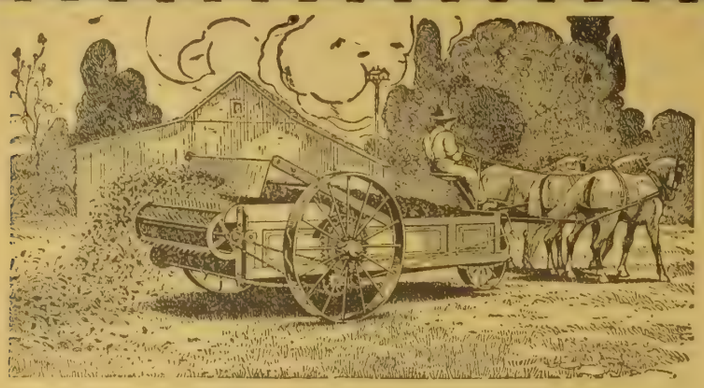

What Three Bushels More to the Acre Means

EIGHT years ago the farmers in a central state averaged crops that ran three bushels less to the acre than they now get.

Suppose each acre of farm land in the country were so tended that it produced an increase equal to that of this state. How much more money would you have with which to buy the luxuries of life that you earn and deserve? Your share in this prosperity depends entirely upon yourself. The first step for you to take is to fertilize your land properly with manure spread by an

I H C Manure Spreader

Manure cannot be spread as it should be unless a machine is used. An I H C spreader covers the ground with an even coat, light or heavy as may be needed, and pulverized so that the plant food elements in the manure combine with the soil to the best advantage.

The spreader that does this work as it should be done must have many excellent mechanical features. The apron should move without jerking; the beater should meet the load at exactly the right point to pulverize the manure without too greatly increasing the draft of the machine; the speed changes of the apron should be positive whether the spreader is going up hill or down. All these features are provided for in the construction of I H C spreaders.

I H C spreaders are made in high and low styles, narrow and wide, with both reverse and endless aprons, for use under all conditions. There are machines with wood and with steel frames as may be demanded by local conditions.

The I H C local dealer carries in stock the machines best suited to your locality. See him for catalogues and full information, or write

International Harvester Company of America
(Incorporated)
Chicago U S A

Swift & Company Buying Creameries.

It is reported by the New York Poultry Review that Swift & Company have bought out the business of the S. P. Pond Co., of Keokuk, Ia., and the Clarinda Poultry, Butter and Egg Company's place at Clarinda, Ia. Other interests taken over by the Swifts at the same time, the purchase including, according to press reports, the following: Clarinda Poultry, Butter and Egg Company at Clarinda, Leon and Creton, Ia., and Lincoln, Neb.; Central Michigan Produce Company, Alma, Mich.; Iowa Cold Storage Company, Clinton, Ia.; and the S. P. Pond Company at Keokuk and Ottumwa, Ia., and other points. It is stated that the various centers of these companies will be used as stations for the dressing of poultry.

Holding Cream Too Long.

At the January scoring for Illinois buttermakers held in connection with the State Dairymen's Association meeting at Springfield, January 22, 1913, thirty-one entries were sent in for scoring. Of this number, eleven received scores of 90 or above; eight received scores between 88 and 90, while twelve fell below 88. The average score was 88.96.

The judges made very few cuts on workmanship, and most of the low-scoring butter seemed to be the result of holding cream too long on the farms. Several of the makers of the poorer scoring butter reported cream deliveries as infrequently as ten days apart.

Twenty-four of the thirty-one exhibitors reported the use of starters in making butter, varying in amounts from three to twenty per cent.

COW-TESTING ASSOCIATIONS.

Views of Malcolm H. Gardner, Superintendent of Advanced Registry Holstein Cattle.

Not one pure-blood bull out of ten that are born is needed for use in pure-bred herds. Sale for the other nine must be found for grading up, or they must be either vealed or raised as beef steers. Breeders of Holsteins (and all breeders of dairy cattle for that matter) are vitally interested in arousing the interest of farmer dairymen in the betterment of their herds, and there is no present better way to accomplish this than by the organization of testing associations. Under this plan an association is formed containing enough herds to give steady employment to a competent man who remains one day at each place, the cows owned by the members of the association being assessed pro rata to pay the wages of the man employed. The person so employed is usually a young man who has attended for a longer or shorter time the State Agricultural College of his own or some other state, and he is often recommended for the position by the officer in charge of tests of dairy cows.

. Such an association should not undertake to handle too many cows; nor should any association fail of organization because the number of cows is so small as to make the assessment per cow seem high. Many a farmer with twenty cows will shy at a two-dollar-per-cow assessment, saying that he can hardly come out even as it is, and that it would take all that one cow would produce to pay his forty-dollar assessment. That he can hardly come out even now is the secret of the whole matter, for there is no place on the farm for concealed losses equal to the cow stable. It is to throw light into dark places so as to hunt out the unprofitable cows that the testing association is formed; and nothing will pay like dividends on the investment. The banks pay three per cent. on deposit; savings banks, four per cent.; and investment bonds about five per cent.; but the testing association is a genuine get-rich-quick proposition that will surely pay one hundred per cent. up.

A farmer who would vigorously resent being taken for a "mark" by a smooth confidence man will day after day patiently attend upon Spot and Brindle, that with some others of the herd are continually working a confidence game on him. But how long would he allow it if he knew it? and how is he to find out except by individual testing? The cost of maintaining a testing association is as nothing when compared with the gains derived from it. It is equally beneficial in the case of a pure-bred herd, for it shows which are the most profitable animals and makes improvement possible within the herd. It will also show the breeder which of his cows he should enter in order to make the best showing in the Advanced Register semi-official long-time test. The time will come when the country district school will teach things that will be of use to the farmer, when no teacher that cannot test seeds of all kinds for germination and milk for per cent. fat will be employed. Then, with a milk-testing outfit at the school house, all the farmer will need to do is to weigh and sample the milk; and his son will take double interest in the arithmetic lesson that teaches him how to correctly determine the value of the cows in the herd.

Alfalfa in South America.

Mr. R. M. Bartelman, United States Consul at Buenos Ayres, Argentine, South America, has reported to the Bureau of Commerce that the cultivation of alfafa in the Argentine Republic is increasing yearly, favored by multiple circumstances which in a short time will give it a preponderance over all the other cultivations in the country, especially with respect to cattle breeding and the existence of improved camps. In 1872 there were 105,782 hectares (hectare equals 2.47 acres) of land under alfalfa; in 1888 this had increased to 300,000; in 1895 to 712,067; and in 1912 to 5,400,580 hectares. The value of the yield of alfalfa for the 1911-12 agricultural year amounted to $50,758,000, the production being 4,038,320 tons. The principal provinces growing alfalfa were Buenos Ayres, 1,328,000 tons; Cordoba, 880,000 tons; Santa Fe, 696,000 tons; Entre Rios, 464,000 tons; Mendoza, 132,000 tons; and the Pampas territory, 216,000 tons. The yield of alfalfa is variable according to the fertility and nature of the soil, the depth at which the first level of water is found, the frequency of rain, irrigation, and climate. It produces ten to twelve tons per year per hectare (2.47 acres) on the average.

At the time this issue of the paper went to press, butter was quoted on the St. Louis market as follows: Current make: Creamery — Extra, 35c.; firsts, 30c.; and seconds, 28c.

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The "Clean Out" in the base of our engine does away with grease and dust and eliminates fire danger

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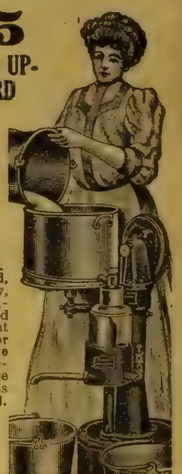
LARGE OUTPUT LOW PRICES

PERKINS WIND MILL & ENGINE CO., 50 Main St., MISHAWAKA, IND., U.S.A.

15 95 AND UPWARD AMERICAN SEPARATOR



THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for $15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Gears thoroughly protected. Western orders filled from Western points. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:

AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N.Y.

LET CALVES RUN WITH THE COWS

HUMANE CALF WEANER

	Each	½ Doz.	1 Doz.
Regular Size, 25c.		$1.25	$2.00
Large Size, 35c.		1.85	3.00

Agents wanted. Post paid.

Jacobsen Farm Supplies, Dept. A, Racine, Wis.

SILOS or ROUND BARNS

SHOULD BE CONTRACTED FOR BEFORE CORN PLANTING. CAN SERVE YOUR SELF AND NEIGHBORS BY BUILDING THEM IN CAR LOTS AS WE SHALL PAY FREIGHT OVER THE ROAD ONCE ONLY FROM THE MILL

EARLY BUYERS SAVE MONEY

DIRECT TO YOUR HOME TOWN

CATALOGUES OF ENSILAGE CUTTERS, TANKS, SILOS & SILO DISTRIBUTORS & SEATTLE STANDPIPE. WRITE FOR SPECIAL OFFER NO. 80

KALAMAZOO MICHIGAN

DE LAVAL CREAM SEPARATORS

Those who *know* buy the De Laval

Creamerymen—Because they are experts in the handling of cream and know by long experience that the De Laval skims cleanest and wears longest. That is why 98% of the World's creameries use the De Laval exclusively.

Experienced Dairymen — The De Laval is the universal favorite among big dairymen. They know that no other separator will give them such satisfactory service.

Old De Laval Users—Whenever a man who has used an old model De Laval decides to purchase a later style machine he invariably buys another De Laval.

Men Who Investigate — Because they find a large majority of De Laval machines in use; that they are used by the best informed users everywhere; that they stand up best in use, and that their users are better satisfied than users of other separators.

The new 72-page De Laval Dairy Hand Book, in which important dairy questions are ably discussed by the best authorities, is a book that every cow owner should have. Mailed free upon request if you mention this paper. New 1913 De Laval catalog also mailed upon request. Write to nearest office.

THE DE LAVAL SEPARATOR CO.

165 BROADWAY, NEW YORK. 29 E. MADISON ST., CHICAGO.

Care of the Dairy Bull.

Do not give the cows all your attention. The bull at the head of the herd should have some care given to him. He is half of the herd. Be sure he is the biggest and best half, and then care for him in such a way that he will stamp his good breeding on his calves. A bull should not be stood in a stall, only watered and fed and allowed to suffer on account of filth on his flanks, lack of exercise and grooming. He is more than half the herd. He is the best part of the herd of young things he will produce for you.

He should have a roomy box stall in which he can walk about. It must be kept clean and dry and bedded deep with straw at all times. It should be a well-lighted stall, where you can watch his growth, if he is a young fellow, and where the sun and air can get to him. If a good lot cannot be given him to exercise in, he had better be left to run on a wire after being ringed through the nose. Fasten a heavy wire from one tree to another or from post to post. Have the wire at least eight feet high. A stout chain with a strong snap in the end of it should hang from the wire, not being so long that it will get under the bull's feet and permit him to get tangled up.

The bull that stamps his breed characteristics on his get is not the one on whose flanks manure is accumulated; whose hoofs are rotting in filth; who is never brushed or exercised. If you expect a bull to do his best, treat him the best. Handle him daily. Do not torment him. Ugliness is always the fault of the owner. If a bull is worried with taunts, if he is forced to fight flies during warm weather and given no chance to stretch himself, he never will amount to much as a sire. To bring his breeding quality to its highest value, give him every attention; make him comfortable; feed him well with a variety of grains and some succulent foods as well, and if you have some light chores to be done which he can handle in a treadmill for a quarter of an hour twice daily, give him the chance to do the work for you. He will be the better for it.

He is the greatest part of the herd, remember, and must be treated as such. If he becomes hidebound, his muscles will be sore and hard, and it will not help his disposition. This condition only indicates poor care, lack of exercise and a variety of feeds. Brush him daily. In summer keep him lightly blanketed and in winter provide a heavier one. Be proud of him and show him off at every opportunity. If you are not proud of him, get one that you will be proud of and care for him right. "He is the big half of the herd."—William Galloway, Waterloo, Iowa.

If the Cow Could Talk.

If the dairy cow could talk, here are some of the things she would be very apt to say:

"Do not forget that I like clover hay, and if you will give me plenty of it I will increase my flow of milk.

"Give me plenty of salt. I like it and it is good for my health, keeping my bowels in first-class condition.

"Please give me a good shelter from icy winds and storms of sleet and snow. They make me shiver and I suffer a great deal, while I consume all my food in trying to keep my body warm.

"I would be glad if I had a nice clean stall in which to sleep. I enjoy a good bed of dry straw and will keep comfortable while I manufacture milk for my owner. I will do my best to fill the pail if he houses me thus.

"Don't let my coat of hair become filthy or dirty. If I could, I would curry myself, but I have no hands with which to hold the brush and curry-comb. I feel so uncomfortable when I am unclean, and, besides, the filth drops into the bucket when my owner is milking.

"I do not like to drink ice-cold water. I do not get enough before I get so cold that I hurry back to my shelter in order to get my body warmed up again. I like water that is just drawn from a cistern or well, and I can drink all I am able to hold, which aids my digestion and helps me make lots of milk."—W. D. Neale.

Southern Prize Milk.

The Southern Field says: "In the department of milk and cream at the National Dairy Show the Kentucky College of Agriculture won second prize, a silver medal, on market cream. In this class there were eighty-two entries, and since twenty states and Canada were represented in the competition, the Southern showing is proof of the dairying possibilities of that section."

Production and Delivery.

According to an estimate by a milk distributing firm in Boston, it costs an average of 4.4 cents to sell and deliver a quart of milk to a consumer. The average price paid to the producer was 3.9 cents a quart, which would shrink in handling 0.37 cents, making the cost to the consumer 8.67 cents per quart, or 34.68 cents a gallon, and $3.46.8 for a ten-gallon can.

Dividing this forty-quart can, we find that distribution cost $1.76; shrinkage cost 14.8 cents; and the producer received $1.56, out of which he probably had to pay 26 cents for transportation to market. This statement apparently represents the cost of retail milk sold to families in half pints and pints and not the distribution in larger bulk, including restaurants and hotels, sold at a less price and costing less to deliver.

New Zealand Eggs in London.

New Zealand is sending refrigerated eggs to London, and so far such shipments have arrived in good condition.

Concrete Field Trough, Ashville, Ohio

Have you built that concrete watering trough yet?

You ought to do that this Spring sure. Maybe you're planning some other concrete work. We have some practical men here who have spent years in the study of cement. If you'd like to ask questions about concrete, *ask us*—we'll be glad to answer all we can.

Anyway, be careful what cement you use. Think of Atlas—with satisfaction if you've used it—with assurance of satisfaction if you haven't yet. The Government was careful—bought over 5,000,000 barrels of Atlas for the Panama Canal—many farmers are careful—millions of barrels of Atlas have been used on successful farms. Will you be careful?

Have you our FREE 168 page Farm Book on concrete work? Write us for it now.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT CO., Dept 165, 30 Broad St., N.Y.
Chicago – Philadelphia

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

ATLAS PORTLAND CEMENT

Let Me Ship You This 1913 Spreader FREE

No Money Down—No Bank Deposit—Absolutely FREE for Thirty-Day Test on Your Own Farm

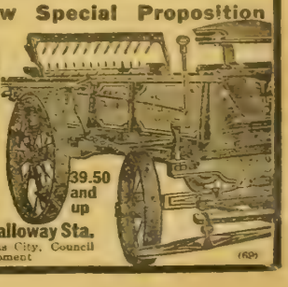
That's my 1913 offer to you. Can you beat it? Never. Doesn't it prove to you that the Galloway must be all and more than I claim for it, or I could never make such an unheard-of-offer? Of course it does, and I mean just that. Send for one today, give it a trial on your own farm, any way you please, and I know you will say "Galloway makes the best spreader on earth". 40,000 farmers have proved it.

Write Me for My Big Catalog and New Special Proposition

I will save you $25 to $50 by cutting out middlemen's profits on a spreader that will work better and outlast any spreader built. A low-down, easy-to-load, light-draft machine covered by eleven patents protecting our big new improvements and making it the only spreader of its kind in the world. Backed by a $25,000 bond and $5,000 challenge offer no other manufacturer dares to make you. My big illustrated catalog tells all about the Galloway. Write for it today and I will send you my new startling 1913 special proposition, telling you how you can get your spreader wholly or partly free. No work or canvassing to do. And I will send you my big book

"A Streak of Gold" FREE

This book is worth many dollars to any man; regular price, $1.00. It is free for just writing me today. It tells how to care for the manure, how to spread it, how to treat your soil, and how to make the manure-pile pay for your spreader. Write me, without fail, today.



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SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS. EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

GOOD SEEDS

BEST IN THE WORLD
Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

R. H. SHUMWAY, Rockford, Illinois

CLOVER CHEAP

Now is the Time to Buy

Prices bound to be higher later. Buy before advance and save money. Write today for special low price and free samples of our Pure Iowa Grown New Crop Recleaned Tested Clover and Timothy Seed. Have alfalfa, alsike, sweet clover, all kinds grass seed. Write us now.
A. A. BERRY SEED CO., Box 133, Clarinda, Iowa

Hill's Evergreens Grow

Best for windbreaks. Protect crops and stock. Keep house and barn warmer—save fuel—save feed. Hill's evergreens are hardy, nursery-grown—low priced. Get Hill's tree illustrated evergreen book and list of Great Bargain Offers—from $4.50 up per Thousand. 56 years experience. World's largest growers. Write.
D. HILL NURSERY CO., Inc. Evergreen Specialists.
267 Cedar St., Dundee, Ills.

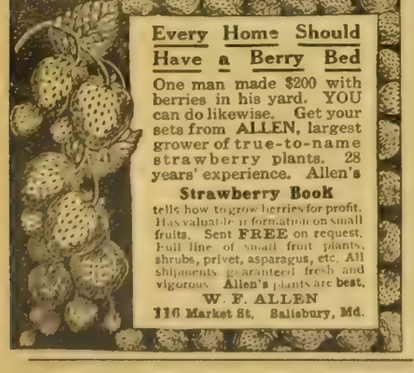
GADDIS PROLIFIC SEED CORN.

We have left three thousand bushels of carefully-selected Gaddis Prolific Seed Corn. This corn makes from seven to ten ears to the stalk and from 75 to 150 bushels to the acre. There has never been a crop failure when Gaddis Prolific was planted. Price, $3.50 per bushel, delivered your station. No orders filled for less than two bushels. Reference: State Bank & Trust Co., Jackson, Miss., and Merchants & Planters Bank Raymond, Miss.

GADDIS, McLAURIN & CO., Raymond, Miss.

CLOVER AND TIMOTHY $4.50 Per Bu.

INVESTIGATE—Best and Cheapest Seeding Known. Alsike Clover and Timothy mixed. Fully 1-3 alsike, a big bargain. Greatest hay and pasture combination grown. Write for Free Sample and 76-page catalog and circulars describing this wonderful grass mixture. Beats anything you can sow and ridiculously cheap. We handle only best tested recleaned seed guaranteed. Write before advance.
A. A. BERRY SEED CO., Box 533, Clarinda, Iowa



Every Home Should Have a Berry Bed

One man made $200 with berries in his yard. YOU can do likewise. Get your sets from ALLEN, largest grower of true-to-name strawberry plants. 28 years' experience. Allen's

Strawberry Book

tells how to grow berries for profit. Has valuable information on small fruits. Sent FREE on request. Full line of small fruit plants, shrubs, privet, asparagus, etc. All shipments guaranteed fresh and vigorous. Allen's plants are best.

W. F. ALLEN
116 Market St. Salisbury, Md.

Available Farm Labor.

Undoubtedly one of the big problems before Missouri farmers these days is the problem of adequate farm labor. Help is scarce and in many places and cases unreliable. It looks as though at least a partial solution to the problem is at hand.

A recent requirement of the Missouri College of Agriculture makes it necessary for every graduate to have at least six-months' practical farm experience. This requirement will make a large number of bright, energetic, ambitious and dependable young men available to the farmers of this state. These men can begin their services June 1st and will work for three months. They will accept as salary whatever they prove to be worth; they are after the experience.

Another class of men that is available now, March 1st, is the Short-course students. Many of these young men have had practical farm experience and are qualified to take the best of positions. They will accept salaries of from $25 per month up, depending on the kind of work and kind of man.

Farmers that can use any of this labor should avail themselves of the opportunity at once by writing to the Farm Management Department, Missouri College of Agriculture, Columbia, Mo.

Empire Fertilizers.

Every farmer should know something about fertilizers. It is the easiest experimental work in the world—one field fertilized, another one not; both the same soil, the same seed bed, the same time of planting, the same cultivation, the same season, the same method in harvesting. Compare one with another. Write to the Empire Carbon Works, 421 Locust street, St. Louis, Mo., for a book on fertilizers, with formulas for all crops. Use some of these fertilizers and get your experience, so that you may know if it is profitable, and to what extent it is profitable, to use commercial fertilizers. Write for the book anyway. It costs nothing, and it will teach you something.

Farm Marketing and Credits.

The First National Conference on Marketing and Farm Credits will be held at Chicago on April 8th, 9th and 10th, 1913. The meeting will be held at the Hotel Sherman to devise remedies in the distribution and marketing of farm products. The invitation is issued by the Associated Farm Papers, Mr. Chas. W. Holman, Secretary, 1048 Steger Building, Chicago, Ill.

Decrease of Corn in Argentine.

A cablegram dated February 22d, 1913, from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, giving the following information:

The estimated production of corn in Argentine, this season, is 196,842,000 bushels, or 66.5 per cent. of last season's production.

Cattle Tick Eradication.

According to an order issued by the United States Department of Agriculture, the progress in cleaning up the country of the cattle tick is progressing satisfactorily, and 24,983 acres of land were released from quarantine during the year 1912.

Copies of the new regulations, which are designated as Order 194 and Amendment 7 to Order 143, may be obtained on application to the Chief of the Bureau of Animal Industry, Department of Agriculture, Washington, D. C. A map showing the quarantined territory and indicating the areas that have been released has been prepared, and copies will be furnished to interested persons on application.

Save Your Thresh Bill

IT'S UP TO YOU to say what thresher will thresh your grain this season. It's your grain. You worked hard to grow and harvest it. You pay your thresh bill. You cannot afford to hire an outfit that will waste your grain. You have worked hard for a profit and you should have it. You cannot afford to divide it with the straw pile. Your good business judgment tells you so.

Every bushel that goes into your straw pile is money right out of your pocket. You can save the amount of your thresh bill by hiring a

Red River Special

to do your threshing. It will save more grain for you. It will waste less of your time. It will do your job quicker. It will clean your grain better. It will pay you. It is the only thresher made which uses the only true and sure method of separation. It beats the grain out of the straw just like you would do with a pitchfork.

The Big Cylinder, the "Man Behind the Gun," the patented Grate and Check Plate and the Shakers which toss the straw up and *beat it* like you do with a pitchfork, save all the grain for you, whether it be wheat, oats, rye, barley, peas, rice, alfalfa, timothy, or any other grass seed.

J. J. Porter and nine other farmers of Geneseo, Kas., Wm. Bronner and four other farmers of Andover, S. Dak., A. J. Weber and twelve other farmers of Crawford, Texas, say: "The Red River Special does the best work in grain saving and we want no other."

Have your threshing done this year with a RED RIVER SPECIAL.

It will *save your thresh bill.* Write for proof.

Nichols & Shepard Co., Battle Creek, Mich.
Builders of Threshing Machinery, Engines and Oil-Gas Tractors

AGAINST REMOVING DUTIES.

Official Representation by the American National Live Stock Association.

"On January 21st, 1913, our attorney, Mr. S. H. Cowan, appeared before the Ways and Means Committee at Washington, D. C., and urged the retention of the present duty on live stock and its products. Mr. Cowan's brief on behalf of this association, filed with the Ways and Means Committee, has been sent to each of our members, and it is worthy of careful reading. Advices from Washington indicate that the Ways and Means Committee will probably favorably report the same free-list bill as passed Congress at the last session. Said bill placed on the free list meats, cereals and flour, and some manufactured articles, such as agricultural implements, cotton bagging, boots and shoes, and certain kinds of leather, and some classes of lumber. Our members are urged to immediately write the Congressmen and Senators from their respective states, asking them to vigorously oppose the placing of meat and live stock on the free list."—From letter issued February 14th, 1913, by H. A. Jastro, President. The office of the Secretary of the association is 909 Seventeenth street, Denver, Colo., T. W. Tomlinson, Secretary.

An Unsurpassed Record.

Our readers are very well acquainted with "Lady Show You," the winner of the Missouri National Egg Laying Contest, and will be interested in the following letter:

Pleasant View Poultry Farm,
Millersville, Ill., Dec. 16, 1912.

W. F. Chamberlain Feed Co., 316 North Commercial street, St. Louis, Mo.:

Gentlemen:—You will probably be interested to know that my White Plymouth Rock Hen, "Lady Show You," winner of the National Egg Laying Contest at Mountain Grove, Mo., with a record of 82 eggs in 82 days and 281 eggs in the year, and recently sold for the sum of $800.00, was reared on Chamberlain's Perfect Chick Feed.

It takes great vigor to make such an egg record, and your Feed gives the Chicks the right vigor. I have used it in rearing my Pedigreed White Plymouth Rocks for many years.

You are at liberty to make any use of this letter you wish. Very truly,
J. A. BICKERDIKE.

TIMOTHY AND RED TOP.

Timothy Seed, new, recleaned, $4.50 per 100 pounds; Red Top, solid seed, new, recleaned, $10.00 per 100 pounds. Bags Free.
STEWART BROS., Willow Hill, Ill.

Burpee's Seeds

are supplied every year direct to more American planters than are the seeds of any other growers. Do your seeds come direct from Philadelphia? If not, we should like to make your acquaintance. Simply send us your address (a postal card will do) and you will receive **Burpee's Annual for 1913,**—a bright book of 180 pages, which has long been recognized as "The Leading American Seed Catalog." Kindly **write to-day!** Address

W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia

5 Year Guaranteed Buggies At-½-Retail Price

FREE CATALOG

$55.00 VALUE

PRICE $29.50

You take no risk when you buy a buggy from us. We guarantee it to please you, and to be a bigger value for your money than you can get anywhere else, or you needn't keep it. *Reference;* S. Ill. Natl. Bank, East St. Louis, Ill.

Mutual Buggies, Surreys, Wagons, etc., are the highest quality, handsomest, most stylish vehicles built. **The only line guaranteed 5 years.** We sell direct at wholesale prices—and save you $25.00 to $100.00. **Write for catalog and delivered prices.**

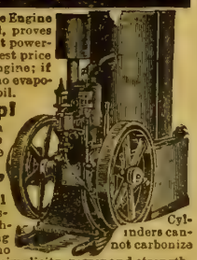
MUTUAL HARNESS at $5.85 per set up; double $14.10 up; work harness $19. up, all genuine leather; highest quality; **Fully Guaranteed** 25 to 50% cheaper than retail. Catalog Free. Write today.

SENT ON APPROVAL.

MUTUAL CARRIAGE & HARNESS MFG. CO., Station 47 C, East St. Louis, Ill.

Use KEROSENE Engine Free!

Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.



Gasoline Going Up!

Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

Amazing "DETROIT"

—only engine running on coal oil successfully, uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate the money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

Cylinders cannot carbonize

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

PEERLESS GATES

The kind you can bank on, no worry about animals getting through the Peerless. Just the kind for yards and lanes where gates get hard usage. ¶ The big high carbon steel frames and the all No. 9 wire filling stand the racket. The extra heavy

COAT of GALVANIZING

gives them a better appearance and longer life than the ordinary steel gate. They are Rust Proof. Ask about the

SELF RAISING

feature, fully described in our catalog—send for it and we will tell you where you can get Peerless Gates.

PEERLESS WIRE FENCE CO.
242 Mich. St. Adrian, Mich.

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Strongest FENCE Made

Made of DOUBLE STRENGTH Coiled Spring Wire. Requires fewer posts. Always tight. Is heavily Galvanized with PURE ZINC.

Will outlast all others. Sixty different styles and heights to choose from. A FENCE for every purpose.

WE SELL DIRECT TO THE FARMER AT DEALER'S PRICES.

Be your own merchant and put the Dealer's Profit in your own pocket where it belongs. Prices the lowest ever quoted on first-class wire fence.

26-inch Hog Fence, - - 14c. per rod.
41-inch Farm Fence, - - 21c. per rod.
48-inch Poultry Fence, - 22½c. per rod.

Special Barbed Wire, $1.55 per 80-rod Spool.

Biggest values ever offered and sold under our 30-DAYS-FREE-TRIAL-MONEY-BACK GUARANTEE-CONTRACT. Our big Catalogue contains information you should have. Write for it today It's FREE

COILED SPRING FENCE CO.
Box 258 Winchester, Indiana.

BROWN FENCE

WE PAY THE FREIGHT

Heaviest Fence Made
Heaviest Galvanizing

We make 160 styles. Horse cattle, sheep, hog, and bull proof fences made of No. 9 double galvanized wires and absolutely rust proof

Bargain Prices:
13 cents per Rod Up

Poultry and Rabbit Proof Fences, Lawn Fences and Gates. Send for Catalog and Free sample for test.

The Brown Fence & Wire Co.
Dept. 45 Cleveland, Ohio

SAMPLE FREE

One Watermelon Deal.

B. F. Yoakum, Chairman of the Board of the Frisco System, writing in the February number of Dry Farming and Rural Homes, throws new light on the oft-repeated cry that railroad freight rates eat up the grower's profit on farm crops. He tells of a car of watermelons which was loaded at an Oklahoma town for shipment to St. Paul. The car contained 1,050 melons, for which the grower received five cents each, after having hauled them five miles. The freight on the car to St. Paul was $75, or seven and a half cents a melon for the 600-mile haul by railroad, thus making each melon cost 12½ cents at St. Paul, or $131 for the entire car-load.

These were the sums paid to the producer and the railroad, yet the shipper who bought from the farmer sold the melons in St. Paul for $315 and the final consumer paid from 60 to 75 cents per melon, or from $600 to $750 for that same $53 car-load. Mr. Yoakum's point was that the farmers themselves should organize for co-operative marketing purposes and get a larger share of this 1,200 per cent. profit for themselves.

Roots Reach Great Depth.

Much apprehension exists regarding the depths to which roots penetrate the soil. It is a general belief that the roots of cultivated crops do not reach to a greater depth than one or two feet.

Corn roots have been found to penetrate four feet deep and to fully occupy the soil to that depth. On drier and deeper soils they went as deep as eight feet. Roots of small grains, such as wheat, oats and barley, penetrated the soil from four to eight feet and even ten feet in depth.

Perennial grasses have been found to go to a depth of four feet the first year and five and one-half feet the next year and they probably go considerably deeper during succeeding years. Other crops have gone to the following depths: Potatoes, three feet; sugar beets, four feet, alfalfa, thirty to fifty feet. The buffalo berry penetrated the soil to the depth of fifty feet in Nebraska. In California grapevines went down to twenty-two feet: figwort, more than ten feet; goose foot, eleven feet, and hops plant, eight to ten feet.

Most of the above results were obtained in humid or sub-humid regions. Soils and climate differ in such a way to favor a somewhat deeper root penetration in arid regions, hence it is natural to expect to find roots at even greater depths than the above.

The conditions which encourage deeper rooting are drainage, limited supply of moisture and a soil porous and fertile to a great depth. Deep early cultivation also forces roots to seek the lower depths. Deep-rooted plants are much more drouth resistant, due to the fact that they can draw on the lower water supply during periods of drouth. They also have a larger feeding area and the fertility of the soil is not depleted so quickly.—D. W. Frear, Colorado Agricultural College.

Mississippi Cattle at St. Louis.

On the last day of February, 1913, Milton-Marshall Live Stock Commission Company, of the National Stock Yards, reported sales of Southern cattle as follows:

"We have had a good, steady market on the Southern side. The bulk of the receipts running to steers, coming mostly from Oklahoma and Texas. Top on best Texas here this week, $7.60, on a drove averaging 1,211 pounds, with some others selling from $7.35 to $7.40.

"Mississippi contributed a straight load of steers averaging 1,159 pounds, which sold at $7.25, with a straight load of fair to good steers averaging 922 pounds, for which we secured $7.00. Common canners are not as active this week as last, and sold mostly 10 to 15 cents lower, from $4.00 to $4.20. Common, thin yearlings have been a little draggy, selling mostly at $3.25 to $3.50.

Some Mississippi cows sold this week at $5.65, averaging 882 pounds, with one straight load weighing 725 pounds at $5.50 per 100 pounds. Good cows and heifers have been in light supply and they cleared at good, strong prices.

"Arkansas' contribution this week has been been very scant with the usual assortment, which met with a good outlet at steady prices. Stocker and feeder grades a shade higher for the week."

Consider Now

what it will cost and how much money you will save on your next season's fertilizer bill if you should buy your

Nitrate of Soda

and other Farm Chemicals and mix them yourself.

Your own brand MIXED AT HOME will be better than any patent brand and is sure to have in it just what you want.

Book of formulas and full instructions for Home Mixing will be sent

FREE OF COST

Dr. WILLIAM S. MYERS
Director of Chilean Nitrate Propaganda
17 Madison Ave., New York
No Branch Offices

Bickmore's Gall Cure

The old-time remedy for keeping horses free from sores. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, etc. Money back if it fails. Be sure to ask at the store for Bickmore's Gall Cure. Gray Horse trade mark on every box. Sample and 84-page horse book sent on receipt of a stamp for postage.

BICKMORE GALL CURE CO., Box 482, Old Town, Maine.

FRAZIER'S DISTEMPER CURE — COLT DISTEMPER

We absolutely Guarantee FRAZIER'S DISTEMPER CURE to Cure and Prevent this loathsome disease or return your money. Safe for any Mare, Colt or Stallion. Epizootic, Catarrhal Fever, Pink-Eye, Influenza, Coughs and Colds cured with one bottle. Send for Free Horse Booklet. $1.00 bottle holds three 50-cent bottles. Sold by all druggists or prepaid from

BINKLEY MEDICAL COMPANY, Dept. H, NAPPANEE, IND.

Get It From the Factory Direct

KITSELMAN FENCE

Made from thoroughly Galvanized Open Hearth steel wire. Our free Catalog shows 100 styles and heights of hog, farm and poultry fence at from

12 Cents a Rod Up

Sold on 30 days free trial. If not satisfied return it at our expense and we will refund your money. 80-rod spool of Ideal galvanized

BARBED WIRE $1.55

Write today for large Free Catalogue.

KITSELMAN BROS. Box 261 Muncie, Indiana.

Biggest Stumps Pulled For 4c Each—In 5 Minutes!

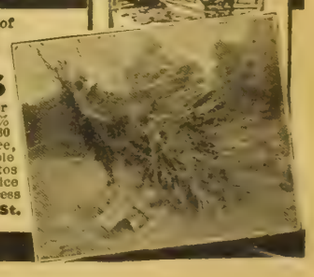
Free Book

E. C. Culbreath, Johnston, S. C., does it. Thousands of others doing it. Why not you? Pull an acre of stumps a day. Double the land value—grow *big crops* on virgin soil! Get a

HERCULES

—the only all steel, triple power stump puller made. More power than a locomotive. 60% lighter, 400% stronger than cast iron puller. 30 days' free trial. 3 year guarantee to replace, free, castings that break from any cause. Double safety ratchets. Free book shows photos and letters from owners. Special price will interest you. Write now. Address

Hercules Mfg. Co., 140 21st St. Centerville, Iowa



A farmer wrote these books!

—a man who knows farming from A to Z. He traveled through thousands of square miles of the *best* sections in Arkansas and Texas, along the Cotton Belt Route; and found out where the *real* farm opportunities were—the kind that *he*, knew *you* would like to hear about.

He doesn't generalize. He comes right down to brass tacks and tells you what Farmer Tull is raising—shows you actual pictures of Farmer Tull's crops, etc.; and tells you what the same kind of land, near Tull's place, would cost you *now*. He got the personal experiences of scores of farmers in this way; and took actual photos of their places. He points out the best sections for wheat growing, for corn, fruit, truck, etc.—in plain words he sifts the whole situation down to a point where you can say to yourself: "*There* is the most likely locality for *my* line of farming—I'll go and investigate." (And with low round trip fares via Cotton Belt Route twice each month your trip will cost mighty little.) Send a postal *today* for

Your free copies

of these books—115 farm pictures and 100 pages of farm facts! I know you'll be glad to get them. Write *now*.

E. W. LaBeaume, Gen'l Pass'r Agent
1466 Pierce Bldg., St. Louis, Mo.

THE SEPTIC TANK.

Simple Statement of What It is For —How Sewage is Purified and Discharged as Clear Water.

A septic tank is a big box of any size, which, when filled with sewage, retains that sewage in a stagnant condition and permits it to decompose, the organic matter breaks up, part of it going off into the air as gas and the other part dropping to the bottom as inorganic sediment. The same result would be obtained if a barrel were used and some sewage put into it. That sewage would not remain in the state in which it was when put into the barrel, but would, to use a common term, "rot," or "putrefy."

This is due to the fact that there are in the sewage some very minute organisms of a fungus nature. These multiply in the sewage, and while in the process of multiplication they feed on the organic matter and thus destroy it. They in turn perish when there is no longer any food for them.

Most of these minute organisms live without air and so are called anaerobic (not living in the air) bacteria. They are present everywhere and are among the great purifiers of nature. They destroy not only the ordinary components of manure, but also are deadly to any disease germ found in it. This destruction of the disease germs constitutes one of the great values of the septic tank.

The principle of the septic tank is very simple. It involves the stagnation of the sewage; that is, its nonmotion. Also it must be at a temperature above freezing. However, freezing does not kill the anaerobic bacteria, only retards their action till the mass is again at a temperature higher than the freezing point.

The writer has a friend who has one of these septic tanks he made himself, and which has been operating successfully for the last ten years. He used a piano box, which he sank in the ground till the top of it was below the frost line.

He then ran a pipe under the ground from his house to this box. The pipe also was kept below the frost line from the time it left his cellar. He had a supply of running water in his house, and so he put in a regular bath room, with closet, trap and all ordinary closet arrangements.

The flow of the sewage was through the good-sized pipe he had laid in the ground and into the box. In this box some cross pieces of board were nailed, which permitted the sewage to flow under them but which would not permit it to flow directly against the outlet and block it. The sewage rises in the box and collects between the boards, which are caled "hinder-boards." They are called that because they hinder the passing of the sewage, which is necessary to keep it from blocking the outlet.

The outlet is through a good-sized pipe which runs from near the bottom of the end to the surface of the ground, which is a little lower than the top of the box. This brings the outlet high enough up to prevent the box emptying itself till it is about full of sewage. Then it empties itself automatically a little at a time. When a gallon of sewage flows in at one end a gallon of clear water flows out at the other end, for the purifying action is so great that often the outflow looks as clear as water that has not been contaminated by sewage.

The writer believes that the time will come when every farm house will be properly equipped with toilet arrangements, the outlet being into a septic tank such as has been described or into one more perfectly built of cement and steel to make it more lasting.

Wisconsin at the Corn Show.

Wisconsin grains won eight world's championships, and over three times the amount of prizes won by any other state, at the National Grain and Corn Show held at Columbia, S. C., January 27th to February 7th. Championships were won on Wisconsin pedigree Oderbrucker barley, pedigree rye, Japanese buckwheat, sheaf barley, sheaf wheat, sheaf alfalfa and clover seed. Wisconsin received second place on oats. In the Northern zone contests, Wisconsin won first on yellow dent corn, white dent corn, single ear of corn and soy beans.

POTASH

The corn crop fooled lots of farmers last year.

Many fields looked good but fell down on the yield. This was owing to a lack of available Potash, for Potash is primarily a producer of grain.

Your corn must have enough quickly available Potash to produce well-filled ears as well as stalks.

A corn fertilizer should contain at least 8% Potash—better 10%—no matter in what form the fertilizer is used. Kainit, 75 to 100 lbs. per acre, drilled in with the seed, will keep away cutworms and root lice.

If your dealer can't furnish brands rich enough in Potash and won't carry Potash Salts so you can supplement your stable manure or strengthen the brands he does carry, write to us for prices.

We will sell direct in any amount from a 200-lb. bag up. Write for free book of fertilizer formulas and directions.

GERMAN KALI WORKS, Inc.

42 Broadway, New York; Monadnock Block, Chicago; Whitney Central Bank Bldg., New Orleans; Bank & Trust Bldg., Savannah; Empire Bldg., Atlanta.

Elkhart Vehicles and Harness

have a world-wide reputation for high quality and our prices have made them famous.

FORTY YEARS'

experience selling to the consumer means success.

We ship for examination, guaranteeing safe delivery, satisfaction and to save you money.

Catalog shows all styles of pleasure vehicles and harness, pony vehicles and harness, spring wagons, delivery wagons and harness.

May we send you large catalog?

We also make the "Pratt" Automobiles.

Elkhart Carriage & Harness Mfg. Company
Elkhart, Indiana

Save $25

[Please mention National Farmer and Stock Grower.]

On February 19th, at the St. Louis National Stock Yards, A. H. Ball, of Marion county, Mississippi, marketed a full load of oxen averaging 1,022 pounds and sold at $5.90 per 100 pounds. The first-class firm of Milton, Marshall Live Stock Commission Company did the selling.

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

Get our Thresher Tank for water.

O. K. HARRY STEEL CO., 2353 Papin St., St. Louis, Mo.

Wholesale and Retail Profit Saved! FREIGHT PAID

RUBBER ROOFING

1-Ply, 35 lb. 108 sq. ft., $1.10 per roll.
2-Ply, 45 lb. 108 sq. ft., $1.30 per roll.
3-Ply, 55 lb. 108 sq. ft., $1.50 per roll.

Warranted For 25 Years. Terms Cash. These Special Prices Only Hold Good for Immediate Shipment.

FREIGHT PAID to any station east of Rocky Mountains except Tex., Okla., Colo., N. D., S. D., Wyo., Mont., N.M., La., Ga., Ala., Miss. and Fla. on orders of three rolls or more. Special prices to these States on request.

INDESTRUCTIBLE BY HEAT, COLD, SUN OR RAIN.

FIRST-CLASS IN EVERY RESPECT. NO SECONDS, REMNANTS OR MILL ENDS. Write for FREE SAMPLES or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to the Southern Illinois National Bank.

Century Manufacturing Co., Department 193, East St. Louis, Illinois.

Amazing Prices on STEEL Shingles

The demand for Edwards "Reo" Steel Shingles has become so big that we now sell them from factory to user for less—actually LESS—than common wood shingles. And we pay all freight! LOOK INTO THIS MONEY-SAVING PROPOSITION BEFORE ROOFING YOUR BUILDINGS. SEND POSTAL TODAY AND GET FACTORY PRICES.

No Trick to Put Them On

You don't have to nail these steel shingles, like wood shingles, ONE AT A TIME. Put on as high as 100 at once, for they come in big sheets ready to nail on sheathing or old roof. It's ten times easier than putting on wood shingles. No extra materials to buy, no painting to do, no tools to borrow. Your hired man can do the job with a hammer.

Absolutely Rustproof

Please don't judge Edwards Steel Shingles by common galvanized iron roofing—the kind that rusts. We have invented a method that absolutely prevents rust from ever getting a foothold, as 100,000 delighted owners of Edwards Roofs have found out. It's the famous Edwards Tightcote Process applied to genuine Open Hearth Steel.

Protect Your Buildings from *FIRE*

Don't take chances of fire from defective chimneys, flying sparks and lightning. Roof your buildings with these Steel Shingles and make them safe. Remember nine out of every ten fires start with the roof. We specifically guarantee every Edwards Steel Shingle Roof against lightning. This Guaranty is backed by a $10,000 Cash Bond.

Cheaper Than Prepared-Paper Roofing

Edwards Steel Shingles cost less, far LESS, than prepared-paper or composition roofing. IF YOU FIGURE THE COST PER YEAR. And that's the right way to figure

Write for Special Proposition

Send postal at once for latest Roofing Book 357 and Special Factory Prices. Give size of roof, if you can.

THE EDWARDS MFG. CO.
307-357 Lock Street, Cincinnati, Ohio

NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screw-driver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

Special Inducements.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Agriculture in the Desert.

Khartum correspondence: The biggest recent event was the Fair and Agricultural and Industrial Exhibition, opened at Omdurman on January 12, to continue one week. Previous efforts have been made, but this last, due largely to the Omdurman Merchants' Association, and of which Mr. Albert Singer has been the moving spirit, seems likely to be a real success. It was opened by Maj. Wilson, Governor of Khartum Province, and attended by Sir Reginald and Lady Wingate and most of the officers and officials of the district. What is usually a bare square of sand, with a few stray donkeys and a boy or two, was a palace of bunting and a seething mass of people. Some government departments had exhibition tents, and all the merchants, small and great, seemed to be exhibiting their wares. Anything and everything could be seen. The exhibition made a good impression, and will do even better next year, when this year's experience bears fruit. The first day concluded with real fireworks and a torchlight military tattoo in the Square at Omdurman.

Texas Agriculture Improvement.

The Texas Industrial Congress reports that the corn growing average of the state for ten years was 19 bushels per acre, whereas 4,000 competitors in the contests under supervision of the Congress was 51 bushels per acre, and the highest yield was 167½ bushels. In cotton, the contestants averaged 1.04 bales, as against the ten-year average of the state of one-third of a bale, and the leading contestant produced 2.38 bales on one acre.

The work of the Congress is purely altruistic. These contestants pay nothing for the privilege of competing for the prizes offered, and the money to carry on the work is contributed by public-spirited individuals, firms and corporations. They are endeavoring to teach the farmers of the state to conserve the soil's fertility, to increase the yield and to decrease the cost of production.

Test of Seed Corn.

Every farmer who grows corn will find reading of interest and value in Bulletin 135, "The Germination Test of Seed Corn," just issued by the Iowa Agricultural Experiment Station for free distribution. It is based on two years of careful work with the germination test, in which Prof. H. L. Hughes, the author, and his helpers made more than 45,000 ear test readings. Many hundreds of ears of corn were tested in thirteen different states for the sake of comparing their merit; these ears were then planted in the field, so that the value of testing might be determined by actual stand and yield per acre. Nowhere else has so thorough work been carried on and published. The results show conclusively the value of the germination test; they show further that the home-made testers, like the rag doll and the sawdust box, are good enough. Prof. Hughes also brings out some interesting facts about the much-discussed "weak kernel" and shows what it does when planted. This bulletin, comprising eighty pages, is the most complete published by any Experiment Station on the germination test and may be had free by writing to the Bulletin Section of the Iowa Agricultural Experiment Station, Ames, Iowa.

That Necessary Inch

Like a pole that doesn't quite reach; a rope that is a bit too short; a bar rail that continually drops out of the post the fertility in ordinary soil lacks the necessary small amount of available fertility for a bumper crop. There is enough fertility of a kind in the soil for many years; but it is unavailable. Only enough becomes available each year to produce small, unprofitable yields; and when all other conditions are right for a large yield the crop fails for lack of **available** fertility. Available fertility is the kind provided in the

EMPIRE FERTILIZERS

These fertilizers supply to growing crops in available form the plant food elements required which in connection with good seed, cultivation and weather and the plant food supplied by the soil and air, are producing good crops of profitable size and quality. Farmers depend upon them as upon other old friends, and have done so for years.

Agents wanted where we have none. Address early for prices and terms,

EMPIRE CARBON WORKS
421 Locust Street, St. Louis, Mo.

A lot of twenty-five two-year-old beef steers, sold to Jersey City dealers by J. R. Huggins, of Hamblen county, Tennessee, averaged 1,142 pounds and brought $1,998, which is about seven cents a pound. The cattle were sold at Morristown, Tenn., in February.

Factory Prices for the Asking—on Genuine Witte Engines

FREE Engine Book

THE genuine Witte—conceded the best farm engine in America—now offered at actual wholesale prices. Yes, this is the engine that has lead the gasoline engine field for 25 years. Dealers have been getting the highest prices for the Witte. *Now* you can get one at actual factory price—what the dealer paid—and have the finest engine in your county.

Our Gas Well Saves You Many Dollars More

We do more than give you ordinary factory prices. We are the *only* manufacturers who have our own gas well. Power, testing, forge, foundry and heating fuels cost us nothing. *You* get the benefits. But you couldn't afford to own any other engine even if the Witte cost twice as much—because an average of 1 cent for every horse-power per hour *cuts gasoline bills in half*—pays for your engine in no time.

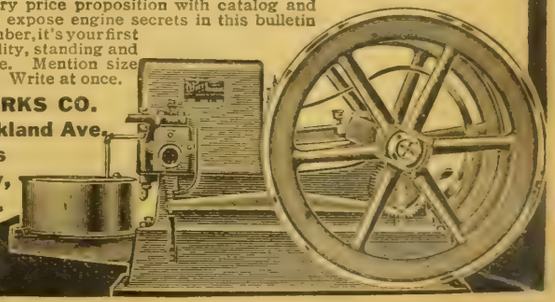
Every part *guaranteed* 5 years—*full rated horse power on minimum gasoline* guaranteed too. Built in all sizes from 1½ to 40 h. p., every one *tested to 10% over load.*

WRITE FOR 60 DAYS FREE TRIAL OFFER

and complete, direct, factory price proposition with catalog and special offer bulletin. We expose engine secrets in this bulletin that will startle you. Remember, it's your first chance at an engine of quality, standing and reputation at a small price. Mention size needed or work to be done. Write at once.

WITTE IRON WORKS CO.
1722 Oakland Ave., Kansas City, Mo.

Every Part Guaranteed 5 Years



SAVE-THE-HORSE

(Trade Mark Registered.)

THE LAME HORSE is never cured whose owner reads and doubts,---BUT FAILS TO ACT---Here is a case in Point,---And what Happened to this Subscriber is Taking Place with Thousands.

Letter No. 1 Orleans, Vermont April 26th, 1912

Troy Chemical Co., Binghamton, N Y—Your adv has given me courage to try again. I have a valuable pacer Two years ago he went lame I tried every remedy and Doctors have blistered three times for spavin and twice hip The symptoms are—etc, etc I determined to see what you think HALE MASON

Letter No. 2

Orleans, Vt, May 2nd, 1912—I received your letter and book yesterday and believe you are right about its being a bone spavin I was so encouraged I drove eight miles and bought a bottle of Fred D Pierce druggist at Barton, and will closely follow your special instructions Thanking you for your quick reply to my first letter, I remain,

Letter No. 3 HALE MASON

Orleans, Vt., Oct 2, 1912—Perhaps you expected to hear from me before but I have been waiting to see if any trouble would return after stopping the treatment I am pleased to say the horse is well. I cannot thank you enough for your interest and the advice you gave If I had known about it two years ago it would have saved me a lot of money. Yours respectfully. HALE MASON

Save-The-Horse has stood alone and unique among veterinary remedies for over seventeen years.

Every bottle of Save-the-Horse is sold with an iron-clad contract that has $60,000 paid-up capital back of it, guaranteeing to permanently cure or refund the money; no matter whether it is Bone or Bog Spavin, Tendon disease or Puffs—nor how aged, serious or complicated the lameness or blemish may be. But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers). Write! AND STOP THE LOSS.

TROY CHEMICAL CO. 62 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

Don't Have a Blind One

"VISIO"

An Absolute Cure for

Moon Blindness

(Opthalmia), Cataract and Conjunctivitis

Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Hog Book Free.

Book of facts on care and diseases of hogs Tells how to prevent and cure disease, and destroy worms. Greatest discovery known Sent free. Write Dr. D. C. Snoddy Co. Dept. H, Nashville, Tenn.

Death to Heaves

"Guaranteed or Money Back Coughs, Distemper, Indigestion. 50c, $1.00 per can. NEWTON'S Large for Heaves. At druggists' or sent postpaid.

THE NEWTON REMEDY CO., TOLEDO, OHIO

Please mention Nat. Farmer and Stock Grower.

Fistula and Poll Evil

Fully ten thousand horses are cured every year with

Fleming's Fistula and Poll Evil Cure

and many of them are bad old cases that skilled doctors have abandoned. Easy and simple; no experience needed; no cutting to be done; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. Valuable information and full particulars given in

Fleming's Vest-Pocket Veterinary Adviser

Best veterinary book for farmers; 192 pages, 69 illustrations. Copy mailed free.

FLEMING BROS., Chemists, 218 Union Stock Yards, Chicago, Ill.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Pointer to Horse Shippers.

Holland, Nugent & Maxwell Bros., holding horse auctions at the National Stock Yards Monday and Tuesday of each week, are doing a large and satisfactory business, and they can sell more horses, especially chunks, weighing 1,200 to 1,350 pounds, and farm mares and drafters. Any shipper who can put up a carload of horses and who will specify what class of horses he can buy and ship, can get the benefit of the best market in the world by opening communication with Mr. T. H. Holland, National Stock Yards, Ill. The St. Louis market can easily sell a quarter of a million horses and mules in a year.

St. Louis Hog Market.

After the market of February 28th was over for the day, the Milton-Marshall Live Stock Commission Company, of the National Stock Yards, reported as follows: "Hog prices reacted to-day fully 15 cents per 100 pounds, top $8.65 per 100 pounds. We had 6,500 on sale, with a good demand from all sources. Butcher hogs, weighing from 160 to 200 pounds, sold from $8.55 to $8.65, with choice heavy hogs selling about in line with butchers. Mixed hogs to the packers sold from $8.45 to $8.55, with light-weight pigs, weighing from 100 to 130 pounds, from $8.25 to $8.50; pee-wee pigs from $6.75 to $7.25 per 100 pounds. Our market still leads all Western markets; top a big nickel higher than Chicago, with a ten higher bulk. Chicago top, $8.60; Kansas City top, $8.40; bulk, $8.25 to $8.35; Omaha top, $8.25; bulk, $8.15 to $8.20; St. Joe top, $8.40; bulk, $8.35 to $8.40."

Star Brand Shoes on Sale.

Very nearly all hides and skins produced by farmers by raising cattle, sheep and goats enter into the making of shoes. Shoemaking used to be an exclusive Eastern industry, and money was expended unnecessarily in freight bills going and coming. Of recent years shoemaking has become a Western industry, and shoes are made better and cheaper by the change, because the waste in transportation and in other ways has been recovered and put into the shoes. Roberts, Johnson & Rand Shoe Company, of St. Louis, have demonstrated that a great shoe business can be built up by them in the West, and on page 4 the Patriot Shoe, one of the leading brands, is advertised. This firm has cut out the wholesaler's profit as another economy, and sells direct to 20,000 retail merchants, who have proven by handling them that "Star Brand Shoes Are Better." The advertisement on page 4 is worth reading.

First-class Commission House.

The best-organized live stock market is St. Louis, and one of the best firms doing business in that market is the Milton-Marshall Live Stock Commission Company. Shippers who consign stock to this firm to be sold can be assured of obtaining the best results possible. Mr. A. J. Milton, President of the company, is an expert cattle salesman, and, assisted by his brother, L. H. Milton, make splendid sales. J. S. Jackson and J. S. Mulberry, selling hogs, are equally expert in their department, and Thos. Freels, Sheep Salesman, is noted for skill, ability and good judgment. It is a finely-equipped firm, doing business efficiently in the interest of their customers. All who will apply to Mr. R. E. Marshall, Secretary, P. O. Box 94, National Stock Yards, Ill., stating what they have to ship, will receive special information concerning the market prospect, coming directly from the salesmen.

St. Louis Horse Market.

Report of the last auction sale in February by Holland, Nugent & Maxwell Bros., National Stock Yards, Ill.: "Good run of horses; plenty of buyers: good market. Have no particular fault to find with the horses or the price they brought. Chunks are in good demand. Southern horses sold well enough; plain, common stuff sold good; in fact, the market was all right on practically all kinds, but horses are not as high as they were a year ago, and they are not going to be. We want some little riding horses 15 to 15½ that are five to seven years old and sound, on the breedy order. Now we can get from $115 to $130 for that class, which is a considerable advance on what they have been bringing." Shippers of horses to dull, dead and slow markets are invited to communicate with T. H. Holland, National Stock Yards, Ill., in order to get acquainted with the best horse market in the world.

Conditions of the Mule Trade.

On February 28th, at the St. Louis National Stock Yards, Holland, Nugent & Maxwell Bros. reported as follows: "The mule trade is in a good, healthy condition, very few coming and all selling on arrival. We don't look for any more gluts on the market this year. If you have any mules that are ready to market it will be all right to ship them. Good, big mules are selling the best: cotton mules are selling if they are fat and finished. Little three-year-olds with long hair are bad things on the market at this season of the year."

English Sale of Shire Horses.

Messrs. Trumans' Pioneer Stud Farm of Bushnell, Ill., received a cablegram from J. H. Truman, who is buying Shire horses in England, that at Lord Rothschild's sale held at Tring thirty-two Shire colts and fillies, running in ages from yearlings to three years old this spring, sold for an average of 454 guineas, the colt that was junior champion at London last year, "Champions' Goalkeeper," topping the sale at 4,100 guineas. This is the world's record sale and amounts in American money to $2,288.16 per head, including $20,664 for the stallion "Champions' Goalkeeper."

Use of Commercial Fertilizers.

According to the report of the Census Bureau, which undertakes an accounting of manufactures, it appears that the use of commercial fertilizers increased 60 per cent. in five years, and from the same report it appears that complete fertilizers increased 104 per cent. Complete fertilizers increased from 1,329,149 tons in the year 1904 to 2,717,797 tons in the year 1909. All fertilizers increased from 3,267,777 tons in the year 1904 to 5,240,164 tons in the year 1909. The estimate as to the probable output of commercial fertilizers during the year 1912 is 6,000,000 tons. This is food for reflection. The increased use of commercial fertilizer is due to the merits of the goods.

One reason why so many young men desert the farms for the cities is, that it requires a motorman and a conductor to run a street car, and there are two shifts a day. A majority of the street car men claim to be farm-raised. The auto owners are also getting a share of farm-raised boys as chauffeurs.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
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Write for market information.

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Holland, Nugent & Maxwell Brothers,

P.O., NATIONAL STOCK YARDS, ILL.

Ear-Tags FOR STOCK

BEST—
CHEAPEST—
MOST DESIRABLE

Certain means of identification. Can be stamped with any name, address or number. Catalogue and set of samples mailed free on request.

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Gordine White Liniment

is the best liniment in the world for lameness, swelling galls, burns, scratches, ulcers, mange, bruises, and for any and all live stock ailments where external application can be used. GORDINE has been in use by private trainers and stockmen for over ten years and has never known a failure. As a household remedy GORDINE stands pre-eminent. Delivered to your door by parcel post for $1.00 per bottle. Every bottle guaranteed. To hesitate means loss of profit to you. Spring work must be done. Send for it to-day. (Agents wanted.) Address, Dept. D, GRAND CHEMICAL CO., 1426 South Grand Avenue, St. Louis, Mo.

CRAFT'S Guaranteed

Distemper Remedy—Cures Quick

Your horses positively can not have Distemper, Influenza, Coughs, Colds or other similar ailments if you use

CRAFT'S DISTEMPER REMEDY

in time. If the disease is started it will not fail to cure in any case. Safe at all times and under all conditions. Price 50c and $1.00 at druggists or direct from us, prepaid. Write for our two valuable Free horse books.

WELLS MEDICINE CO., 17 Third St., Lafayette, Ind.

Please mention Nat. Farmer and Stock Grower.

Milton, Marshall
LIVE STOCK
Commission Company

Shipments of Cattle, Hogs and Sheep solicited for sale upon the St. Louis Live Stock Market.

The St. Louis Market is the most active and competitive of all markets. Many shippers selling elsewhere will obtain better returns at St. Louis.

We are thoroughly equipped to obtain the very best results in the interests of our customers, and in all market matters we will be found to be leading the procession.

For market information, special letters on Native and Southern Cattle, Stock Cattle and Feeders, Hog Prospects, Stock Sheep, Fat Sheep and Lambs, write to

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Please mention Nat. Farmer and Stock Grower.

ABSORBINE

Before After

Cures Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Bolls, Sores, Wire Cuts, Bruises, Swellings, Lameness, and allays Pain quickly without Blistering, removing the hair, or laying the horse up. Pleasant to use. $2.00 per bottle, delivered. Describe your case for special instructions and Book 5 E Free.

ABSORBINE, JR., liniment for mankind. For Strains, Painful, Knotted, Swollen Veins, Milk Leg, Gout. Price $1.00 per bottle at dealers or delivered.

W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Please mention Nat. Farmer and Stock Grower.

Law Should Stop Sale of Leg-Strap and Spring Trusses

Wrong To Buy Anything For Rupture Without Getting 60 Days Trial

Depending on leg-strap or spring trusses like shown below—is little less than slow suicide. They are almost sure to shorten your life. It's next to impossible to make them hold without hurting. They are simply a curse to wear.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial — the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times —including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why drug-stores should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—Cluthe Co., 125 E. 23d St., New York City

Please mention Nat. Farmer and Stock Grower.

Shires and Percherons.

Mr. J. G. Truman, of the Pioneer Stud Farm, Bushnell, Ill., writes an the last day of February as follows:

"I am very pleased to report that our importation of Shire and Percheron horses that arrived here on February 15th are now fully recovered from their long journey, being a week overdue. They are now ready for sale. At this writing have never been shown to any prospective buyers and we shall take pleasure in showing them to any of your readers who may be interested in a strictly high-class Shire or Percheron stallion. I may say that included in this importation are two yearlings, sired by our $10,000 champion Percheron stallion 'Intitule,' now owned by Samuel Insull, Esq., of Chicago. Advices received from our Mr. J. H. Truman state that he will ship our regular March importation on the Minnewaska, sailing from London on March 6th. This shipment will be exclusively Shire and Percheron stallions. Our trade was never better and the demand still continues very strong for high-class stallions."

Chicago Live Stock Receipts.

Cattle.—The largest receipts in one year arrived in 1892, when the total was 3,671,796 head, and in the year 1912 the cattle receipts were 2,652,342, which is 919,454 head less than the largest year.

Calves.—The largest receipts were in the year 1911, when 521,512 arrived on the market, and in 1912 the arrivals of calves were 505,411 head, or only 16,101 less than the largest record.

Hogs.—The largest arrivals in one year amounted to the grand total of 8,817,114 head, in the year 1898. Last year, in 1912, the receipts were 7,180,967 hogs, showing a decrease of 1,736,147 head, compared with the largest record.

Sheep.—The receipts of sheep were 6,055,546 head, in the year 1912, which was the largest number of sheep ever received on any market.

Horses.—The horse receipts were largest in 1905, when 127,250 were received, and last year, in 1912, the arrivals of horses at Chicago were 34,273 less, the total being 92,977 head.

Notwithstanding the decrease in arrivals of cattle and hogs, compared with the largest yearly arrivals, the total sales at the Chicago market in the year 1912 brought $375,694,939, the largest amount ever realized for live stock in one market in one year.

The Melotte Cream Separator.

Attention is invited to the advertisement of the Melotte Cream Separator to be found on page 32. The merits of this cream separator are fully set forth in the advertisement, together with a list of prizes won by the machine. Every farm in the United States should own a cream separator, thereby securing all the butter-fat (the highest-priced product produced on a farm), and at the same time have on hand for sale or feeding purposes the sweet skim milk. Those who desire to investigate this subject further will find a coupon on page 32.

Deformities and Cripples Cured.

On page 31 will be found a card of the McLain Orthopedic Sanitarium, 916 Aubert avenue, St. Louis, Mo. We have been acquainted with this institution for many years and have seen the establishment grow and prosper through benefits derived by the patients. It is devoted to the treatment of crippled and paralyzed conditions. Write for illustrated free book.

E. Myers, President, E. Myers Lye Company

Don't Lose Another Hog— You Just Try Merry War Powdered Lye

If an epidemic of hog cholera should break out in **your** neighborhood, what assurance have **you** that it wouldn't attack **your** hogs? How are **you** fixed to prevent that dread disease from killing off **your** hogs like flies and wiping out **your** pork profits? Be on the safe side—don't wait—hog cholera breaks out suddenly—**ravages** and **kills** quickly! You **can prevent** it—easily and at a very small cost. Just mix with your hog feed a little MERRY WAR POWDERED LYE. (Directions on every can.) **Feed twice daily.** It's the **proven preventive.** Thousands of practical hog raisers and farmers **know** this by **actual experience.**

Read These Convincing Letters

J. E. Vawter, Beverly, Kans.—"25 hogs lost 1 mile east; 50 hogs lost 2 miles north; 20 hogs lost 2½ miles south of me, but I used Merry War Powdered Lye and escaped loss."

Mrs. Joseph Giesken, Parnell, Mo.—"After we began using Merry War Powdered Lye we never lost a hog."

Don't Experiment—Refuse Substitutes

Don't be persuaded to try an ordinary, old-fashioned lye as a possible preventive of hog cholera. At best, it would be a doubtful, perhaps a **dangerous** experiment. MERRY WAR POWDERED LYE will **not** hurt your hogs. It is the specially prepared lye that is **safe** to feed to hogs as directed on every can, and **there are no substitutes.**

MERRY WAR POWDERED LYE is not only a **safe preventive** of cholera, but it is also the best hog fattener, and all 'round conditioner the world has ever known.

Users say it positively destroys worms. It keeps the hogs on their feed, makes them fat and sleek, skins free from scurvy and keeps the digestion in such perfect condition that every pound of feed is changed into profit making flesh and fat. One week's trial will convince you.

Prove This For Yourself. MERRY WAR POWDERED LYE is for sale at most dealers, 10c per can (**120 feeds**). It is convenient to buy in case lots—4 dozen cans, $4.80. Costs only **5c per hog, per month** to feed regularly—by far the best and much the cheapest hog insurance you can buy. If your grocers, druggists or feed dealers' can't supply you, write us stating their names. We will see that you are supplied; also send you FREE a valuable booklet "How To Get the Biggest Profits From Hog Raising."

Order Direct from us in case lots—4 doz. cans, $4.80—if your dealers' won't supply you.

Which Kind Do You Want?

E. Myers Lye Company

Dept. 22 St. Louis, Mo.

[Please mention National Farmer and Stock Grower.]

DR. LeGEAR'S STOCK POWDERS

Healthy, Vigorous Stock Is The Only Kind That Makes Money For You

A horse, whether for work or to drive, can't give you first-class service unless he feels right. Your steers and cows can't create beef or milk to advantage if they are feeling "under the weather." Sheep and hogs won't yield wool and pork profitably unless they are healthy and vigorous. Put your horses, cattle, sheep and hogs into fine condition, and then keep them in that fine condition by feeding the famous Dr. LeGear's Stock Powders. A tip-top Tonic—an unrivalled Milk Producer. Gives horses strength and endurance, sleek coats and good spirits. A money maker for every man who owns stock.

Large 25c, 50c and $1.00 size boxes; also 25-pound pails at $2.50, and 100-pound kegs at $9.00.

Write for free copy of Dr. LeGear's Stock Book. It contains 112 pages of information about stock and poultry. Invaluable to all owners of stock.

DR. L. D. LeGEAR MEDICINE CO.

715 Howard St. St. Louis, Mo.

Sole manufacturers Dr. LeGear's Famous Stock & Poultry Remedies

[Please mention National Farmer and Stock Grower.]

Make the HORSE GLAD and EAGER FOR WORK

The way to do it is to clip him before you put him at the spring work. Take off his winter coat that holds the wet sweat and dirt. He'll get more good from his feed, look better, rest better and give you better service in every way. The best and most generally used clipper is the

Stewart Ball Bearing Clipping Machine

It turns easy, clips fast and stays sharp. Gears are all file hard and cut from solid steel bar. They are enclosed, protected and run in oil; little friction, little wear. Has six feet of new style easy running flexible shaft and the celebrated Stewart single tension clipping head, highest grade. **Get one from your dealer** or send $2.00 and we will ship C.O.D. for balance. Your money and transportation charges back if not satisfied.

PRICE **$7.50**

Clip All the WOOL

YOU LOSE $1.00 ON 6 SHEEP BY THE OLD METHOD

You know the size of your flock—figure for yourself how much more money you will get if you use a

Stewart No. 9 Ball Bearing Shearing Machine

It's the most perfect hand operated shearing machine ever devised. Has ball bearings in every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern. Complete, including 4 combs and 4 cutters of the celebrated Stewart quality. PRICE **$11.50**

Get one from your dealer or send $2.00 and we will ship C.O.D. for balance. Your money and transportation charges back if not satisfied. *Write for big new catalog showing a complete line of Horse Clipping and Sheep Shearing Machines.*

CHICAGO FLEXIBLE SHAFT CO.
182 Ontario St., CHICAGO, ILL.

[Please mention National Farmer and Stock Grower.]

Poultry Money

Get in line for your share for 1913. Our big free book "Profitable Poultry and Egg Production" tells how—Illustrates and describes

CYPHERS INCUBATORS and Brooders

The World's Standard Poultry Equipment. Book filled with successes of practical poultry raisers and latest methods. 244 pages, illustrated. Write for your copy today. Address

Cyphers Incubator Co., Dept. 56, Buffalo, N. Y.

More Money from Poultry

NOW is the time to get in the money-making poultry business with one of my Successful Incubators—**only $6.75 up.** With the "Successful" no experiments or trial hatches are necessary—you can be sure of success every time.

SUCCESSFUL INCUBATORS
(Life Producers)
SUCCESSFUL BROODERS
(Life Preservers)

give most chicks—raise more chicks—and are guaranteed with the strongest guarantee ever put behind any machine on the market. Don't buy an incubator that guarantees less than I do. Send your name *now* for catalog, low price proposition, guarantee, and *Free Lessons in Poultry Raising* that insure success.

DES MOINES INCUBATOR CO.
161 Second St., Des Moines, Ia.
NOTE—Book "How to Raise 48 out of 50 Chicks", 10c—Catalog is FREE. Get it.

$6.75 and Up

SHOEMAKER'S BOOK on POULTRY

and Almanac for 1913 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. **Only 15c.**
C. C. SHOEMAKER, Box 945 Freeport, Ill.

140 EGG INCUBATOR and 140 CHICK BROODER

The incubator is California Redwood, covered with asbestos and galvanized iron: has triple walls, copper tank, nursery, egg tester, thermometer, ready to use. 30 DAYS' TRIAL—money back if not O. K. Write for FREE Catalog today—NOW.

Freight Paid East of the Rockies

Both For $10

Ironclad Incubator Co., Dept. 37 Racine, Wis. (2)

200 EGG INCUBATOR $3. Actual hen controls all. Over 550,000 sold. Agents wanted. Catg. free. Natl. H. I. Co. Sta. H-Dept. 39, Los Angeles, Cal

Eggs From Full Blood Stock Eggs

26 White or Brown Leghorn Eggs	$1.50
13 Barred or White Plymouth Rock Eggs	1.00
13 Silver or White Wyandotte Eggs	1.00
13 White Orpington Eggs	1.50
13 Rhode Island Red Eggs	1.00
13 Black Minorca Eggs	1.50
10 White Pekin Duck Eggs	1.00
10 Indian Runner Duck Eggs	1.00

100 Leghorn Eggs, $6. 100 White Orpington, $12. Others $8 per 100. 50c extra for 2 sittings or less by Parcel Post, otherwise by Express. Book orders early; will send when wanted.
Remit by Postal, or Express Order, on St. Louis.
W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*)
Dept. 4, KIRKWOOD, St. Louis County, Mo.

PRODUCING SOFT ROASTERS.

An Industry That Can Be Conducted on the Outskirts of Any Good-sized Town.

Mr. F. L. Platt, associate editor of the Reliable Poultry Journal, states that plump, carefully-dressed chickens, soft-meated and fine-flavored, are an important product of the South Shore district of Massachusetts. The town of Norwell is about the center of the district and in a radius of ten miles 75,000 to 80,000 soft roasters are grown each year.

These soft roasters are both male and female, the cockerels being caponized. They are winter-grown chickens. The hatching begins in September and continues throughout the fall, and the marketing begins in April and continues into June.

Most of the South Shore roasters go to the Boston market. The retail price paid there occasionally reaches 50 cents a pound, while 33 cents to 38 cents is not an unusual price. The best prices are paid the latter part of May and during the month of June. The market begins to "break" about the middle of July. When the prices are highest every effort is made to market as many birds as possible, and experienced growers time their production so that their stock will be prime for the market when the prices are best.

A. F. Hunter, whose former home was at Abington, Mass., has estimated that there is a profit for the poultryman of about $1.00 in each bird. He says: "Taking the average weight of the males and females as seven pounds, and the average selling price as 25 cents a pound, they would sell at $1.75 each. With a $1.00 profit the cost of production would be left at about 75 cents."

The pullets average five and one-half to six pounds and the capons weigh from eight to nine pounds. Not infrequently the capons make more than this, and occasionally run up to twelve pounds. Mr. Curtiss has paid as much as 33 cents a pound for the roasters. A twelve-pound chicken at such prices is quite a good thing for the grower. The larger the better. They pay about the same prices for the smaller sizes, however, for the pullet roasters meet the family trade and there is a good demand for such size stock.

The roaster industry on the South Shore had its beginning about twenty years ago, when J. H. Curtiss, of Assinippi, Mass., began to grow, as has been said, the "best ever poultry." Neighbors were quick to see the profits of the business, took up the work, and Mr. Curtiss bought their chickens and marketed them along with his. As more and more people became occupied in the work of production, he gave more and more of his attention and time to the buying and marketing of their product. To-day he is not engaged in growing, but is known as the "buyer on the South Shore," not only throughout the district, but on the market in Boston, where, during the roaster season, he may be seen each Friday morning at the poultry stalls in Faneuil Hall.

It appears also that there are several branches of business conducted on the South Shore. The fatteners and finishers of soft roasters cannot keep hens upon their small tracts of land in sufficient numbers to raise all the chickens they intend to fatten. Some keep no hens at all and buy eggs for hatching, while others buy immature stockers and finish them; but the main end and aim of the Norwell district is to produce an eight or nine-pound bird that will satisfy the highest market requirements.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Psychology of the Chicken.

As the automobile sped toward Cape May a little group of Tuckahoe chickens regarded it from the middle of the road. The chauffeur kept straight on.

"There's no use slacking up," he said. "Jersey chickens know their business. Look at that."

The chickens, even as he spoke, fled with loud, excited squawks to the shelter of the grassy roadside.

"It's a strange but true thing," continued the chauffeur, "that the chickens of different states act differently in the presence of a motor car. New Jersey chickens always do as those Tuckahoe birds did—keeping their heads they fly to the shelter of the footpath and are safe.

"But Pennsylvania chickens in running away from a car run straight down the middle of the road. There's nothing to do but stop. Otherwise you'll kill them.

"New England chickens run round and round in circles, but in the end this circle breaks up and the birds dart left and right to shelter. Thus, if you go slow down in New England the chickens get off with their lives.

"Southern chickens—of course this applies to out-of-the-way districts—are hypnotized by an automobile. They stand straight in its path, gazing at it with their tiny, bright, clear eyes. Sometimes a loud blast of the horn brings them to themselves and they scoot. But sometimes they won't scoot till you stop dead still.

"There's work for a psychologist here—the psychological effect of the automobile on the chickens of different states. Not being a psychologist, I can't account for it myself. I am a chauffeur and deal exclusively in facts."

What do Nova Scotia chickens do under similar circumstances? Cows, dogs, geese, etc., are killed every year by motors; perhaps a spectator or the party concerned could give us a short account about their actions. --Exchange.

Mrs. M. J. Clifton of Oklahoma
Mr. F. E. Bennett of Ohio
Mrs. Laura J. Clark of Illinois
Mr. Geo. W. Black of Indiana
Mrs. F. H. Osman of Ohio
"Tycos Cup"

Jim Rohan, Pres.

Don't Trail Along Join These Prize Winners With a World's Champion 140-Egg Belle City $7.55

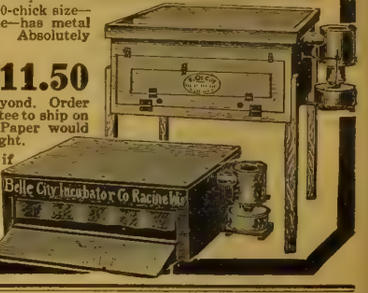
Be a *winner*—not a trailer. Get *championship* hatches—not the *ordinary* kind. Thousands of *others* are doing it. *You can too.* My Belle City incubator makes it *easy.* It is a *proven* success. It has won Six World's Championships, *with 100 per cent hatches for people who never before owned any incubator.* **It is now being used by the U. S. Government because it meets their requirements.** Think of it! $7.55 buys the incubator that has *proved* its money making power. I couldn't make a better hatcher if I asked $100 for it. I give you

1, 2 or 3 Months' Home Test and 10 Year Guarantee

—I pay the freight. If not satisfactory I refund all your money. I can do this because my machines *make good.* My 140-Egg Belle City World's Championship Incubator has everything worth having *in* and *on* an incubator—simple, perfect self-regulator, correct hot water heating system, copper tank and boiler, safety lamp; double walls and double door, with dead air space all over, roomy nursery, strong egg tray, "Tycos" thermometer, egg tester, burner, funnel, everything you need including valuable instruction book on operation, hatching and care of chicks. Price, **$7.55.**

All Freight Prepaid East of Rockies—That Far If You Live Beyond. Shipped Quick from St. Paul, Kansas City, Buffalo or Racine. Send Order Now

The Belle City Brooder is as perfect as my Incubator—140-chick size—*the only* double-walled, hot water, top-heat brooder made—has metal safety lamp and burner, wire runway yard with platform. Absolutely the most perfect chick raiser made today. Price, **$4.85.**



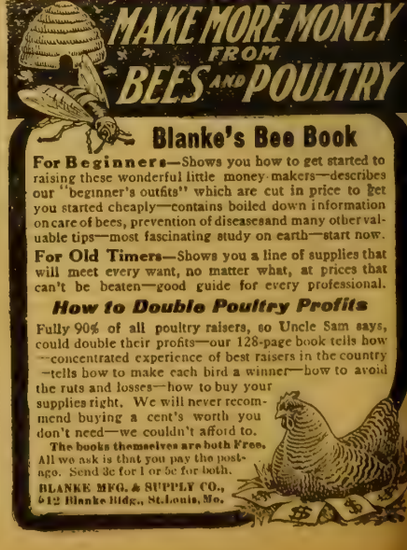
Both 140-Egg Belle City Incubator 140-Chick Belle City Brooder $11.50

—all freight prepaid, east of Rockies, that far if you live beyond. Order both machines together and save 90c by so doing. I guarantee to ship on day order is received, from warehouse nearest you. This Paper would not take this advertisement if I didn't treat my customers right.

Order Now —direct from this advertisement, if in a hurry—or send me a postal for my portfolio of World's Championship Hatching Facts. It gives just the facts, figures and information you need to start you right and keep you right, to make the biggest poultry profits. Address me personally, **Jim Rohan, Pres.,**
Belle City Incubator Co., Box 74 Racine, Wis.

Late quotations in New York for Philadelphia dressed capons, eight pounds and over, 26 to 27 cents per pound; six to seven pounds, 23 to 24 cents; small and slips, 20 to 21 cents.

Late February St. Louis prices for live poultry were as follows: Turkeys, choice dressing, 17c.; do. small and poor, 11c.; fowls, hens, 12c.; chickens, 14½c.; do. staggy young roosters, 9c.; do. broilers, 17c.; do. old cocks, 7c.; geese, full-feathered, 9c.; do. poor or plucked, 6c.; ducks, good run, 17c.; do. poor or plucked less; capons, seven pounds and over, 18c.; do. six pounds and under, 16c.; do. slips, 13c.; guinea chickens, round, per dozen, $2.50.


MAKE MORE MONEY FROM BEES AND POULTRY
Blanke's Bee Book
For Beginners—Shows you how to get started to raising these wonderful little money-makers—describes our "beginner's outfits" which are cut in price to get you started cheaply—contains boiled down information on care of bees, prevention of diseases and many other valuable tips—most fascinating study on earth—start now.
For Old Timers—Shows you a line of supplies that will meet every want, no matter what, at prices that can't be beaten—good guide for every professional.
How to Double Poultry Profits
Fully 90% of all poultry raisers, so Uncle Sam says, could double their profits—our 128-page book tells how—concentrated experience of best raisers in the country—tells how to make each bird a winner—how to avoid the ruts and losses—how to buy your supplies right. We will never recommend buying a cent's worth you don't need—we couldn't afford to.
The books themselves are both Free. All we ask is that you pay the postage. Send 3c for 1 or 5c for both.
BLANKE MFG. & SUPPLY CO., 512 Blanke Bldg., St. Louis, Mo.

FEED FOR THE FOWLS.

Hot Breakfast Easily to Prepare by Using the Principle of the Fireless Cooker.

Where the writer is, a little north of the average reader of this paper, he has found the hay stove useful in the feeding of poultry in the winter. Oats and corn are brought to the boiling point on the stove and put into the hay stove at night. In the morning the grain is thoroughly cooked and is steaming hot. The poultry seem to appreciate the favor of a hot breakfast.

Previous to this season the writer has never cooked oats for poultry, and has been surprised how much water the oats will absorb during a few hours of this kind of treatment. Every individual oat is then swelled and contains the equivalent of a large amount of thoroughly-cooked oatmeal. Besides, the outer covering is softened and is more easily digested by the birds.

This kind of feed will not be a great tax on the digestive organs of the birds, which is a matter of great importance. Previously, in the years when the writer was feeding whole grain to his fowls throughout the winter, he used to lose some fowls every spring from what appeared to be cholera, but which was really indigestion. This indigestion was caused by the lack of a supply of easily-digested feed to go along with the grain.

It may be admitted that if the fowls are fed a good amount of green stuff through the winter they may get along all right. But there are numerous farms on which there is no provision made for the feeding of green stuff during the winter, and on which no attention out of the ordinary is given the fowls.

Years ago the writer used to feed a bran-and-middlings mash every morning and found it a good way to stop the loss. In fact, since the introduction of the soft-cooked food once a day there has been no loss from indigestion.

It may be remarked here that indigestion is one of the most deadly maladies prevalent among fowls. Its similarity in symptoms to cholera often deceives the poultry raiser and leads him to give medicine when a change of food is what is really necessary.

So similar are the symptoms of indigestion to the symptoms of cholera that the Bureau of Animal Industry of the United States was once deceived by it. Under the direction of the officers of that bureau, fowls sick with cholera were secured and a test begun to find out a few things about fowl cholera. The birds had been selected on their symptoms. Bacteriological examinations were made to determine the presence of the cholera germ, and it was found to be absent. It was then realized that the fowls in the experiment were all sick with mere indigestion. New fowls had to be secured. If experts are deceived in such a matter, we certainly cannot be surprised if non-scientific people often think cholera is present in their flocks, when they have with them merely the effects of bad feeding.

It is wise, therefore, to feed so carefully that the fowls will always be in health and thrifty. It should always be kept in mind that in a state of nature the food of the fowl is bulky. The feeding, therefore, of a too large ration of concentrated feed is sure to make trouble in time, though the birds may go for some months without showing the effects of the great strain on their digestive organs.

It is an easy matter to prepare over night a warm breakfast for the fowls, and it should not be neglected.

Egg-laying Contest.

The Missouri National Egg-laying Contest progresses well. There being more laying pullets this year than last, the production to date is very much larger. A Canadian Black Orpington pullet laid 31 eggs in thirty-one days in January; a pen of ten Single Comb White Leghorns, belonging to Tom Barron, of Catforth, England, leads the contest with 213 eggs in January and with 476 eggs for 2½ months. The best individual record for 2½ months is 63 eggs, laid by one of the English pullets, which is starting a 300 clip for the year.

How to Build Poultry Houses.

Among the recent publications of the Missouri Agricultural Experiment Station is a thirty-three-page bulletin on "Farm Poultry House Construction." The bulletin illustrates several different types of poultry houses with detailed drawings of each. The publication also contains a thorough description of interior arrangements for poultry houses, which insure convenience and cleanliness. The bulletin is free to all Missouri farmers who will write to the Agricultural Experiment Station, Columbia, Mo. Ask for Bulletin 107.

What an Engine Did

By R. E. Olds, Designer

My fame as a car builder, after 26 years, is based in large part on my engine.

To me it's an old, old story. Perhaps it is new to you.

A Lifetime

I was one of the world's first builders of gas engines. Long before the days of automobiles, the Olds Gas Engines were known half the world over. And they are today.

It has taken a lifetime to develop an engine like the one in Reo the Fifth. And even my rivals concede it to be one of the great engines of the world.

My catalog states all the details about it. I won't bother with them here. But the fame of this engine is based on four things:

Its unusual power—

Its enduring silence—

Its remarkable endurance—

Its ease of adjustment.

Radical Tests

We avoid trouble for you by putting each engine to five radical tests in our factory.

Each is run for 10 hours with outside power, then another 10 hours with its own power. Then we take it apart and inspect it.

Then it is made to run a blower, and tested at various speeds. Then it runs an absorption dynamometer, as a measure of its power. Then, in the finished car, we give it the hardest sort of road test.

These tests require 48 hours. But thousands of these engines, run for years and years, are still in prime condition.

We use on this engine, to save ignition troubles, a $75 magneto. And we doubly heat our carburetor, to deal with any gasoline.

So Everywhere

In every part of this car we use the same precautions.

The steel is twice analyzed.

The gears are tested to stand 75,000 pounds per tooth. The springs for 100,000 vibrations.

We use 190 drop forgings.

We use 15 roller bearings.

The tires are 34x4.

Each body gets 17 coats.

When you get a car built like Reo the Fifth there is very small cost of upkeep.

Unique Control

We use in this car the only center control which is simple and out of the way.

All the gear shifting is done by moving a small rod only three inches in each of four directions.

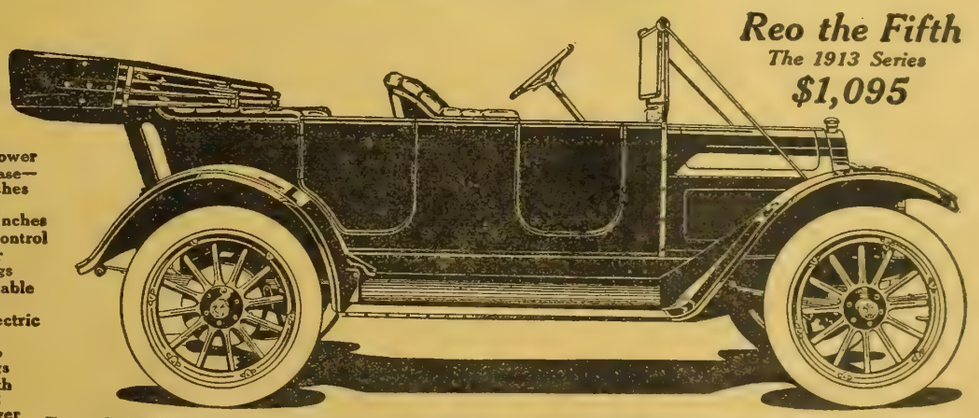
There are no levers, side or center, so the front is clear. Both brakes are operated by foot pedals.

And in this car you find the left side drive, as in the finest cars this year.

Write for our catalog and we'll direct you to the nearest showroom.

R. M. Owen & Co., General Sales Agents for Reo Motor Car Co., Lansing, Mich.
Canadian Factory, St. Catharines, Ont.

Reo the Fifth
The 1913 Series
$1,095



30-35 Horsepower
Wheel Base—112 Inches
Tires—34 x 4 Inches
Center Control
15 Roller Bearings
Demountable Rims
Three electric lights
190 Drop Forgings
Made with 5 and 2 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for $100 extra (list price $170).

LIVE STOCK BREEDERS' CARDS.

The NATIONAL FARMER and STOCK GROWER

is a first-class medium for the purpose of advertising pure-bred beef or dairy cattle, hogs and sheep, horses, jacks and jennets, goats and poultry. The circulation is always upwards of a hundred thousand copies, and the average of all editions in 1912 was 123,483 copies. We can let live stock breeders state what they have to sell for very little money. Breeders will find it to do astonishingly good service. Send your copy for an estimate to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

CARPENTER'S BEST BARGAINS.

Fifty Poland-Chinas, 40 to 200 pounds; twenty-five Durocs, 100 to 150 pounds. All of the Poland-China Hogs were sired by the great Meddler and Walbrige Boars and from some of the most noted Sows in America. Durocs sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for it and mention this paper.

THE GRANDVIEW BREEDING FARM, Marmaduke, Ark.

TRUMANS' PIONEER STUD FARM,

Ameica's Largest and Oldest.

Importers of

SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

DUROC-JERSEYS

of last summer and fall farrow, sired by Our Professor, by The Professor, and H.'s Col., by W. R.'s Chief. Prices reasonable. **H. H. HOFMANN, Belleville, Ill.**

SINGLE COMB WHITE ORPINGTONS,

Cook and Kellerstrass Strains.

Eggs, $3.00 for 30; $7.00 per 100; from heavy-laying, large, massive, true-typed stock. Can fill orders promptly.

RAYMOND RUEBUSH, Sciota, Ill.

POLAND-CHINA SWINE.

Spring Boars weigh 200 pounds, at $25; Fall Pigs weigh 75 to 100 pounds, $12 to $15. Great, big, fine Pigs every way. Write your wants to

D. F. BEAUCHAMP, Meredosia, Ill.

Get a Yesterlaid hatch

of vigorous, heavy-laying Ranged Raised Leghorns. 95% fertility! Ordered by 15 Experiment Stations! Special introductory offer on 30-egg orders includes "Poultrology" free—most valuable poultry book published. 144 pages; 70 pictures. **Yesterlaid Egg Farms, Dept 23 Pacific, Mo.**

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

SADDLERS.

Forty Saddle Stallions, Mares, Colts and Fillies of the best Denmark and Chief blood. Special prices on Stallions for the next thirty days **J. F. COOK, Lexington, Ky.**

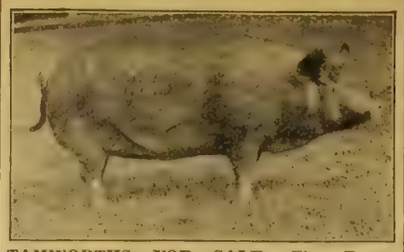
PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

JACKS and PERCHERONS. We have forty-five of the biggest-bone and best Mammoth Jacks in Kentucky. Registered Percheron Stallions from $250 to $750. Percheron Mares, Saddlers, Hampshire and Tamworth Hogs. Write for circular and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.



TAMWORTHS FOR SALE. The Bacon Hog: the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned be me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

MISSOURI HERD OF TAMWORTH SWINE.

The hog that crosses best with the chunky breeds; the hog resistant to disease; the hog of large litters; the hog that turns grass into pork. Write for prices.

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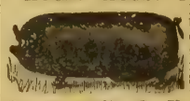
HOGS! HOGS! For Sale: REGISTERED Poland-Chinas and big English Berkshires. Champion Boars of Missouri State Fair, 1912, for sale at right price. S. C. Brown Leghorns that lay and weigh.



See or write S. Y. BURKS, Bolivar, Mo.

55 BREEDS Pure-bred Chickens, Ducks, Geese, Turkeys, also Incubators, Supplies and Collie Dogs. Send 4c for large Poultry book, Incubator Catalog and Price list. H. H. HINIKER, Box 25, Mankato, Minn.

CHAMPION DUROC-JERSEY PIGS

For sale out of prize-winning Sows and by Col. Prince. 35,707, he by Prince of Cols., the two greatest living Boars. One champion yearling Show Boar.

J. H. HENDERSON, Locust Hill Duroc Farm, Box 80, R. R. 6, Jackson, Tenn.

EGGS FOR HATCHING

From stock scoring 90 to 95¾. Write for mating list. Twelve standard varieties.

MUELLER FARM, Wellsville, Mo.

REGISTERED SADDLE HORSES AT AUCTION

At Milan, Tenn., March 19th and 20th, 1913.

Sale takes place at barn of Barham, Son & Butler. This is the Fifth Sale of Registered Kentucky-bred Saddle Horses and only high-class Horses are sold. Their stable has won more premiums in the last ten years than any other stable in Tennessee. At this sale will be sold some noted Stallions, Mares and Geldings that have won premiums at the principal Fairs in Kentucky and Tennessee. Two cars of good ones from Cave City, Ky., and Trenton, Tenn., will be sold. Several sons and daughters of the great Star McDonald, No. 1,712, are included in the list. A few fine, large Jacks will also be sold. Send for catalogue.

BARHAM, SON & BUTLER, Milan, Tenn.

43 VARIETIES poultry, pigeons, ducks, geese, water fowl, incubators, feed and supplies. Catalogue 4 cents. MISSOURI SQUAB CO., Dept. Z P. Kirkwood, Mo

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

R. F. D. 7, - NASHVILLE, TENN. Long Distance Phone, Main 1326.

THE HORSE CLIPPERS.

Why Horses Should Be Clipped and Where to Get the Clippers.

Horses represent a substantial investment and deserve good care. In their natural state they were not obliged to work. Since they are required to do labor, they should be kept in the best condition for it. Few, if any, horses are at their best when the time of changing the coat comes. Unnatural conditions should be provided against by clipping. How to properly care for work horses is much better understood now than ever before, and those who have studied the horse most carefully and tried different remedies are agreed that a good clipping is very beneficial to work horses. The skin is a most important organ for the elimination of waste, and it cannot properly perform its functions if it is not kept in a healthy condition with pores open, etc.

Animals performing work with a long coat suffer an unnecessary drain on the system. The sweat of the horse is not a simple mixture of water and salts, but of water, proteid and salts, and the observed loss of flesh which follows horses being worked unclipped, as was the practice a generation ago, is thus readily explained. The chances of chill following the return to the stable of an unclipped animal with a long winter coat have not been exaggerated. That covering, which, in a state of nature, was admirable, becomes, under artificial conditions, a source of positive danger to him.

Unless the circumstances are exceptional, all horses should be clipped, and it will be found as a result that they feed, thrive and work better and are less subject to colds and coughs.

Many farmers claim, and we know they do so correctly, that it ensures a freedom from coughs and colds that they did not enjoy before its practice was commenced on their teams.

There has been much competition in the manufacture of horse clippers and sheep shearers, so that prices have come down. The Stewart Ball-bearing Clipping Machine costs but $7.50 and the Stewart No. 9 Shearing Machine costs but $11.50. Just think of it! Men are going from stable to stable clipping horses for a living and making good money clipping horses with a total investment of $7.50. All who are interested in horse-clipping or sheep-shearing machines are invited to send for catalogue to the Chicago Flexible Shaft Company, 182 Ontario street, Chicago, Illinois.

GENERAL STOCK NOTES.

According to the Cincinnati Price Current of January 29th, the total slaughtering of hogs in the West from November 1 to date was 7,423,800 head, against 9,070,000 one year ago, a decrease of 1,646,200 head for the winter packing season.

During the week ending February 22d the Milton-Marshall Live Stock Commission Company, at the St. Louis National Stock Yards, established a new top price for Mississippi steers. They sold for Hubbard & Beigheimer, of Hinds county, Mississippi, eleven head, averaging 962 pounds, at $7.10 per 100 pounds, with heifers on the same load averaging 700 pounds and sold at $6.00 per 100 pounds.

During the month of February, at the St. Louis National Stock Yards, Alabama steers, 905 pounds, sold at $6.90 per 100 pounds, and it was the highest price paid for Alabama cattle thus far this year at St. Louis.

To Get Cheap Money.

A Farmers' Credit Union was organized at Tuleta, Bee county, Texas, in February, with J. H. Stoltzfus, President; William Rommell, Vice-President; George Gingerich, Secretary; and H. C. Schrock, Treasurer. This is probably the first organization of its kind in the United States. The purpose is to obtain money for farm development at the lowest possible rate of interest.

When you drive to town, count the buildings covered with Ready Roofing

The men who purchase roofing for railroad depots, large factories and warehouses are shrewd buyers—they investigate and *know*. You, too, will make no mistake if you cover your home and farm buildings with

Certain-teed

(Quality *Cert*-ified—Durability Guaran-*teed*)

Roofing

in Rolls and Shingles

Its durability is guaranteed for 15 years—it comes in red, green and slate gray shingles as well as rolls. Look for the *Certain-teed* quality label. Costs *less*—get prices from your dealer.

Valuable Book *Free*

You will find many valuable suggestions in our new book, "**Modern Building Ideas and Plans**"—it tells you what to do—and what not to do—it suggests economies and conveniences that will save you money.

A book of this kind would ordinarily sell for $1—but as it shows the use of our *Certain-teed* Roofing on all kinds of model homes and farm buildings, we offer it to you at 25 cents. We prefer to have you go to your lumber, hardware or building material dealer, who will gladly get you a copy *free*.

If you write us, enclose 25c to cover cost, postage and mailing,

General Roofing Mfg. Co.

E. St. Louis, Ill. York, Pa. Marseilles, Ill.
Minneapolis San Francisco Winnipeg, Can.

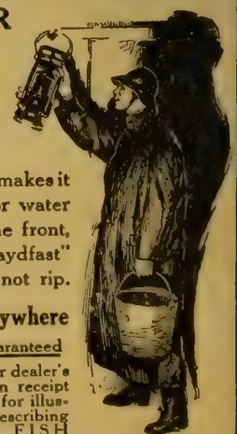
Free Automobile Books.

The Willys-Overland Automobile is advertised in this paper on page 25, and is a first-class car at any price. Write to Dept. 89, Willys-Overland Co., Toledo, Ohio, and ask for the Free Automobile Books.

On Rainy Days

You'll be glad you own a

FISH BRAND REFLEX SLICKER



to keep you dry.

Roomy
Durable
Comfortable

Reflex Edges makes it impossible for water to get in at the front, and our "Staydfast" Pockets will not rip.

$3.00 Everywhere

Satisfaction Guaranteed

If not at your dealer's sent prepaid on receipt of price. Send for illustrated folder describing this and other FISH BRAND garments.

TOWER'S TRADE MARK FISH BRAND

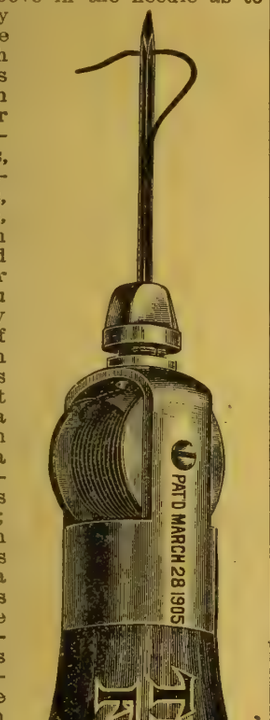
A. J. TOWER CO.
BOSTON

Tower Canadian Limited
Toronto 113

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

THE NATIONAL FARMER AND STOCK GROWER is in favor of the United States Custom House collecting a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government should be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm produce free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers.

Soil Salvation.

Land which is properly terraced, ditched, drained or irrigated brings just about whatever price the owner sets, and if he doesn't want to sell, better crops are his yearly reward. A valuable treatise on terracing, ditching, draining, irrigating, etc., called "Soil Salvation," is published by Bostrom-Brady Mfg. Co., 107 Madison Ave., Atlanta, Ga., and will be mailed by them free to any of our readers upon request who expect to do terracing, ditching, draining or irrigating this spring.

Reo the Fifth Auto.

Many of our readers are now using the Reo the Fifth Auto and know it for the magnificent car that it is. Write to R. M. Owen & Co., Lansing, Mich., and they will tell you where to look one over.

Book of Champions on page 2.

Tell Me How Many Head of Stock You Have

and I'll feed them 60 days before you pay. I'll show you how to make your farm animals grow faster—thrive better—put on more flesh on no more feed—make you more money.

I'll Rid Them of Worms or No Pay

I'll drive out the blood-sucking, life-sapping, disease-breeding parasites, which multiply in the stomach and intestines, killing off your hogs and sheep, starving your horses and cattle, and stealing your feed and profit. I'll send you enough Sal-Vet to last all your stock 60 days. Simply put it where all your farm animals can run to it freely. **They will doctor themselves.** Don't send any money—just the coupon. Fill it out and mail today.

Sidney R. Feil, Pres.

What SAL-VET is and Does

Sal-Vet is a wonder-working medicated salt which completely rids farm animals of their greatest enemies—the stomach and intestinal worms. These deadly pests are the cause of 90% of all live-stock diseases. They keep farm stock in a poor, weakened, money-losing condition—they are the first step to hog cholera, swine plague, horse plague and other contagious diseases.

How SAL-VET Prevents Diseases

Sal-Vet prevents heavy losses when disease breaks out in your neighborhood because it kills and expels these deadly, life-sapping pests and puts every animal on your farm in a healthy, vigorous, worm-free condition—enabling them to better resist these deadly plagues. It sharpens the appetite, improves digestion and makes all stock grow into profit fast because it helps them get the good of all their food. Being a salt, animals like it and run to it freely—and

They Doctor Themselves

It requires no mixing—no drenching—no dosing—no trouble at all. Leading agricultural colleges and all prominent live-stock authorities endorse it.

Let me send you a 60-day supply without a penny of pay in advance.

Send No Money—Just the Coupon

Fill out the coupon, tell me how many head of stock you have, and mail it to me today. I'll ship you enough Sal-Vet to last all your stock 60 days. You simply pay the freight charges when it arrives and at the end of 60 days report results. If Sal-Vet does not do what I claim you won't owe me a penny. Send the coupon NOW. Address

SIDNEY R. FEIL, Pres. [110]
THE S. R. FEIL CO. Mfg. Chem.
Dept. NFSG Cleveland, O.

Proof That Proves from Actual Users

"Sal-Vet has been of great service to us; it has kept our hogs and pigs free from worms and, in addition, proved to be a splendid tonic.—J. B. ESPY, Agriculturist, Southern Alabama Experiment Station, Abbeville, Ala.

"For their own good, I would recommend Sal-Vet to all sheep men. It will destroy every stomach worm in the flock and keep your sheep and lambs free from them and at the same time keep the flock in the pink of condition and health."—ROBERT S. BLASTOCK, Mgr. Sheep Dept., Walnut Hall Stock Farm Donerail, Ky.

"I cannot find words to express how much I think of Sal-Vet. Hogs all around my place had cholera, but I did not lose a single one of mine, and all winter they continued to look just fine." WM. CAMPBELL, Route No. 10, Decatur, Ind.

"Before getting your Sal-Vet I had lost thirteen of my best hogs, but since feeding Sal-Vet I did not lose a single one, and every animal is in fine condition."—(*Signed*) GEO. MOREN, Route No. 1, Pittsburgh, Kansas.

"I have given Sal-Vet a thorough trial with most gratifying results. My herd of pure bred Berkshires contracted a bad cough and continually got worse, until I gave your Sal-Vet to them. After two weeks of this treatment, not a hog was coughing, and all are as sleek as moles."—E. DANA SUTCLIFF, Shirkshinny, Pa.

PRICES 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12. No orders filled for less than 40 lbs. Never sold in bulk; only in Trade-Marked Sal-Vet packages.

60-day trial shipments are based on 1 lb. of Sal-Vet for each hog or sheep and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

SIDNEY R. FEIL, Pres.
THE S. R. FEIL CO.
Dept NFSG3-13 Cleveland, O.

Ship me enough Sal-Vet to last my stock 60 days. I will pay the freight charges when it arrives, report results in 60 days and will then pay for it if it does what you claim. If it does not you are to cancel the charge.

Name _____
P. O. _____
Shipping Sta. _____ State _____
No. of Sheep _____ Hogs _____ Cattle _____ Horses _____

FATTENING WESTERN LAMBS.

Results of Several Experiments at the Indiana Agricultural College.

Agricultural experiments are conducted for the purpose of gaining information in order to improve methods in agricultural pursuits, including live stock. At the Purdue Agricultural Experiment Station they discovered by practical experience that if you buy your stockers too high and you sell your fattened sheep too low the result in feeding sheep will be a loss. Agricultural experiments are not conducted primarily to make a profit, but a profit looks nice when there is one, and when a loss is sustained it is a good thing to have an appropriation to fall back on.

This is no discredit to the Indiana Station that sustained the loss, but it shows that there are times when farm losses are not due to the mismanagement of the farmer. Indeed, no business on earth has to withstand such wide fluctuations in market values as does the farmer. The farmer knows where he has to get off, and it will not hurt the college instructor to learn the lesson also.

Bulletin No. 162, issued November, 1912, by the Agricultural Experiment Station, Lafayette, Ind., may be had by writing for it and it will do a sheep raiser much good to read it over and carry it around in his pocket for a week or so. The bulletin relates to four different experiments in lamb feeding, and, although the market was so low that the lambs were sold at a loss, the experimenters were not to blame for it, because they made a fine showing of results on the feed consumed.

The lambs were Western lambs, bought as feeders at the Chicago market. The experimenters fed the lambs in lots of twenty in open sheds, 14x16, facing south and opening into a yard 14x28 feet.

The results were as follows:

PART NO. I.

First Experiment — Timothy Hay Versus Clover Hay.

1. Timothy hay in all rations where it was fed proved a very unsatisfactory feed for fattening lambs.

2. Lambs fed shelled corn and timothy hay were very unthrifty.

3. Lambs fed shelled corn and clover hay made more rapid and more economical gains than those fed shelled corn and timothy hay.

4. A ration of shelled corn and clover hay produced better finish on lambs than a ration of shelled corn and timothy hay.

5. A ration of shelled corn, cotton-seed meal and clover hay produced faster and more economical gains on fattening lambs than a ration of shelled corn, cotton-seed meal and timothy hay.

6. Lambs fed shelled corn, cotton-seed meal and clover hay acquired a much better finish than others fed a ration of shelled corn, cotton-seed meal and timothy hay.

PART NO. II.

Corn Silage as Roughage For Fattening Lambs.

7. The addition of corn silage once daily to a ration of shelled corn and clover hay did not affect, to any appreciable extent, the rate of gain on fattening lambs.

8. The addition of corn silage once daily to a ration of shelled corn and clover hay slightly reduced the cost of gains on fattening lambs, but did not greatly affect their selling value.

9. Lambs receiving silage once daily and clover hay once daily ate approximately the same quantity of hay as of silage.

10. The grain consumption was affected very little by the addition of silage to a ration of corn and clover hay.

11. Lambs fed silage were never unhealthy and showed no unfavorable symptoms.

12. The addition of corn silage to a ration of shelled corn, cotton-seed meal and clover hay did not greatly affect the rate of gain nor the finish on the lambs, but did effect a small saving in cost of gain.

PART NO. III.

The Effect of the Amount of Silage in a Ration.

13. Lambs receiving rations of shelled corn, cotton-seed meal, clover hay and silage ate the same quantities of grain when silage was fed twice daily as when it was fed once daily.

14. Lambs receiving silage twice daily ate less hay than those receiving silage once daily.

15. Lambs fed silage twice daily made approximately the same gains as others fed silage once daily, but made cheaper gains and acquired a better finish.

16. No bad effects were produced by feeding lambs large quantities of silage.

17. The ration of shelled corn, cotton-seed meal, clover hay and corn silage proved to be the best of the seven rations fed in these trials.

PART NO. IV.

Cotton-seed Meal as a Supplement to Rations.

18. The addition of cotton-seed meal to a ration of shelled corn and timothy hay increased the appetites of the lambs for both grain and hay.

19. The addition of cotton-seed meal to a ration of shelled corn and timothy hay improved the thrift of the lambs; increased the rate of gain; decreased the cost of gain; and added greatly to the selling value of the lambs.

20. The addition of cotton-seed meal to a ration of shelled corn and clover hay did not greatly affect the appetites of the lambs for either grain or hay.

21. The addition of cotton-seed meal to a ration of shelled corn and clover hay slightly increased the rate of gain and added materially to the selling value of the lambs.

22. The addition of cotton-seed meal to a ration of shelled corn and clover hay did not on the average of three trials affect the cost of gain when corn was as low as 40 cents per bushel, but made slight decrease in cost of gain when corn was above 40 cents per bushel.

23. The addition of cotton-seed meal to a ration of shelled corn, clover hay and corn silage had no effect on the roughage consumption, but slightly increased the grain consumption in one of the three trials.

24. The addition of cotton-seed meal to a ration of shelled corn, clover hay and corn silage slightly increased the rate of gain and added to the selling value of the lambs.

25. The addition of cotton-seed meal to a ration of shelled corn, clover hay and corn silage did not affect the cost of gain when corn was valued at 50 cents per bushel, but made a slight decrease in cost of gain when corn was above 50 cents per bushel.

General Summary.

The results of these trials demonstrate conclusively that timothy hay is a very unsatisfactory roughage for fattening lambs and its use is likely to be accompanied by heavy financial loss. Clover hay is shown to be an excellent roughage for fattening lambs, but can be improved by the addition of corn silage. The best ration used in these trials was shelled corn, cotton-seed meal, clover hay and corn silage twice daily. All rations containing silage proved more economical than those not containing this roughage. The use of cotton-seed meal proved to be very beneficial when timothy hay was fed, and in most cases when clover or silage was used.

The experimenters were Prof. J. H. Skinner, Chief in Animal Husbandry, and his assistant, Prof. Franklin B. King.

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THE NAME ST. LOUIS Dittmann SHOES ASSURES THE QUALITY

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for children, remove the last trace of worry about the feet of little folks. Just prove it for yourself.

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Manufacturers ST. LOUIS

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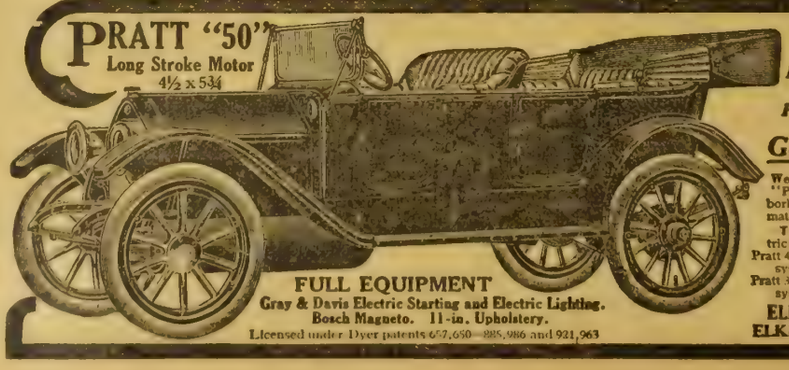

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ELKHART CARRIAGE & HARNESS MFG. CO.
ELKHART INDIANA

FARM CREDITS IN ENGLAND.

Joint Credit of Members Obtain Advances Which as Individuals They Could Not Expect.

An article on English agriculture and banking in the London Times was as follows:

"Presiding over the annual meeting of the National Provincial Bank of England, M. O. Fitzgerald, after referring to the 'abounding prosperity' which the country had enjoyed during the past year, said he feared that agriculture had again had but a moderate measure of success. The Board of Agriculture was making an interesting experiment in which the leading banks—who had throughout been consulted—were gladly taking part. It was promoting the establishment of co-operative credit societies, who were to borrow money from the banks and to lend it to their own members. The board hoped that occupiers of small holdings might thus, through the joint credit of members, be able to obtain advances which, as individuals, they could not expect.

"Naturally the activity of trade had caused a persistent demand for credit, and rates for loans and discount had been well maintained throughout the year. Indications pointed to a very large and sustained demand for capital, and after making allowance for some hoarding on the continent owing to fear of war, there were not wanting signs that the demand was overtaking the supply. On the other hand, the supply, which was maintained to a large extent by the savings of the thrifty, was being seriously cut into by the heavy and ever-increasing taxation and the unproductive expenditure of almost all governments."

Mr. James Ried, of Randolph county, Missouri, marketed two cars of cattle of his own feeding on February 18th at the St. Louis National Stock Yards. The steers averaged 1,340 pounds and topped the market at $8.55 per 100 pounds, with 3,800 cattle on sale. The cattle were sold by the Milton, Marshall Live Stock Commission Company.

COLTS FROM WORK MARES.

Careful Management Will Overcome All Objections and Very Little Time of the Mare Need Be Lost.

No man to-day will question the desirability of raising a good colt in the next year from every good mare he possesses, but many men will let the opportunity go by for fear that the rush of their work will not permit it. It is true, some little time is lost from work when the mare is bred and a little time when she drops her foal, and besides this she cannot be crowded into work quite so heavily when she is suckling a foal as when she is not doing so. When this is said, one has included the three most serious obstacles to successfully raising colts from work mares.

The reasons given are not really so formidable as they at first seem to be when one thinks of the busy days of spring plowing and the tired, sweating horses at harvest time. Little time is really required to breed a mare, although they are aggravatingly shy, and only patient trial will determine whether a mare is a breeder at all or not. The most serious obstacle is the loss of time of the mare, for indeed it is quite commonly assumed by the experienced that a mare must not be worked months before dropping a foal, nor for a couple of months afterward.

Really, a mare need not lose two-weeks' time. She needs exercise when she is carrying a foal, but feed her according to the work done, so that she will keep in good flesh and spirits. When the foal is born and she has rested a few days, she needs exercise again. A knowledge of just what is right and safe to do with a working brood mare will prevent some little mistake, which, perhaps, may have serious consequences and will enable one to make the best possible use of her time.

While a mare may safely be worked hard and steadily from the day she is bred until the day she drops her foal, she should be kept clear of excessively hard pulls and strains, such as are apt to occur in hauling grain on the road in a hilly country, working with smooth shoes or none at all when the roads are icy and hauling feed and manure through the muddy fields and feed lots in the early spring.

Careful hauling on the road and steady work in the field putting in crops and tending them are very safe for the mare. I have used mares at spring plowing up to the day their foals were dropped and have known them to be unhitched from the cultivator to give birth to a colt in the field. Mares so used must be well fed on a ration supplying plenty of protein. It is no extravagance to cut the corn out of their ration entirely and give them oats instead. The extra expense will be well repaid by a fleshier, more vigorous mare and a stronger foal. Natural mixed clover and timothy hay are better than straight timothy, as it supplies more protein, produces less tendency to constipation and is usually quite as free of dust and mold as any hay. When her time approaches, add a little bran to the ration as a laxative and put her in a box stall at night.

When the wax protrudes at the ends of the teats, the colt may be expected inside of two days, and it is well enough to let her rest. A mare at work will have comparatively little swelling of the limbs and other parts, since the exercise and consequent unclogged system and vigorous circulation prevent it, so one must not neglect providing a box stall for her simply because she shows only moderate signs of approaching parturition.—William Hardy, R. R. No. 2, Tunnel Hill, Ill.

Soil Improvement Talks

No. 3

THE PENNSYLVANIA STATE COLLEGE OF AGRICULTURE has been experimenting for 30 years with complete fertilizers on corn, wheat, oats and hay. It has demonstrated practically that there is great profit in supplying the balance of plant food to the soil that each crop requires.

The following is an average of the results obtained with complete fertilizers on each crop during this lengthy and convincing demonstration:

Corn with Fertilizer 52.8 bus. per acre—without Fertilizer 38.8 bus. per acre. GAIN 36% PER ACRE.

Wheat with Fertilizer 23.7 bus. per acre—without Fertilizer 13.6 bus. per acre. GAIN 74% PER ACRE.

Oats with Fertilizer 41.3 bus. per acre—without Fertilizer 31.5 bus. per acre. GAIN 31% PER ACRE.

Hay with Fertilizer 4042 lbs. per acre—without Fertilizer 2608 lbs. per acre. GAIN 54% PER ACRE.

WRITE FOR SPECIAL CROP BULLETINS on corn, oats, wheat, alfalfa, potatoes and other crops; mailed free to any address upon application.

DEPT. Q

MIDDLE WEST **SOIL IMPROVEMENT** COMMITTEE 916-917 Postal Tel. Bldg.

of the **NATIONAL FERTILIZER ASSOCIATION**

CHICAGO, ILLINOIS

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The regular subscription rate for Highway Magazine is 5c a copy or 50c a year. Over fifty thousand tax payers, officials, engineers and commissioners of public works are regular readers of this magazine. We want *every* road master in the United States to read it.

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THE GRANDEST
Subscription Offer.

A Splendid Magazine One Year —The Ladies' World—National Farmer and Stock Grower One Year—Eight Standard Grapevines—All For One Dollar.

This is a startling subscription offer, especially valuable to farmers' wives and families and to anyone who owns a home. **The Ladies' World** is a monthly magazine,

forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful, lovely stories, splendidly edited, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. No better, cleaner or more useful paper can possibly enter the farm home.

The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets and instructive matter concerning general farming, stock raising, dairy, poultry keeping and all the especial features that keep a farmer posted on his own interests in dealing with the world of business.

The subscription offer includes a magnificent collection of **Eight Two-year Standard Grapevines.** These

grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe; **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World** one year; **The National Farmer and Stock Grower one year;** and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar.

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Please Cut Out and Mail to Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar ($1.00) for which send me **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Eight Two-year-old Standard Grapevines** as advertised.

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Areas Below Sea Leved.

All the continents, with the possible exception of South America, contain areas of dry land which are below sea level.

In North America, according to the United States Geological Survey, the lowest point is in Death Valley, California, 76 feet below sea level; but this is a slight depression compared to the basin of the Dead Sea, in Palestine, Asia, where the lowest dry-land point is 1,290 feet below sea level. In Africa the lowest point is in the Desert of Sahara, about 150 feet below sea level, but the Sahara as a whole is not below sea level, although until recently the greater part of it was supposed to be. In Europe the lowest point at present known is on the shores of the Caspian Sea, 86 feet below sea level. In Australia the lowest point is at Lake Torrens, about 25 feet below sea level.

Soil Improvement Talks.

Under this heading on page 23 will be found a card of the Middie West Soil Improvement Committee of the National Fertilizer Association. The work done by this committee is for the joint benefit of the manufacturers in the way of instructing farmers in the use of commercial fertilizers. This committee has nothing to sell, and the representations made by this committee can be absolutely relied upon. They will say nothing they cannot substantiate. Their crop bulletins are written by practical and learned men, who have devoted their lives to the subjects treated of, and this committee, as will be seen by looking over the advertisement, keeps in close communication with all the agricultural college literature on the subject of plant food and is engaged in suggesting such experiments that can produce a line of information of use to any farmer in any state. We advise our friends and patrons to write to Department Q, Soil Improvement Committee, 916 Postal Telegraph Building, Chicago, Ill., and ask for free copies of their Special Crop Bulletins. All farmers who apply for them will receive a splendid assortment of literature that will assist them in their own business.

Light and Heat on Farms.

The story of the acetylene light is told on page 30. There are 201,000 of these plants lighting and furnishing heat in country homes. It is also used on railroads to light up passenger trains, the plant being carried on the train. It is a wonderful light, and remarkable how simple it is. The Union Carbide Sales Company on application will be glad to furnish full particulars. Do not hesitate because of the cost; it is a money saver and is easily installed. Address, Union Carbide Sales Company, 126 South Michigan Blvd., Chicago, Ill.

CHAMPION SEED CORN PREMIUMS.

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

Johnson County White Corn That Won Many Grand Championships.

The subject of seed corn is of the utmost importance, especially at this time. Pretty good seed corn is easy to get, but superior seed corn is scarce. Even the best seed corn growers have good and bad seasons, and there is great variation, one year with another, in vitality and quality of their seeds.

Only one thing can be guaranteed, and that is, pure-bred seeds, like pure-bred animals, produce true to type, and sometimes there is worked out an almost imperceptible improvement. The road to improvement is rough and rocky, and upon it there are many obstacles, but ultimate success is possible, and only possible by using seeds of the right breeding and quality. The backward road is easy to travel by using seeds of no breeding and only containing the qualities that even negligence cannot destroy. Promiscuous seeding of unknown corn results in smaller crops of low-grade corn. Nature may save the crop by an excellent season, but the general result is bad.

As a step towards general improvement, every corn grower should have one or more experimental plots each year, using small quantities of different seeds. The National Farmer and Stock Grower has furnished opportunities for farmers to obtain such seeds for the past five years.

We are now distributing small quantities of seed corn distinctly different and grown by two great corn improvers—one, D. L. Pascal, of Iowa, who has grown Reid's Yellow Dent Corn that he obtained pure from the originator. Mr. Pascal has won many prizes. The other eminent breeder is the famous L. B. Clore, of Indiana, growing Johnson County White Corn. His World's Fair and National Corn Show championships are many, and no corn improver on the face of the earth is his equal.

We have bought seed corn from Mr. Pascal and we have bought seed corn from Mr. Clore. We will send it out in twenty-ounce packages as subscription premiums.

Our Subscription Proposition.

Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send as a premium a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal, or, if preferred, we will send twenty ounces of Johnson County White Corn grown by Mr. Clore. Take your pick of which corn you desire, and if you wish both kinds, send one dollar ($1.00) and be credited with two-years' subscription and two twenty-ounce packages of seed corn. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Angora and milch-goat interests are making preparations for an extensive exhibit at the San Francisco Panama-Pacific Exposition. Efforts are being made to attract a display from South Africa, and if the present inhibition against exportation from that country can be raised a big display is expected.

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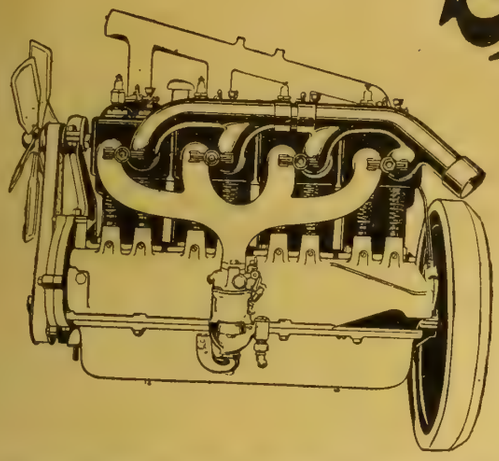

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AS the motor is the most important part of a car, it is safe to assume that you can judge a car by the performance of its motor. Therefore, be guided and informed by the following information.

Every practical farmer knows the value of a good motor in an automobile. He knows, too, from experience, what constitutes a good motor and what is expected of it. He wants power, economy and silence.

The motor is the most expensive single unit of the Overland car. It has a 4″ bore and a 4½″ stroke. It is the most efficient 30 horsepower motor made. We say efficient, for it has, by demonstration in tens of thousands of cars, proven to be the best for your specific purposes.

It is exceptionally economical to operate—using less fuel per mile than any other motor of equal size.

It is remarkably powerful, developing forty to fifty miles an hour with ease; and over your kind of roads, without eating up an unnecessary and costly quantity of gasoline.

It is the only motor of its size made with a five bearing crankshaft which makes for real smoothness, silence and ease when in operation. This feature is only found on very high priced cars.

It is remarkably simple. It is practically frictionless. Requires no coaxing or continual adjusting. In fact, you seldom have to lift the hood. Is always obedient.

And the self-starting feature adds the final touch of perfection. Just throw a little lever and you're off. Your daughter can start, operate and drive an Overland as well and as easily as you can. It will always start in bitter cold and freezing weather as quickly as in the summer—by just switching the little lever on the dash.

So we ask you to judge the exceptional value of this car by the exceptional efficiency of its motor.

This big, powerful, comfortable touring car costs you 30 % less than any other similar car made.

We have some very interesting books we would like to send you. They are free. Write us for a set today.

How Overland motors are made

All Overland motors are designed by Overland men—made by Overland men—and made in Overland factories. We will build 40,000 motors this year. No other automobile manufacturer will build as many of this type. That is why we can build them better, and for less cost. We employ the most skilled motor builders in America.

Following are a few of the most important facts about the Overland motor.

Cylinders have large water-jackets and are cast singly, increasing cooling efficiency with the advantage of being able to replace a single cylinder at low cost should an accident occur. The crank shaft and connecting rods and all other forgings are of high carbon manganese steel.

All bearings, cylinders, pistons and rings are ground to accurate and tested smoothness, insuring long life, freedom from wear and positive compression.

All the wearing surfaces of the valves are ground to a one-thousandth part of an inch. Owing to their peculiar design and large size they enable the motor to develop at least fifteen per cent. more horsepower than any other motor of the same bore and stroke.

The cam shafts are drop-forged (in our own drop-forge plant, which is the largest in the industry) oil-treated and case-hardened. They are ground and machined automatically, insuring positive accuracy in the relative position of one cam to another.

This is the only car of its class provided with a five-bearing crank shaft. This crank shaft is drop-forged from one piece of carbon manganese steel and rotates in five bearings of unusually liberal size, insuring quietness and extreme long life.

The crank cases are cast in two sections, of the finest grade of aluminum alloy attainable—and cast in our own foundry.

No other motor in the world is given a more severe test and thorough inspection. The engine is belted up for two hours, and driven by other than its own power to limber it up so that it will start easily. Then it is put onto the block and run from 8 to 16 hours under its own power.

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Completely Equipped

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5-Passenger Touring Car

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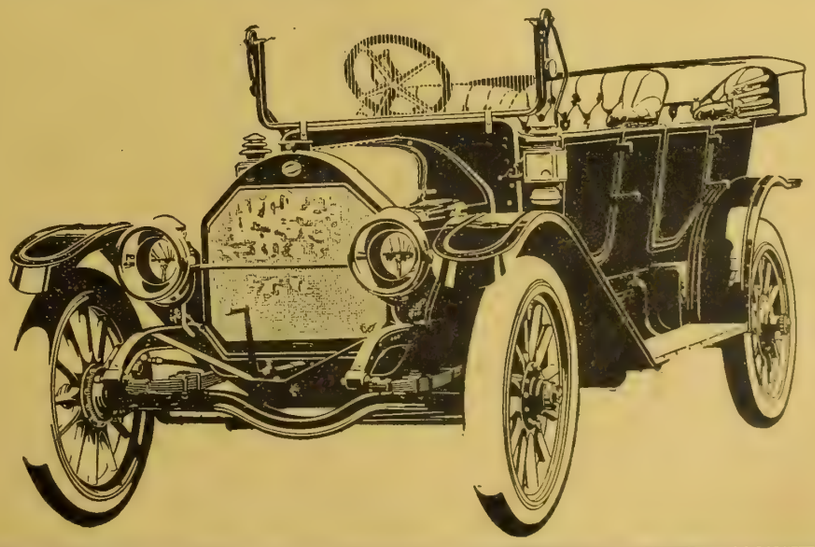

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Prest-O-Lite Tank

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Stuart's Calcium Wafers Will Drive Them Away. Creams Will Never Do It; They Can't.

No need for any one to have a complexion disfigured by pimples, blotches, liver spots or blackheads. Just clear the blood of impurities and they'll go away.

All My Friends Marvel at the Way Stuart's Calcium Wafers Drove Those Ugly Pimples Away.

Stuart's Calcium Wafers cleanse and clear the blood, driving out all poisons and impurities. And you'll never have a good complexion until the blood is clean.

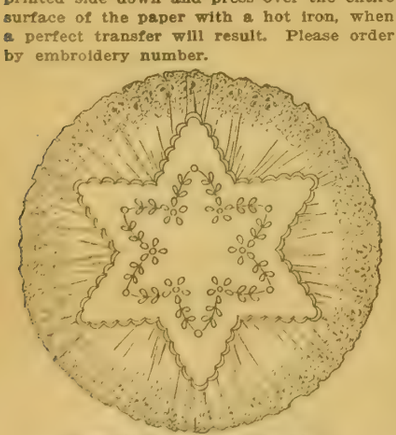
These little wafers may be used with perfect freedom. Science knows no more powerful blood cleanser. They are entirely free from harmful drugs or opiates. Your doctor prescribes these hundreds of times a year.

Stuart's Calcium Wafers go right into your blood. Their purifying, beneficial effect upon the blood is felt throughout the body, not in a year or a month, but in a few days. You feel better all over because your blood, the life-giving fluid, is doing its work properly.

No matter how bad your complexion is, Stuart's Calcium Wafers will work wonders with it. You can get these little wonder-workers at your druggist's for 50 cents a package.

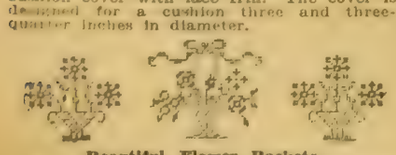
MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.



Beautiful Lace Pin Cushion.

No. 714.—Design for an embroidered pincushion cover with lace frill. The cover is designed for a cushion three and three-quarter inches in diameter.

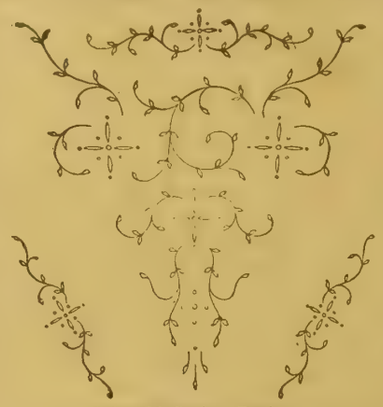


Beautiful Flower Baskets.

No. 718.—Designs for embroidering baskets of flowers, in cross-stitch style. Two transfers of each are given. The larger basket is fourteen stitches, the smaller baskets are twelve stitches deep.

Stocking Elegancies.

No. 716.—Designs for embroidering stockings. Four transfers of the vine, four of each spray of forget-me-nots and six transfers of the design of small leaves are given.



Splendid Spring Design.

No. 715.—Design for embroidering a blouse or waist.

Each embroidery pattern is 10 cents, and is well worth the money.

Please address all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Maintenance of Improved Roads.

The present year promises to be the greatest in the history of the movement for the improvement of the public roads of the United States, according to the reports received from all parts of the country by Secretary Wilson, of the United States Department of Agriculture. A joint committee of Congress is engaged in an investigation of the feasibility of federal aid in the construction, improvement and maintenance of public highways, and a number of the State Legislatures now in session are considering good road legislation. In connection with the general impetus that the good-road movement has recently had in all parts of the country, the Director of the Office of Public Roads says:

"Too much stress cannot be laid upon the importance of maintenance in connection with the work of improving the roads. The people in nearly all the states are filled with enthusiasm for road improvement and are spending enormous sums of money in the construction of superb roads, and yet almost without exception they are making little provision to care for the roads after they are built. This is true not only in the various counties, but under many of our state highway departments.

"To maintain the roads in good condition year after year requires a considerable annual outlay, but this outlay is infinitely less than the loss which must fall upon the people eventually if they allow their roads to go to utter ruin. The thing for all advocates of good roads to do is to urge continuous, systematic maintenance and the setting aside every year of an amount per mile estimated by the engineer in charge to be sufficient for the proper maintenance of the road—a course which must make for economy and efficiency."

With Winter Vegetables.

Cabbage With Cream.—Slice half a head of cabbage and cook half an hour in enough water to keep it from scorching. Then dry down, put in a small piece of butter and let it brown slightly. Then add salt, pepper and a cupful of sweet cream. The cabbage should have been scorched just enough to give the cream a rich coffee color, but not enough to taste burnt. When this has come to the boiling point, stir in two or three spoonfuls of vinegar, stirring all the time that this is being added to prevent wheying off. Serve at once.

Hubbard Squash.—Divide into halves and remove core, having washed the squash clean on the outside before cutting. Into each half put a little butter, sugar, pepper and salt and place in the oven to bake. As the butter and sugar dissolve and the juice of the squash is gradually added, there will be quite a little liquid in each part of the squash. This should be dipped up over the sides frequently as you would baste meat. When thoroughly soft, scoop out the squash from the shells, add more butter, if desired, and serve. Cooked in this way it has much the flavor of the sweet potato.

Fried Parsnips.—Pare and cut in strips half an inch thick. Parboil until tender, then roll in flour, season with salt and pepper and fry to a rich brown.

Fried Onions.—Slice and fry to a rich brown in butter or meat fryings. Season and add vinegar to taste. Serve hot. Whenn peeling, if you work before the open hearth the fumes will be taken up the chimney and the eyes not be inconvenienced during the process.

Avoid cooking more onions than will be eaten at a meal. They readily absorb odors and do not keep fresh like most vegetables.—Bessie L. Putnam.

Highest and Lowest Points in the World.

The maximum difference in elevation of land in the United States is 14,777 feet, according to the United States Geological Survey. Mount Whitney, the highest point, is 14,501 feet above sea level, and a point in Death Valley is 276 feet below sea level. These two points, which are both in California, are less than ninety miles apart. This difference is small, however, as compared with the figures for Asia. Mount Everest rises 29,002 feet above sea level, whereas the shores of the Dead Sea are 1,290 feet below sea level, a total difference in land heights of 30,292 feet. Mount Everest has never been climbed.

The greatest ocean depth yet found is 32,088 feet, at a point about forty miles north of the island of Mindanao, in the Philippine Islands. The ocean bottom at this point is therefore more than 11½ miles below the summit of Mount Everest.

The difference in the land heights in Europe is about 15,868 feet.

"N. C. Griffin, of Sumner county, Tennessee, sold twenty-eight head of first-class mules on an average of $200 each, one pair bringing $525. He also disposed of a match pair of Shetland ponies for $500.—Farmers' Home Journal.

OWN A BUSINESS

WE WILL HELP YOU

"I made $88.16 first three days," writes Mr. Reed, of Ohio. Mr. Woodward earns $170 a month. Mr. M. L. Smith turned out $301 in two weeks. Rev. Crawford made $7.00 first day. See what others have done.

LET US START YOU

in Gold, Silver, Nickel and metal plating. Prof. Gray's new electro machine plates on watches, jewelry, tableware and metal goods. Prof. Gray's New Royal Immersion Process latest method. Goods come out instantly with fine, brilliant, beautiful, thick plate, guaranteed 3 to 10 years. No polishing or grinding. Every family, hotel and restaurant want goods plated.

PLATERS HAVE ALL THEY CAN DO.

People bring it. You can hire boys to do the plating as we do. Men and women gather work for small per cent. Work is fine—no way to do it better. No experience required; **we teach you. Recipes, Formulas, Trade Secrets Free.** Outfits ready for work when received. Materials cost about ten cents to do $1.00 worth of plating.

Our new plan, testimonials, circulars and **SAMPLE FREE.** Don't wait. Send us your address anyway.

GRAY & CO. PLATING WORKS,
1582 Gray Building, Cincinnati, Ohio

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use oil. He calls it powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 66 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

25 cts. a week Buys this High Grade Drop Head Sew Easy Sewing Machine

Guaranteed 25 years. Shipped direct from factory. We save you money. You use machine while paying for it. It has all the latest improvements. Write us to day. Sheffield Mfg. Co., 1421 Olive St., Dept 271 St. Louis, Mo.

Rider Agents Wanted

in each town to ride and exhibit sample 1913 bicycle. *Write for special offer.*

Finest Guaranteed 1913 Models **$10 to $27**
with Coaster Brakes & Puncture Proof tires.
1911 & 1912 Models all of best makes . . **$7 to $12**
100 Second-Hand Wheels All makes and models, **$3 to $8**
good as new . . . .
Great FACTORY CLEARING SALE
We ***Ship on Approval*** *without a cent deposit, pay the freight,* and allow
10 DAYS FREE TRIAL.
TIRES, coaster brake rear wheels, lamps, sundries, parts and repairs for all makes of bicycles *at half usual prices.* **DO NOT BUY** until you get our catalogues and offer. *Write now.*
MEAD CYCLE CO. Dept. D 263, CHICAGO

NEW RUPTURE CURE

DON'T WEAR A TRUSS.

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. **Binds and draws the broken parts together as you would a broken limb.** No salves. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01.

CATALOGUE FREE.

C. E. BROOKS, 59 C State Street, Marshall, Mich.

A Reasonable Plea For The Stomach

If Your Stomach Is Lacking in Digestive Power, Why Not Help the Stomach Do Its Work?

Not with drugs, but with a reinforcement of digestive agents, such as are naturally at work in the stomach. Scientific analysis shows that digestion requires pepsin, nitrogenous ferments, and the secretion of hydrochloric acid. When your food fails to digest, it is proof positive that some of these agents are lacking in your digestive apparatus.

Stuart's Dyspepsia Tablets contain nothing but these natural elements necessary to digestion and when placed at work in the weak stomach and small intestines, supply what these organs need. They stimulate the gastric glands and gradually bring the digestive organs back to their normal condition.

Stuart's Dyspepsia Tablets have been subjected to critical chemical tests at home and abroad and are found to contain nothing but natural digestives.

Chemical Laboratory. Telegraphic address, "Diffindo," London. Telephone No. 11029 Central. 20 Cullum St., Fenchurch St., E. C.
London, 9th Aug., 1905.

I have analyzed most carefully a box of Stuart's Dyspepsia Tablets (which I bought myself at a city chemist's shop for the purpose), manufactured by the F. A. Stuart Co., 86 Clerkenwell Road, London, E. C., and have to report that I cannot find any trace of vegetable or mineral poisons. Knowing the ingredients of the tablets, I am of opinion that they are admirably adaptable for the purpose for which they are intended. (Signed)
John R. Brooke, F. I. C., F. C. S.

There is no secret in the preparation of Stuart's Dyspepsia Tablets. Their composition is commonly known among physicians. They are the most popular of all remedies for indigestion, dyspepsia, water brash, insomnia, loss of appetite, melancholia, constipation, dysentery and kindred diseases originating from improper dissolution and assimilation of foods, because they are thoroughly reliable and harmless to man or child.

Stuart's Dyspepsia Tablets are at once a safe and powerful remedy. Stuart's Dyspepsia Tablets will digest your food for you when your stomach can't.

Ask your druggist for a fifty-cent box.

MAY MANTON PATTERNS.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering.

FASHION AND COMFORT COMBINED.

No. 7735.—Closed Circular Drawers. 22 to 32 waist. With or without frills that can be joined on straight or curved outline.

No. 7731.—Corset Cover. 34 to 42 bust. No. 600 Embroidery Design. With round or square neck, with or without shield sleeves, with peplum or extension below the waist line.

No. 7612.—Corset Cover With Straight Upper Edge. 34 to 42 bust. Especially adapted to embroidery.

No. 7577.—Seven-gored Petticoat. 22 to 32 waist. With or without yoke, with inverted plait or habit back, plain or with circular or gathered flounce.

No. 7734.—Girl's Princess Slip. Six to twelve years. Plain or with plaited or gathered flounce with round, V-shaped or high neck, sleeveless or with long or short sleeves.

No. 7716.—Semi-Princess Slip or Foundation For Misses and Small Women. Fourteen, sixteen and eighteen years. With three-piece skirt, square or round neck, with or without flounce.

HOUSE JACKETS AND KIMONOS.

No. 7745.—Tucked House Jacket With Peplum. 34 to 44 bust. With three-quarter or elbow sleves.

No. 7720.—Breakfast Jacket. 34 to 44 bust. With collar or square neck, three-quarter or long sleeves.

No. 7466.—Kimono or House Gown. 34 to 44 bust. With set-in sleeves and collar that can be make square or jointed at the back. Perforated for walking length.

No. 7725.—Work Apron. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust. With or without straps over the shoulders.

No. 7712.—Long or Short Kimono. Small, 34 to 36; medium, 38 or 40; large, 42 or 44 bust. With long, three-quarter or short sleeves.

HOME-MADE DRESSES AND WAISTS.

No. 7425.—Fancy Blouse. 34 to 42 bust. With Bertha having straight edges. Especially adapted to lace or bordered materials, with low or high neck, short, three-quater or long sleeves, with high or natural waist line.

No. 7625.—Fancy Evening Waist. 34 to 42 bust. With low or high neck, short or long sleeves.

No. 7721.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. With two-piece skirt that can be made with curved or straight front edges.

No. 7538.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. With two-piece skirt and set-in sleeves, with low or high neck, with or without blouse lining with undersleeves, with or without handkerchief Bertha. Perforated for trimming.

No. 7738.—Girl's Dress. Ten to fourteen years. With fitted lining and with straight skirt that can be made with or without tucks.

DRESSING FOR CHILDREN.

No. 7732.—Boy's Shirt Waist. Eight to twelve years. With rolled-over or straight cuffs.

No. 7733.—Girl's Dress With Bloomers. Four to eight years. With high or square neck, long or elbow sleeves.

No. 7741.—Boy's Sailor Suit. Four to eight years. With broad fall trousers, with or without yoke facing on blouse.

No. 7723.—Boy's Suit. Six to twelve years. With Knickerbockers or straight trousers, round or square collar, with or without cuffs.

No. 7740.—Child's Rompers. Two to eight years. With or without collar, with round or square neck, long or short sleeves.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

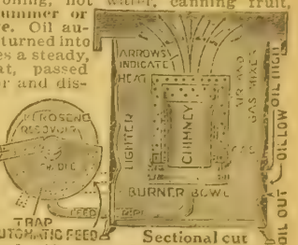
A Practical Club.

A practical club has been organized by a group of neighbor women who are enthusiastic over their new movement. They meet every two weeks at the homes of the different members, their club sessions lasting from the middle of the morning until three or four o'clock in the afternoon. This gives the women an opportunity of doing the morning and evening work at home. The member who is entertaining the club serves a midday luncheon. All come equipped with apron, needle, thimble and scissors, but they bring no work of their own, for the hostess furnishes the work for the day. The club works on whatever she wishes them to. They sewed enough rags for a hall runner for one woman; for another hostess they made two house dresses; for another they made half a dozen children's aprons; they made new curtains for a living and a dining room, and one afternoon they spent in quilting. What would be a big task for one woman to do alone—if not quite impossible—is simply a pleasure when tossed off by the skillful hands of this social company.—Janet Thomas Van Osdel.

PORTABLE STOVE

Combined Cooking and Heating

The Portable Stove will boil, bake, fry, roast—cook anything. Ideal for quick meals, washing, ironing, hot water, canning fruit, camping. **Summer or winter stove.** Oil automatically turned into gas furnishes a steady, intense heat, passed into radiator and distributed throughout the room or confined under cooking vessels that is absorbed by



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being cooked. Heat under control. **Not Dangerous Like Gasolene.** No wicks—nothing to clog, close up or get out of order. Heats rooms—low fire or high fire. No flues or chimneys. Light, pick it up, set it anywhere. **Many Thousands** of the Portable Oil Gas Stoves sent to families in all parts of the world. Men and women enthusiastic over its comfort, convenience and economy.

WHAT USERS SAY "It is so convenient and economical." Rev. P. V. Hawkins, Ohio. "It is clean, convenient, no trouble, burns steadily; perfect baking." Henry Schilling, Ill. **"For Baking it has no equal."** V. E. Bostwick, O. "Bakes pies, cakes, bread; never saw nicer baking done." Mrs. O. Thompson, O. "Never cooked meals so quick and easy." James Newark, Mich. "Baked, cooked, washed ironed—can do anything my range does." Mrs. M. E. King, Ky. "Cooked for a family of 6 for 5 days with 3 quarts of oil; **they are great time and fuel savers.**" H. M. Irey, Ia. "Heated a room when the temperature was 10 degrees below zero with one radiator." Wm. Baering, Ind. "With the radiator it soon warms up our dining room." J. F. Lisson, Calif. "We are using it to heat our office." McPherson Co., R. I. **"Only used a half a gallon of oil last week** for cooking, baking and ironing." E. N. Helwig, Ont.

CAN YOU DO WITHOUT the Portable Oil Gas Stove? Save time, trouble, anxiety, annoyance, expense, drudgery, fuel bills. Get rid of kindling, coal, wood, dirt, ashes—all the nuisance. **ALWAYS READY FOR USE.** Practical invention. Simple, durable. Lasts for years.

PRICE IS LOW $3.25 and up, any number of burners. Give it a trial. Not sold in stores. Send no money. Write today for full description.

Any number of burners wanted.

AGENTS MAKE MONEY Quick. Easy. Sure. Show Stove MAKING GAS—people stop, look, excited—want it—buy. B. L. Huested, Mich. "Was out one day, sold 11 stoves." W. E. Baird, S. C. "You have the best stove on market; sold 9 in 2 hours; **I do not fear competition.**" (first ordered 1—200 since). Chas. P. Schroeder, Conn., bought 40 stoves one order. Head & Frazer, Tex., write: "Sell like hot cakes; sold 50 stoves in our town." J. W. Hunter, Ala., secured 1—tested it—ordered 100 since. J. G. R. Gauthreaux, La., ordered 1; 155 since. So they go. **These men make money.** You have the same chance. You should make from $10 to $15 a day. Write for our selling plan. Do it today. Send no money.

The World Mfg. Co., 1951 World Bldg., Cincinnati, Ohio.

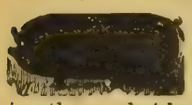
BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal and The Reliable Poultry Journal.**

Name.. .....

P. O. Box..... R. F. D.....

Postoffice.....

Editor's Note—The Fruitman and Gardener, published monthly, a first-class paper, can be substituted for either of the above papers if desired.

The Healthful Bedroom.

In view of the fact that the average person spends about one-third of his or her lifetime in sleep, the sleeping room becomes a matter of great importance, and every bedroom should be provided with the essentials for healthful sleep, and the daily sponge bath, if there is no bathroom in the house, and as nearly as possible the room should be kept free from anything that would tend to contaminate the air. Even a vase of withering flowers is a lurking cause of disease, and the air we breathe while we sleep should be equally as free from foul germs and disease matter as that we take into the lungs while we are awake.

A bedroom should be as simply furnished as possible, with no heavy curtains to keep out light and air, and everything about the room should be washable.

The sleep would refreshen and strengthen, whereas it is often restless and worrying, because the room is not well ventilated and the beds and bed coverings have not been properly aired.

A prejudice in favor of having one's work done early in the day should not beguile the house mistress into having the beds made up before they are thoroughly aired. A good way to air the beds and bedding is to place two chairs at the foot of the bed, shake out the covers and sheets, so that every part of them can be reached by the air and throw them over the foot of the bed over the chairs; then open up the windows, and an hour's airing each morning is sufficient.

All bedrooms should be well ventilated, as a bedroom well ventilated, of regular warmth and sunshine, will secure sound and restful sleep that will build up the body and refresh the mind, and so fit both for the duties of the day.

A matting is a cool and healthful covering for a floor in a bedroom; but even it should not be allowed to remain upon the floor for any great period of time, and the matting should be wiped up every week or two with salt water in which a tablespoonful of borax has been dissolved. The borax is used to purify and disinfect as well as to soften the water.

Soiled clothes should never be left in a sleeping room; they will so soon contaminate the atmosphere.

Always empty the slops as early as possible every morning for health's sake and have covers for all such receptacles, and at least once a week all slop jars should be washed with soapsuds and then rinsed out with strong borax water; and the wash cloths, too, should be cleaned in the same way.

To clean and purify a closet in the bedroom, scrub the shelves and floor with hot suds and when dry go over all the woodwork with hot borax water, to be sure that the closet is thoroughly disinfected, then leave the closet door open for an hour or two every day, so that plenty of fresh air can get in, and in this way keep it in a sanitary condition.—Martha.

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it,

and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

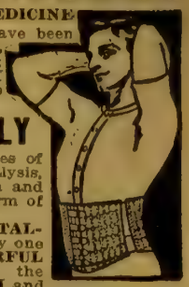
Dittmann (St. Louis) Shoes.

Attention is invited to the card of the Dittmann Shoe Company on page 22. This is one of the great firms that have made St. Louis famous as the largest boot and shoe center in the United States, and the Dittmann Shoes are all sold in retail stores direct from the manufacturer, so that you can find the storekeeper in your home town and have the benefit of the full stock of Dittmann Shoes and sizes. You therefore support your home community in the first place and the industries of the nearest city that buys many million dollars' worth of farm products a year in the second place. The Dittmann Shoe Company has an honorable record of sixty-nine years in the business of making shoes, and their card in this paper is interesting and instructive.

LAME BACK and KIDNEY TROUBLE

CAN BE CURED WITHOUT A DROP OF MEDICINE

According to the words of those who say they have been cured to stay cured by using **MAGNETIC SHIELDS**, which do what all the medicine on earth cannot do; they **ACTUALLY INSTILL NEW LIFE AND ENERGY INTO THE SYSTEM**, overcoming congestion, soreness and pain.



WE PROVE IT TO YOU POSITIVELY

Not in one case or a dozen cases but in multitudes of cases, where people say they have been cured of Paralysis, Rheumatism, Lung Troubles, Kidney, Liver, Stomach and Bowel Troubles, nervousness and most every other form of disease after medicine failed.

Our **MAGNETIC ABDOMINAL AND KIDNEY VITALIZER** for ladies and gentlemen here illustrated is only one of the many Shields we make. **IT IS A WONDERFUL INVENTION**, scientifically constructed and floods the system with magnetism, supplying **LIFE, STRENGTH** and **VIGOR** to the **BACK, KIDNEYS, STOMACH, LIVER, BOWELS** and **BLADDER**, giving that buoyancy, tone and renewed vitality to the system that Magnetic force alone can supply.

SENT ON TRIAL TO PROVE IT'S VALUE

Write to-day for full information and free book, **"PLAIN ROAD TO HEALTH,"** by C. J. Thacher, M. D. Describe your case fully, we advise you free how to apply **MAGNETISM** for treating any form of weakness or disease.

THACHER MAGNETIC SHIELD CO., Inc., Suite 452, 110 So. Wabash Ave., Chicago, Ill.

Three Indian Dolls For 30c.

And a year's subscription to the Universal Magazine. These dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—THE PRINCESS TAMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. The Universal Magazine is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry— a splendid publication.

Send us thirty (30) cents for one-year's subscription to the Universal Magazine and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

SPRINGTIME MALADIES.

In the spring months horses are especially liable to affections of the throat and membraneous tissues, such as coughs, influenza, pink-eye and distemper. In these troubles one certain cure and preventative is Frazier's Distemper Cure, and the relief from the first dose of this medicine is perceptible. "Frazier's" is sold on a strict guarantee to give satisfaction or money refunded. The $1 contains three times as much medicine as the 50-cent size. Write for the thirty-two-page booklet to Binkley Medical Company, Dept. H. Nappanee, Ind.

98 cents

Post Paid

Guaranteed 5 Years

To advertise our business, make new friends and introduce our catalogue of Elgin Watches we will send this elegant watch by mail post paid for **ONLY 98 CENTS.** Gentlemen's size, full nickel silver plated case, Arabic dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. Send this adv. to us with 98c, and watch will be sent by return mail postpaid. Satisfaction guaranteed or money refunded. Send 98c today. Address

R. E. CHALMERS & CO., 538 So. Dearborn St., CHICAGO.

FREE TRIAL OF PLAPAO

DON'T WEAR A TRUSS

Rupture Cured by Stuart's Plapao-Pads means that you can throw away the painful truss altogether, as the Plapao-Pads are made to cure rupture and not simply to hold it; being self-adhesive and when adhering to the body slipping is impossible, therefore, they are also an important factor in retaining rupture that cannot be held by a truss. **No straps,** buckles or springs — cannot slip, so **cannot** chafe or press against the pubic bone. Thousands have successfully treated themselves at home—no delay from work. **Soft as velvet—easy to apply—inexpensive.** Awarded Gold Medal. Process of recovery is natural, so no further use for truss. **We prove** what we say by sending you Trial of Plapao absolutely **FREE**—you pay nothing for it, now, or ever. Write **today.**

Address — PLAPAO LABORATORIES, Block 888, ST. LOUIS, MO.

I Say to You MONEY TALKS

I will show you how to make $10 to $15 every day during your spare time.

I will put you in the tailoring business—make you independent—my actual business partner in your town. You share the profits.

I furnish samples—complete outfit—measuring system—full instructions—**Everything Free;** back you with my own capital and experience. My garments are all union made. Express prepaid.

FREE Sample Suit

You must be the best dressed man in town and look prosperous. I will give you the finest tailored, made-to-measure man's suit in the latest Chicago, New York and London style to wear and display for me.

Don't send me one penny—everything absolutely free. Write at once. Only one man wanted in a territory. Act quickly—Now! Address a postal or letter to

P. W. GOODMAN, Pres.
REGAL TAILORING CO.
482 Regal Bldg., Chicago (3)

CENTURY MFG. CO. PAINT GUARANTEED FOR 10 YEARS

20 per Gallon — Delivered Free

ntury House Paint made in all colors, in on cans, **only $1.20 per gallon.**

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ght Paid on orders of 6 gallons or more to any state east of the Rocky Mountains, except N. & S. Dak., Colo., N. Mex., Tex., Okla., Miss., Ala., La., Ga. and Fla. Delivered Free to these states for 5c more per gallon.

These prices for 4 weeks only—order now. Satisfaction guaranteed.

Reference: So. Ill. Nat'l. Bank.

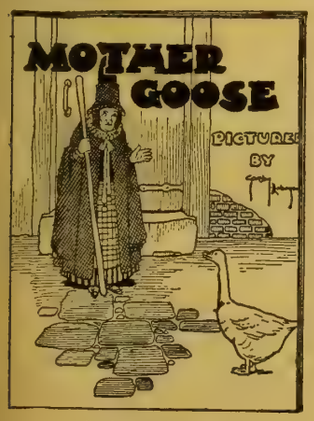
Catalog and Color Card Free.

CENTURY MFG. CO.,
Dept. 184
East St. Louis, Ill.

TOY BOOK PREMIUMS.

easure and Instruction For Children, Especially During the Holiday Season.

We are always on the lookout for mething that will please the children and at the same time be of an ucational advantage to them. Our autiful toy books, the first we have er used as a subscription premium, e delighting the hearts of the little es, and we are greatly pleased to nsider these books as one of our ry best premiums. We are issuing ese toy books as supplementary emiums to The National Farmer d Stock Grower. These toy books e substantial, beautifully colored d illuminated. The illustrations e astonishing in the delightful lorings. There are four sets. They e as follows:



Animal Series.

No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

Fairy Tale Series.

No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

Mother Goose Series.

No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 116—Little Red Riding Hood.

Little Darling Series.

No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

In offering these delightful toy books we make several propositions:

1. Send us twenty-five (25) cents for six-months' subscription to The National Farmer and Stock Grower and you can select one set of four (4) toy books.

2. Send us fifty (50) cents for one-year's subscription to the National Farmer and Stock Grower and select two sets of four (4) toy books as a premium.

3. We publish the Universal Magazine. It is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry ---a splendid publication. Send us twenty-five (25) cents and we will send you the Universal Magazine for one year and you can select a set of four (4) toy books as a premium.

Order toy books by numbers. Select either four you desire. Address your orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Patchwork Quilt.

One of the good, old fashions that is surely creeping back is that of the patchwork quilt, and the quilting parties, where a social neighborhood gathering occurs, with a dinner perhaps furnished jointly by the participants, are being again brought back. There are several reasons why we should be glad and join in the line in spirit, even though too busy with other duties to add to those of the needle, save on the occasional neighborhood gatherings, when we can make ourselves useful while at the same time having a day of enjoyment.

There are countless pieces in every home which must go into the rag-bag or become dust collectors unless put to some such practical use. The scraps of muslin and cambric worked up with calico, light or dark, may be really handsome. And there are numerous patterns which are straight work and can be put together on the machine, if preferred; or the work may serve as a catch-up when waiting, or for evening employment, when the light is not sufficient for the closer work in sewing.

This is an excellent way to make a memory album, as many a mother will prove the permanent placing of a piece of each little dress or waist of the boy or girl in a quilt being a source of great pleasure to the owner in mature life, the material and the fact that it was put together by the mother's hand rendering it doubly precious.

The present generation is lacking in the dainty seamstresses of old, the sewing machine tempting to little hand work save as the new fashions have lately brought back the fancy stitches. But with the return of the patchwork quilt the child who is beyond the pale of modern school instruction in sewing will be put into the same traces which turned out the dainty sewing of a couple of generations ago, when the "Sampler" and the patchwork were a part of the little girl's earliest education. And through this drill we shall have better sewers along all lines of work.

When selecting material, strive to have it all of nearly a similar grade, good material and fast colors. Of course, no one would think of using cotton, wool and silk in the same cover. Sort over and work each by itself. And, by the way, the filling for a covering of cashmeres and similar goods cannot be improved upon if made from a fleece of home-grown wool, carded with the old-fashioned hand cards at home if necessary. Such a filling is light and warm, and with good care it will remain light to the end, and may even be reworked and made to repeat its service. And if the ends are covered with a shield of wash goods it will need very little renovation.

Some of the old patterns may well be resurrected. There is the nine-patch, still admirable to enlist the beginner, and the still easier four-patch for the very little fingers. The basket patterns are popular and there are numerous combinations of squares and diamonds which the skillful will discover for themselves. When wanting something new, just practice upon the changes which may be made with the various common geometrical figures.

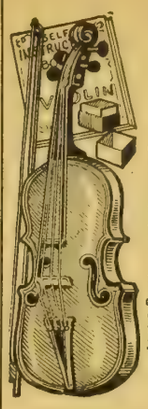
A very pretty and simple quilt is made by commencing with a center of bright color cut in a regular hexagon. On each of the six sides of this arrange a row of similar hexagons in some contrasting color, and so continue round and round until the quilt is of the desired size. The only objection to this is, that there is considerable waste in cutting this form of block, the diamond or square fitting into the piece left by its predecessor to much better advantage. Then there are the diamonds placed in strips of alternate dark and light, or strips made up of alternate diamonds and squares, which, sewed together, give an ingenious form of block work. And the more simple "Sunshine-and-Shadow" quilt is made up of rows of squares in the brightest colors running diagonally across the quilt. All these and many more will occur to the artistically-inclined, and the waste pieces may be thus put to a pleasing use.—Bessie L. Putnam.

For Poultry Raisers.

Only a few months do incubator manufacturers advertise in farm papers, and only a few of them are with us this year. We have the very best makes and those that are best worth the money. All these advertisements will be found on page 18. It is absolutely impossible to conduct a poultry farm without incubators, and if it were not so, the purpose is to do the thing properly; and that is not all; a few acres devoted to poultry by a boy or girl will make life worth living on a farm. Look over these advertisements and send for the catalogues; there is money in doing so.

No More Seed Distribution.

Congressional distribution of seeds was ended by the failure to vote the money to pay for them. The amount estimated was $256,000, and it is a good saving, no matter how it was brought about. Distribution of new and rare seeds in small quantities by the Agricultural Department and placing them in the hands of experimental farmers is all right, but the distribution of seeds by Congressmen as a gratuity to their voting constituents was a wasteful misappropriation of public money, and it will be a good thing if the practice is never revived.



VIOLIN FREE

This is a fine, handsome, clear toned, good sized Violin of highly polished, beautiful wood, ebony-finished pegs, finger board and tail piece, one silver string, three gut strings, long bow of white horse-hair, box of resin and FINE SELF-INSTRUCTION BOOK.

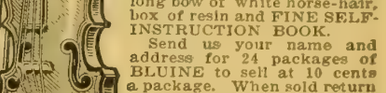
Send us your name and address for 24 packages of BLUINE to sell at 10 cents a package. When sold return our $2.40 and we will send you this beautiful Violin and outfit just exactly as represented.

BLUINE MFG. CO.,
588 Mill Street,
Concord Junction, Mass.

This Beautiful 20 Year Watch $3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, 7 jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for Gents Free.

$3.75



20 Year Guarantee MODEL

EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it, if you think it is a bargain and equal to any $15.00 watch, pay the express agent our Special price $3.75. Mention Ladies', Men's or Boys' size.

HUNTER WATCH CO., DEPT. 323, CHICAGO, ILL.

PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.

Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 300-page Book on Rectal Diseases.

DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

WANTED--SALESMEN AND SALESWOMEN

Hundreds of good positions now open paying from $1,000.00 to $5,000.00 a year. No former experience required to get one of them. We will teach you to be a high grade Traveling Salesman or Saleswoman by mail in eight weeks and assist you to secure a good position where you can earn good wages while you are learning. Practical Salesmanship. Write today for full particulars and testimonials from hundreds of men and women we have recently placed in good positions; also list of good positions open. Address (nearest office) **Dept. 159 National Salesmen's Training Assn.**

Chicago New York Kansas City San Francisco New Orleans Toronto

WE PAY $80 A MONTH SALARY

and furnish rig and all expenses to introduce our guaranteed poultry and stock powders. Address **BIGLER COMPANY, X356 SPRINGFIELD, ILLINOIS**

PIMPLES cured or your money back. Crain's Pimple Remedy, a clean lotion. Send 50 cents or write.

CRAIN, Chicago Heights, Illinois.

WE PAY $36 A WEEK AND EXPENSES to men with rigs to introduce poultry compound. Year's contract.

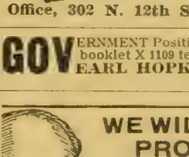
IMPERIAL MFG. CO., Dept. 38, Parsons, Kans.

PATENT YOUR IDEAS

$9,000 offered for certain inventions. Book "How to Obtain a Patent" and "What to Invent" sent free. Send rough sketch for free report as to patentability. Patents advertised for sale at our expense in Manufacturers Journals.

CHANDLEE & CHANDLEE, Patent Att'ys
Established 16 Years
952 F. Street, Washington, D. C.

TAPE-WORM Expelled alive in 60 minutes



with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE.

DR. M. NEY SMITH, Specialist,
Office, 302 N. 12th St., - **ST. LOUIS, MO.**

GOVERNMENT Positions are easy to get. My free booklet X 1109 tells how. Write today—NOW.
EARL HOPKINS, Washington, D. C.

WE WILL MAKE YOU PROSPEROUS

If you are honest and ambitious write us today. No matter where you live or what your occupation, we will teach you the Real Estate business by mail; appoint you Special Representative of our Company in your town; start you in a profitable business of your own, and help you make big money at once. Can arrange for spare time only if desired.

Unusual opportunity for men without capital to become independent for life. Valuable Book and full particulars Free. Write today.

NATIONAL CO-OPERATIVE REALTY CO.
J-90 Marden Building, Washington, D. C.

The Higher Life.

A fashionably-attired city woman has just left my home. Her husband earns a good salary; she lives in a high-priced, modern flat; has no children; entertains a good deal, and finds life generally dull. During her call a letter is handed to me and I recognized it as from my Cousin Josephine, who lives on a farm in Iowa. I mention this to my caller, and she exclaims: "Heavens! don't say lives. Say exists, dies, anything but lives!"

"And yet your life is an empty one as compared with hers," I said.

The caller flounced up angrily. "My life empty! I lead a full life, if ever a woman did!"

"But does anything in it really count? You entertain and are entertained; you shop and dine; you go to the theatre and read a lot of light stuff that doesn't feed your brain any more than the foam of a soda feeds your body. No; don't get angry. Your life is the same as hundreds of city women in your class. Just listen to Josephine's letter and then tell me which is the richer life:

"The children are all in bed, and I ought to be there, too, but I'll steal a little of my sleeping time to write to you. It's my first letter to you since the darling baby came and she's now nearly four months old. And such a dear! Yes, I'm busy, but what's time for if not to use? And then the children are all such a help to me. Philothea is nine now and she's such a good baby-minder. Nanny's not so good at that, for she's so full of tricks that she wants to experiment on the baby when I am not around, so I make Philothea the little mother while Nanny must help with dishes and do errands. Peter, who is five, is good at little chores, and he helps watch baby when his big sisters are at school. And John, you know, is only three, so he can't do very much except put his playthings away when he is through with them. And he takes care of the things baby throws on the floor. Then he makes a game of trying to keep his tiny garments clean. You see with such a bunch of us and no outside help each one must do his part or the burden upon some one else will be too heavy and that's the lesson I try to teach the little brood. It's a good plan to practice in the home, and when these youngsters are full-fledged and go out into the world to build their own nests they bid fair to be lifters and not leaners; workers, not shirkers.

"Lonesome? Can you imagine the queen-bee in a busy hive as being lonesome? Well, we're a hive of busy bees and we couldn't be lonesome if we would, and we wouldn't if we could. Why, child, we're living! We're blanketed with snow just now and that means that when we go over to help our nearest neighbors (six miles away, remember) celebrate their tenth wedding anniversary tomorrow evening we can all cuddle down in the big bob-sled and make a jolly sleighing party of it.

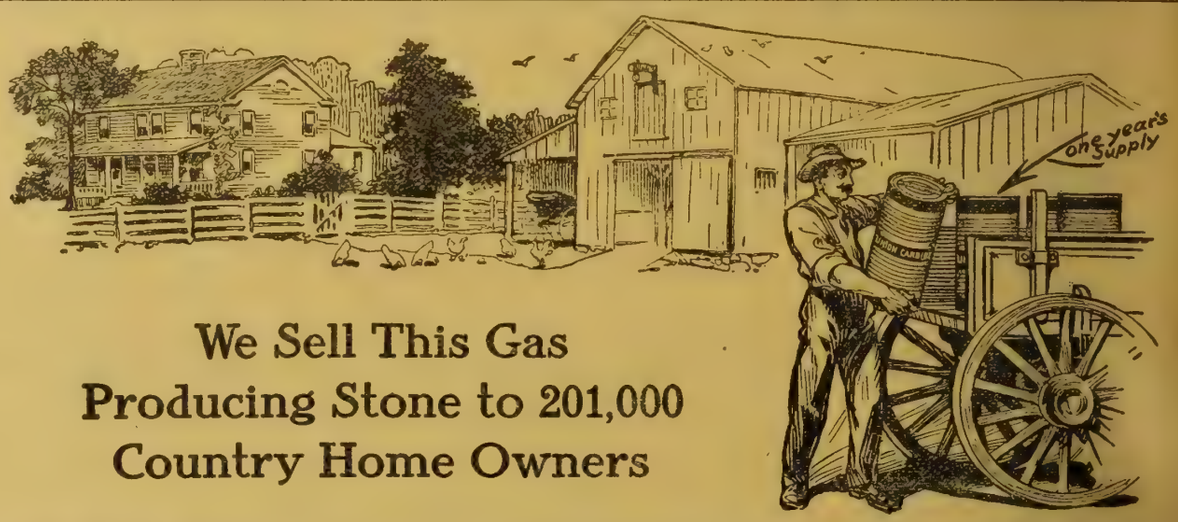
"Although we don't see as much of folks and fashion (you see I'm still answering your lonesome query) as city people do, it seems to me we see a great deal more of God, or at least of the way He works through nature. His stars shine clear and bright above us, leading us on. His sunsets give us more glorious paintings than any of the masters have ever placed in the city galleries; we have heavenly music without paying the price of opera seats. Ah, cousin, we're near to the heart of things. We're working hard, but we're not rusting out, and we're making every day count for something. I'm willing to wear old-fashioned clothes when need be, and to miss the froth of life which some people find so entertaining, just because I'd rather have the real things which I have now—my outdoor life, my precious bairns and that unspeakably precious love of my big farmer husband."—Janet Thomas Van Osdel.

Going Home With the Crowd.

Sometimes there is safety in numbers, but it depends upon who makes up the numbers. I taught in a country school for a couple of years and I learned some things about the ways of those children when in a crowd which it may do good to relate. The school was in a community which ranked high as an intellectual center. It was not far from a thriving little manufacturing city and the influence of the progressiveness of the city was felt in this section of the country. I had not been in the school two weeks before I realized that its moral tone was scandalously low. This was a distinct shock to me, knowing, as I did, the reputation of the community. However, facts were facts, and the vile writings I found about the buildings, the sly looks passed between the boys as they interpreted with double meaning the words found in the lessons, could mean but one thing. The girls were not far behind the boys. I was only eighteen myself but I determined to fight for the purity of those young people. I kept the boys after school one evening to clean off every bit of evil writing in their section of the grounds, and on the next evening the girls were requested to clean their side of the grounds. Taken individually, I found the children pleasant and clean-talking. But in crowds they were filthy. I kept with them on the playgrounds and joined in their games. So long as they were under my eye they were good, but the moment they got alone things went differently. I saw that I could keep them decent while at school and I appealed to the parents to help me by calling for their children at night. But I received no thanks for this effort save from one woman who questioned her little boy, one of the best of the lot, and he told her of some of the mischief they had been up to. This woman thanked me then and still thanks me for helping her to keep her boy clean. I tried the plan of giving the girls only thirty minutes morning and letting them go half an hour earlier than the boys. In a couple of days I learned that the girls went half a mile down the road and waited for the boys. Again I warned the mothers and again I received no thanks and no help. So I struggled on alone and did the best I could.

In the second school I taught conditions were not nearly so bad, though the community did not rank so high intellectually. But here, too, I found that in the crowd there was a tendency to tell smutty stories and say anything unfit for innocent tongues or innocent ears. Four or five of the best girls always separated from the crowd and walked home alone. I asked them to take some of the younger ones under their protection, which they gladly did.

Not many schools are so bad as the first example given, but there is a mixed class of pupils in every country school. They come from widely different homes and they are of all ages. I believe it is best for mothers to consider what conditions it is possible their children may meet, so that they may investigate and safeguard them as best they can.—Janet Thomas Van Osdel.



We Sell This Gas
Producing Stone to 201,000 Country Home Owners

The stone is artificial. To make it we heat lime and coke in electric furnaces at a temperature of 6000° Fahrenheit—the highest temperature known to science. With the aid of this great heat the materials used are fused into the curious stone known commercially as Union Carbide. This Carbide comes from the furnaces in huge chunks. These we crush into a number of different "sizes" for different uses.

LIGHTING

Packed in sheet steel drums and cans, we ship this Union Carbide direct to customers from our own warehouses, located in all parts of the United States. In these drums the Carbide will keep indefinitely and can be stored and handled as safely as coal.

Drop a piece of this Union Carbide into water and a seeming miracle takes place. The dark stone instantly changes into white slacked lime. At the instant of this transformation, the stone releases a quantity of gas, which bubbles to the surface of the water. This gas is genuine acetylene, a hundred feet of which will give more light than a thousand feet of city gas.

The process of making this gas is simply one of bringing the Carbide and water in contact. Several types of machines have been designed to do this automatically. The best of these machines bring a very small quantity of Carbide and water together at a time—just enough to supply gas to the burners when they are in use. When the burners are turned out the machine stands idle.

These machines have been perfected with the aid of the National Board of Fire Insurance Underwriters. They are now mechanically perfect—so perfect that there are over 201,000 in use. No one who has ever seen one of these acetylene lighted country homes will ever forget the beauty and brilliancy of the light. No one who has ever cooked on an acetylene range will ever again go back to coal and wood.

We do not handle Carbide gas machines. We only sell the UNION CARBIDE, which the machines all use. It is obviously to our interest to exert every effort to aid country home owners to secure Carbide machines that will insure satisfaction. To this end, we keep posted on all machines which use our product. We know which ones are best suited to different requirements, and we gladly supply information and advice to all who care to write us.

Just send us your name and address and tell us how many rooms, barns and outbuildings you wish to light. We will tell you just what type of machine you should have—tell you where it is made and give you an estimate as to its cost.

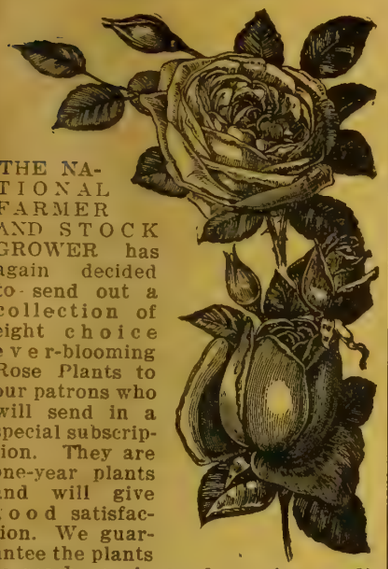
COOKING

With our letter, we will send you with our compliments a book about this rural illuminant and cooking fuel. The book tells how the lights can be fixed to light without matches. How they can be permanently fixed to walls and posts in barns and outbuildings. How the machine, the handsome bronze chandeliers and the cooking range can all be set up with little labor. It tells the whole wonder story of just why over 201,000 of our customers have found this Carbide gas much safer and many times more convenient than coal, wood and kerosene it is displacing. Write us today.

Tell us how many rooms in your house and how many barns and outbuildings you have. We will write you fully and frankly and send our free literature by same mail. Just write to UNION CARBIDE SALES CO.— 126 So. Michigan Blvd., Chicago, Ill.

A GARDEN OF ROSES.

Fine, Sturdy Plants—The Most Delightful Premium Offered by Any Farm Paper.



THE NATIONAL FARMER AND STOCK GROWER has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition, and with each package we send complete directions for planting, care and culture. The time to send the order is now—before you forget it—and you will receive the plants at the best time for planting in your section.

The collection consists of:

THE OLIVIA — A most gorgeous, distinct rose of deep, brilliant rosy red, and one which excites the admiration of everyone beholding it.

2. THE SUNBURST—An intense exquisitely beautiful rose of orange-copper and golden yellow.

3. THE BRIDE—The most satisfactory white rose of dainty, chaste, beautiful flowers and healthy growth.

4. MY MARYLAND — A pink beauty, rapidly developing a sturdy, shapely plant and large flowers.

5. SOUV. DE PRESIDENT CARNOT — A wonderfully handsome rosy-blush color creation.

6. THE METEOR—For intense, rich, velvety, crimson color no other rose compares. The flowers are large and double.

7. THE BLUMENSCHMIDT — A pure citron-yellow; a first-prize winner at every show.

8. DOROTHY PERKINS — A shell-pink, hardy climber and one that should be extensively planted.

Our Grand Special Offer.

Send us a money order for fifty cents. ONLY fifty (50) cents. We will credit you with ten-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, and at the proper time we will also send you the full set of EIGHT ONE-YEAR ROSE PLANTS as described. The roses are sent out directly it is safe to dig them in the spring. Send in your order at once with fifty (50) cents and it will receive prompt attention.

Here is a Subscription Blank.

The Hale Publishing Co., 3550 Vista ave., St. Louis, Mo.:—Gentlemen:—Herewith please find fifty (50) cents. Please send me THE NATIONAL FARMER AND STOCK GROWER for ten months, and the full set of EIGHT HARDY, EVER-BLOOMING ROSES, one-year plants, postpaid, safe delivery guaranteed.

Name.. .....

Address.....

SELECTED POETRY.

HER BEST.

Have you noticed the change it sometimes makes
In a woman's face—
Passive it may be, and dull and cold,
Neutral-tinted and common-place—
When the sun falls on it? How swift it takes
Meaning and color, and soft outlines?
How strange new lights from the eyes will slip
And new tints blossom on cheek and lip?
The whole face softens and warms and shines,
And the hair, a miser grown overbold,
Shows forth of a sudden, undreamed-of gold.
Oh, there's many a woman, East and West,
Must be in the sunshine to look her best!

Have you ever noticed the change it makes
In a woman's face,
And her heart and her life, that were cold and dull,
And slightly inclined to common-place,
When love shines on them? How there breaks
Over her nature a wave of gold,
Bring her beauty unknown before,
Mellowing, widening more and more,
Lifting her up till her eyes behold
Ever-new blooms for her hands to cull,
So she and her life grow beautiful?
Oh, there is never a woman, East or West,
But must live in love's sunshine to live her best!

—Clara W. Bronson

ALL ROADS LEAD HOME.

From out the valley four roads wind away
Like pale brown ribbons in a grassy sea,
And one leads south, another north lies free,
And east and west after the others stray.

Which shall I follow? East, to the old home,
Where once the hand of love held wide the door?
Westward, where still adventure goes before
And the great prairies welcome feet that roam?

Shall I go South, where winter roses bloom,
And spring usurps all months of the bright year?
Or North, where the great pines make music clear
And the long winters robe the world in gloom?

Why should I choose? The home my youth held dear
Is but a shell, with strange, unfriendly mien;
Less weary hands adventure's fields may glean,
Too far, too strange, the West whose strength I fear.

The South would cloy me with its changeless sweet;
The North would pierce me with its icy dart;
Roads wind away, but, oh! fear not, my heart,
They all return, and here, at home, they meet.

—Ninette M. Lowater, in New York Sun.

THE SEARCH FOR THE GOOD AND THE BAD.

It never takes a kicker long,
When hunting things at which to kick,
To find where matters are all wrong,
Or where the thorny boughs are thick;
'Tis not a sign that one is wise
If one complains by day or night;
The dullest may, with half-closed eyes,
Perceive where evils are in sight.

The ones who look for things to praise
Must be courageous and alert;
They can't afford to spend their days
In nursing every little hurt;
With manly hopes, with words of cheer,
With wisdom that is deep and sound,
And with a vision that is clear
They learn where goodness may be found.

One must be wise and strong and brave
To see the good in everything,
To turn from what the wicked crave
And keep from idly caviling;
But any fool with frowning face
And evil thoughts and shuffling feet
Can very quickly find the place
Where Sin's dominion is complete.

—S. E. Kiser.

FAITH.

She kept her lamp still lighted,
Though round about her came
The throng whose faith was blighted,
To laugh at her poor flame.

She kept her sacred altar
Lit with the torch divine,
Nor let her purpose falter,
Like yours—Oh! world—and mine!

And they whose cold derision
Had mocked her, came one day
To beg of her the Vision
To help them on their way.

And barefoot or in sandal,
When forth they fared to die,
They took from her poor candle
One spark to guide them by.

—From Cell 13.

$27.00 TO $40.00 PER WEEK

NEW SELF-HEATING IRON

FOR AGENTS

MAKES ITS OWN HEAT

The "New Standard"

WRITE FOR FREE SAMPLE PROPOSITION

It takes women by storm. Quick, easy sales. Grandest aid to women ever invented. Entirely new. Sells almost on sight. Show 10 people—sell 8. Even 2 or 3 sales a day net you $27.00 to $40.00 a week. No experience required. No need to stop your regular work. Sell evenings. Go right into home and demonstrate. Everybody is interested. Women make as much money as men. Saves its cost every month. Women simply can't resist. Selling is almost as easy as giving them away. All year business. Field hardly touched. Every home a prospect. Not sold in stores. Sells on its merit. Right size—right weight—right price. Looks good. Is good. Carry it anywhere. Iron anywhere. No stove needed. Six sales a day should be easy. Double that isn't hard work. Think of the profit. Write quick for FREE SAMPLE PROPOSITION and agents selling plan.

A RED HOT SELLER

C. BROWN MFG. CO.
1010 Brown Bldg.
Cincinnati, Ohio

"WHY DON'T YOU WHISTLE?"

Sometimes, when things look bleak and blue
And pull upon my senses,
When I've allowed myself to view
The world through darkened lenses,
When skies seem tinged with smoke and soot,
And every flower a thistle—
This question to myself I put:
"Old boy, why don't you whistle?"

No one, I'll hazard, is immune
From fits of melancholy;
But power inheres in some old tune
To make one's spirit jolly.
When every scene on this old earth
With megrims seems to bristle,
This recipe has wondrous worth:
"Purse up your lips and whistle."

Don't let some morbid brooding hold
You in its bondage fearful,
But pipe some aria of old
Whose notes are sweet and cheerful.
If you should ask me to indite
A heartening epistle
Unto mankind, this would I write:
"Do NOT forget to whistle."

So, brother if you'd take up arms
Against a sea of sadness,
Most potent have you of all charms
To dye that sea with gladness.
Accuse no vague untoward fate,
And sling no random missile;
Your woes and foes capitulate
When you tune up your whistle.

—Detroit News.

HOW SHE SHOPPED.

She wandered down the center aisle,
Whence all but her had fled;
The lamp that lighted up her smile
Was not the kind, she said.

She halted at another booth;
There costly glass held sway;
She scorned the goblets, for, in truth,
They would not match her tray!

At every counter on the route,
From basement to the top,
She found the things that wouldn't suit,
But failed to find a mop.

She lingered at the silk display
From one o'clock till four,
Then smilingly she tripped away
To seek another floor.

From four till five she hung about
The petticoats on sale;
Then she recalled that, past a doubt,
She ought to buy a veil.

"But they are quite too near," she said;
"I'll wait till after Lent;"
'Twas then she bought a spool of thread
And had it charged and sent.

—Chicago News.

JUST A TIP.

There isn't much in this old world
But sunshine, after all;
The smiles and tears, the hopes and fears,
The wormwood and the gall,
Are all mixed up, and when I come
To analyze the whole,
I find the sunshine dominates
My heart and broncho soul.

Ye grouchy pessimist whose eyes
Reach not the skies of blue,
Join eyes with mine, where God's sunshine
Will meet your lengthened view.
Then let your face reflect it, back
In smiles of sweet content,
And shame should roll athwart your soul
For all the growls you've spent.

—Capt Jack Crawford (Poet Lariat.)

RICHES.

If I can leave behind me, here and there,
A friend or two to say when I am gone
That I had helped to make their pathways fair,
Had brought them smiles when they were bowed with care,
The riches of this world I'll carry on.

If only three or four shall pause to say,
When I have passed beyond this earthly sphere,
That I brought gladness to them on a day
When bitterness was theirs, I'll take away
More riches than a billionaire leaves here.

—Detroit Free Press.

DEFORMITIES CURED

CLUB FEET of any variety, and at any reasonable age, can be made straight, natural and useful. No plaster paris, no severe surgical operation, and the result is assured.

POTTS DISEASE when treated in time should result in no deformity; paralysis can be prevented and the growth not interfered with. Write for information and references.

SPINAL CURVATURE Recent cases usually make good recoveries and even those of long standing do well. No plaster paris, felt or leather jackets. Write for information and reference.

HIP DISEASE in the painful stage can be relieved and the inflammation permanently arrested. Shortening, deformity and loss of motion can often be corrected. No surgical operations or confinement.

INFANTILE PARALYSIS We can refer you to many responsible people all over the country, whose children, afflicted with Infantile Paralysis have been practically restored at this Sanitarium.

DEFORMED KNEES AND JOINTS of many varieties yield to our methods of treatment, and if interested you should know about it.

This is the only thoroughly equipped Sanitarium in the country devoted exclusively to the treatment of crippled and paralyzed conditions.

ILLUSTRATED BOOK FREE Write us for illustrated book which will be sent free on request to any address.

THE McLAIN ORTHOPEDIC SANITARIUM

916 Aubert Avenue ST. LOUIS, MO.

Apple Market at St. Louis.

On the last day of February, at St. Louis, apples were sold at wholesale as follows: Fair to choice Ben Davis at $2.00 to $2.50; Gano at $2.50 to $2.60; Missouri Pippin at $2.50 to $2.65; Willowtwig at $2.75 to $3.25; Winesap at $3.00 to $3.75; No. 2 and inferior fruit at $1.75 to $2.25; Eastern Greenings at $1.75 to $2.50 for scalded to $3.25 and $3.50 for fancy; Baldwins, $1.90 for No. 2 to $3.00 and $3.15 for fancy; fancy Virginia Yorks at $3.00 and $3.25, delivered. Sales: Fifty barrels No. 2 Baldwins at $1.90; part car fancy do. at $3.15; 100 Barrels Ben Davis at $2.35; 25 barrels Ben Davis at $2.05.

Potatoes, Onions and Cabbage.

On February 28th, 1913, at St. Louis, the principal vegetables were selling as follows: Cabbage, $10 to $11 per ton; Red Globe onions at 20 to 27 cents a bushel; white onions at 40 to 60 cents a bushel; potatoes, Rurals, at 48 to 52 cents a bushel; Burbanks at 47 to 50 cents a bushel; sweet potatoes at 90 cents to $1.10 a bushel.

Sheep Trade at St. Louis.

During the last week in February, on the St. Louis market, a string of Colorado lambs sold at $9.00 per 100 pounds; medium kinds at $8.25 to $8.65; fair, $7.50 to $8.00; and the culls and others that were not fat at $5.00 to $6.50; yearlings, if fat, found a good market, and the best went at $7.35 to $7.65, and fair at $7.00 to $7.25; choice wethers sold up to $6.65, and some ewes went at high as $6.15, with the bulk of the mutton sheep, the middle and latter part of the week, at $6.00; plain mutton sheep brought $5.00 to $5.50; stockers went at $3.50 to $4.50, and bucks at $4.75 to $5.00.

GREATEST
Cream Separator Offer!

The Wonderful French Machine Sold in America For First Time

The Melotte Cream Separator—Guaranteed for 15 Years

The Genuine French Melotte Sold in America for First Time

This is positively the first bona fide, no-money down offer ever made on any cream separator. No manufacturer of any cream separator ever **dared** to make such a startling offer before. All others who have ever **pretended** to offer you a free trial or to send their separator without any money down have taken care to get **something** out of you first.

But we don't want **anything.** All we ask is your simple request. We send the cream separator direct to your farm absolutely without any money down. We can afford to do this because the Melotte sells itself. It has an absolute self-balancing bowl.

We want you to read every word of this great offer. It is an offer which, we think, proves our **absolute faith** in the great **Melotte Cream Separator.** You are given the opportunity of seeing just how much cream this marvelous separator will extract from your milk before we ask you to send us one cent. Now, read every word of this wonderfully liberal offer.

Sent Without One Penny Down

30-Day Free Trial!

Your simple word that you would like to see this cream separator in your own barn or dairy house brings it to you instantly. We send you the Melotte without a bit of quibbling or hesitancy. We neither ask nor want you to send a penny. We don't want a cent of your money. The separator goes direct to you. You set it up, give it a thorough test with the milk from your own cows. We give you a free trial that **IS** a free trial in every sense of the word. It is a free trial because we don't ask you to pay us any money down—there is no C.O.D.—no lease nor mortgage. You keep your money right in your own pocket. You pay nothing to anybody.

Monthly Payments

These payments are so small that you will hardly notice them. You only pay out of your increased profits. You don't need to be without a cream separator when you can have the separator right in your dairy house while you are paying for it. In reality you do not pay for it at all. It pays for itself.

This is what we want to demonstrate to you. We want to demonstrate and prove beyond all peradventure that the Melotte Cream Separator does pay for itself. Only a few months' use of a Melotte Cream Separator and you will be satisfied that this statement is **absolutely correct.** A few months and the separator has paid for itself. It does not cost you a penny because the increased amount of cream has paid for the machine.

Melotte Runs 54 Years!!

At the Melotte works one of the Melotte Separators has been working every day (driven from the shafting) since Nov. 5, 1900, running 10½ hours per day—or 19,687 hours at a cost of only $7.50. Reckoning that a farmer works his separator one hour per day, the 19,687 hours represent (on the farm) a period of 19,687 days, or nearly 54 years. Therefore, the total cost of maintenance for the Melotte Separator for 54 years, inclusive of oil, will be only $7.50. At great trials of separators held at Boulogne, France, Oct. 5 to 9, 1905, under the auspices of the Federated Agricultural Societies of the North, the Melotte easily vanquished all other separators—proving the cleanest skimmer and taking less power—and was **Awarded the Gold Medal.**

World's Grand Prize Winner

Here is a small percentage of First Prizes the wonderful Melotte has won:

1888—Brussels—International Exhibition—Progressive Prize.
1889—Tongres—First Prize.
1890—Brussels—First Prize.
1891—Louvain—Diploma of Honor.
1892—Bouchout-lez-Anvers—First Prize.
1893—Theux—First Prize.
1894—Weert—First Prize. Medal of Higher Merit.
1895—Vienna First Prize.
1895—Drontheim—Silver Medal. First.
1896—Patay—First Prize. Gold Medal.
1897—Rennes—First Prize.
—Brussels—World's Exhibition. First Prize.
1898—Lyons—First Prize.
—London—First Prize.
1898—Poitiers—First Prize.
1900—Northants—First Prize. Paris Gold Medal and First Prize.
1901—Vise—Diploma of Honor.
Marchin—First Prize, Gold Medal.
1902—Prague—Diploma of Honor. First Prize.
1903—Reggio Emilia—Diploma of Honor. First Prize.
—Aussig—Gold Medal. First Prize.
1903—Luxembourg—Gold Medal. First Prize.
—Reims—First Prize.
—London—Gold Medal. First Prize.
1904—Heyst-Op-Den-Berg — First Prize. Gold Medal.
1904—Vouneuil S Vienne—First Prize.
—St. Louis—First Prize.
1905—Bombay—First Prize.
—Durban—First Prize.
—Orleans—First Grand Prize.
1906—Milan—First Grand Prize.
—Tours—First Prize.
1907—Amsterdam—First Prize.
1908—Starodour—Grand Prize.
1909—Saint-Gilles-Termonde—First Prize.
1910—Axel—First Prize.
1911—Sinay—First Prize.
—Brussels—Grand Prize and First Gold Medal.

For full list of prizes which the Melotte has won send the free coupon

Test With Other Machines

Before you decide to buy any Cream Separator arrange to test a Melotte along side of the machine you now think is the best separator in America. We want you to do this. Then there can be no doubt in your mind as to whether you are really getting the best machine. This is the only way to buy a cream separator. Then it will not be necessary to take anybody's word. You'll know which machine turns easiest—which machine is the best made. You'll know which skims the closest. You'll know which will make you the most money. Write to us about the **Melotte** and the **Melotte Free Test** today. We are the sole factory representatives in America.

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Just ask for this book and it will be sent to you. It is free. Place your name on the coupon, cut it out and mail it at once. Then we will send you our great free book, **"Profitable Dairying,"** telling you everything about cows and dairying, butter and cream—how to feed and care for cattle, how to make them twice as valuable as they are now, how to make more money than ever before out of your cows. This book is written by two of the best known dairy scientists in the country—Prof. G. H. Benkendorf, Wisconsin Dairy School Agricultural College, Madison, Wis. and K. L. Hatch, Winnebago County Agricultural School, Winneconne, Wisconsin.

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Kindly fill in this coupon and we will send you free and prepaid our book "Profitable Dairying" by Prof. G. H. Benkendorf and Prof. K. L. Hatch, the Wisconsin Dairy Experts. We will also send you our free Melotte Self Balancing Bowl Cream Separator Catalog, explaining our no-money-down and easy monthly payment offer on Melotte Cream Separators.

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Address.....

No letter necessary just sign and mail the coupon TODAY

ROAD IMPROVEMENT.

Wanted, an Expression of Opinion From Farmers to Assist Congress in Framing Laws and Appropriating Money For the Construction of Public Roads.

Hon. Jonathan Bourne, Jr., United States Senator, is Chairman of the Joint Committee on Federal Aid in the Construction of Post Roads. He has written The National Farmer and Stock Grower, asking us to obtain a consensus of opinion on the basic questions involved in the granting of federal aid in road improvement. Mr. Bourne and his committee are entitled to such an expression, and his list of questions can easily be answered. We advise such of our readers who are able to do so to write to Mr. Bourne, and without repeating the questions answer them by numbers, cutting out this list of questions and sending them in the letter addressed to Hon. Jonathan Bourne, Jr., United States Senate, Washington, D. C.

The Questions Are.

1. Should the government make appropriations in aid of public roads?

2. On what roads should the first government appropriation, if made, be expended: (a) all roads; (b) post roads (rural free delivery and star routes); (c) main traveled market roads; (d) main highways connecting important cities and towns in state; (e) trunk line, interstate highways connecting state capitals and large cities?

3. Should the government appropriation be expended on construction, on maintenance, on general improvement, or on any or all of these, or should the allotment by the government be unconditional, or paid as a reward after local authorities have constructed or maintained a highway in good condition?

4. What proportion of cost of construction, improvement of maintenance should be borne by the national government, state, county, road district and abutting property owners, respectively, or what amounts per mile should be paid as rewards?

5. Should the federal appropriation be apportioned among the states on basis of population, area, mileage of roads, mileage of rural and star routes, taxable valuation, or a combination of these?

6. Should the supervision of construction or maintenance of government-aided roads be by the federal government, the state and local authorities, or jointly?

Additional note by the editor—So many laws are passed and so much money is appropriated without consultation with the people it is with great satisfaction we ought to receive the appeal for information and it ought to be attended to and answered as a duty we owe to ourselves and our country.

National FARMER

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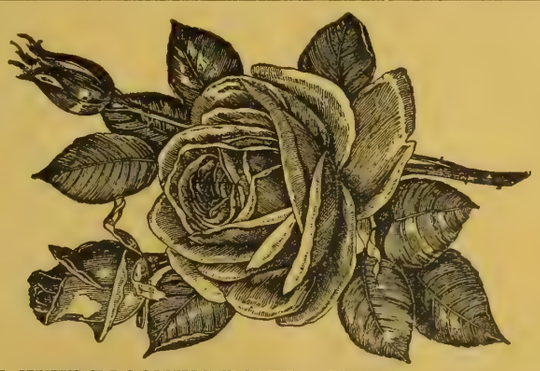
FAIRFAX, 16, 331,511.—Calved January 5th, 1909; sire, Perfection Fairfax; dam, Cherry Donald. Exhibited by J. P. Cudahy, Kansas City, Mo. At the Chicago International Live Stock Exposition of 1912 he was senior and grand champion Hereford bull. It was stated at the time that a better bull of the breed had never been seen in the show ring. In this connection we desire to invite attention to the Book of Live Stock Champions advertised on page 2. In that book there are 750 pictures, nearly all of the same size and all of equal merit to the picture of FAIRFAX, 16.



HARDY, EVER-BLOOMING ROSES.—This is a simple reminder of the most delightful subscription premium ever offered by a farm paper. We have used this premium several years and it has made the paper many good friends. Full particulars will be found on page 31 with a coupon blank to be signed by the subscriber.

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and Stock GROWER

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912—True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

This is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in the Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors: the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, mother of champions or winner in the prize ring.

The Book of Live Stock Champions is receiving the highest praise from the live stock breeders' associations and from officials of the Department of Agriculture. It is being adopted as a text book at high schools and colleges. Active, up-to-date stockmen having an interest in their business and a desire to do their share towards live stock improvement are subscribing for the Book of Live Stock Champions themselves and recommending others to do so.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special inducements to paid-in-advance subscribers, to old friends and patrons. We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title. This is an extraordinary offer.

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Name.....

Address.....

GROWING STRAWBERRIES.

A Few Pertinent Remarks on the Cultivation of the Greatest Small Fruit.

Choose a well-drained piece of ground for the strawberry patch, and if it is on a southern slope the berries will be days earlier than if the land has a northern exposure. If the ground was not plowed last fall, the sooner it is turned this spring the better.

If it is plowed in narrow lands or strips with a dead-furrow to carry off the surplus water, the soil will be in condition to work earlier than if the ground is plowed in a single land; this means a great gain, as the earlier the plants are set the better rooted they will become, and whether they are grown in the matted row or any other way, the heavier the crop will be.

Get the plants from a reputable grower, and they will be true to name and his descriptions of their characteristics can be depended on; and last, but not least, they will not be from an old fruiting bed. We do not hear as much of "pedigree" plants as some years ago, but the principle is the true one, whether growing animals or plants; none should be allowed to reproduce themselves that are not up to the standard as to size, vigor and other desirable qualities.

Grow both staminate, or male, and pistillate, or female, plants. Some of the heaviest bearers are female plants, and the crop will be larger if there is a preponderance of such varieties. It has been recommended to set a row of staminate varieties to two rows of pistillate, but we had a heavy yield of perfect berries when a row of the old Wilson's Albany was set alternating with two rows of Warfield, this arrangement being continued for about three rods, when a break was made, and five rows of Warfield and eight rows of Crescent, also a female or imperfect flowering plant, and next a row of Gandy, which is a staminate or perfect flowering variety.

The Warfield and Crescent in the block between the Wilson and Gandy were intended for propagating plants, but were so full of berries that we let them fruit instead. That they had been perfectly fertilized was shown by the entire absence of "buttons," and this experience led us to use a smaller proportion of male or staminate plants, or, as they are properly termed, perfect, the flower having both stamens and pistils. The arrangement of the rows may have been a factor in the ready pollenizing of the plants, the Wilson being on the south side of the patch and the spring winds in Missouri are mostly from the south, serving as a carrier of the pollen.

Do not fail to use potash in some form on the strawberry patch or field, for the fruit will be larger and much better flavored and the texture will be firmer, also the color higher. On a small patch, the ashes from the kitchen stove, if wood is burned, will return a much better "revenue" than if made into soap. If there are no ashes available, apply sulphate or muriate of potash at the rate of 200 pounds to the acre. It will be easy to figure on this basis the quantity needed for smaller areas.

Manure from the stable is good as a source of nitrogen and humus, but the more you apply the more potash is needed, or there will be a rank growth of leaves without a corresponding yield of fruit. The humus is necessary so as to make the soil hold a good store of moisture in reserve for the berry crop, which is greedy of water, and unless there is plenty, the berries are not large and luscious, as witness the last pickings when the ground has been tramped by pickers and the heat of early summer is coming on.

Spread out the roots in fan-shape when transplanting, so that they will have a larger surface for feeding ground, and set the crown even with the surface when pressed into the earth with the hands, or with the foot, as some planters do. Cultivate as soon as set and cut off all runners as soon as they appear, for a month at least, so that the plant may be well established before being allowed to reproduce itself.

Pinch off blossom stems when setting plants and all that appear afterwards, and keep the ground loose and the weeds destroyed by frequent cultivation. When any runners are left to make plants, train them in a row with the parent plant and "anchor" with a pebble or a tiny clod, so that it may take root as soon as possible and feed itself.—D. C. Cornman.

Heavy vs. Light Seed.

During the past ten years a great many experiments have been conducted by various Experiment Stations to determine the relative effect of different-sized kernels on the quantity and quality of grain produced per acre. The work at the Nebraska Experiment Station is worthy of note on this particular subject. Tests there were made with wheat, the fanning mill being used to make the seed separations.

In the tests, Turkey Red, a hard winter wheat, and Big Frame, a soft winter wheat, were used. A lot of seed from each of the above varieties was separated into two parts, the heavier and lighter halves. These were again separated into the "heaviest heavy" and the "lightest light," only the "heaviest heavy" and the "lightest light" being sown. To check results, ordinary seed as it came from the separator was planted. The same method was followed each year for a period of eight years. The seed from each crop of the "heaviest heavy" and the "lightest light" was separated and only the heaviest quarter of the "heaviest heavy" and the lightest quarter of the "lightest light" were used for seed.

At the end of the experiment the average yields for the three kinds of seeds were practically the same, while the average weights per bushel from the crops harvested showed hardly any difference in favor of anyone particular kind of seed. From the above results it is evident that the selection of the heavier seed for sowing purposes will not materially increase the yield per acre or the weight per bushel of the crop harvested.—James D. Marshall, Colorado Agricultural College, Fort Collins, Colorado.

Chicago Packers at New Jersey.

On March 15th it was telegraphed from New York City that anticipating the removal of the tariff on beef on the hoof, the leading meat packers of the country are preparing to move their stock yards from Chicago to Jersey City.

Armour & Co., it was said, expended upward of $2,000,000 during the past several weeks buying property along the line of the Long Dock and at Sixteenth and Cole streets, where, it is understood, a great slaughter house will be erected. It was reported that Cudahy, Nelson Morris & Co. and Swift & Co. are preparing to follow Armour's lead.

Chicago for years has been the center of the packing industry. Under the proposed tariff revision, the packers believe, it will be extremely profitable to import cattle on the hoof from South America, and it will be much more convenient to handle in Jersey City than in Chicago.

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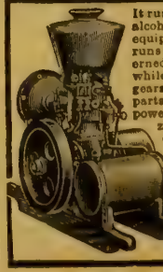

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OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

THE NATIONAL FARMER AND STOCK GROWER is in favor of the United States Custom House collecting a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, said duties to be applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government should be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result. With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty results in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers.

Cotton Crop For the Year.

The Census Bureau announced that the 1912 cotton crop amounted to 14,295,500, equivalent 500-pound bales, including linters. Running bales included 14,076,430.

Round bales, 81,528 bales; sea island, 73,641 bales; linter bales, 605,704; average gross weight of bales, 507.8 pounds. Ginneries operated, 25,267.

Production by states in 500-pound bales: Alabama, 1,380,756; Arkansas, 825,169; Florida, 53,874; Georgia, 1,846,303; Louisiana, 393,314; Mississippi, 1,092,552; Missouri, 58,319; North Carolina, 891,880; Oklahoma, 1,074,149; South Carolina, 1,215,973; Tennessee, 299,538; Texas, 5,120,252; Virginia, 24,385; all other states, 16,036.

GRAIN ON FARMS.

Annual Report by the United States Department of Agriculture.

Washington, March 10.—Grain of last year's crop remaining on farms, March 1, formed the subject of the Department of Agriculture's crop report, which was issued at 2:15 p. m., to-day. The Department's Bureau of Statistics estimates the amount of wheat, corn, oats and barley on farms, with comparisons for preceding years, the proportion of each crop which will be shipped out of the counties where grown, and the percentage of the 1912 corn crop which was of merchantable quality, as follows:

Wheat.—About 156,483,000 bushels, or 21.4 per cent. of the 1912 crop remained on farms, March 1, 1913, compared with 122,025,000 bushels, or 19.6 per cent. of the 1911 crop in 1912; 162,705,000 bushels, or 25.6 per cent. of the 1910 crop in 1911, and 160,214,000 bushels, or 23.4 per cent. of the 1909 crop in 1910.

About 61.6 per cent. of the 1912 crop will be shipped out of the counties where grown, against 56.1 per cent. of the 1911 crop so shipped, 55.6 per cent. of the 1910 crop so shipped, and 61.1 per cent. of the 1909 crop so shipped.

Corn.—About 1,289,655,000 bushels, or 21.9 per cent. of the 1912 crop remained on farms, March 1, 1913, compared with 884,069,000 bushels, or 34.9 per cent. of the 1911 crop in 1912; 1,165,378,000 bushels, or 40.4 per cent. of the 1910 crop in 1911, and 977,561,000 bushels, or 38.3 per cent. of the 1909 crop in 1910.

About 85 per cent. of the 1912 crop will be shipped out of the counties where grown, against 20.5 per cent. of the 1911 crop so shipped, 22.9 per cent. of the 1910 crop so shipped, and 24.9 per cent. of the 1909 crop so shipped.

Oats.—About 604,216,000 bushels, or 42.6 per cent. of the 1912 crop remained on farms, March 1, 1913, compared with 289,988,999 bushels, or 31.4 per cent. of the 1911 crop in 1912; 442,665,000 bushels, or 37.3 per cent. of the 1910 crop in 1911, and 365,432,000 bushels, or 36.3 per cent. of the 1909 crop in 1910.

About 30.9 per cent. of the 1912 crop will be shipped out of the counties where grown, against 28.8 per cent. of the 1911 crop so shipped, 30.6 per cent. of the 1910 crop so shipped, and 32.7 per cent. of the 1909 crop so shipped.

Barley.—About 62,283,000 bushels, or 27.8 per cent. of the 1912 crop remained on farms, March 1, 1913, compared with 24,760,000 bushels, or 15.5 per cent. of the 1911 crop in 1912; 33,498,000 bushels, or 19.3 per cent. of the 1910 crop in 1911, and 42,602,000 bushels, or 24.6 per cent. of the 1909 crop in 1910.

About 53.7 per cent. of the 1912 crop will be shipped out of the counties where grown, against 57.2 per cent. of the 1911 crop so shipped, 50 per cent. of the 1910 crop so shipped, and 52.5 per cent. of the 1909 crop so shipped.

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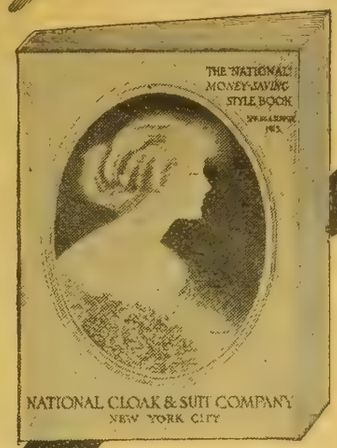

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The Cost of Raising Wheat.

It costs $1.04½ to produce the average bushel of wheat, according to Dr. J. H. Worst, President of the Agricultural College of North Dakota. He says that the farmers are mining the soil and robbing future generations every time they grow a wheat crop and that they are in reality producing the crop at a real cash loss every year.

"According to the very best authorities," says Dr. Worst, "one acre producing twenty bushels of wheat mines from the soil forty-four pounds of potash, worth five cents a pound, or $2.20; twenty pounds of phosphoric acid, worth four cents a pound, or eighty cents; and forty-two pounds of nitrogen, worth fifteen cents a pound, or $6.30; a total of $9.30 an acre, or 46½ cents' worth of soil fertility for every bushel of wheat raised. The United States Department of Agriculture says that labor and other production cost, interest on investment, cost of marketing, depreciation, etc., amounts to fifty-eight cents per bushel for all wheat raised in the United States. This brings the actual cost of a bushel of wheat, including the commercial value of the constituents removed from the soil, up to $1.04½."

Since the average price received for wheat is much less than this sum Dr. Worst estimates that the annual loss to the farmers of this country runs well into the hundreds of millions on their wheat crop. The loss in North Dakota through the fertility alone which was removed by the wheat last year, says Dr. Worst, will amount to $70,000,000. Dr. Worst is Vice-President of the International Dry-farming Congress. His figures are so startling in their indication that the future of the American farmer must depend largely upon feeding crops and on the return of the manure to the soil, and that a discussion of the subject will be made a special order at the annual meeting of the Congress in Tulsa, Oklahoma, next October.

Generosity.

"Generosity will win favor with anyone, especially when it is accompanied by humility."—Goethe.

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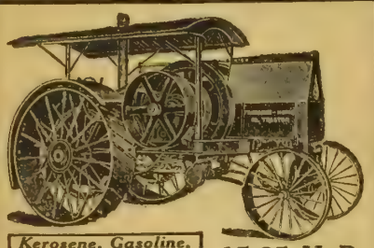

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THE CORN MARKET SITUATION.

Stronger Market For Cash Grain at St. Louis and Steady to Lower Trading in the Future Contract Market.

Regardless of any other interests than our own as farmers, and looking at the subject from a purely mercenary standpoint, we must be very well satisfied with the conduct of the corn market. We especially approve of the St. Louis market because cash corn has held up so well. On March 31st, the day we are writing this article, the market sold No. 2 corn at 54 to 54¼ cents a bushel, this against 49½ to 50½ cents a bushel thirty days previous, 49½ cents sixty days previous, 45 cents ninety days previous, and 46½ cents 120 days previous, which takes us back to November 30th, when the market price decreased, owing to the immensity of the crop. Mind you, we are not talking of a market speculation, but of the market we love to quote. When the goods are delivered the price is paid over and the grain starts on its way to the mill to be ground or to the stables to be fed and consumed. At 54¼ cents a bushel on March 31st, at St. Louis, the cash market was strong.

We now turn to the speculative market at Chicago and look for the May option. November 30th, May corn sold at 48⅜ cents a bushel: December 31st, 48⅜ cents a bushel; January 31st, 52½ cents a bushel; February 28th, 53⅜ cents a bushel; and March 31st, 53⅝ cents a bushel.

We also find on March 31st that the July option was quoted at 54⅞ cents a bushel, and the September quotation at 55¾ cents a bushel. And there the story closes for the present. The corn market is held up by the fact that it is a grain that cannot be demoralized. The farmer who has it can keep it, sell it or feed it; but if he keeps it, his sleep is not disturbed thereby. The possession of a goodly number of bales of cotton may disturb the rest of the farmer, because he anxiously waits the action of other people; but when the farmer realizes that corn is cheap, he very likely starts out to buy more corn instead of selling what he has on hand.

THE WHEAT MARKET SITUATION.

A Rather Quiet Condition, Liable to Break Out at Any Time Before May 31st.

On February 28th, when reviewing the wheat market, we left the cash quotation for No. 2 soft red wheat at $1.06 to $1.09 per bushel, and No. 2 hard wheat was quoted at 90 to 92 cents a bushel. Coming back a month later, on March 31st, we find very little change, but that little is lower. The No. 2 soft wheat is quoted at $1.05 to $1.07½. Thus far we have looked upon the cash trading in St. Louis, where the soft wheats predominate and where most of the mills grinding soft wheats obtain their supplies.

Now we skip to Chicago and arrive at the wheat pit. We are new in the market where future trading is the main business. Some call it gambling, but nobody can separate the gambling from the legitimate trading, which is necessary to competition in trade.

The change in quotations, one month with another, is very small, and there seems to be a total absence of speculation. On the last day of February, quotations were 92⅞ cents for May wheat, 91⅜ cents for July wheat, and 90 cents for September wheat. The March 31st quotations were 90⅝ cents for May, 89⅞ cents for July, and 89½ cents for September.

A wise man would leave these figures as they are, because one has to feel the market by actual trading to really form an opinion of the future that is worth a cent. We are of the opinion, however, that the market will be stronger late in April or at the beginning of May. This in regard to red wheat, which some people are figuring out as being scarce. The report of wheat in farmers' hands, issued by the United States Department of Agriculture, is not a bull document, but some of the experts figure from it that No. 2 red wheat is scarce anyway.

All of our readers will find it to their advantage to obtain a package of post cards before sitting down to read The National Farmer and Stock Grower. The cards should be used for the purpose of writing to such advertisers as invite farmers to do so. The incubator catalogues, for instance, also the seed catalogues and the agricultural college and experimental bulletins mentioned in this paper. Agricultural implements also should be studied with the catalogues, so as to receive the benefits of the manufacturer's claim for superiority and new points of excellence. We wish our friends and patrons to have the benefit of all that will be a guide in their business of farming in all its branches, and a postal card will be found quite useful in this connection.

The High Cost of Bulls.

Years ago native bulls in the cattle market used to sell at $2.50 to $3.25 per 100 pounds, and thousands of Texas bulls sold at $2.00 to $2.50. Right now native bulls are selling at $6.25 to $7.25 per 100 pounds; at least that is what 980 to 1,510-pound native bulls sold for at St. Louis a few days ago.

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Our 23 big "Star Brand" factories employ over 10,000 expert shoemakers and produce over 15,000,000 pairs a year. The more we make, the less it costs to make them. You get the benefit of the saving.
Most of the medium-priced shoes for women contain paper and other substitutes for leather, but the "Society" is honestly made of finest leather. No substitutes are ever used.
"Society" and other "Star Brand" shoes are sold by 20,000 good merchants. Don't just go into ANY store and ask for them, but hunt up the "Star Brand" dealer or write to us for name of nearest merchant who sells them.
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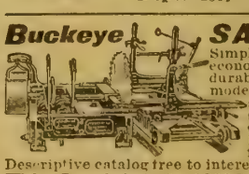
Fish Bite
Like Hungry Wolves, Fill your Nets Traps or Trot Lines if you bait with
MAGIC-FISH-LURE.
Best bait ever used for attracting all kinds of fish. Write for price list to-day and get a box to help introduce it. Agents wanted.
J. F. GREGORY, Dept. 136, St. Louis, Mo.

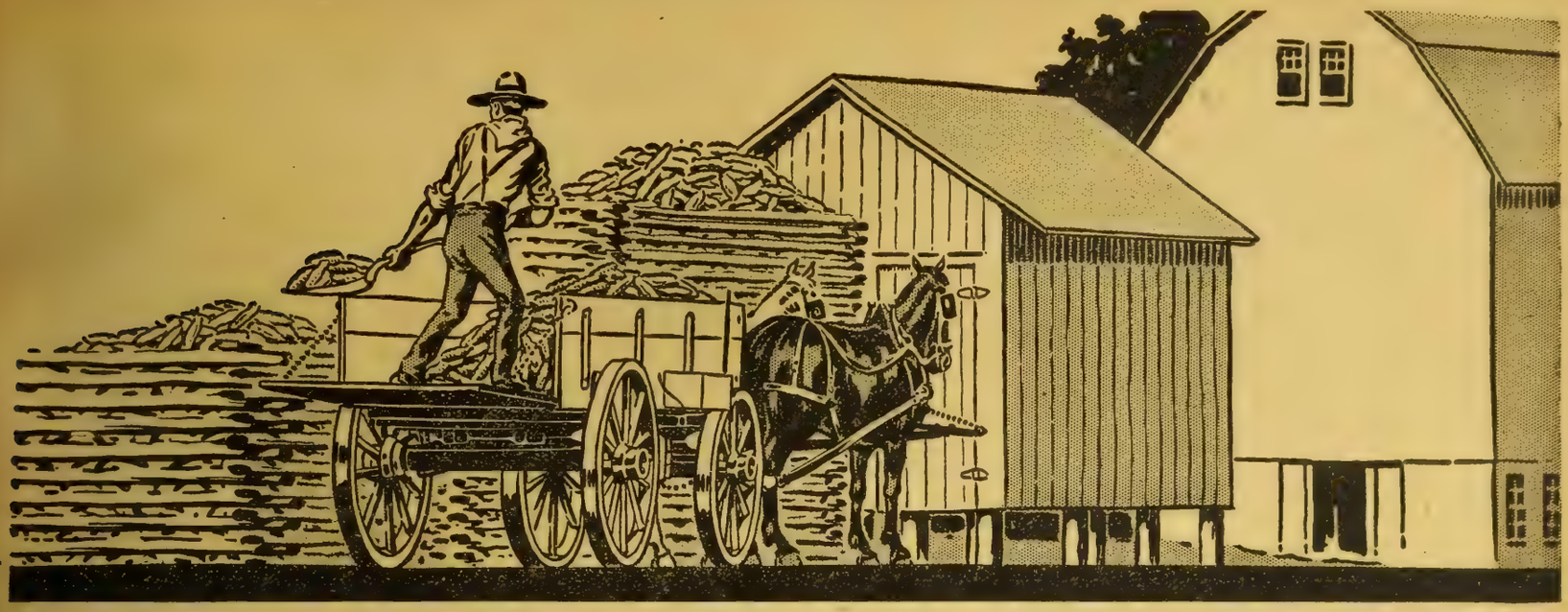
Buckeye SAW MILL



Simple in construction, economical in power, durable in every part and moderate in price. Guaranteed the Most Up-to-Date Saw Mill on the Market. ALSO, Engines & Boilers for Saw Mill work. Descriptive catalog free to interested parties. Write Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Silo Owners REMEMBER that proper cutting and filling are as important as the Silo itself.
The Dick Blizzard Ensilage Cutter, with very large capacity, works steadily, takes whatever is fed to it without a hitch, and outlasts any machine of its kind. It is the most profitable machine to buy and is fully guaranteed.
Free Catalog, with full information, on request.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Stover HIGH GRADE *Gasoline Engines*
From 1 to 60 h. p. Circulars & prices on application.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.



Corn is our greatest Crop

It is worth more than any other crop
It costs more than any other crop

A big item in this cost is over one hundred million dollars' worth of actual potash, which the corn crop takes from American soils every year—more than eight times the total importations of

POTASH

The corn plant uses over a pound and a quarter of potash for every bushel of ears produced.

It uses more than twice as much potash as phosphoric acid.

Supplement the manure or clover sod by 400 to 600 lbs. per acre of a fertilizer containing at least as much potash as phosphoric acid—0-8-8, or 0-8-10, or broadcast 300 lbs. acid phosphate and 100 pounds muriate of potash per acre after plowing and before harrowing, and drill in with the seed 100 lbs. per acre 2-8-8 goods. On muck lands broadcast 100 to 200 lbs. muriate of potash per acre.

To drive away cut worms and root lice, drill in 100 lbs. Kainit per acre with the seed. Potash makes more sound ears in proportion to the stalks. It makes much more and much better corn for either crib or silo. **Potash Pays.**

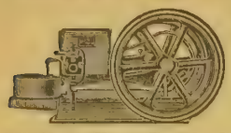
We sell potash in any amount from one 200-lb. bag up.

Write for prices and for free pamphlets on profitable use of fertilizers

GERMAN KALI WORKS, Inc., 42 Broadway, New York

Chicago, Monadnock Block New Orleans, Whitney Central Bank Bldg. Atlanta, Empire Bldg. Savannah, Bank & Trust Bldg. San Francisco

Gasoline Engines



Sold Direct to You at FACTORY PRICES

60 Days Free Trial—You Run No Risk

The Witte is conceded the best engine in America. Made by E. H. Witte, master builder for 25 years. Ask any Witte user. Any size from 1½ to 40 horse-power all tested to ten per cent overload. 61 special advantages.

And You Now Pay Only FACTORY PRICE

We cut out all dealers—their profits go to you. You also get the full benefit of our low factory cost. We have no power expense at our plant, as we own our gas well; testing, heating, lighting fuel, all free. Take a 60 day trial. Five year guarantee. Write for book, "How to Judge a Gasoline Engine," and complete catalog. Our wholesale factory prices will interest you mightily. Write NOW, telling us size engine you need.

WITTE IRON WORKS CO.
1721 Oakland Ave. Kansas City, Mo.

The WITTE Cuts Gasoline Bills in Half

CAUGHT NAPPING.

What is Lost by Not Taking "a Stitch in Time."

Many of our losses are caused by the fact that we are so often caught napping. A man could be named who has within two years about lost a fine currant plantation because he has waited every year till the currant worms were on his bushes before beginning to spray with hellebore. He had resolved that each year he would spray before the first insect appeared, but in some manner the insects got ahead and performed their deadly work before the owner of the plantation awoke to the danger. It will take years of careful nursing to bring that man's small fruit garden back to its original thrift, for the imported currant stalk borer has already annihilated a good many clumps of bushes, taking everything down to the root.

A man that owns a fine apple orchard was unwise enough not to spray his orchard in the years when the fruit crop was light. He was caught napping by the insects and his whole orchard suffered. When the first full year did come the trees had been lessened in vigor by the insects and the attacks of the insects were severe, because so many of the insects had lived over from the previous year. Spraying both for fungoid diseases and for insects should be done every year on a fixed schedule, fruit or no fruit. One orchardist of large affairs says that he took an old orchard and sprayed it for years before he saw the result in the relief from insects and fungous diseases.

Last year a big strawberry grower in Indiana got caught napping on his strawberry boxes. When the berries began to ripen he found that he had an immense crop—acres and acres of berries. In despair he went to a nearby city and advertised in the papers that anyone that would pay him a cent a quart could come and pick their own berries. He had worked for years to produce a big crop of berries and then by being caught napping lost much of the benefit from it.

The farmers in a good many localities are caught napping when they produce a great deal of farm live stock or field crops and do not get together and organize for the marketing of their products at the best advantage. That such organizations can be made a success is illustrated by the success of co-operative selling societies in Denmark and other European countries, and also in our own state of California. Shipping blindly to commission houses in the large cities is a way not to make money out of farm produce, unless the commission man is one known to be strictly honest and fair in his dealings with all the interests with which he comes into contact.

The farmer that cannot be caught napping is the one who succeeds. The farmer has many natural enemies, who are watching to catch him napping. The armies of the weeds are watching him, that they may steal upon him unawares. The borers are lying low, waiting for a chance to get at his fruit trees. They got three hundred pear trees on a Michigan farm in a recent season, and the truth was not found out till the following spring. This winter, where the snow lies deep in the orchards, the field mice and rabbits will find some owner sleeping, and when he wakes from his nap he will find that many of his young trees have been girdled and ruined. The farmer cannot afford to take very long naps.

Soil Inoculation Best For Alfalfa Seeding.

"Where the soil is very rich and properly drained, alfalfa may grow without inoculation, although in that case the plant takes its nitrogen from the soil instead of from the air," says Prof. R. A. Moore, of the Agronomy Department of the College of Agriculture of the University of Wisconsin. Wherever sweet clover grows abundantly, however, alfalfa will be inoculated naturally, as the alfalfa and sweet clover bacteria are the same. When there is any doubt regarding the presence of the proper alfalfa bacteria, soil from an old alfalfa or a sweet-clover field may be used.

For best results one ton of earth per acre should be scattered immediately preceding the sowing of the alfalfa seed. When there is no soil available within convenient hauling distance, the best plan would be to secure a 100-pound sack of alfalfa soil from the Agronomy Department of the College of Agriculture of the University of Wisconsin. This should be scattered on about eight or ten square rods of the field and the plot then sown to alfafa. The year following the seeding, soil can be taken from this patch where the infected soil was scattered, and used for the inoculation of larger areas. Another plan would be to mix the infected soil with the alfalfa seed, by which method a small amount of soil will inoculate a considerable area.

Several commercial firms are advertising for sale pure cultures of inoculating bacteria for alfalfa, but field tests carried on by the college show too much uncertainty at the present time to warrant the purchase of these cultures at the current rate. Where the soil is acid an appplication of two tons of ground lime rock or one-half ton of hard-wood ashes will materially help in getting a good catch of alfalfa.

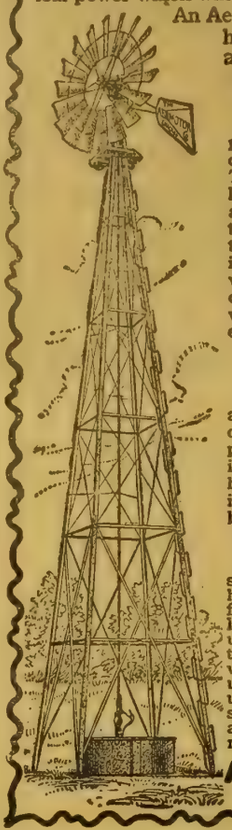
The County Farm Adviser.

We are always glad to receive the monthly bulletin issued by the Missouri State Board of Agriculture. The January number is especially interesting. The January bulletin is devoted to the subject of explaining the matter of employing a Farm Adviser, with particular reference to the Pettis County (Missouri) Bureau of Agriculture and the work of S. M. Jordan, who accepted the position of Agricultural Adviser for Pettis county on April 15th, 1912, he being the first man in Missouri to undertake work of that kind. The bulletin gives the full interesting story of the county organization in the first place, the manner in which the funds were provided, including $1,000 generously donated by the President of Sears, Roebuck & Co., through the Council of American Grain Exchanges.

The introduction to the bulletin is written by Mr. T. C. Wilson, Secretary of the State Board of Agriculture, and the main subject is an account by Mr. Jordan of the first short year's operations, the manner of organizing, the actual work done, duties of the Farm Adviser, accounts of meeting held, illustrations of farm scenes, etc. All who are interested in this subject and who wish to obtain more light upon the "Farm Adviser" movement will find the bulletin most interesting and instructive reading. A free copy can be obtained by farmers in any state by asking Mr. T. C. Wilson, Secretary, Columbia, Mo., for a copy of the January Agricultural Bulletin.

Water to Float a Navy

If all of the water which has been pumped by Aermotors could be collected in one great body, it would form a sea on which all the navies of the world could maneuver. But you do not have to pump oceans of water to supply your own needs. What you want is some reliable and economical power which will supply plenty of water for your house, barn and fields. An Aermotor of suitable size erected on a tower of proper height will do the work for you without bother or worry and with practically no expense.



Power for Pumping

It costs nothing for power if you use an Aermotor to do your pumping. More water is pumped by Aermotors for stock and domestic purposes than by any other kind of pumping machinery. They do their work silently, surely and satisfactorily. Aermotors have been pumping water faithfully for the past 25 years. Go to any part of the inhabited world today and you will find the Aermotor there ahead of you. From Alaska to Patagonia, from Hongkong to Liverpool, from Siberia to the Cape of Good Hope and on all the islands of the sea you will find them. You cannot travel far today without seeing an Aermotor standing out as the most prominent object in the landscape. Aermotors have gone everywhere because wherever they have gone they have been found to be the most economical, and most reliable device for pumping water.

Count the Cost

The price of gasoline has taken a big jump. It is likely to go up again any day. The air is free and the supply is inexhaustible. No one can corner your source of power if you use an Aermotor for pumping water. The first cost of an Aermotor is small, the upkeep is almost nothing, the service is most satisfactory. Anyone who has used an Aermotor will never be satisfied with any other pumping device. It was the first steel windmill and has always been the best. Aermotor Galvanized Steel Towers are best, too.

"Storage Solves the Water Problem"

We have just issued a large hanger, 16 x 44 inches, on the above subject. It contains over 100 pictures of Aermotor outfits which have been pumping water for the farmers of one community for from 1 to 20 years. These pictures have been made from the finest lot of farm photographs that have ever been taken. If you will put up one of these hangers in your living room it will be the most talked about object there. It is 100 pictures in one and each individual picture shows a prosperous farm where the Aermotor is used for supplying all the water required. This hanger gives valuable information about the storage of water for household and stock purposes. You should certainly have one. It is free for the asking. Just one word "Hanger" on a postal card, with your name and address, will bring it.

Aermotor Co. Twelfth Street and Campbell Avenue, **Chicago**

[Please mention National Farmer and Stock Grower.]

Empire Fertilizers.

Every farmer should know something about fertilizers. It is the easiest experimental work in the world—one field fertilized, another one not; both the same soil, the same seed bed, the same time of planting, the same cultivation, the same season, the same method in harvesting. Compare one with another. Write to the Empire Carbon Works, 421 Locust street, St. Louis, Mo., for a book on fertilizers, with formulas for all crops. Use some of these fertilizers and get your experience, so that you may know if it is profitable, and to what extent it is profitable, to use commercial fertilizers. Write for the book anyway. It costs nothing, and it will teach you something.

The American Swineherd.

We have been requested by our patrons and friends to arrange a club whereby we can offer them a swine raiser's paper as a premium with The National Farmer and Stock Grower, and we have succeeded in doing so. **The American Swineherd** is published monthly, and is usually a seventy-two-page, three-column paper, splendidly edited from practical standards and always interesting from the very beginning to the end. It is a satisfactory paper, and all who subscribe are very much pleased with it. We have entered into a co-operative arrangement with the publishers of **The American Swineherd,** whereby we can offer for a limited time The National Farmer and Stock Grower and **The American Swineherd,** both papers, for the price of one. Anyone who will send us a money order for fifty (50) cents in answer to this proposition will be supplied with both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE BEEF SUPPLY.

Not So Much For Export—A Large Number of Cattle Come in and Pay a Duty For the Support of Our Government.

A statement was issued from Washington, D. C., in order to show the decreased number of cattle in the country. It was shown that the number of cattle exported in the eight months ended with February, 1913, was 12,656 head, against 270,219 head in the corresponding months of 1907, and the quantity of fresh beef exported was but 4,709,047 pounds, against 175,806,649 pounds in the corresponding months of 1907.

That this shortage in the exportations is due in part at least to an actual reduction in the number of cattle in the United States is evidenced by the fact that the total number of cattle on farms, according to figures of the Department of Agriculture, was on January 1, 1913, but 56,527,000, against 72,534,000 on January 1, 1907.

Still further evidence of the demand in the United States for an increase in its cattle supply is found in the figures of the Department of Commerce, which show an enormous increase in the importation of cattle, the number imported into the United States in the eight months ended with February, 1913, being 222,000 head, against 12,500 head in the corresponding months of 1907.

The table which follows shows for the years 1907 and 1913 the number and value of cattle on farms in the United States, the number and value of those imported, the number and value of those exported, and the quantity and value of fresh beef exported, the import and export figures relating to the eight months ended with February of the years named:

Cattle.

	1907.	1913.
Number on farms January 1	72,534,000	56,527,000
Number imported eight months	12,513	222,000
Value imported eight months	$271,892	$3,680,000
Number exported eight months	270,219	12,656
Value exported eight months	$21,622,260	$759,491

Fresh Beef.

	1907.	1913.
Pounds exported eight months	175,806,649	4,709,047
Value exported eight months	$16,310,068	$595,228

THE COMMISSION OF SEVEN

Appointed to Look Into the Matter of European Farm Credits and Co-operative Loans.

President Wilson has appointed a Commission of seven men prominent in the agricultural field to conduct in Europe an investigation of agricultural credit systems and co-operative organizations among the farmers of those countries.

The men appointed by President Wilson are: Senator Fletcher, of Florida, President of the Southern Commercial Congress; Senator Gore, of Oklahoma, Chairman of the Senate Agricultural Committee under the new Senate organization; Congressman Moss, of Indiana, Chairman of the Agricultural Appropriation Committee of the House; Dr. Clarence J. Owens, of Maryland, Managing Director of the Southern Commercial Congress, and formerly President of the Southeastern Agricultural College of Alabama; Kenyon L. Butterfield, of Massachusetts, President of Amherst College, and a leader in agricultural development work; Dr. John Lee Coulter, of Minnesota, the government's expert on agricultural statistics; and Col. Harvie Jordan, of Georgia, President of the Southern Cotton Growers' Association, and former President of the National Farmers' Congress.

This Commission will co-operate with the American Commission on Co-operative Credit organized by the Southern Commercial Congress, which will visit Europe this spring. Both Houses of Congress have approved the efforts of the Southern Commercial Congress, and the action of President Wilson in appointing government commsisioners to co-operate with the Southern Commercial Congress's Commission is the first step giving the American Commission the status of a semi-official body. Upon its return from Europe the Commission is directed by Congress to submit a report on agricultural co-operation, particularly on co-operative credit systems. The Southern Commercial Congress now has all but twelve states, as well as four of the Canadian provinces, represented on its commission, so that it will be representative of the nation as well through the state delegates as through the Federal Commissioners The seven men appointed will represent the United States at the General Assembly of the International Institute of Agriculture at Rome, Italy, next May.

Read about the Book of Live Stock Champions on page 2.

No-Rim-Cut Tires 10% Oversize

Not Built Like Old-Time Tires

Goodyear tires of today are not built as they once were, nor as others build tires now.

Goodyear success is due to ceaseless advancement. Every increase in sales came through increasing mileage.

And now, after fourteen years of betterments, scores of our experts spend all their time on research and experiment.

How They Work

These men wear out, on a metered machine, hundreds of Goodyear tires.

To get our tread as we make it today, 40 formulas were compared—by actual metered mileage.

To get a fabric which would stand all strains, 200 fabrics were tested out, and mileage results recorded.

These comparisons have gone on for years and years. And they still go on night and day. For we know that no tire can lead in sales unless it also leads in mileage.

What They've Done

This research department cost us about $100,000 per year. On this year's output that's about five cents per tire.

But note the result:

All the remarkable mileage you get from Goodyear tires is due to this ceaseless improvement.

No-Rim-Cut tires—the tires that end rim-cutting—were developed in this shop. With the old-type tires, 23 per cent met with rim-cut ruin.

And from this shop came the 10 per cent oversize, which adds one-fourth to the average tire mileage.

Men Not Misled

In these days of odometers, men know which tire serves best. And that tire alone can outsell all others.

Under this test Goodyear tires have outsold every other tire in existence.

And the sales have doubled over and over, as the tires became better known. Last year's sale by far exceeded our previous 12 years put together.

That's the result on actual use, on hundreds of thousands of cars. And you'll adopt them, like the rest, when you once try them out.

Average Profit $2.90 Per Tire

Here's another reason why you get so much in a Goodyear tire. Our average profit last year was but $2.90 per tire.

Goodyear tires cost all the way from $15.55 to $104.95, according to size and type. The most popular size—34x4—costs from $32.95 to $37.90, differing with type and treads. And our average profit on all these tires was exactly $2.90 per tire.

That's why you get at the Goodyear price tires with so much mileage. Tires that can't rim-cut—oversize tires. This is due to the fact that so much of the cost goes into things that count.

No other tire in all the world offers you equal value.

GOODYEAR
AKRON, OHIO

No-Rim-Cut Tires

With or Without Non-Skid Treads

Write for the Goodyear Tire Book—14th-year edition. It tells all known ways to economize on tires.

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Branches and Agencies in 103 Principal Cities — More Service Stations Than Any Other Tire

We Make All Kinds of Rubber Tires, Tire Accessories and Repair Outfits

Main Canadian Office, Toronto, Ont.—Canadian Factory, Bowmanville, Ont.

Death of Dr. De Laval, Inventor of the Cream Separator.

Carl Gustaf Patrick De Laval, known throughout the world as the inventor of the cream separator, died on February 3d, in Stockholm, Sweden, his native city, at the age of 67 years.

Dr. De Laval was best known to fame for his invention of centrifugal cream separators and as the founder of the cream separator concern which bears his name.

His activities, however, were by no means confined to the development of the cream separator. He was one of the most prolific and versatile of the world's great inventors, and in addition to his invention of the first continuous cream separator he achieved notable success in various other fields of scientific endeavor and practical usefulness.

Shortly after his invention for separating cream from milk by means of a centrifugal machine in 1878 he invented the steam turbine which bears his name. Among other of his notable inventions were the milk tester, a centrifugal churn, an emulser, a mechanical cow milker, a new form of lamp, a frictionless vessel, an explosion-proof steam boiler and a process of extracting metals from ore by electrically-

DR. CARL GUSTAF PATRICK DE LAVAL, Inventor of the Centrifugal Cream Separator, Whose Death Was Reported in February.

developed magnetism; in fact, he was tireless in his activity in working out unsolved mechanical problems of every kind, and until the very last he continued actively at work in his experimentation of old and new projects, his brain as fertile and his energy as unremitting as ever.

Many honors were bestowed upon Dr. De Laval. From the King of Sweden he received the Cross of Commander of the Order of Wasa and that of Knight of the Order of the North Star. He was made a member of the Academy of Sciences in 1886 and received the Academy's Gold Medal in 1892. In 1896 he was made an honorary member of the Agricultural Academy in Sweden, and in 1904 the Engineers' Society of Germany unanimously awarded him a medal for his pioneer development of the steam turbine.

Few men have conferred more lasting benefits upon mankind than Dr. De Laval. The cream separator and the milk tester, both conceived by him, though further developed by others, have alone saved billions of dollars to the world's dairy interests and largely made possible the wide use of dairy products as we know them to-day.

Dr. De Laval well deserved the comparison so often made of him with our own great Edison. As the inventions of Edison have made possible the tremendous advance in the development of electricity and its practical application, so dairy machines invented by Dr. De Laval have made possible the equally wonderful progress in the last twenty-five years in the field of dairying, and Dr. De Laval has rightly been called "the Edison of Dairying."

THE FEEDING OF ANIMALS.

Old Ways and New Ways—Old Conditions and New Conditions.

Vast interest, of recent years, is being manifested in the problem of increasing the yield of crops. The matter of feeding these crops so as to get the most pounds of butter-fat or flesh out of them is of no less importance. Just as some farmers are producing one-fourth to one-half larger yields per acre than their neighbors on land of equal richness, so some feeders and dairymen are producing one-fourth to one-half more pounds of flesh and butter-fat with the same number of pounds of feed, and ofttimes with the same quality and type of animals.

Both animals and plants demand a balanced ration for the most thrifty, healthy, mature growth. That is to say, they must have a certain amount of nitrogenous or muscle-building matter in their food, a certain amount of carbohydrates or fat-building material, and a certain amount of mineral elements, viz.: iron, calcium and phosphorus, to make the greatest possible use of their entire ration. Take, for instance, the growing of corn on marsh or muck soil. Often there is enough nitrogen to grow many hundreds of large crops, but only a very few corn crops can be raised on these soils without the application of fertilizer. The mineral constituents, phosphorus, potassium, lime, magnesium and iron, available to plants in such soils, are comparatively low, and in order to produce satisfactory crops some of these elements, principally potash and phosphorus, must be supplied to the soil. The plant food of such soils is said to lack "balance."

An analogous case to this is the feeding of fattening animals on a ration of corn and such "roughage" as straw, prairie hay and corn fodder. Large quantities of fat-building material are consumed by the animal in this ration, but very little protein or muscle-building matter. The mineral constituents are also low. This, then, is an unbalanced ration, and it certainly could not be fed so as to get the greatest possible returns from it. In this case the corn ration should be supplemented with some feed material running high in protein, like alfalfa, cowpeas, clover and cotton cake. In the case of hog feeding, tankage should be used, if a clover or alfalfa pasture is not to be had. In addition to raising the protein content of the ration, leguminous hays also supply considerable quantities of minerals, particularly lime and phosphorus, which are so necessary in the ration of young, immature fattening animals.

Not many years ago, in large numbers of Western feed lots, the method of feeding followed locally-established customs or was largely a guess as to its merits. To-day most feeders are able to work out properly-balanced rations, and, in the case of mixed farming, crops are so planned as to afford the right material for a balanced ration.

An old practice of the Missouri feeder, when feed was abundant, was to purchase his stock cattle in the fall. These were usually picked up in his own neighborhood; sometimes, however, the Kansas City or Omaha market was resorted to. Stalk fields, fodder, hay and straw were purchased for fall and winter feed. As one stalk field gave out the cattle would be driven to another until the weather became severe, and then hay and fodder with some corn was fed until January or February. The corn ration would then be raised slowly to a "full feed." Often wheat straw alone was used for a filler. Usually, however, these feeders had fine clover pastures coming on, and as soon as the danger of frost was over and the clover had gotten a good start the cattle were "turned in." At this time, if the cattle were on "full feed," the corn ration was usually lowered and the clover became a substantial part of the ration. Later, as the cattle adjusted themselves to the grass and clover, they were given all the corn they would "clean up." This remained the ration until the new corn reached or passed the roasting-ear stage, when green corn fodder was introduced. This feed was slowly increased until the old corn was largely replaced. After the fodder lost its succulent character the corn was pulled from the stalk for feeding. Old corn was used again only for the last two or three weeks of the feeding period, which lasted over a year.

Many good cattle were produced that way, and much money was thus made. But there are few good stalk fields to be purchased these days. Corn is gathered closer and not many farmers would have stock in their stalk fields throughout all kinds of weather. Neither straw nor corn fodder can be purchased as readily. Very few pastures of any kind can be rented. Therefore, much of the cheap feed of ten years ago cannot be had at any price now. As a result, fewer cattle are going on feed. The lack of rough feed has cut down the number of cows, and, therefore, the local steer supply is reduced also.

It is now the time to double the yield of crops and to so combine these crops as to make rations which will produce the greatest possible number of pounds of flesh or of butter-fat, as the case may be.—Roy C. Bishop.

GET Longer Better & More WOOL

HIGH SPEED EASY ACTION

that will net you from 15c to 20c more on every sheep you shear with a Stewart No. 9 Machine. Don't labor with hand shears, in the old, hard, sweaty way. Don't have aching, swollen wrists. Don't scar and disfigure your sheep with uneven shearing and spoil the wool with second cuts. Take off the fleece smoothly and quickly in one unbroken blanket with a

Stewart No. 9 BALL BEARING Shearing Machine

and get a length and quality of wool that will bring the highest price. The Stewart runs so easily a child can turn the handle while you shear. Extra profits soon pay for it. It's the most perfect hand operated shearing machine ever devised. Has ball bearings in every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern. Price complete, including 4 combs and 4 cutters of the celebrated Stewart pattern, only ..... PRICE $11.50

Get one from your dealer, or send us $2.00 and we will ship C.O.D. for the balance. Money and transportation charges back if you are not pleased with it.

CHICAGO FLEXIBLE SHAFT COMPANY,
182 Ontario St. CHICAGO, ILLINOIS

Write for FREE catalogue showing most complete line of Sheep Shearing and Horse Clipping Machines.

The Best for Clipping Horses, Mules and Cows

Stewart Ball Bearing Clipping Machine

It's a valuable outfit that should be in every stable. Those who know the horse best have agreed that to clip him at the proper time improves him in every way. He looks and feels better, does more work, rests better and gets more good from his feed.

Insist on having the "Stewart." It's the easiest to turn, does the fastest work, stays sharp longer and is more durable than any other clipping machine made. Get one from your dealer, price only..... $7.50 or send us $2.00 and we will ship C. O. D. for the balance. Satisfaction guaranteed.

The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal**, both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Hogs Weighing Heavier.

The average weight of hogs marketed so far this year in St. Louis is 177 pounds, against 162 pounds during the same period last year.

WOOL MEN!

We can interest you. Do you know that St. Louis is a **Spot Cash** market? In 20 years we have handled **more separate lots** of wool, each season, than any other commission house here. Over **40 years' experience** in the business, and your shipments receive our personal attention. We guarantee **top prices, quick sales** and **prompt cash returns.** Write for our 1913 Wool Circular, giving full particulars and points in regard to the preparation of wool for market. Wool Sacks, Shipping Tags, Market Reports, etc., sent Free upon request.

Write what you have to offer. Estab. 1874.

A. J. CHILD & SONS, St. Louis, Mo.

[Please mention National Farmer and Stock Grower.]

The National Farmer and Stock Grower.

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FARMERS AND THE TARIFF.

What Congress is Likely to Do, and What Congress Will be Responsible For if the Protective System is Legislated Out of Business.

The National Farmer and Stock Grower is not a political paper, and we regret very much that protection of American farming, manufacturing and commercial interests, through the collection of customs duties, is considered a political question, when it really is an economic and business matter, one that cannot be decided in connection with social and sentimental questions that so largely influence the alignment of political parties.

We venture the assertion that if the people of the United States were permitted to vote on the tariff question alone, and not have it mixed up with all other subjects that divide people into parties, the vote on the tariff would be overwhelmingly in favor of the protection to American industries of all kinds through the imposition of custom duties, that would shut nothing out entirely but would collect some money for the support of the government on all raw materials and manufactured goods admitted from foreign countries.

In law making, Congress exerts a wonderful power, and it is often exercised unwisely and to the disadvantage of the American people. A case in point is the removal of the tariff on coffee, which enabled the foreign combinations to put up the price before the coffee reached our seaports and almost doubled the cost to the American importer and trebled the profits of the Brazilian syndicates that control the output.

Another example of misdirected legislation is taking the duty off hides, which has resulted to the benefit of the owners of foreign hides, who simply added the duty to the price. They paid the duties to the United States government when the duties were collectable by law, and put it in their own pockets when they found that the United States government had made them a present of it by admitting the hides free of duty.

We understand the general idea in Congress is that all they have to do is to remove the 1½-cent-a-pound duty on dressed meats, or the small duty that is paid on imported beef cattle, and then go round to the butcher shops and buy beefsteaks 10 cents a pound cheaper. They are entirely mistaken. They can make a present of the duties to the foreign syndicates engaged in the meat trade, but they cannot prevent them accepting and keeping the present. They can admit cattle on the hoof free of duty, but there the power of Congress ends. They can discourage the American farmer and induce him to get rid of his sheep, but they cannot get him to start up again. The wheat grower who has a nice old time producing wheat that will pay a profit of six to ten dollars an acre, under present circumstances, can easily be induced to quit raising wheat, but when Argentine and Canadian wheats come in on top of a good crop here and the market becomes demoralized for the time being, then look out for the farmer forgetting to sow the usual crop of wheat in this country.

Congress can do much damage, but cannot heal the sores again. People in the United States are not going to prosper on the money that goes to Australia for wool, or on the money that goes to Canada for wheat, or on the money that goes to Argentine for beef. We prosper on the money that is paid to our own people. It goes out and it comes back again. It gets into circulation. But the money that is sent abroad remains there, and our exports are not any larger from that source of revenue.

The farm productions of this country are ample for all purposes. One-half of the time our grain productions sell at prices that barely return the cost of production. There has never yet been a time when there was a bonanza in grain growing. Through years of low prices and sacrifice, cattle have for once reached what may be called high prices, but only because of the changes that on the one hand have destroyed cattle ranges, but the cattle ranges cut up into farms have not yet produced the maximum of beef. Year in and year out farm productions bring moderate prices, and the burdens of the consumer are not caused by the wholesale cost of anything the farmer raises.

We have no hesitancy in saying as our editorial opinion that the admission of farm products free of duty from other countries will gradually undermine the productive industries of this country. The change will not take place in a day, but we will soon be in the position of a family when the head of it gambles his earning away instead of taking the money home to his wife. Industrial enterprises will be in difficulties, for the reason that trade will be dull and wages high. Less people will be employed and many industries will be at a standstill. The farmer will be able to feed himself, but he will find himself short of money; he will practice economy and produce crops that cost the least for seed and the least cost for labor.

Farmers will remember that Canada saved us from the acts of our own Congress, so far as the bogus reciprocity bill was concerned, but we cannot expect to have Canadians refuse free trade when they are still able to conduct their own protective system. We cannot expect much assistance from manufacturers who are Protectionists, because they are usually Protectionists for themselves alone; and we cannot expect much help from anyone unless we do the work ourselves. Congress will finally have to accept responsibility for its acts, but that is away off. When great injury is done and cannot be undone, it is poor satisfaction to fix the blame, and that is all the recourse we will have.

In another column will be found an article entitled "Our Industrial Policy." If every farmer who is interested in this subject will address a Congressman and a Senator endorsing this policy it will be harder and harder to get a bill through Congress that will do away with the protective policy of the government, so far as the farming interest is concerned.

To Admit Wool Free of Duty.

Hon. Woodrow Wilson, President of the United States, and Hon. Wm. Jennings Bryan, Secretary of State, are reported to have secured an agreement with Congress to admit foreign wools into this country absolutely free of duty. The President has no vote; neither has the Secretary of State any vote; but they have much influence, and they may succeed in depriving our government of twenty million dollars annually in revenue and in presenting it to the owners of foreign wools. The inevitable decrease in wool and mutton production in the United States will lay at their door.

At the St. Louis market, full loads of native stock steers averaging 638 to 896 pounds sold at $5.00 to $7.75 per 100 pounds.

CLASSIFIED ADVERTISEMENTS.

AGENTS! Wake up! Get busy! Send $10. Get new 36-lb. Feather Bed with 6-lb. Pair Pillows **Free!** Start right in making money, big money. Everybody buys. All women enthusiastic. Say best bed and pillows ever offered. New feathers. Best ticking. **Freight prepaid on all. Satisfaction guaranteed.** Live agents making big profits with easy work. Reference: Commercial National Bank. **Write to-day. TURNER & CORNWELL, Dept. 73, Charlotte, S. C.**

AGENTS—$173 IN TWO WEEKS, MADE by Mr. Williams, Illinois, selling the Automatic Jack. Combination 12 tools in one. Used by auto owners, teamsters, liveries, factories, mills, miners, farmers, etc. Easy sales, big profit. Exclusive county rights if you write QUICK. **Automatic Jack Company, Box O, Bloomfield, Indiana.**

FREE!—Big book on poultry of all varieties, and hatching eggs at bargain prices. **THE BELGRADE POULTRY FARM, Box 300, Mankato, Minn.**

AGENTS—$173 IN TWO WEEKS, MADE BY MR. WILLIAMS, Illinois, selling the Automatic Jack, Combination 12 tools in one. Used by auto owners, teamsters, liveries, factories, mills, miners, farmers, etc. Easy sales, big profit. Exclusive county rights if you write **QUICK. Automatic Jack Company, Box O, Bloomfield, Indiana.**

GOOD BOOKS AND PAPERS.

AUTOMOBILE AND BUGGY CATALOGUE.—This is the fifth year the Elkhart Carriage and Harness Manufacturing Company, of Elkhart, Ind., have been manufacturing automobiles. Many of our readers have dealt with this company for a great many years, and if you are interested in cars it will no doubt be to your advantage to write for their catalogue. This catalogue shows photographic views of all their models and gives you the standards by which to value any car. Their advertisement is in this paper.

CONSERVATION OF SOIL FERTILITY.—This is a booklet on plant growth and plant food; it is a clear-cut, well-supported statement in regard to the use of commercial fertilizers to increase crop yields with profit to the farmer. It is by Prof. Emmons B. Dunbar and issued free by the International Agricultural Corporation, Buffalo Fertilizer Works, Buffalo, N. Y.

ALFALFA PRODUCTION.—There are many good books on the subject of Alfalfa, but there is one to be had by simply writing for it that covers the entire subject. It only consists of eighteen pages and yet so thoroughly does it instruct in the planting and care of Alfalfa it can be called a "gold mine." It shows how valuable a crop Alfalfa is, the Alfalfa advantages, history and distribution, seed bed preparation, plant food required, bacteria a great help, where lime is required, the nurse crop, car of the plant, points in making hay, top dressing, Alfalfa as a pasture, machinery for Alfalfa, and a grand summary of points in growing Alfalfa. The booklet on Alfalfa growing can be had free by addressing Middle West Soil Committee, Department Q, Postal Telegraph Building, Chicago, Ill.

AUTOMOBILE INSTRUCTION BOOK for the operation, care and adjustment of Overland automobiles. This is a splendid book of instruction and should be obtained and carefully studied by all who intend to buy automobiles. It is a publication of a hundred pages of unusual completeness and gives a clear insight to the mechanical perfection of the Overland car. Every part is clearly illustrated. Any of our readers can obtain a copy by writing to the Willys-Overland Company, Toledo, Ohio, and asking for it. Please mention this paper when writing.

ECONOMICAL IRRIGATION BY PUMPING.—This is a most elaborate and splendid book issued by the American Well Works, of Aurora, Ill. The illustrations show different methods of irrigation on a large or small scale, pumping from deep and shallow wells and from rivers and reservoirs, together with the pumping arrangements for the small farmer to the elaborate district equipments providing water for many irrigated farms. It shows how the wells are bored, the different types of wells, and every possible information concerning horse power required to raise water to different heights. Interested farmers should mention The National Farmer and Stock Grower and write to the American Well Works, Aurora, Ill., for a copy.

Get A Canadian Home In Western Canada's Free Homestead Area

The Province of **Manitoba** has several New Homestead Districts that afford rare opportunity to secure **160 Acres** of excellent agricultural land **FREE.**

For Grain Growing and Cattle Raising

this Province has no superior and in profitable agriculture shows an unbroken period of over a quarter of a century.

Perfect Climate; Good Markets; Railways Convenient; Soil the very best, and social conditions most desirable.

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or write Superintendent of Immigration, Ottawa, Canada.

FARM AND RANCH LANDS.

KANSAS.—Forty acres of fine land, fully water stocked in the Farmers' Ditch. Every acre can be irrigated. All in cultivation. Small house and stable. Only two miles from the Sugar Factory. Unincumbered. Price, $100 per acre. Will give easy terms, or trade for good cattle. **Niquette & Bosworth,** Garden City, Kas.

MICHIGAN.—WE SELL OCEANA FARMS —Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

MISSISSIPPI.—Rich, level, cleared lands in MISSISSIPPI. Best locality in the country for stock, clover, corn, grasses, etc. Long grazing season. Near railroad. Prices very low. Pay you to invest here. **Jarnagin & Co.,** Goodman, Miss.

TEXAS.—Wanted, one thousand (1,000) white families to settle in Harrison county. Fine lands cheap. Plenty rainfall, timber, railroads, rural routes, churches and schools. For information, write **Young Men's Business Club,** Marshall, Texas.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property **FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Building, Chicago.**

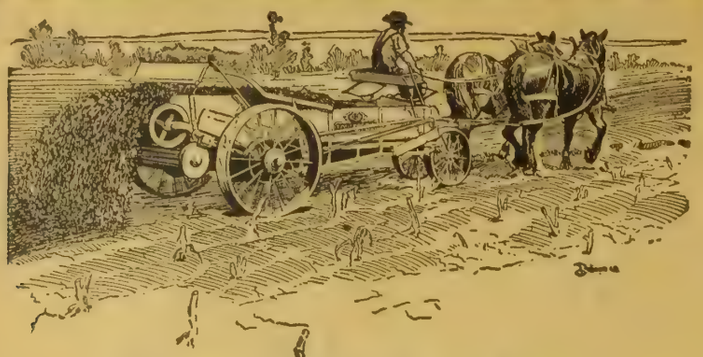
WANTED to hear from owner who has good farm for sale. Send description and price. **NORTHWESTERN BUSINESS AGENCY, Minneapolis, Minn.**

GO SOUTH SIR! **Buy Farm Land** **AND PROSPER**

at $10 an acre and up. Southern Ry., M. & O. R. R. and Ga. S. and Fla. Ry. Values rapidly advancing. Low rates to Growing cities demand more farm produce. Beef, poultry and dairy products bring big money. Big crops in apples, truck, alfalfa, corn, cotton. Great industrial openings in all parts of the South. Write for Field Magazine, land lists, and state booklet—Free.
M.V. RICHARDS, L. & I. Agt., Room 71, Washington, D.C.

SPLENDID LINE OF FENCE WIRE.

The readers of our paper who are needing farm fence, poultry fence or barbed wire will find it to their advantage to secure the catalogue of the Coiled Spring Fence Company. Write them your request on a postal card and they will mail the catalogue to you free. This company sells direct to the farmer at money-saving prices. Their ad. appears elsewhere in this issue. Address, Coiled Spring Fence Company, Box 256, Winchester, Ill.



Your Soil Is Alive

TO all intents and purposes, soil is alive. It breathes, works, rests, it drinks, and, most important of all, it feeds. It responds to good or bad treatment. It pays its debts, and pays with interest many times compounded. Being alive, to work it must be fed. During the non-growing seasons certain chemical changes take place which make the fertility in the soil available for the next season's crop. But this process adds no plant food to the soil. Unless plant food is added to soil on which crops are grown, unless the soil is fed, in time it starves. There is one best way to feed your soil. Stable manure, which contains all the essentials of plant life, should be spread evenly and in the proper quantity with an

I H C Manure Spreader

I H C manure spreaders are made in all styles and sizes. There are low machines which are not too low, but can be used in mud and deep snow, or in sloppy barnyards. They are made with either endless or reverse aprons as you prefer. Frames are made of steel, braced and trussed like a steel bridge. Sizes run from small, narrow machines for orchard and vineyard spreading, to machines of capacity for large farms. The rear axle is placed well under the box, where it carries over 70 per cent of the load, insuring plenty of tractive power at all times. Beaters are of large diameter to prevent winding. The teeth that cut and pulverize the manure are square and chisel pointed. The apron drive controls the load, insuring even spreading whether the machine is working up or down hill, or on the level. I H C spreaders have a rear axle differential, enabling them to spread evenly when turning corners.

A local dealer handling these machines will show you all their good points, and will help you decide on the one that will do your work best. Get literature and full information from him, or, write

International Harvester Company of America
(Incorporated)
Chicago U S A

Crossing the Bull For the Dairy Herd.

"In selecting a bull to head the dairy herd, it is not enough that the animal be a pure-bred and registered bull," says George R. Samson, Instructor in Animal Husbandry at the Oregon Agricultural College. "He should be both of these, it is true, but in addition he should be from an Advanced Registry dam. If this is impossible because there are no Advanced Registry cows in the locality, the bull should be the calf of a cow which is known to be a fairly heavy milker, a high tester, and a persistent milker. His sire should be a Register of Merit animal, if possible.

"The animal which is being selected must be a good representative of his breed, and strong in constitutional vigor and masculinity. If he is old enough to be considered a tested sire—that is, if he has daughters which have been milking for a year—it should be seen that his offspring have uniformly inherited the excellent qualities of their sire.

"When selecting a new herd bull one should not be in too big a hurry to get rid of the old one until his heifers have shown their quality. Know, if possible, what the old one has done, as well as what the new one probably will do, before the change is made completely."

SELLING THE CREAM.

The Most Remunerative and Easiest Branch of the Dairy Business.

At first, every man to his inclination; and last, every man to what his experience tells him, is best. Investigating the dairy business can be done without asking questions. All you have to do is to look on. It is not the most laborious work in dairying that pays best. Buttermaking on the farm is the most laborious, and is profitable only when large capital is employed and the operations are comparatively on the basis of a small creamery; milking cows and selling the whole milk is easier than buttermaking; but milking cows, selling the fresh cream and feeding the skim milk to pigs and calves, compared with farm buttermaking, is a perfect luxury.

We have a case in mind: Mr. J. C. Hopkins, of Greene county, Ill., was the first dairyman to sell certified milk in St. Louis. He had the perfect product and could not sell it at wholesale at a reasonable price; he therefore determined to retail it himself. He opened a milk depot on the principal street of St. Louis, and from this place he proceeded to build up a first-class retail delivery trade. This, to all appearance, he did successfully, first selling his own milk and then buying more milk from other farmers and selling it also. He was in a fair way to become one of the few large city milk and dairy product distributers. He was constantly increasing his city operations, when all of a sudden he sold out his city business to one of the large dairy distributing concerns and he contracted his milk output for a limited time at a satisfactory figure. Then, said he: "Let them do the distributing and send me a check." He had built up a milk trade in a high-quality product and then, becoming a dangerous competitor for the best city trade, he obtained what he wanted in the first place.

But producing certified milk is expensive, inasmuch as all farm operations have to be keyed up to a certain sanitary excellence, and when his contract for a certain price expired, certified milk was plentiful in St. Louis and it was up to him to sell his milk for less money. Then, instead of going back to the retail distribution again, he cut out the whole-milk delivery, separated his cream, kept the skim milk at home and only contracted his cream. He has a good class of cows; the butterfat production is above the average; he keeps up the quality of his product and takes life easier—but with no less money.

The following is what he said when he was interviewed on the subject: "I am not certain that the production of cream is proving more profitable than the certified-milk business, but it is more satisfactory in several respects. Our greatest obstacle in the certified-milk business was securing men who were willing to take the care necessary in handling the product. It is almost impossible to make the average farm hand understand that absolute cleanliness in the dairy is absolutely essential in order to keep down the bacterial count, so that milk can be certified. In producing cream it is not necessary to employ so many men, and our labor bill is not so large. While we were selling milk we had to haul a big, heavy load to town every day, no matter what were the conditions of the weather or roads. A much smaller bulk is handled when we sell only cream, and generally we do not have to deliver the product more than two or three times a week. By producing cream we have all the milk for feeding to the young stock on the farm, and this is, in itself, a very important and desirable thing. We generally had no trouble in keeping men enough, but the help problem indoors was a very serious one. It was almost impossible to keep competent help in the house, and, therefore, the burden on the women of the household became too great. We had to plan in some way to get along with fewer men and the method we are following now seemed to offer the solution of this problem."

The Value of Steel Wheels.

One of the most practical, serviceable and economical departures in modern agriculture has been the introduction and constantly-growing use of steel wheels for wagons. Only a few years ago the Electric Wheel Company entered upon the manufacture of this efficient equipment for farm vehicles. Yet so thoroughly has the value of the steel wheel been proved, and in so many ways, that its liberal use throughout the country is not surprising.

Whether for changing the old wagon into a low-down farm truck, thus making a handier, lighter-draft wagon with tire troubles eliminated; whether for making a vehicle easier to haul in soft fields and on muddy roads; no matter what the purpose in using wide-tired wheels, they have always demonstrated their real economy.

It is estimated that broad-tired steel wheels have a draft from 30 to 100 per cent. lighter than the ordinary narrow tires. The old wagon can be made as good as new with a set of steel wheels. The Electric Wheel Company has a catalogue describing these wheels and their uses, and will be glad to send the book to farmers who write for it. Address, Electric Wheel Company, Box 40, Quincy, Ill.

Ravenous Rabbits.

It has been computed that eight or ten rabbits eat or destroy as much grass as one sheep.

$15.95 AND UPWARD

AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for $15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Gears thoroughly protected. Western orders filled from Western points. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address:

AMERICAN SEPARATOR CO. Box 1102 BAINBRIDGE, N.Y.

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The "Clean Out" in the base of our engine does away with grease and dust and eliminates fire danger

We make NO CHARGE for our experience of fifty years, "PERKINS" on our goods stands for QUALITY the world over. Catalogue Free. Write us about

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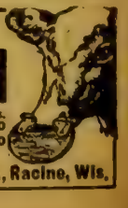
LET CALVES RUN WITH THE COWS

HUMANE CALF WEANER



	Each	½ Doz.	1 Doz.
Regular Size, 25c.		$1.25	$2.00
Large Size, 35c.		1.85	3.00

Agents wanted. Post paid.

Jacobsen Farm Supplies, Dept. A, Racine, Wis.

DE LAVAL CREAM SEPARATORS

No Excuse for Any Cow Owner Being Without One

There is no reason why any cow owner who sells cream or makes butter should be without a cream separator and there is no excuse why he should not have the best separator.

Any creameryman or experienced dairyman will tell you that a good cream separator will give you a great deal more and a great deal better butter than you can make with any gravity setting system, and equally, of course, more and better cream, if you are selling cream.

The DE LAVAL is acknowledged by creamerymen and the best posted dairymen the world over to be the **World's Standard"** and the one and only separator that always accomplishes the best results possible and always gives satisfaction.

You cannot make the excuse that you can't afford to buy a De Laval, because it will not only save its cost over any gravity setting in six months and any other separator in a year, but is sold either for cash or on such liberal terms that it will actually pay for itself.

A little investigation will prove to you that the truth of the matter is that you really can't afford to make cream or butter **without** the use of a DE LAVAL cream separator.

The nearest De Laval local agent will be glad to demonstrate this to your own satisfaction, or you may write to us direct.

THE DE LAVAL SEPARATOR CO.

165 BROADWAY, NEW YORK. 29 E. MADISON ST., CHICAGO.

NAVY BUTTER KEEPS WELL.

Butter Made From Pasteurized Sweet Cream Classed in Highest Market Grade After Several Months in Cold Storage.

Two hundred and seventy-seven samples of butter packed for the navy last spring and summer were recently opened and examined by experts at the Department of Agriculture after having been kept in sold storage for from seven to ten months, and were found to be of fine quality, being graded as "extras," the highest market grade. The excellent keeping quality of this butter is attributed to the fact that it was made from pasteurized sweet cream.

The United States navy requires about 600,000 pounds of butter annually, which must be of high grade and good keeping quality, as it is sometimes necessary to provision a fleet for a cruise of several months which may extend to tropical waters. At the request of the Navy Department the Dairy Division of the Bureau of Animal Industry, Department of Agriculture, has prepared the specifications for the navy butter and supervised its manufacture in recent years.

The specifications call for fresh butter, made during the early summer from pasteurized sweet milk or cream; it must be strictly "extra" in grade when scored at the time of packing; the moisture must not exceed 13 per cent. in tinned butter and 14 per cent. in tub butter; and there must be no preservative other than common salt, the quantity of which must be between the limits of 2½ and 3¼ per cent. at the time of packing. The entire process of manufacture, packing, etc., must meet the requirements of the Dairy Division Inspectors, who have authority to reject any product that is not up to standard.

Navy butter in 1912 was all packed in five-pound tins, which are lacquered both inside and outside and hermetically sealed. This butter was produced in four different creameries located in three states—California, Minnesota and Pennsylvania.

The government inspectors took a sample daily at each creamery, and these samples were placed in storage at a temperature of zero or below. In order to test the keeping qualities of the butter the samples were taken out and scored when from seven to ten months old. The scoring was done by three experts independently, and the average scores ranged from 91 to 92½, the butter thus being in the grade known as "extras." The experts all agreed that it was a fine lot of storage butter, well made and very uniform.

The scientists of the Dairy Division have for several years been conducting experiments in making butter from pasteurized sweet cream as compared with that made from ripened or sour cream, and the results have demonstrated that butter made from sweet, pasteurized, clean-flavored cream is superior in quality and will keep longer in storage than butter made in the ordinary way.

Peerless Fencing and Gates.

Those farmers who have used Peerless Fencing for years and have come to know its quality will naturally have confidence in the claims made for one of the newer products of the Peerless Wire Fence Company, 242 Michigan street, Adrian, Mich.—the Galvanized Self-raising Gate. This gate was popular right from the start and sold well beyond the 10,000 mark the first year it was on the market. Hundreds of farmers have voluntarily written to the company, saying that it was the best gate they ever saw, and while it has many exclusive labor-saving features it is cheaper than the average steel and wire gates. For catalogue address Peerless Wire Fence Company, 242 Michigan street, Adrian, Mich.

Cost of Building a Creamery.

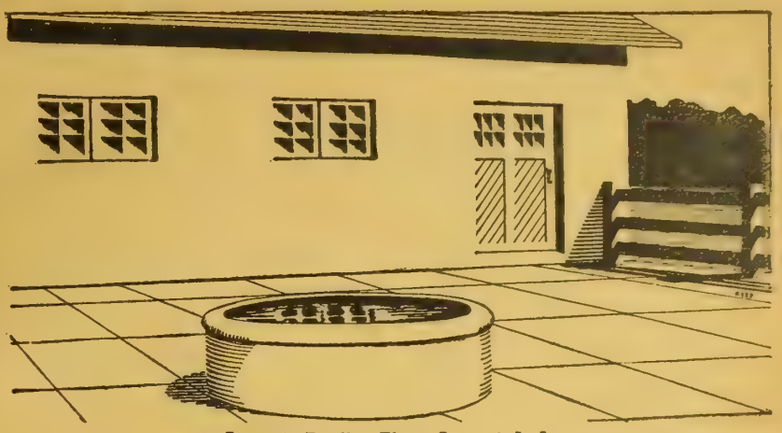
Creamery builders must figure the cost, first, of the building; second, of the equipment. A suitable and convenient building will contain a main work room, store room, refrigerator, engine and boiler room, coal room, and an office. Such a medium-sized creamery would measure 28x48 feet. In some sections labor and material are much cheaper than in others and the cost varies accordingly. However, we can place the limit of cost of such a construction between one thousand and fifteen hundred dollars.

Where only gathered cream is received the equipment required is less than where whole milk is received. In the first instance of the gathered-cream plant, the following would be necessary: Fifteen-horse-power boiler; ten horse-power engine; a well and pump; weigh-can and scales; Babcock testing equipment complete; combined churn, capacity, 600 pounds butter; buttermilk vat; cream ripener; starter can, wash sink. Besides this there will be shafting, piping, pulleys, belting, etc. By making two churnings a day in the rush season, 1,200 pounds of butter could be manufactured per day in a plant of this size. The cost of equipment would be approximately $1,200.

In a whole-milk creamery, a separator or two separators, having a capacity of thirty-five hundred pounds per hour; a milk-receiving vat; a milk heater; a skim-milk tank and weigher; and one or two milk pumps must be added. This would make an additional cost of about $700.

In some cases it might be advisable to install machinery for artificial refrigeration. The cost of this would be something like $1,000 more.

The total cost, therefore, of a creamery without artificial refrigeration will vary from $2,200 to $3,000. In the long run it pays to build well and to use first-class equipment in a creamery, and this is the basis of the foregoing figures. In many cases on record creameries started by promoters or representatives of constructive companies have cost exorbitant prices and out of all proportion to the business that they are able to do.—G. A. Gilbert, Colorado Agricultural College, Fort Collins, Colorado.



Concrete Feeding Floor, Syosset, L. I.

Wouldn't you like

a concrete barn, trough and feeding floor as neat and practical as those shown? You'd be surprised to find how easily you and your men could build them. Our free 168-page Farm Book tells how. Just send a postal for it.

About the cement for that concrete: Did you ever stop to figure out that the reason this Company is the largest in the world is because more cement users insist on getting Atlas than any other brand? They do it for the same reason that there are over five million barrels of Atlas in the Panama Canal, and seven hundred thousand barrels of Atlas in the Keokuk, Iowa, Dam. Isn't that the cement you want?

Have you our FREE 168 page Farm Book on concrete work? Write us for it now.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT CO., Dept 165—30 Broad St., N.Y.
Chicago—Philadelphia

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

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5 Year Guaranteed Buggies At ½ Retail Price

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You take no risk when you buy a buggy from us. We guarantee it to please you, and to be a bigger value for your money than you can get anywhere else, or you needn't keep it. *Reference;* S. Ill. Natl. Bank, East St. Louis, Ill.

Mutual Buggies, Surreys, Wagons, etc., are the highest quality, handsomest, most stylish vehicles built. The only line guaranteed 5 years. We sell direct at wholesale prices—and save you $25.00 to $100.00. **Write for catalog and delivered prices.**

MUTUAL HARNESS at $5.85 per set up: double $14.10 up; work harness $19. up, all genuine leather; highest quality; **Fully Guaranteed** 25 to 50% cheaper than retail. Catalog Free. Write today.

SENT ON APPROVAL.

MUTUAL CARRIAGE & HARNESS MFG. CO., Station 47 D, East St. Louis, Ill.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS. EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

INTEREST ON FARMERS' LOANS.

Origin of the Movement to Secure to the Farmer Money Loans at a Reasonable Rate of Interest.

Readers of The National Farmer and Stock Grower will be able to see the results of their own efforts in the widespread movement now on foot to bring about a system of credits whereby co-operative associations of farmers will be able to secure loans on suitable security at fair rates of interest for the conduct of their business.

It was in the year 1905 that The National Farmer and Stock Grower printed and published the petition of which we give the text in this issue. The said petition was signed by many farmers in the Western States, all the way from Texas to North Dakota, and when we received the signatures to the petition they were bound together and forwarded in November of that year to the Hon. James Wilson, United States Secretary of Agriculture, and acknowledged by him.

At the time the petition was forwarded to the Secretary of Agriculture, all that has since been said about European methods and co-operative societies was fully set forth and considerable interest was manifested in the subject, but it required time for the seed to germinate and to grow; but the tree is now at the bearing age, and we may confidently expect that it will bear good fruit. Right now we are glad to see that the whole world is interested in the movement.

Congress has appropriated money to pay the expenses of investigation in other countries, and there is a meeting to be held at Chicago this month to take into consideration ways and means to bring about the desired result. We believe from these efforts the time is at hand when the farmer will be able to obtain money at the lowest instead of the highest rates of interest.

THE ORIGINAL PETITION.

A Petition by Farmers of the United States in Relation to the High Rate of Interest on Farm Loans.

To the Honorable James Wilson, Secretary of Agriculture, Washington, D. C., and through him, our friend and representative, to His Excellency, the President of the United States, and to the United States Senate and House of Representatives:

We, the undersigned farmers, ranchmen, land owners and citizens of the United States, do hereby present this petition for your consideration and represent that the **Rate of Interest** charged upon **Farm Loans** is uniformly **Too High**, and that in hundreds of thousands of instances the rate is so burdensome and unreasonable as to perpetuate loans and interest charges and cause many honorable, industrious farmers to lay down their burdens and forsake agricultural pursuits.

The first purpose of this petition is to request that in the ordinary course of the operations of the Department of Agriculture the subject of farm loans will receive most thorough, complete and exhaustive investigation. The commission charged for making loans, the rate of interest paid in different states, the deductions from the amount loaned when paid over to the borrower, are all fit subjects for investigation, and, in our opinion, will reveal high and unreasonable overcharges and burdens which are too great for farmers to bear.

This application or petition is not for the purpose of stating the exact situation throughout the different states so much as it is to suggest the direction in which praiseworthy and valuable service can be rendered the farmers of the country in establishing the actual conditions in regard to the facts, without room for dispute or opening for denial; and if these conditions are found, as we believe they will be, proving the existence of great wrongs which ought to be righted, we look to the Secretary of Agriculture to make such representations as will open the way to the permanent establishment of a better order of things, in keeping with the most enlightened government on the face of the earth.

We have been informed concerning the older settled states, where lands have enhanced in value for over a hundred years, that the rates of interest upon farm loans are on a par with city real estate and other business securities, and therefore in said localities there is no cause for complaint; but we desire to represent that it is different in an immense territory of the Western country, and examination into loans made in all the states will show by contrast that we, who are paying 7, 8, 9, 10 and even as high as 12 per cent. interest besides deductions on account, are in pressing need of relief.

We are informed that in France and Germany certain banking systems under government authority and supervision are loaning money on farm lands at 4 and 5 per cent., and that bonds issued by said institutions at 3 per cent. to raise said money are readily sold at par value. We are also informed that in New Zealand a class of settlers improving the frontier district are aided with government loans at low rates of interest and with reasonable terms for repayment of the principal.

Believing it to be the policy of the United States government to build up a nation upon a foundation of free and unincumbered homes for the people, and believing that the good intention of the government is being defeated by the present system, which establishes and maintains high rates of interest which the majority of the farming people are unable to pay, we therefore ask the immediate investigation of this subject that a better and more wholesome condition of affairs may be brought about by patriotic and conservative legislation.

Cash Grain at St. Louis.

On the 31st of March, 1913, the following prices were paid on the St. Louis market for cash grain:

Wheat.—No. 2 red wheat, $1.05 to $1.07; No. 3 red, $1.03 to $1.05; No. 4 red, 95 to 98c.; No. 2 hard, 90 to 91c.; No. 3 hard, 89c.; No. 4 hard, 87 to 88c.

Corn.—No. 2 corn, 54 to 54¼c.; No. 3 corn, 52½ to 53½c.; No. 4 corn, 51c.; No. 2 yellow, 54½c.; No. 3 yellow, 53 to 54c.; No. 4 yellow, 52c.; No. 2 white, 54½ to 55c.; No. 3 white, 52½ to 54c.; No. 4 white, 52c.

Oats.—No. 2 oats, 32¾ to 33c.; No. 3 oats, 32½c.; No. 4 oats, 31½c.; No. 2 white, 35½c.; standard, 34½ to 35c.; No. 3 white, 33½ to 34c.; No. 4 white, 32½ to 32¾c.; No. 2 rye, 60c.

These quotations show St. Louis, compared with others, to be a strong grain market. Any of our readers who have grain to ship and who wish to be posted right up to date will be supplied upon application to this office. We will see that they receive the latest quotations from a first-class firm in good standing. This in answer to inquiries we often receive concerning the grain market.

Light, handy butcher steers, 800 to 900 pounds, were selling at $7.00 to $8.00 per 100 pounds during the first days of April on the St. Louis market.

Put Your Grain in the Sack and Not in the Stack

YOU know that many times there is grain enough wasted in your straw stack to pay your thresh bill. Why? Because you have not insisted upon the best machine to do your threshing. The

Red River Special

saves it and puts the money into your pocket. Why? Because it employs the only true and certain method of beating the grain out of the straw. All other machines expect the grain to drop out.

The Red River Special **beats it out** just as you do by hand with a pitchfork.

The Big Cylinder, the "Man Behind the Gun" and the uplifting shakers **beat all the grain out** before the straw leaves the machine.

Thousands of farmers are saving their thresh bills by using the Red River Special.

You can, too, if you insist upon a Red River Special doing your work.

Calvin Brown and seven other farmers of Higginsville, Mo., say, "It really does save the farmers' thresh bill by not wasting his grain."

R. F. Lumm, farmer of Percival, Iowa, says "The Red River Special saved all the grain."

You can save yours. Hire a Red River Special. Write for proof.

Nichols & Shepard Co.
Builders of Threshers, Engines and Oil-Gas Tractors
BATTLE CREEK, MICHIGAN

Save Work, Time, Money
By using our low down steel wheel wagon

Electric Handy Wagons
saves high lifting, lighten draft, don't rut roads. Spokes don't loosen—wheels don't dry out or rot. Write for free book on Wagons and Wheels.
Electric Wheel Co., 40 Elm Street, Quincy, Ill.

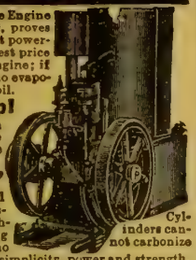
Hill's Evergreens Grow

All hardy stock—twice transplanted—root pruned. Protect buildings, stock, crops. Hill's Evergreen Book, illustrated in colors, Free. Write today.
D. Hill Nursery Co., Inc., 267 Cedar St., Dundee, Ill. *Evergreen Specialists*

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

$5.50 "Easy Cut" Sawing Machine.
Poles, logs, cordwood. Circulars free.
N. McASLAN, Bruce, Wis.

Use KEROSENE Engine Free!



Amazing "DETROIT" Kerosene Engine shipped on 15 days' FREE Trial, proves kerosene cheapest, safest, most powerful fuel. If satisfied, pay lowest price ever given on reliable farm engine; if not, pay nothing. No waste, no evaporation, no explosion from coal oil.

Gasoline Going Up!

Gasoline is 9c to 15c higher than coal oil. Still going up. Two pints of coal oil do work of three pints gasoline.

Amazing "DETROIT"

—only engine running on coal oil successfully, uses alcohol, gasoline and benzine, too. Starts without cranking. Only three moving parts—no cams—no sprockets—no gears—no valves—the utmost in simplicity, power and strength. Mounted on skids. All sizes, 2 to 20 h. p., in stock ready to ship. Engine tested before crating. Comes all ready to run. Pumps, saws, threshes, churns, separates milk, grinds feed, shells corn, runs home electric lighting plant. Prices (stripped), $29.50 up. Sent any place on 15 days' Free Trial. Don't buy an engine till you investigate the money-saving, power-saving "DETROIT." Thousands in use. Costs only postal to find out. If you are first in your neighborhood to write, you get Special Extra-Low Introductory price. Write! (138)

Cylinders cannot carbonize

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

PEERLESS

SELF-RAISING GATE

Are satisfying thousands of American farmers. Erect one and you will become a Peerless booster.

Built to meet the demands of the best farm trade—They are making good.

Bigger, heavier and stronger than the ordinary steel gate—cost but very little more.

Before you build a single gate write for full description and prices of the Peerless.

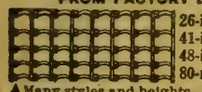
Peerless Wire Fence Company. 242 Mich. St. Adrian, Mich.

THE GATE WITH A LIFT

EVERY PART GALVANIZED

STRONGEST FENCE MADE

FROM FACTORY DIRECT TO FARM



26-inch Hog Fence,....14c.
41-inch Farm Fence,....21c.
48-inch Poultry Fence..22½c.
80-rod spool Barb Wire, $1.55

Many styles and heights. Our large Free Catalog contains fence information you should have.

COILED SPRING FENCE CO. Box 256 Winchester, Ind.

BROWN FENCE

FREE SAMPLE — WE PAY THE FREIGHT

STOUT STRONG — DURABLE CHEAP

BROWN FENCES will outlast any other because of heavier wires and thicker galvanizing. 160 styles for all purposes. Also Lawn Fences and Gates.

Bargain Prices, 13c Per Rod Up delivered at your railway station. Send today for catalog and free sample for test.

The Brown Fence & Wire Company Dept. 45 Cleveland, Ohio

KITSELMAN FENCE

We make you the same price we would make the Dealer or Jobber. That is why we can save you money. Look at these very low prices.

14 CENTS A ROD for 26-in. hog fence.
23½c. a rod for 49-in. farm fence.
25½c a rod for 60-in. poultry fence.
$1.55 for 80 rod spool of Ideal Barbed Wire.

Large free Catalog showing 100 styles of Farm, Poultry and Lawn Fence.

KITSELMAN BROS. Box 261 Muncie, Ind.

Marketing and Farm Credits.

The First National Conference on Marketing and Farm Credits will be held April 8th, 9th and 10th at the Hotel Sherman, Chicago, Ill. The Committee on Arrangements is Col. Frank P. Holland, Publisher Farm and Ranch, Dallas, Texas; Frank E. Long, Publisher Review, Chicago; and Ben F. Biliter, Publisher Farmers' Guide, Huntington, Ind. The meeting will last three days. The Secretary of the meeting is Chas. W. Holman, 1408 Steger Building, Chicago, Ill.

FORAGE CROP BULLETIN.

Dollars For Farmers in Hog Raising.

There are dollars for farmers in the Forage Crop Bulletin No. 136, just issued for free distribution by the Agricultural Experiment Station of the Iowa State College. It points the way for a use of green pasturage to pork production that will help the farmer to sell his corn crop for prices ranging as high as $1.03 a bushel when hogs are quoted at only $6.00 a hundred. Three years of investigations, conducted by John M. Evvard, W. J. Kennedy, H. H. Kildee and E. T. Bobbins, are included in the bulletin, and it is one of the most complete reports put out by the Animal Husbandry Section of the Station.

The test as made and published leaves no doubt of the value of green pastures in fitting pigs for market. Compared with pigs fed in dry lot, forage-fed pigs increased profits more than five-fold in many cases. Alfalfa-grazed pigs in 1911 gave a profit of more than $3.00 each, as compared with 61 cents for dry-lot pigs. Different forages when grazed by pigs gave a profit ranging from $30 to $80 an acre, charging the corn used in the ration at 59 cents a bushel and selling the hogs at $5.00. When the hogs were figured at $6.00, the profits ranged as high as $154, that being credited to an acre of rape forage.

Although one trial of rape showed such unusual profits, the experimentalists consider alfalfa to be the best forage crop for pigs. It may be counted on for the cheapest gains per pound and it meets a good many other demands that rape does not satisfy. The various forage crops netted the following acre profits (counting hogs at $5.00 and corn at 50 cents):

Alfalfa in 1911, $65.99; red clover in 1909, $32.34; in 1910, $34.62; rape in 1909, $27.50, and $27.72; in 1910, $37.51; and in 1911, $80.37; sweet clover in 1910, $42.07; in 1911, $23.46; a mixture of oats, clover and rape in 1909, $32.30; a mixture of oats, Canadian field peas and rape in 1909, $22.83; in 1911, $39.52, $53.45 and $64.63; and blue grass and timothy in 1909, $15.23.

If any farmer is interested in the foregoing statement, he should study it from the original source of information. The bulletin referred to is No. 136 and entitled "Forage Crops For Swine." It is a pamphlet of thirty pages. It gives the facts and figures and evidence supporting all the conclusions arrived at. It is printed in handy form. Although it is issued in Iowa, they are always generous in distributing their bulletins and especially to those who show an interest in the special subject under consideration. Anyone desiring a copy should write to the Director Agricultural Experiment Station, Ames, Iowa.

THE OATS MARKET SITUATION.

Oats Not Selling High, But the Market Nearly as Strong as at Any Time in Six Months.

On March 31st, at the close of the day's trading, cash oats were quoted at 32¾ to 34 cents bushel on the St. Louis market. Since last August 34 cents was the highest monthly closing quotation.

At Chicago, on March 31st, the May oats option closed at 34⅜ cents; July at 33⅞ cents; and September at 34 cents. For several months past this stacks up as a fairly average market.

In the last few years we have seen oats sell in market down to 29 cents a bushel and as high as 57 cents, and we may not have caught the extreme fluctuations.

We might observe here that we are going through a very quiet time in the grain trade. The floods in the country have had a paralyzing effect on general movements. The general demand has very little urgency, but for the large number of millions of people that have to be fed the grain crops would be going begging. The matter of feeding the people is up to the farmer, but with oats in market at 33 cents, corn at 55 cents and the average wheat at $1.00 a bushel the farmer ought to be considered as doing his full duty. It is up to the consumer to get his grub at reasonable prices when the farmer is only cashing his actual cost of production and paying the freight. All grains could be advanced 50 per cent, above present prices and the farmer would not get rich, neither would the consumer pay more than a fair price for bread without undue profits were being made between the price the farmer receives and the price the consumer pays.

IF YOU are at all interested in

Home-Mixed Fertilizers

I would like to send you my book on the subject. It contains formulas and plenty of information for farmers who want to get the most and the best for their money. The book will be sent free upon request.

Dr. William S. Myers
Director Chilean Nitrate Propaganda
17 Madison Ave., New York
No Branch Offices

Certified and Guaranteed Roofing.

On page 20 will be found the advertisement of the General Roofing Company. In addition to furnishing a splendid roofing material this company is prepared to assist farmers in designing their buildings.

A good example of a guaranteed roofing is that made by the General Roofing Manufacturing Company. It is known by the trade name of "Certain-teed." The word is taken from the two words "certified" and "guaranteed." After this concern had been in business a number of years and their roofing had proved its wearing qualities they placed a guarantee of fifteen years on it and gave it the name "Certain-teed," meaning the roofing is certified and guaranteed by them.

The General Roofing Company has many distributing centers in order to save the buyer some freight charges, but for the purpose of answering the advertisement address the General Roofing Manufacturing Company at East St. Louis, Ill.

SEED CORN 146 BU. ACRE

DIAMOND JOE'S BIG WHITE—A strictly new variety. None like it. It is the Earliest and Best Big White Corn in the World—Because it was bred for most Big Bushels, not fancy show points; because grown from pure inherited stock; every stalk bearing one or more good ears; because scientifically handled, thoroughly dried and properly cured and had the most rigid inspection. Also all other leading standard varieties at **FARMER PRICES. OUR BIG ILLUSTRATED FARM AND GARDEN SEED CATALOG** mailed **FREE.** A postal card will bring it to you. Write for it today. Address

RATEKIN'S SEED HOUSE, Box 10, Shenandoah, Iowa.

Bickmore's Gall Cure

The old-time remedy for keeping horses free from sores. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, etc. Money back if it fails. Be sure to ask at the store for Bickmore's Gall Cure. Gray Horse trade mark on every box. Sample and 84-page horse book sent on receipt of a stamp for postage.

BICKMORE GALL CURE CO., Box 482, Old Town, Maine.

COLT DISTEMPER

FRAZIER'S DISTEMPER CURE

We absolutely Guarantee **FRAZIER'S DISTEMPER CURE** to Cure and Prevent this loathsome disease or return your money. Safe for any Mare, Colt or Stallion. Epizootic, Catarrhal Fever, Pink-Eye, Influenza, Coughs and Colds cured with one bottle. Send for Free Horse Booklet. $1.00 bottle holds three 50-cent bottles. Sold by all druggists or prepaid from

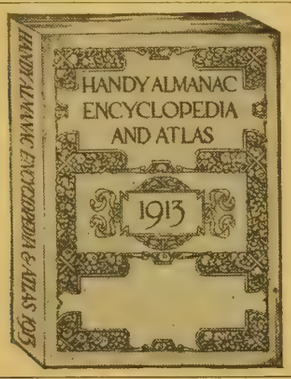
BINKLEY MEDICAL COMPANY, Dept. H, NAPPANEE, IND.

HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS FOR THE YEAR 1913.

A Book of Knowledge For Home or Office—Book Mailed Promptly on Receipt of Order.

For the purpose of furnishing the subscribers of THE NATIONAL FARMER AND STOCK GROWER a splendid book of up-to-date information we have published the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS, a book of 216 pages, 6x9 inches, including a carefully-prepared index and a number of maps printed in colors.

To give an idea of some of the good things it contains we mention the subjects treated of, such as the Postal Banks—the Parcels Post Mail—new Pension Law—new Eight-hour Law—Highest Structures in the World—Olympic Records—World's Crops—Aeroplane Records—United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—the Panama Canal—the Panama Exposition—Astronomical Calculations and Eclipses



For 1913—How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains—Governments of the World—Sporting World's Records—Important Dates in American History—Rules For Spelling and Punctuation—Household Hints—Cooking Time Table—First Aid to the Injured—Etc.

There is very much more in the book than we have stated, and in addition thereto there is the vote at the Presidential election.

A Subscription Proposition.

Anyone who will send us fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.: Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS.

Name .....

Address .....

Motto For the Swine Breeder.

"Some knowledge of hogs and their rearing is essential, but an inexperienced man with an open mind may accomplish much. He has many sources of information—his neighbors and other breeders who have had practical experience; the standard and current literature on swine; the work of the state and national agricultural departments and stations; the agricultural press; meetings of breeders, Farmers' Institutes, and others. No one knows everything about swine husbandry, but anyone with a desire for knowledge can find abundant opportunity to learn. An excellent principle worth recalling in this connection is, that wrong practices once acquired are difficult to overcome, just as wrong traits bred into a herd require a long time for eradication. Slow, but sure, is a good motto for the swine breeder."—From Coburn's "Swine in America."

He Won the Grand Prize.

At the National Corn Show held recently at Columbia, S. C., the grand prize for the best ten ears of corn at the show was won by Charles Short, who farms near Greensburg, Ind. Being interviewed at the Corn Show, he said:

"The variety of my corn is Reid's Yellow Dent. We live about four miles from town, and have under cultivation about 190 acres. We have 60 acres of this corn, and it averaged a yield of about 90 bushels per acre."

"What quantity and kind of fertilizers did you use?" asked the reporter.

"I used a fertilizer composed of 5 per cent. potash and 9 per cent. of phosphoric acid," replied Mr. Short. "I put about 80 pounds to the acre, drilled into the row."

"Only 80 pounds to the acre?"

"Yes; that was all. We can grow corn without using fertilizers at all, but we get a better quality by using a little. This field was gone over with a cultivator seven times during the crop. In getting this corn up to the standard I had been trying for, my efforts covered a period of about fifteen-years' breeding, and that means corn in rotation, thorough preparation of the seed bed, seed breeding and selection, continuous cultivation and suitable fertilization."

Points For the Farmer.

The following points are worthy of consideration by all farmers:

The loss to agriculture due to weeds exceeds millions of pounds sterling annually.

The greatest factor in the spread of weeds is the use of impure seed.

Always ascertain what weed seeds are present in a sample before purchasing.

Reject any samples that contain an excess of weed seeds.

Cheap seed is always bad, but high-priced seed is not necessarily always good.

Never sow weed-infested seed on the score of cheapness.

The sowing of cheap weed-infested seed is the most expensive policy that a farmer can adopt.

Always ascertain the germination of grass and clover seeds before buying.—Farmers' Union Advocate, New Zealand.

High-type Effort.

"Live stock husbandry represents a high type of constructive effort, and swine breeding offers as much satisfaction and gain as any other branch. It may profitably engage the attention of the man who raises hogs merely for financial motives, but a breeder who attains a foremost place in his calling has an interest in his business not inspired solely by rewards in money. The compensations in swine raising are ample for the man who desires to make his work a profession, as hundreds who have a just pride in their achievements can testify."—From Coburn's "Swine in America."

When Hog Cholera Rages It's a Fine Thing to Know YOUR Hogs Are Safe

E. Myers, President, E. Myers Lye Company

Next time you read in your paper about an epidemic of hog cholera, how it is killing off hogs like flies and causing the loss of thousands and thousands of dollars, and you are beginning to wonder where it's going to break out next, just remember this: You can assure the safety of **your** hogs by taking this inexpensive precaution—go to your dealer and get a few cans of

Merry War Powdered Lye

Mix it with the hog's feed or drinking water according to the directions printed on the label and feed it **twice every day. This treatment has prevented hogs from catching cholera, even though raging right in the neighborhood.** It has been **proved** time and time again. Here is just one example among hundreds of similiar ones:

"We have had hog cholera all through our district. Those who have been using Merry War Powdered Lye have missed it. One man in particular who buys it by the case has cholera all around him, but so far his hogs have escaped." **C. M. COOPER, Prop., "The Right Place," Dawson, Nebraska.**

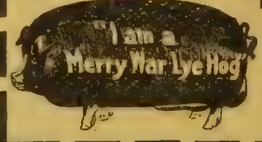
There Are No Substitutes

Don't experiment with an old-fashioned, ordinary lye. Get MERRY WAR POWDERED LYE—the **time-tried** remedy—the specially prepared lye that is **safe** to feed to hogs—that actual **experience** has **proved** to be the **safest, most dependable preventive** of hog cholera the world has ever known. **Insist** on the genuine and **refuse substitutes.**

Costs only 10c a can—enough to protect a hog from cholera, keep him free from worms and make him strong, healthy and on his feed for **two months.** Tones up digestion and prevents feed waste by changing every pound into firm flesh and juicy fat. Produces the kind of hogs that bring top notch prices.

At the price of **5c per month, per hog** you insure against sickness and greatly increase the size of your hogs.

Make a test for yourself. MERRY WAR POWDERED LYE comes in 10c cans (**120 feeds per can**). It is convenient to buy in case lots—4 dozen cans for $4.80 at grocers, druggists or feed dealers everywhere. **There are no substitutes. WE WILL SUPPLY YOU DIRECT $4.80 for 4 dozen cans—IF YOUR DEALERS WON'T SUPPLY YOU.** Write for our valuable booklet "How To Get The Biggest Profits From Hog Raising." Sent FREE for the asking.



Which Kind Do You Want?

E. MYERS LYE CO.

Dept. 22 St. Louis, Mo.

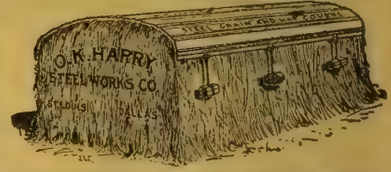
The Auto, Reo the Fifth.

We continue to receive the most enthusiastic letters from our patrons upon the reliability, economy and efficiency of the Reo the Fifth, and particularly upon its unique smokeless oiling system, says R. E. Olds, President of the Reo Motor Car Company. Willis Barber writes that he has just completed a run of 17,000 miles with his Reo the Fifth, in which he used but two gallons of lubricating oil. He says that it is next to impossible to get his Reo engine to smoke, and that he is astonished at the small amount of water which the Reo cooling system requires, which is another good proof of the perfect design and smooth-running qualities of its motor. This is the same model Reo which R. M. Owen drove 1,460 miles as the official pilot car in the last Glidden tour from New York to Jacksonville on less than a quart of water. For full particulars and car catalogue please mention this paper and address R. M. Owen & Co., Lansing, Mich.

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

Get our Thresher Tank for water.



O. K. HARRY STEEL CO., 2353 Papin St., St. Louis, Mo.

Wholesale and Retail Profit Saved! FREIGHT PAID

RUBBER ROOFING

1-Ply, 35 lb. 108 sq. ft., $1.10 per roll.
2-Ply, 45 lb. 108 sq. ft., $1.30 per roll.
3-Ply, 55 lb. 108 sq. ft., $1.50 per roll.

Warranted For 25 Years. Terms Cash. These Special Prices Only Hold Good for Immediate Shipment.

FREIGHT PAID to any station east of Rocky Mountains except Tex., Okla., Colo., N.D., S.D., Wyo., Mont., N.M., La., Ga., Ala., Miss. and Fla. on orders of three rolls or more. Special prices to these States on request.

INDESTRUCTIBLE BY HEAT, COLD, SUN OR RAIN.

FIRST-CLASS IN EVERY RESPECT. NO SECONDS, REMNANTS OR MILL ENDS. Write for **FREE SAMPLES** or order direct from this advertisement. Satisfaction guaranteed or money refunded. We refer you to the Southern Illinois National Bank.

Century Manufacturing Co., Department 247, East St. Louis, Illinois.

STEEL Shingles Will Save You a Pile of Money

When you think how cheap Edwards Steel Shingles are, how much longer they last, how much easier they are to put on than commonplace roofing, it's hard to tell just how much we do save each buyer. It's a **big pile of money.**

They Beat Wood Shingles

The best wood shingles to be had nowadays seldom last 10 years, and it's a long, slow, tedious job putting them on. Besides, any building with wood shingles is a regular "fire trap"—apt to burn up any moment. Edwards Steel Shingles last over twice as long as wood, and as they come in big clusters of 100 or more, anybody can put them on in almost no time. Furthermore, they are **absolutely fire-proof** and are **guaranteed** so by a $10,000 Cash Bond.

No Chance of Rust

Unlike ordinary iron roofing, Edwards Steel Shingles never rust. With the Edwards Steel Shingle, the nails are completely covered by our patented interlocking device, and the edges are made absolutely **rust-proof** by the famous Edwards Tightcote Process. No chance for rust.

Remember, too, that Edwards Steel Shingles are much easier to put on than any other roofing.

Write for Factory Prices, Freight Paid

Edwards Steel Shingles are not only the **longest lasting** and **easiest laid** roof in the world, but their cost is amazingly low. That's because we sell direct from factory to user. And with 100,000 good customers, we only want a small 9% profit per sale. And we pay the freight. Just send a postal for our latest Roofing Book 457 and Special Factory Prices. Then see for yourself what astonishing prices you can now get on the World's Finest Roofing Material. Give size of your roof, if possible. Write today and our proposition will come by return mail. (98)

The Edwards Manufacturing Co.
407-457 Lock Street Cincinnati, Ohio

NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screwdriver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

Special Inducements.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

OUR INTEREST IN FORESTRY.

An Important Subject For the State Rather Than For the Individual Farmer.

One of the very live topics of the day is that of forestry. For more than twenty years the preservation of our forests has been urged, and the national government has taken some great measures to preserve our national forests. More than 150,000,000 acres of land are now included in national forests.

Yet the work is but begun. We need to preserve not only our forests, but our forest opportunities. This latter work seems to devolve on the different states, for in the states most of the land has passed out of the hands of the national government.

Forest opportunities comprise the locations that are not now forested, but should be, because the land is not of a character that will ever make it usable for anything else.

Great stretches of poor, sandy land are to be found in all of our states. On such soil certain kinds of trees will grow. The writer has seen in Maine great forests of pine on soil so sandy that the foot sank deep in it at every step. Some of those hills are so sandy that they are worthless for agriculture when the stately pines have been removed. The same is true of many spots in the West. This fact is not fully appreciated in our great prairie states, where the bulk of the land is of a deep rich loam, suitable for almost any kind of farming.

Yet even in these states some poor land is found that should be owned by the states and systematically reforested.

There are large strips of low lands on the borders of lakes where drainage will never be possible because of the proximity of the lake, and because of the too abundant soil water underneath. Yet in such places the tamarack and like trees will grow, and doubtless there are in other parts of the world, in the temperate zone, water-loving trees that could be imported to this country and made to grow in such locations.

Private enterprise cannot take such matters in hand, because private interests must be paid now. But the state (which is the people) can afford to wait any length of time, for the state never dies.

Every state should have a forestry department and proceed to acquire these useless lands and reforest them and look after them. The banks of a million streams need protection in this way, and the roots of the trees would compact the soil and hold it from being washed into the streams. In time we would have a multitude of small forests, but aggregating an immense total.

The many small forests must take the place of the few large forests that have disappeared or are in process of disappearing.

In the rougher states the situations suitable for forests are still more numerous, for the mountains are usable principally for forest growths. The time will doubtless come when every mountain and desert island will be owned by the respective states in which they are, and will be clothed with magnificent forests, yielding a large annual toll to commerce and for fuel.

Fortunately, many of our states are already moving in the matter

All You Want To Eat

In every farmer's pantry there is usually food enough for the family, available for its daily needs. If the boys are working hard, or growing fast and get really hungry, as boys often do, or if company comes unexpectedly the food in the pantry sometimes fails to "go around" just when it is wanted.

So with your crops; they feed very much as you do. There is enough plant food in the soil to produce for years the ordinary every day crops our fathers used to raise; but along comes a good season, heat, sun and rain all working well together,—you have put in good, live seed, cultivated just right, and everything is pulling along finely for a bumper crop. But a bumper crop is larger than an ordinary crop and needs more food to support it, and it wants it **now**—while it is growing. If the available fertility isn't there in the soil the crop fails just for that one reason and no other. See to it that the available elements are in your soil this year.

EMPIRE FERTILIZERS

supply that kind. These fertilizers supply to growing crops in available form the plant food elements required which in connection with good seed, cultivation and weather and the plant food supplied by the soil and air, are producing good crops of profitable size and quality. Farmers depend upon them as upon other old friends, and have done so for years.

Agents wanted where we have none. Address early for prices and terms,

EMPIRE CARBON WORKS
421 Locust Street, St. Louis, Mo.

and are beginning to take over cheap lands wherever they can be secured. One thing that frequently helps out is the fact that often such lands have become forfeited to the state for unpaid taxes and can be secured with but little trouble.

The Beef Trade.

"In giving evidence before the Empire Trade Commission, Mr. George Goodsir, a well-known authority in the meat trade, in reply to Mr. Rider Haggard, gave a valuable statement in regard to the so-called American Beef Trust. He briefly sketched its influence in North America, and added that in the Argentine Republic, **the members of the same group already owned or controlled almost half the output of the state,** while within the past twelve months their operations had been extended to Australia, **where they were organizing their forces and making preparations with a view to obtaining an entrance into the trade between that country and the Motherland.** So far there was no evidence that they had reached New Zealand, but it might be only a question of months before their influence was also felt in that dominion. As to the policy and effect of trust methods Mr. Goodsir said that, although their policy at first might sometimes be to cut profits to a minimum, and even, on occasions, to work at a loss, later on, as the monoppoly of the trade was secured, they were in a position to squeeze the producer at one end and the consumer at the other."—Farmers' Union Advocate, New Zealand.

Do not overlook the Book of Live Stock Champions, which is advertised on page 2.

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St.Louis. The announcement is hereby made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales from 1,200 to 2,500 Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale rings were originally well-bred Range Horses, fed, educated and mannered to be good work stock. The first Auction of the season will be held on

THURSDAY, JUNE 19,

And every two weeks thereafter a sale on Thursday will be held until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Don't Have a Blind One "VISIO"

An Absolute Cure for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis

Shying horses all suffer from diseased eyes.

"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Best Conditioner Worm Expeller

Death to Heaves

"Guaranteed or Money Back. Coughs, Distemper, Indigestion. 50c, $1.00 per can. Larger for Heaves. At druggists' or sent postpaid.

NEWTON'S

THE NEWTON REMEDY CO., TOLEDO, OHIO

SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. $5 case cures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. SNODDY CO., Dept. H, NASHVILLE, TENN.

BLACK LEG

IN CATTLE SURELY PREVENTED

CUTTER'S BLACK LEG VACCINE

California's favorite, the most successful, easiest used and lowest priced reliable vaccine made. Powder, string or pill form. Write for free Black Leg Booklet.

THE CUTTER LABORATORY
BERKELEY, CAL.

If your druggist does not stock our vaccines, order direct from us.

Please mention Nat. Farmer and Stock Grower.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

In the list of country produce sold on the St. Louis market is sunflower seed at $2.75 to $3.25 per 100 pounds.

FIELD WORK IN SPRING.

Grading, Testing and Shelling Seed Corn—A Contribution From the United States Department of Agriculture.

[By C. P. Hartley, Physiologist in charge of Corn Investigations, United States Department of Agriculture.]

Take time by the forelock and get the seed corn and the corn planter ready for operation before the rush of other spring work. The soil and the seed are two prime requisites of a profitable corn crop. At this time of the year there are many days when weather or soil conditions prevent plowing or other field work, that can profitably be used in improving the quality of the seed corn. The seed supply can be improved in quality and productiveness by discarding the poor ears and the poor kernels.

Cull Out Objectionable Ears Before Testing or Shelling.

The best time to grade seed corn is before shelling. The Office of Corn Investigations of the United States Department of Agriculture proved by careful field experiments that an ear having kernels of undesirable shapes produces ears most of which have kernels of undesirable shapes. All ears that are undesirable for one reason or another should be discarded before making germination tests.

Good Care Obviates Much Germination Testing.

At this season for several years past a number of satisfactory means have been described for testing the germination of a few kernels from each seed ear. Those who have neglected to take good care of their seed corn may now find "dead" ears among their supply. In such cases it will be profitable to test the germination of each ear separately. Where well-adapted varieties are grown that properly mature before frost, poor germination has never been found among ears selected as soon as mature and cared for properly. Those who have given their seed proper care should pick out 100 representative ears and make a germination test of ten grains from each ear. If these ears germinate well it is not necessary to test the balance of the seed supply.

Why Nub the Seed Ears?

Before shelling, the small kernels should be discarded from an inch or more of the tips of the ears. Accurate field tests have proved these small kernels to be less productive than the fully-developed kernels of the same ears. The thick, irregularly-shaped kernels should also be discarded from the butts of the ears. These kernels produce satisfactorily, but their size or shape prevents the corn planter from dropping them satisfactorily. It is convenient to nub the entire supply of ears before the shelling process is begun.

How to Shell Seed Corn.

Many farmers who plant twenty or forty acres of corn carefully shell their seed by hand and are profited by so doing. A few remarkably-successful, extensive corn growers shell hundreds of bushels by hand. Where much seed is required there is a strong temptation to run it through the corn sheller. Hand-shelling is profitable for the small farmer and therefore more profitable for the extensive farmer. The sheller breaks or cracks some of the kernels and there is not the opportunity of examining kernels from different portions of each ear as in shelling by hand. After being nubbed the proper way to shell the seed ears is to shell by hand, one ear at a time, into a sieve that will let the chaff fall through and leave all the kernels from the ear in plain view for inspection. If unsatisfactory, all the kernels can be easily discarded and another ear shelled. The ears should not be shelled directly into the general seed supply, for it would then be difficult to separate and discard the undesirable kernels. germination of each ear separately.

Does Your Planter Drop Satisfactorily?

If the corn planter gave trouble last spring, better order a new one now. A poor corn planter is an expensive implement to use. Even though the planter dropped satisfactorily last year, it should be tested with this year's seed supply before planting time arrives. The kernels of a variety of corn frequently vary in size from season to season, and different plates may be needed this year from those used satisfactorily last year.

Under favorable field conditions 10 to 20 per cent. of the kernels or young stalks are destroyed. Where extensive plantings are made with first-class seed and thinning is impracticable, about five kernels should be planted for every four stalks desired. Where help is obtainable that will attend properly to the thinning, it is more profitable to plant twice as many kernels as stalks desired, and thin out the weak plants as soon as they become too large and hard to be destroyed by cutworms.

"Missouri King" Sold For $5,000.

"Missouri King," the grand champion saddle stallion of 1911 and 1912, owned by Sheriff W. P. Hawkins, Bowling Green, Mo., was sold at Mexico, Mo., March 5th, 1913, to J. F. Ball, of Los Angeles, Calif., for $5,000. Mr. Ball represents E. R. Maier, of Los Angeles, who is prominent in Pacific Coast horse circles. "Missouri King" will be shown this year at the Pacific Coast Fairs and Horse Shows. With the exception of "Rex McDonald," he is, perhaps, the greatest saddle stallion ever raised in Missouri. A first-class picture of "Missouri King" is in the Book of Live Stock Champions advertised on page 2. Two pictures of the famous "Rex McDonald" are also shown in the book.

Potash Pays the Farmer.

The advertisement of the German Kali Works on page 5 relates mainly to Potash, one of the three foods necessary to plant growth and satisfactory development. The farmer will find in the agricultural bulletins much information in regard to potash, most of it supporting the assertion that "Potash pays the farmers," and that intensive agriculture (which means large crops from every acre) can only be conducted by and with the free use of available commercial fertilizers used in proper proportion, with potash equally as important as nitrogen and phosphoric acid. Seventy bushels of corn with 5,000 pounds of fodder belonging thereto take from the land 105 pounds of nitrogen, 42 pounds of phosphoric acid and 100 pounds of potash, and in some crops the proportion of potash is much larger. Our readers will do well if they will investigate the subject closely and will write to the German Kali Works at one of the addresses in the advertisement and ask for the price of potash and for the circulars on the profitable use of fertilizers.

Lambs From Colorado.

Early in April, C. C. Garrett, from Colorado, marketed 518 head of eighty-pound lambs which sold at $8.50 per 100 pounds on the St. Louis market.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.

Address,

Holland, Nugent & Maxwell Brothers,

P.O., NATIONAL STOCK YARDS, ILL.

Ear-Tags FOR STOCK

BEST— CHEAPEST— MOST DESIRABLE

Certain means of identification. Can be stamped with any name, address or number. Catalogue and set of samples mailed free on request.

F. S. BURCH & CO. Dept. 4 64 W. Illinois St. CHICAGO, ILL.

Gordine White Liniment

is the best liniment in the world for lameness, swelling galls, burns, scratches, ulcers, mange, bruises, and for any and all live stock ailments where external application can be used. GORDINE has been in use by private trainers and stockmen for over ten years and has never known a failure. As a household remedy GORDINE stands pre-eminent. Delivered to your door by parcel post for $1.00 per bottle. Every bottle guaranteed. To hesitate means loss of profit to you. Spring work must be done. Send for it to-day. (Agents wanted.) Address, Dept. D, GRAND CHEMICAL CO., 1426 South Grand Avenue, St. Louis, Mo.

Your horses positively can not have Distemper, Influenza, Coughs, Colds or other similar ailments if you use

CRAFT'S DISTEMPER REMEDY

in time. If the disease is started it will not fail to cure in any case. Safe at all times and under all conditions. Price 50c and $1.00 at druggists or direct from us, prepaid. Write for our two valuable Free horse books.

WELLS MEDICINE CO., 17 Third St., Lafayette, Ind.

Please mention Nat. Farmer and Stock Grower.

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if **Fleming's Lump Jaw Cure** ever fails. Our fair plan of selling, together with full information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Contains 192 pages and 69 illustrations. Write us for a free copy.

FLEMING BROS., Chemists
218 Union Stock Yards, Chicago, Ill.

Please mention Nat. Farmer and Stock Grower.

Don't Cut Out A SHOE BOIL, CAPPED HOCK or BURSITIS FOR

ABSORBINE

will remove them and leave no blemishes. Cures any puff or swelling. Does not blister or remove the hair. Horse can be worked. $2.00 per bottle delivered. Book 6 E free.

ABSORBINE, JR., liniment for mankind. For Boils, Bruises, Old Sores, Swellings, Goitre, Varicose Veins, Varicosities. Allays Pain. Price $1 and $2 a bottle at druggists or delivered. Will tell more if you write. Manufactured only by

W. F. YOUNG, P.D.F., 106 Temple St., Springfield, Mass.

Please mention Nat. Farmer and Stock Grower.

SAVE-THE-HORSE

(Trade Mark Registered.)

OUR LATEST Save-The-Horse BOOK—is our 17 Years' Experience and DISCOVERIES—Treating over 100,000 horses for Ringbone—Thoropin—Spavin—and ALL Lameness. It is a Mind Settler—Tells How to Test for Spavin—What to Do for a Lame Horse. Covers 58 Forms of Lameness—Illustrated. MAILED FREE.

But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business men the world over, on every kind of case, and advice—all free (to horse owners and managers).

Write! AND STOP THE LOSS.

TROY CHEMICAL CO. 62 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid.

Relief For Rupture Without Operation

We Allow A 60-Day Test—Entirely At Our Own Risk—To Prove It

No longer any need to drag through life at the mercy of leg-strap and spring trusses. No reason in the world for letting them force you to undergo a dangerous operation.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial—the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times—including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why drug-stores should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—Cluthe Co., 125 E. 23rd St., New York City

Mississippi Cattle in the Native Division.

Our readers are probably aware that the live stock markets have two divisions for yarding cattle. One is called the Native Division, and the cattle admitted to that division can be shipped out again to any part of the United States to be placed on farms or to be slaughtered, as the case may be. The other division is called the Quarantine Division, and the cattle yarded therein, although perfectly healthy, are from the country that the government authorities know to be a tick-infested country. In Mississippi, for instance, most of the state is under quarantine, and when the cattle arrive in market, although they can be sold to the slaughterers, they cannot be shipped out again to go on farms and mix with other cattle. Neither are some of the slaughterers able to receive them. The consequence is, that the main demand for this class of cattle is from the packers, and generally sell for less than if, like the natives, they had the full benefit of all the buyers on the market.

On March 31st, at the National Stock Yards, Ill., the market of St. Louis, Messrs. Milton-Marshall Commission Company received twenty-two head of steers and stags from Messrs. W. J. Davis & Son, of Hinds county, Mississippi, and, that county being free from ticks, the cattle are allowed to be classed as natives and sold to anybody and everybody who may be inclined to buy them. The twenty-two head were sold by the Milton-Marshall Live Stock Commission Company; the average weight was 876 pounds, and the remarkably good price obtained was $7.50 per 100 pounds. On the day of sale the market was handicapped by a blockade caused by the floods, therefore some buyers were unable to bid on the cattle; but it is certain that the salesman was enabled to get better bids than if the cattle had been limited in selling to the buyers in the native division.

Upon further investigation it appears safe to say that cattle in the Southern States that can be yarded in the native division will sell for an average of a dollar per 100 pounds higher than if they are forced to be yarded with other Southern cattle in the quarantine division. Southern stockmen will find it to their interest to clear their country of the cattle tick, for it is worth a cent a pound in the market and the cattle will be worth considerably more to the grower because the feed will fatten the cattle instead of the ticks. Good progress is being made in the direction of cleaning out the ticks, and in every case it pays to do so.

Western Range Horses.

We are again authorized to announce that Campbell & Reid and Western Sale Stables Company will hold their sales of Western range horses and mules on the St. Louis market as usual during the season of 1913. The first sale will be held in the middle of June, as usual.

Ranchmen who will have stock for sale will find it to their advantage to consign to these sales, because they are the best conducted of all the sales of Western range horses. Eleven or twelve of these sales are held each year. The number offered may be 1,200 or 2,500 at each sale. The sales take place with the regularity of clockwork, being held every other Thursday after the first sale. Horsemen having horses to sell should write to J. J. Searcy, Sale Manager, National Stock Yards, Ill.

St. Louis Wool Quotations.

These quotations represented basis of trade late in March: Nearby growth, 22c. for low to 23c. for choice; fine at 16c. for heavy to 20c. for light; lambs', 18 to 20c.; burry, 13c. for hard to 19c. for slight; Southern, 12c. for hard burry to 21c. for clear; fall clip or loose, 18 to 20c., and fine, 13c. for sandy; Northern or Western, 20c. for dark to 21c. for bright medium; 13 to 18c. for fine, and 12½c. for hard burry to 18c. for slight; tub-washed, 23c. for burry to 34c. for clear; Angora goat, 15c. for burry; 29c. for choice.

First-class Commission House.

The best-organized live stock market is St. Louis, and one of the best firms doing business in that market is the Milton-Marshall Live Stock Commission Company. Shippers who consign stock to this firm to be sold can be assured of obtaining the best results possible. Mr. A. J. Milton, President of the company, is an expert cattle salesman, and, assisted by his brother, L. H. Milton, make splendid sales. J. S. Jackson and J. S. Mulberry, selling hogs, are equally expert in their department, and Thos. Freels, Sheep Salesman, is noted for skill, ability and good judgment. It is a finely-equipped firm, doing business efficiently in the interest of their customers. All who will apply to Mr. R. E. Marshall, Secretary, P. O. Box 94, National Stock Yards, Ill., stating what they have to ship, will receive special information concerning the market prospect, coming directly from the salesmen.

St. Louis Horse and Mule Trade.

When the Eastern floods began and the railroads were in trouble, the firms shipping horses and mules to the East had to suspend operations. This was followed by the floods in the South. Naturally, the mule trade was quiet and lower. Early in April the Eastern situation improved and the same favorable change was expected in the lines to the South. Mr. T. H. Holland, of Holland, Nugent & Maxwell Bros., National Stock Yards, said on April 1st: "We will be glad to send the exact condition of trade to any shipper of horses and mules, just the same as we do to our regular customers. Any day and any hour an improvement may set in."

Hog Market and Prices.

On the last day of March, 1913, the top price for hogs was $9.35 per 100 pounds, paid for a load weighing 164 pounds. They were fine, light summer-weight butcher hogs. The bulk of 950 hogs on the market sold at $9.15, and this included all weights of good hogs, from 180 to 275 pounds. These figures cover the market for good hogs, but the coarse and common hogs sold at $8.50 to $9.00 per 100 pounds, and light pigs at $6.50 and up. We refer to the market at the St. Louis National Stock Yards, where about 2,500,000 hogs are sold each year.

Concrete on the Farm.

It is easy to mix concrete; it is easy to construct buildings of it; it is easy to obtain an education in concrete construction. You can get the books for nothing; all you have to do is to write for them. Furthermore, by writing for the books you will also get quotations giving the nearest source of supplies to your farm. See page 11 and write to the Atlas Portland Cement Company, Dept 165,- 30 Broad street, New York City, and ask for the Free Farm Book.

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Shipments of Cattle, Hogs and Sheep solicited for sale upon the St. Louis Live Stock Market.

The St. Louis Market is the most active and competitive of all markets. Many shippers selling elsewhere will obtain better returns at St. Louis.

We are thoroughly equipped to obtain the very best results in the interests of our customers, and in all market matters we will be found to be leading the procession.

For market information, special letters on Native and Southern Cattle, Stock Cattle and Feeders, Hog Prospects, Stock Sheep, Fat Sheep and Lambs, write to

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Please mention Nat. Farmer and Stock Grower.

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You sift it direct from the can into the wound—it heals rapidly and keeps off the flies.

Druggists and Dealers everywhere carry a complete line of Dr. LeGear's Famous Stock and Poultry Remedies.

Write for copy of Dr. LeGear's Stock Book of 112 pages—it's free.

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BUSINESS NOTICES.

The Perkins Wind Mill and Engine Company is an old-established and reliable manufacturing firm, with excellent points of superiority in the manufacture of farm implements and appliances. The list is set forth on page 12, and a very satisfactory catalogue can be had by addressing Perkins Wind Mill and Engine Company, 50 Main street, Mishawaka, Ind.

Book of Champions on page 2.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

NATIONAL EGG-LAYING CONTEST.

The Pen of S. C. White Leghorns From England Are Still in First Place and Are 115 Eggs in the Lead of Their Nearest Competitor.

A Pen of White Orpingtons From Kentucky Made the Best Record For February.

Hints on Feeding Baby Chicks — Maine Method of Feeding Laying Hens.

The hens in the egg contest at the Missouri State Poultry Experiment Station at Mountain Grove are still doing considerably better than they did in the first contest. They laid 2,224 more eggs in February, 1913, than during February of last year. The grand total for the first three and a half months has now reached 21,636 eggs, 8,666 of these being laid in February. Pen No. 2, S. C. White Leghorns, from England, are 115 eggs in the lead of their nearest competitor. The contest is on in earnest now, and some hens which had not laid much up to this time are now laying regularly and are climbing up towards first place. Every month from this on there is certain to be many changes. Pen No. 56, White Orpingtons, from Kentucky, won the silver cup for the best record for February by laying 195 eggs in the twenty-eight days.

The standing of the ten leading pens (ten hens to the pen) for the first three and a half months, including the last fifteen days of November and all of December, January and February, is as follows:

Pen No.	Eggs.
2—S. C. White Leghorns, England	656
23—Silver Wyandottes, Illinois	541
19—Silver Wyandottes, Iowa	518
57—Black Langshans, Missouri	488
33—Barred Plymouth Rocks, Illinois	477
20—White Wyandottes, Arkansas	474
59—Black Orpingtons, Canada	459
30—Buff Wyandottes, Vermont	443
24—White Wyandottes, New Jersey	438
58—Buff Orpingtons, Missouri	433

A pen of S. C. Rhode Island Reds, from Florida, is only one egg behind the last-mentioned pen.

The ten best pen records for the month of February are as follows:

Pen No.	Eggs.
56—White Orpingtons, Kentucky	195
2—S. C. White Leghorns, England	180
49—Black Langshans, Missouri	180
19—Silver Wyandottes, Iowa	178
57—Black Langshans, Missouri	175
27—Silver Wyandottes, Missouri	165
33—Barred Plymouth Rocks, Illinois	163
20—White Wyandottes, Arkansas	161
37—S. C. Reds, Missouri	161
30—Buff Orpingtons, Vermont	159

Black Orpington, No. 2,052, in Pen No. 59, laid twenty-seven eggs in twenty-eight days. Seventy-eight hens out of the seven hundred have not laid an egg. A few contestants have made the mistake of sending old hens. Others did not have their stock mature enough. To make a good record in a contest like this the stock should be hatched early and fully matured by the time the contest begins. The best individual hen records to date are as follows:

Hen No.	Eggs.
66—S. C. White Leghorn, England	84
68—S. C. White Leghorn, England	82
2,076—Buff Orpington, Missouri	81
600—Buff Wyandotte, Missouri	79
65—S. C. White Leghorn, England	79
860—Buff Wyandotte, Vermont	79
709—Buff Plymouth Rock, Missouri	78
735—Black Langshan, Missouri	78
656—White Wyandotte, Arkansas	77
601—Silver Wyandotte, Iowa	77
2,158—Buff Orpington, Missouri	77

Results From Feeding Tests.

In this feeding experiment the positions of the ten pens remain the same, with the exception that the pen fed according to the New York method of feeding laying hens has advanced from ninth to seventh place. Where feed of all kinds is kept before the hens they seem to be doing best and laying the greatest number of eggs. The pen in which the hens feed themselves from hoppers and in which feed of various kinds are kept before them are forty-two eggs in the lead of their next competitor, the pen fed according to the Canadian method of feeding. So far, this experiment indicates that hens will lay more eggs in the winter months where they are hopper-fed, or fed from an automatic feeder, than where they are hand-fed. The results for the summer months may prove the opposite to be true for hot weather.

Pen No. 63—Maine Method of Feeding Laying Hens.

Dry grain fed in litter.

Early-morning feed—Cracked corn.

10:30 a. m. feed—Equal parts of wheat and oats.

Feed—About two quarts to fifty fowls.

Dry Mash—First Month.

300 pounds wheat bran.
100 pounds corn meal.
100 pounds cheap flour.
100 pounds beef scraps.

Dry Mash—Second Month.

200 pounds wheat bran.
100 pounds corn meal.
100 pounds cheap flour.
100 pounds gluten feed.
100 pounds meat scraps.

Third month—Same as second, only add fifty pounds linseed meal.

Fourth month—Same as second.

Fifth month—Same as third.

After this, feed as second month and add fifty pounds linseed meal every alternate month.

Green food—Sprouted oats, cabbage, mangels, etc. Grit—Shell and charcoal.

Hints on Feeding Baby Chicks.

The hatching season is on and it might be well to give a few suggestions as to how to feed or start baby chickens.

The first two or three weeks of a chicken's life is perhaps the most critical time in its history. If you can get the chicks safely over this period, then your problem is nearly solved. Then any feed which will give best results, which will tend to decrease the mortality, is not expensive, even if you have to buy it and pay a good price. You cannot afford to let anything stand in the way of providing the best feed obtainable to feed your chicks for at least the first three weeks after hatching. We have found that practically every farmer and poultry raiser has a little different method of feeding. If you are getting good results, I should not advise you to change it. While the method mentioned here is perhaps not the best, yet it has proven to be simple and safe in most cases.

Provide a hover for the hen and chickens, or a comfortable brooder for the incubator-hatched chicks. Cover the floor with clover chaff or fine cut straw or other litter free from mold or mustiness. Sprinkle a little fine grit over the floor and provide a fountain of pure water. Place the chicks in the brooder, but do not feed them for about forty-eight to seventy-two hours after they are hatched. The first food we give them is a little good-grade commercial chick feed, which is sprinkled in a clean place on the floor. This is fed at morning, noon and night. As soon as they have learned to eat, we sprinkle this feed in the litter and let them have the fun of scratching for it. Between meals, about 10 o'clock in the morning and about 2:30 in the afternoon, we sprinkle a little rolled oats or pinhead or steel-cut oats on the floor. We provide all the sour milk or buttermilk we can get the chicks to drink from the first day until the stock is fully matured. We prefer this to feeding them beef scraps. We also cut up an onion occasionally and give to the youngsters. This furnishes them with green food and also seems to aid in keeping them healthy. After the chicks are about ten days old we begin to feed a dry-mash mixture made as follows:

Two parts bran; one part corn meal; and one part shorts or middlings.

We mix in a little bone meal and a little fine charcoal and also include one-half pound of fine salt with every one hundred pounds of this dry mash. This is kept in a hopper or box where the chickens can eat it any time they become hungry. The same dry mash is used until the chickens have fully matured. If you cannot get sour milk or buttermilk, it will be necessary to add one-half part of dry beef scraps to the dry-mash mixture. After the chicks are from two to three weeks old we gradually change their grain food from the commercial chick feed to a mixture of two parts wheat and one part cracked corn or Kaffir corn. After the chicks are a month old, their grain food is all fed from hoppers. Try this method of feeding if you wish, but don't give up your own if you are already succeeding with it.

Trap-nest Your Hens and See Which Ones Lay.

That the only sure way to know which hens in a flock are doing the work and which are not "earning their keep" is by using the trap-nest, is the belief of Prof. James Dryden, of the Poultry Husbandry Department of the Oregon Agricultural College.

"High egg production is not a characteristic of any one breed of fowls," says Prof. Dryden. "The trap-nest has demonstrated this. There is no particular shape or type that indicates good laying qualities, so far, at any rate, as our present knowledge goes.

"The only certain method of separating the good layers from the poor is to use the trap-nest and keep a daily record of eggs laid. It is not always the fault of the feed and care that they don't do any better. It is the misfortune of the hen herself very often; she couldn't lay if she wanted to.

"It requires considerable time to keep a trap-nest record of a flock of hens. Not every farmer has the time, but if a few farmers in every county would trap-nest a flock of hens, in a few years all the farmers of the county would very likely have stock that were from heavy-laying trap-nested fowls. Where it is possible for a farmer to devote a little time to it each day he will be well repaid for the labor.

"The Oregon Experiment Station is trap-nesting a large flock each year and it is doing the best it can to furnish the farmers of the state with stock from good layers, with the object of increasing the egg yield in the state. It is desirable, of course, to keep a full year's record for each hen, but if that is not possible, a record for a part of the year would be valuable. For instance, a record of the first six months of laying, beginning probably in November, would show which were the good winter producers.

"Those that wouldn't produce well during the first six months would not be good fowls to keep for breeding, and they could be killed off. If it isn't possible to keep a six-months' record, then a three-months' record would be valuable. Hens that produced well for three months, beginning November, would be the most profitable fowls in the flock, and they should be retained for breeding early winter layers.

"It has been shown in our experiments that the poor layers during the first year are usually the poor layers the second year. If at the end of a full year's record all hens that had laid less than 100 eggs or 120 were to be killed off, it would save the farmers keeping a lot of fowls at a loss for another year. From 25 to 50 per cent. of the fowls in the average flocks do not pay for their keep."

Kitchen Floors.

If kitchen floors are painted with boiled linseed oil they are cleaned very easily.

$7.55 Still Buys World's Champion 140-Egg Incubator

Double cases all over; best copper tank; nursery, self-regulating. Best 140-chick hot-water brooder, **$4.85.** Ordered together, **$11.50.** Freight Paid (E. of Rockies). No machines at any price are better. Satisfaction guaranteed. Write for book today or send price now and save time. Jim Roban, Pres.

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Eggs From Full Blood Stock Eggs

26 White or Brown Leghorn Eggs	$1.50
13 Barred or White Plymouth Rock Eggs	1.00
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13 White Orpington Eggs	1.50
13 Rhode Island Red Eggs	1.00
13 Black Minorca Eggs	1.50
10 White Pekin Duck Eggs	1.00
10 Indian Runner Duck Eggs	1.00

100 Leghorn Eggs, $6. 100 White Orpington, $12. Others $8 per 100. 50c extra for 2 sittings or less by Parcel Post, otherwise by Express. Book orders early; will send when wanted.

Remit by Postal, or Express Order, on St. Louis.

W. F. CHAMBERLAIN, (*The Perfect Chick Feed Man*)

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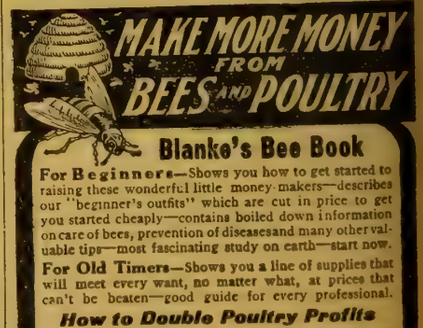

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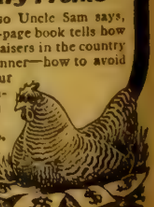
Fully 90% of all poultry raisers, so Uncle Sam says, could double their profits—our 128-page book tells how—concentrated experience of best raisers in the country—tells how to make each bird a winner—how to avoid the ruts and losses—how to buy your supplies right. We will never recommend buying a cent's worth you don't need—we couldn't afford to.



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FUSS AND FEATHERS.

A Few Remarks About Farm Poultry and Sprouted Oats.

"Fuss and feathers" is a common term of reproach, generally uttered behind the backs of fussy people. But sometimes the fuss and feathers produce excellent results. The writer has in mind the case of an amateur poultry raiser, who recently sold a young rooster for $150. He keeps but a small flock of poultry and is interested in them chiefly as show birds. He attends several of the neighboring small poultry shows and generally brings home some prizes. But this winter he not only took some prizes, but made such a reputation for the bird with which he did it that he was able to sell him for the sum mentioned above. This man has been a great fusser about his poultry, spending a great deal of time on them. This winter he has been following a regular system of sprouting oats, so that the fowls can have green food all through the winter months. He keeps three tubs of oats going all the time, as it takes two or three weeks to get a batch of oats into a condition where they will be green food instead of grain food.

He does this by taking three metal tubs and punching holes in the sides so they will permit the water to run out, after the water has been poured on the oats. He places one tub above the other, the tub above sitting on sticks placed across the tub below. This enables him to keep the oats moist with the least amount of trouble. He pours on the water, warm, about once a day, but needs only to pour it on the top tub, as it will run out of that into the second, and from the second into the third.

The tubs are in the basement and close to the furnace, but where they will also get light. Some of the oats sprout quickly, and others are slow in developing. He waits till some of the sprouts are several inches long before he begins feeding, and then gives the fowls all they will eat. He says that this kind of food keeps the birds in good condition and healthy and does not enable them to get fat. It means early development and early eggs.

With this goes a variety of food, of about every kind imaginable. To most people this excessive care looks like a waste of time, but this amateur turns his time into money. It is but another demonstration of the fact that, to make money from poultry raising, a great deal of care must be given to it.

The fact that poultry raising requires much care makes it a business best adapted to women, whether the raising of poultry be on the farm or on a town lot. It requires a person good at infinite details. For this reason we see many women very successful in it. On the farm the opportunity for women to engage in this work is very much greater than in the town, as the farm presents large possibilities for the securing of feed that costs little or nothing, such as grains wasted in the fields, grass that would not be harvested, and grasshoppers and other insects that no one has a use for except as a food for the poultry. The combination of woman and farm poultry is bound to be a large factor in the future prosperity of this country.

Root Sales at St. Louis.

During the last week in March the roots received from the country at St. Louis were sold on the basis of the following quotations. Quote by the pound: Golden Seal, $3.35; Lady Slipper, 14c.; Seneca, 36 to 38c.; Pink, 20c.; Black, 7c.—damp, dirty less; May Apple, 4c.; Snake, 24 to 26c.—stemmy and leafy less; Kansas Black Snake (Echinacea), 10c.—split root half price; Oklahoma Black Snake, 9c.—Missouri worthless; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 5c.; Blood, 4½c.; Blueflag, 5c.; Sassafras—Bark of root, 5c.; Wild Ginger, 8c.; Spikenard, 3c.; Scullcap leaves, bright, 9c., but dark less; Wild Ginseng, $6.25 to $6.50; cultivated do., $2.50. The National Farmer and Stock Grower receives occasional inquiries concerning the sale of roots and is glad to get someone in the trade to answer them, but the first thing needful is for those inquiring to say exactly what quantity they have to ship and to send a sample of the goods.

St. Louis Feather Quotations.

Consignments of feathers received from the country were sold on the St. Louis market during the last week in March as follows. Quote by the pound: Prime white live goose, 63c.; prime gray do., 44c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10 cents; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck feathers—White, 44c.; dark, 30c. Chicken—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c. Turkey—Body, dry, 8c.; quill-mixed, 18c.

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By R. E. Olds, Designer

After 26 years of experience, I tell you a car for the average road ought to be built like this.

Overcapacity

The builder must know the needed strength. Then he must add at least 50 per cent, as we do in this Reo the Fifth.

He must know his steel—have it made to his formula. Then analyze it twice to make sure of it.

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Tires are expensive. But oversize tires are essential to low upkeep. We use 34x4.

Roller bearings cost five times as much as common ball bearings cost. But the right car must have them. In Reo the Fifth we use 15, eleven of which are Timkens.

Drop forgings are costly, but we use 190 to avoid the risk of flaws. We use a $75 magneto, big brakes and springs, a doubly heated carburetor, a centrifugal pump. And not an engine goes out until 48 hours have been spent in five radical tests.

Reo the Fifth, without these extremes, would cost in the building $200 less. But in the next five years repairs and upkeep would cost you several times that much.

I Know

These are things I know. I have learned them from tens of thousands of cars in my 26 years of car building.

These extra precautions cost this concern two million dollars per year. We are not spending that without knowing the need of them.

We save by efficiency—by building all our own parts. We save 20 per cent by building only one model. Then we spend all those savings on hidden parts. To give you a car which, year after year, will serve you as well as when new.

Look below the frills when you buy a car. All modern cars are attractive. Find out what the maker hides.

A one-summer car is built very differently from a car that is built for keeps. If you want an honest car—a car that endures—watch these inner features.

New Control

Reo the Fifth has our new control. All the gear shifting is done with one center rod, entirely out of the way. It is done by moving this rod only three inches in each of four directions.

There are no levers to clog the way of the driver. Both brakes are operated by foot pedals. And this car, like all the leading cars, has the left side drive.

A 17-coated body, nickel trimmings, electric lights, genuine leather—all the luxury you want.

Write for our catalog and we will direct you to the nearest Reo showroom. They are everywhere.

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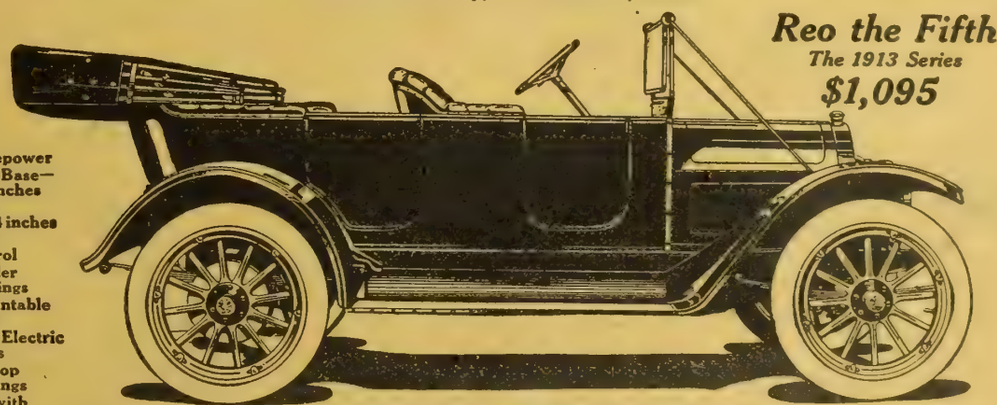

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Made with 5 and 2 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for $100 extra (list price $170). (Gray & Davis Electric Lighting and Starting System at an extra price, if wanted.)

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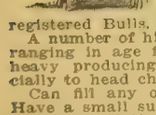
I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912; to March 1, 1913.



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Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me regarding your wants.

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DOGS FOR SALE.—White and Silver Gray Spotted Shepherds, with glass eyes. Natural-born heelers. **J. C. BENTLEY, Brighton, Macoupin County, Ill.**

SADDLERS.

Forty Saddle Stallions, Mares, Colts and Fillies of the best Denmark and Chief blood. Special prices on Stallions for the next thirty days. J. F. COOK, Lexington, Ky.

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

JACKS AND PERCHERONS.

We have twenty-five of the biggest and best mammoth Jacks in Kentucky and a few Percheron Stallions. We will cut the price from $100 to $300 per head on every one. We have a big stock of High-grade Percheron Mares, Hampshire Swine and big Black Pigs. Write your wants and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.

TAMWORTHS FOR SALE. The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned be me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds.

CHAS. FORD, Mortonsville, Woodford County, Kentucky.

55 BREEDS

Pure-bred **Chickens, Ducks, Geese, Turkeys,** also **Incubators, Supplies** and **Collie Dogs.** Send 4c for large poultry book, Incubator Catalog and Price list. **H. H. HINIKER, Box 25, Mankato, Minn.**

CHAMPION DUROC-JERSEY PIGS

For sale out of prize-winning Sows and by Col. Prince, 35,707, he by Prince of Cols., the two greatest living Boars. One champion yearling Show Boar.

J. H. HENDERSON, Locust Hill Duroc Farm, Box 80, R. R. 6, Jackson, Tenn.

EGGS FOR HATCHING

From stock scoring 90 to 95¾. Write for mating list. Twelve standard varieties.

MUELLER FARM, Wellsville, Mo.

43 VARIETIES poultry, pigeons, ducks, geese, water fowl, incubators, feed and supplies. Catalogue 4 cents. **MISSOURI SQUAB CO., Dept. Z P, Kirkwood, Mo**

MILL CREEK STOCK FARM.

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) Written guarantee. Catalogues contain pictures of each animal. Also Jersey Cattle.

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Long Distance Phone, Main 1326.

Butter Profits

You ought to get more butter profits. Jersey Cattle mean more butter profits, because they yield more butter fat at less net cost of keep than any other breed.

THE JERSEY

excels in beauty of dairy type. She is a persistent milker. Jerseys are easily acclimated. They live long and keep healthy. They mean *steady* butter profits. Write now for Jersey facts. Free for the asking.

AMERICAN JERSEY CATTLE CLUB 324 W. 23d St., New York

The sausage eaten in this country in the course of a year would encircle the earth more than six times.

MONEY IN BEANS.

A Crop That is Enriching California, Michigan and New York, Yet is Neglected in Other States, to Their Loss—A Comparison With Wheat.

"Why do not farmers raise more beans?" We were asked that question by a man who said: "If the crop of the white navy beans was multiplied by three it would not be too large for the market to handle and the people to consume." Usually beans reach the consumer as they leave the farmer, except for cooking. Wheat is ground into flour and made into bread, and several profits are added to the original cost; but the bean leaves the farm and is placed upon the dinner table without any manipulation, and maybe, for that reason, a bushel of beans is often worth three times the farm value of a bushel of wheat.

The United States production of the bean during the year 1909 (the last census year) was 11,251,160 bushels, and the crop was grown upon 802,991 acres. The farm value of the crop was $21,771,482. The crop averaged fourteen bushels to the acre, and the price per bushel on the farm averaged $1.94, making the crop average of $27.16 per acre.

But average tables include many states where beans are not grown systematically, and they figure on local markets as to price. Many a better showing is made. For instance, in 1912, in Effingham county, Illinois, where the most beans are raised of any county in Illinois, the average yield was seventeen bushels per acre, and the price realized was $3.00 per bushel, bringing the crop value up to $51 per acre. The average farm value of beans given by the Department of Agriculture for six years is $2.35 per bushel, and the average farm price of wheat is placed at 91½ cents a bushel for the same period. The average crop per acre of wheat in the United States in 1912 was 15.1 bushels, which was valued on farms, December 1st, 1912, at 80.9 cents, or $12.22 per acre. Whenever beans and wheat are compared, the result is always to the advantage of the bean grower.

Although beans are charged a customs duty of 25 cents a bushel, the imports amount to 1,200,000 bushels a year. The principal states producing navy beans are California, 3,323,608 bushels; Michigan, 5,282,511 bushels; New York, 1,681,506 bushels. All other states produced less than a million bushels. In other states bean growing is advancing.

There is no question about locality. Beans will grow on almost any soil and in any country. In Europe the largest crops are raised in Spain, Italy, Austria and in Great Britain. In England thirty-three bushels were raised to the acre in 1910. Wherever wheat and corn will grow, beans can be grown. In large sections, where cowpeas are grown, being planted when corn is laid by, beans could be raised and matured. And it is an open question whether or not beans can be planted and matured after oats and wheat crops are harvested. The most successful bean growers of the Northern States recommend planting about the middle of June. Experts agree that the plowing should be at least six inches deep. As legumes, beans equal cowpeas, soy beans, etc., and have a place in the rotation of crops.

In recent years the canners by vigorous exploitation sold an immense quantity of beans, and are ready to establish canneries wherever beans are grown in sufficient quantities, and this should cause the farmers, the Agricultural Experiment Stations, the Farm Advisers and the Agricultural Department at Washington to take more interest in beans, a crop that is coming to the front on three items—easy cultivation, satisfactory yields and good prices.

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Quality Certified Durability Guaranteed

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The users of this modern, easy-to-lay ***Certain-teed*** **Roofing** are saving thousands of dollars—on every roll and crate of shingles is a ***Certain-teed*** label of Quality—a 15-year guarantee of Durability.

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"Modern Building Ideas and Plans"—It would ordinarily sell for $1—but as it illustrates the use of our ***Certain-teed*** **Roofing** on all kinds model city, factory, and farm buildings, we offer it to you at 25c. We prefer to have you go to your lumber, hardware or building material dealer, who will gladly get you a copy ***Free.*** If you write us, enclose 25c to cover cost, postage and mailing.

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A Great Horse Story

KATE and QUEEN

By Prof. Jesse Beery

Surpasses the famous "Black Beauty" "Kate" a victim of poor handling is vividly contrast-with "Queen" who was more fortunate. You sympathize with one—rejoice with the other.

Prof. Beery has woven into this intensely interesting story, many valuable suggestions for handling horses—a result of a lifetime's experience. Thousands praise it. Sells for 50c, but a limited number only will be sent for the names and addresses of 5 horse owners and 10c to cover postage and pack'g.

FREE With each book we also send FREE a beautiful colored picture of Queen—oil painting effect—suitable for framing. Send today.

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Wet Weather Comfort

is yours, no matter what you are up against, if you own a

Fish Brand Reflex Slicker

The coat that keeps out ALL the rain

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Satisfaction Guaranteed and **we mean it.**

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Tower Canadian Limited, Toronto 213

CHAMPION SEED CORN PREMIUMS

Offered to Our Readers Who Send Us a Special Subscription—Yellow Dent Corn Pure Bred Since 1847.

Johnson County White Corn That Won Many Grand Championships.

This is the Last Time This Season the Offer Will Appear.

The subject of seed corn is of the utmost importance, especially at this time. Pretty good seed corn is easy to get, but superior seed corn is scarce. Even the successful seed corn growers have good and bad seasons, and there is great variation, one year with another, in vitality and quality of their seeds.

Only one thing can be guaranteed, and that is, pure-bred seeds, like pure-bred animals, produce true to type, and sometimes after years of careful selection in breeding there is worked out an almost imperceptible improvement. The road to improvement is rough and rocky, and upon it there are many obstacles; but ultimate success is possible, and only possible, by using seeds of the right breeding and quality. The backward road is easy to travel by using seeds of no breeding and only containing the qualities that even negligence in farming cannot destroy. Promiscuous seeding of unknown corn results in smaller crops of low-grade corn. Nature may save the crop by an excellent season, but the general result is bad.

As a step towards general improvement, every corn grower should have one or more experimental plots each year, using small quantities of different seeds that have proven to be superior in the great corn contests of the United States.

The National Farmer and Stock Grower has furnished opportunities for farmers to obtain such seeds for the past five years.

We are now distributing small quantities of seed corn distinctly different and grown by two great corn improvers—one, D. L. Pascal, of Iowa, who has grown Reid's Yellow Dent Corn that he obtained pure from the originator. Mr. Pascal has won many prizes. He has also furnished us seed from which our subscribers have grown ears of corn that have won prizes at State and Interstate Fairs and at the National Corn Show. Reid's Yellow Dent Seed Corn has been bred pure since the year 1847.

The other eminent corn breeder whose seed corn we are distributing is the famous L. B. Clore, of Indiana, growing Johnson County White Corn. His World's Fair and National Corn Show championships are many, and no corn improver on the face of the earth is his equal. He is now barred from competition.

We have bought the seed corn we send out from Mr. Pascal and we have bought seed corn from Mr. Clore. We will send it out in twenty-ounce packages as subscription premiums. We will be able to fill all orders received during the month of April.

Our Subscription Proposition.

Anyone who will send us the amount of sixty (60) cents we will send The National Farmer and Stock Grower for one year, and we will send as a premium a package containing twenty ounces of Yellow Dent Seed Corn grown by Mr. Pascal, or, if preferred, we will send twenty ounces of Johnson County White Corn grown by Mr. Clore. Take your pick of which corn you desire, and if you wish both kinds, send one dollar ($1.00) and be credited with two-years' subscription and two twenty-ounce packages of seed corn. All seeds are sent out on the day the subscription arrives. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Wool Sales in St. Louis.

St. Louis was always a first-class wool market, and received and sold an average of 27,000,000 pounds of wool during the past five years. There are not many firms in the wool commission business, but quite a number of houses are there that buy for the account of Western mills. If there is any activity in wool, the St. Louis trade is very quick to take advantage of it, and oftentimes the St. Louis market has led an advance. One of the commission firms handling wool strictly on commission is A. J. Child & Sons, 511 North Main street, St. Louis, Mo. They have been in business in St. Louis thirty-eight years. They have a card in this paper, and sheep raisers who wish to keep in touch with the market should write them for their wool market reports.

It would be worth considerable to farmers, and in general to most American industries, if Congress would adjourn immediately. Taking the duty off wool and adding twenty millions to the internal taxes looks like suicide.

Elkhart Vehicles and Harness

have a world-wide reputation for high quality and our prices have made them famous.

FORTY YEARS'

experience selling to the consumer means success.

We ship for examination, **guaranteeing** safe delivery, satisfaction and to save you money.

Catalog shows all styles of pleasure vehicles and harness, pony vehicles and harness, spring wagons, delivery wagons and harness.

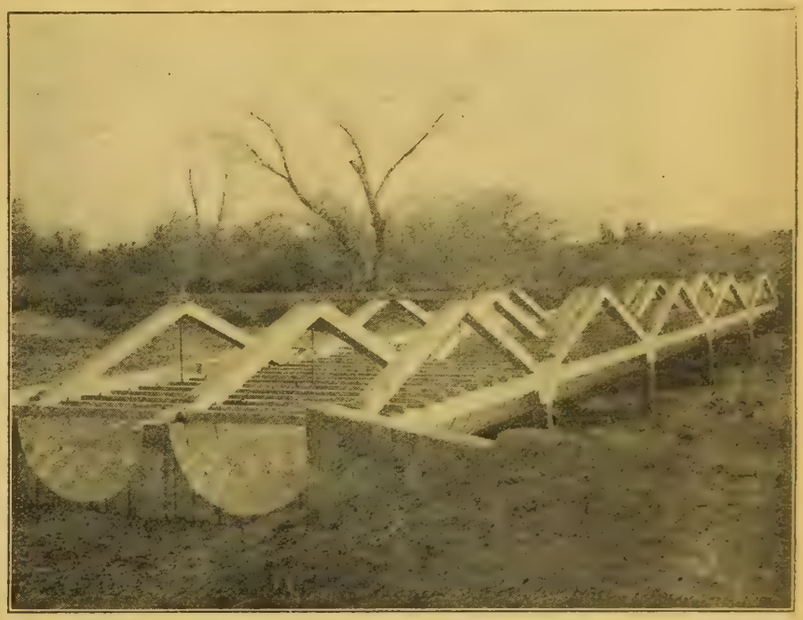
May we send you large catalog?

We also make the "Pratt" Automobiles.

Elkhart Carriage & Harness Mfg. Company
Elkhart, Indiana

Save $25

[Please mention National Farmer and Stock Grower.]



INGOT IRON CORRUGATED TWIN FLUMES INSTALLED BY THE FRESNO CANAL AND IRRIGATION COMPANY. This illustration shows one of the various uses of the American Iron Culverts advertised on page 23. A subscription to the Highway Magazine, devoted to road building, is offered to our readers who are interested in the construction of good roads. Write for it to Highway Magazine, 532 Walnut street, Cincinnati, Ohio.

Pigs Without Worms

I'll Stop Your Losses from Worms—I'll Prove It 60 Days Before You Pay

Little pigs only a few weeks old are often found loaded with worms. Hogs of all ages suffer from these deadly parasites. Then cholera, swine plague and other contagious diseases get in their destructive work. Stock troubled with worms don't thrive; they cough, have fever, act dull, and don't gain a pound. Your feed is wasted; your profits are stolen. Your animals frequently die, causing total loss of many dollars. I'll stop all this **quick** with Sal-Vet, the great worm destroyer and conditioner. I have done it for thousands of others. I'll do it for you, before you pay me a penny, if you will just send me the coupon.

Read This Letter: "Have fed Sal-Vet to my hogs and lost none. Neighbors both sides of me, east and west, have had cholera bad. One west of me, on adjoining farm, lost about forty hogs and pigs with cholera; the one east, on adjoining farm, lost all he had, excepting four."
A. J. HOFFMAN, Leipsic, Ohio.

SAL-VET

Send No Money—Just the Coupon

If you will fill out the coupon—tell me how many head of stock you have—mail it to me, I'll ship enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives, and when the 60 days are up report results. If it does not rid all your stock of the deadly stomach and free intestinal worms, I'll cancel the charge—you won't owe me a cent. [72]

Prices 40 lbs. $2.25, 100 lbs. $5.00, 200 lbs. $9.00, 300 lbs. $13.00, 500 lbs. $21.12. No order filled less than 40 lbs.

S. R. Feil, Pres. **THE S. R. FEIL CO., Dept NFSG Cleveland, Ohio**

60-day trial shipments are based on 1 lb. of "Sal-Vet" for each hog or sheep, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

SIDNEY R. FEIL, Pres. THE S. R. FEIL CO., Cleveland, Ohio
Ship me enough SAL-VET to last my stock 60 days. I will pay the freight and report results in 60 days and will then pay for it if does what you claim. If it does not you are to cancel the charge.

Name..... $
P. O.....
Shipping Sta.....
State.....
Sheep.....Hogs.....
Cattle.....Horses.....
NFSG 4-1-13

BREEDING ARMY REMOUNTS.

List of Stallions Approved and Owned by the Government and Where Located.

Four Breeds Represented — The Morgan, Standard-bred Trotters, American Saddle Horse and the Thoroughbred.

The United States Department of Agriculture has completed for the present the purchase of stallions for the use in the encouragement of the breeding of horses for military purposes. Four Morgans, ten standard-breds, eleven American saddle horses and nine thoroughbreds have been purchased. These stallions, with four or five Morgans from the Morgan Horse Farm and six thoroughbreds presented to the government, will be available for public service during the season of 1913, making a total of at least forty-four stallions. Local wishes will be respected, and the breed of the stallion placed in a community will be that which is most generally preferred by that community. Accordingly, the Morgans will stand in Vermont and New Hampshire; the thoroughbreds mainly in Virginia; the saddle horses and standard-breds mainly in West Virginia, Kentucky and Tennessee. Furthermore, every effort is to be made to avoid competing with privately-owned stallions, and horses will not be placed in communities which are already well supplied.

The government has not spared expense in the purchase of horses. The first requisites were that they should be good, sound individuals, and registered in the proper stud books. Good breeding was, therefore, essential, and in many cases stake and show-ring winners were obtained, but no horse was bought solely because he was a race winner or solely on account of his pedigree.

These horses will be available for public service on liberal terms. The owners of sound mares, with a square trotting gait, may breed such mares free of charge, provided they give the government on option on the foal during the year it is three years of age at $150. However, the government will not hold the breeder of a foal to his option if he wishes to be released, but will allow him to cancel the option at any time by paying the service fee. This fee will be $25 for mature stallions and less for those under five years of age. In buying the colts, the War Department has agreed to purchase both mares and geldings. No service fee will be charged unless the owner elects to cancel his option. If the government buys the colt, no fee is charged; if the colt is offered to the government and purchase refused, no fee is charged.

On account of the provision for free service, the government believes that the mares bred should be suitable for the purpose, and therefore it will be necessary to breed only those which are free from the following unsoundness: Bone spavin, ring bone, side bone, heaves, string-halt, lameness of any kind, roaring, periodic ophthalmia and blindness, partial or complete. Mares must also be free from manifest faults of conformation, such as curby hocks; pacing mares will not be bred. Approved mares will be given a certificate of registration in the Remount Brood Mare Register of the Agricultural Department.

For further information mare owners in Vermont and New Hampshire should write to W. F. Hammond, in charge of the New England Horse Breeding District, Middlebury, Vt.; and those in Virginia, West Virginia, Kentucky and Tennessee should should correspond with H. H. Reese, in charge of the Central Horse Breeding District, Front Royal, Va.

LIST OF AVAILABLE STALLIONS.

Morgans.

Bennington, 5,693.—Age, 5; color, bay; sired by General Gates, 666; dam, Mrs. Culvers, 3,711 (S.).

Castor, 5,833.—4; bay; sired by General Gates, 666; dam, Babe by Bob Morgan, 4,549.

Red Oak, 5,249.—7; bay; sired by General Gates, 666; dam, Marguerite by White River Morgan, 482.

Snoqualmie, 5,783.—4; bay; sired by Troubadour, 5,125; dam, Sarah by Gov. Fiske, 3,971.

Daniel Webster Lambert, 6,529.—6; chestnut; sired by Lambert B., 5,238; dam, Aggie by Cobden, 1,515.

Madison Lambert, 6,530.—6; bay; sired by Lambert B., 5,238; dam, Jessie T. by Harlus.

Prince M., 6,749.—3; bay; sired by Ethan Allen, 3d, 3,987; dam, Topsy M. by Lambert H., 5,459.

Donlyn.—4; bay; sired by Donald; dam by Billy Roberts.

Saddle Horses.

Richmond Choice, 4,578.—3; brown; sired by Rex Peavine, 1,796; dam, Dianah Mason, 5,816, by King Richard, 2,879.

Victor Peavine, 5,264.—2; chestnut; sired by Rex Peavine, 1,796; dam, Pattie Stone, 5,773, by King Richard, 2,879.

Fairacre King, 1,059.—4; chestnut; sired by Bourbon King, 1,788; dam, Aletha Chief by Bourbon Chief, 976.

Young Bill, 5,910.—5; chestnut; sired by Golden King, 2,359; dam, Mary Wells, 2,784, by Bourbon Chief, 976.

Beechwold Chester.—7; brown; sired by Happy Dare, 1,870; dam, Mollie Nicholls, 4,788, by Denmark Chief, J. B., 682.

Captain Peary, 4,161.—4; bay; sired by Highland Flower, 1,662; dam, Nancy Lee, 476, by Monte Christo, 59.

Hamilton's Chief, 5,801.—5; chestnut; sired by Bourbon Chief, 976; dam, Belle McDonald, 1,499, by Rex McDonald, 833.

Highland Cloud, 3,490.—5; bay; sired by Cloud King, 2,198; dam, Valeda, 2,613, by Highland Denmark, 730.

Jesse Dare, 6,100.—6; chestnut; sired by Highland Dare, 1,534; dam, Lizzie Squirrel, 9,091, by Black Squirrel, 58.

Judge Collins, 2,553.—9; bay; sired by Highland Denmark, 730; dam, Nora N., 2,071, by Black Squirrel, 58.

High Vine, 2,733.—9; chestnut; sired by Highland Gaines, 1,667; dam, Bessie Sable, 2,882, by Shropshire's Kentucky Squirrel, 1,365.

Standard-breds.

MacNunne, 45,328.—7; bay; sired by MacDougall, 33,606; dam, The Nunne by Young Jim, 2,069.

Sigler, 51,525.—4; bay; sired by Red Medium, 30,516; dam, Maud Sigler by Wilton, 5,982.

Lord Rion, 52,777 (Record as Lord Arion).—9; bay; sired by Arion, 18,000; dam, Madge Fullerton by Young Fullerton, 3,528.

Be Gue, 52,852.—8; bay; sired by Wiggins, 33,907; dam, Lady Crescent by Cyclone, 1,956.

Twilight M., 41,993.—8; chestnut; sired by Delmont J., 39,474; dam, May Fry by Charleston, 9,589.

King Spier, 46,820.—6; brown; sired by Directum Spier, 35,012; dam, Lady Thisbe by Milroi, 20,525.

Richford Jay, 52,050.—4; bay; sired by Jay McGregor, 37,692; dam, Ecka by Richford Baron, 44,951.

Glacier B., 32,181.—14; black; sired by Bob Mc., 20,539; dam, L. E. W. by Clark Chief, Jr., 2,110.

The Tribesman, 54,716.—6; brown; sired by The Clansman, 40,942; dam, Black Eagle Belle by Bow Bells, 13,073.

Hamlin McKinney, 53,966.—6; bay; sired by McKinney, 8,818; dam, Lucinda Hamlin by Mambrino King, 1,279.

Thoroughbreds.

Charcot.—10; brown; sired by Common; dam, Spanish Match by Royal Hampton.

Gold Heels.—15; bay; sired by The Bard; dam, Heel and Toe by Glenelg.

Kind Sir.—4; bay; sired by Flambeau; dam, Flora Dora by Meddler.

Myles O'Connell.—6; brown; sired by Milo; dam, Meteora by Magnet.

Jack Parker.—7; chestnut; sired by Golden Garter; dam, Flora Mac by Falsetto.

Ganadore.—4; bay; sired by The Commoner; dam, Mountain Mist by Magnetizer.

Lynchburg.—4; brown; sired by The Scribe; dam, Rose Washington by Faustus.

Single File.—5; chestnut; sired by Sir Dixon; dam, Single Shot by Star Shoot.

Demodus.—3; bay; sired by Nasturtium; dam, Iveragh by Springfield.

Henry of Navarre.—22; chestnut; sired by Knight of Ellerslie; dam, Moss Rose by Ill-Used.

Octagon.—19; chestnut; sired by Rayon d' Or; dam, Ortega) by Ben d' Or.

Belfry, II.—5; bay; sired by Rock Sand; dam, Hidame by Octagon.

Footprint.—7; chestnut; sired by Rock Sand; dam, Fetish by Rayon d' Or.

Dandy Rock.—3; brown; sired by Rock Sand; dam, Donna Mia by Ill-Used.

Booka Booka.—6; brown; sired by Ben Brush; dam, The Meeca by Midlothian.

Feeding Cattle in Mississippi.

Prof. E. R. Lloyd, of the Mississippi Agricultural Experiment Station, speaking of his experience in cattle feeding, said:

"When the feeding of a single steer under uncommon conditions was displaced by the feeding of a car-load under ordinary farm conditions, beef producers began to profit by the work of our Experiment Stations. Last winter this station fed and finished two car-loads of Mississippi-raised steers and made a net profit of nearly $500 per car on them. Such practical experiments as this encouraged many cattle raisers in the state to feed and finish their steers rather than sell them at a low price off the pasture. The feeding of cattle on the farm means much more to the farmer than merely the profit on the cattle. It means more manure to apply to the soil, a richer soil, and cheaper crops in future."

On the Farm and in Town— Here are Shoes that Stand the Test for Wear and Comfort

Outdoor Shoes

Knocking around out-of-doors, a man gives a shoe the hardest kind of wear. The moisture of wet weather and repeated dryings—these test the life and comfort of a shoe.

The best materials possible at the price, experience in cutting, and careful workmanship—that's the secret of Dittmann Quality.

Long Standing

on your feet from morning until night, madam—but you will feel it less if your busy feet are wearing Dittmann Shoes.

We've been 69 years making comfort shoes—and we combine style with the comfort and quality.

In the house—on the street—it's a good habit to wear Dittmann Shoes.

THE NAME ST. LOUIS Dittmann SHOES ASSURES THE QUALITY

Start the children right in the shoes that are right for children—**9 o'clock School Shoes**

9 O'clock Coupons get Flags for Schools

There is a Dittmann dealer in your locality. If you do not know him, write us today and we will promptly give you his address.

It pays to trade with Dittmann dealers

Dittmann Shoe Co.

Manufacturers ST. LOUIS

The Hercules Stump Puller.

The following letter explains itself. It was written from Warm River, Idaho, January 10th, 1913, addressed to the Hale Publishing Co., as follows: "Gentlemen:—In reply to yours in regard to the Hercules Stump Puller, beg to say that it has more than made good in every respect. I pulled 178 stumps, ranging from six inches to fifteen inches in diameter, in seven hours. My machine is the smallest all-steel puller the Hercules people manufacture. It is my first experience with a stump puller. Respectfully, Yours, H. W. Estes."

The advertisement of the Hercules Stump Puller is on page 23. Anyone who desires to receive a copy of the Free Book on Stump Pulling should address Hercules Mfg. Co., 140 21st street, Centerville, Iowa.

Dried Fruit Quotations at St. Louis.

These prices quoted on March 30th represent sale of farmers' shipments at wholesale: Apples—Evaporated rings—Inferior, 3 to 3½c.; fair to prime, 3¾c.; choice at 3.85 to 4c.; chops, cores and peelings, ½ to ¾c.; sun-dried—Dark and poor, 2 to 2½c.; large bright quarters, 3c. Peaches—Sun-dried halves, 5 to 6c.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Asparagus Bed.

Nearly in all our big cities there are market gardeners who have found that there is a great deal of money in the raising of asparagus. What is true in the case of market gardeners is also true of farmers, many of whom have long since discovered that the asparagus plant is a money-maker when market conditions are right and the growing and marketing are properly done. Every farm should have a good, big asparagus bed, even when shipping is not intended. It will provide a large amount of very delicious food in the early spring, when such green food is at a premium.

Talking with a market gardener, the writer asked him what one thing had proved most profitable to him. He replied that his five-acre patch of asparagus made him more money than anything else; but he said also that he gave this part of his farm a great deal of attention. It was easy to believe. The writer pushed his way through a part of his patch several months after cutting had stopped. The stalks were then as high as his head and very thick, showing that the soil was being maintained at a high state of fertility.

This was actually the case, for the owner said that it was his custom to begin hauling on barn-yard manure as soon as the cutting was over in the late spring, and haul on as much as he could spare, while in the late fall and during the winter he spread additional manure over the area covered by the asparagus.

It is of no use to attempt to raise asparagus without manuring it heavily. It is a gross feeder and a gross user of water. Where little manure is given and the supply of water is limited, it is vain to expect much from this plant. The market gardeners know by experience that only by heavy manuring can big and early stalks be expected.

In setting out a new asparagus bed, the land must be well prepared before the plants are set. It should be plowed as deeply as possible and plowed again as soon as the first-turned sod has rotted. Manure should be applied to a depth of several inches, and this also plowed or cultivated in.

The furrows for the placing of the plants should be about six feet apart, and the asparagus plants set in the furrows about a foot apart. Some say six inches apart, but this will be found to be too close if the land is made rich and kept so. This is to encourage the growing of big stalks, rather than a greater number of smaller ones.

Setting the plants seven or eight inches below the surface will give enough room above them. The old idea was that a trench several feet deep should be dug, partly filled with manure, but that the plants themselves should be at least two feet below the surface of the ground. This practice has long since been discarded. It was a wrong practice for several reasons. First, it required too long growth of a stalk before it got to the top of the ground, where it could be cut for market; second, the plant was below the effect of the sun, and the elaboration of plant food did not go on as rapidly as it would have done if the plant were a foot nearer the surface; third, it was more affected by bad drainage; and, fourth, the cost of setting out a bed was much greater under the trench method.

Two-year-old plants are probably best for setting, though this is a matter that is a cause of much discussion. Some use three-year-old plants and some use one-year-old plants. The latter, if used, have to be very carefully set out and tended.

Long Sleep For a Horse.

Great harness horses almost invariably have other characteristics of greatness in addition to their extreme speed. Trainers invariably inquire as to the temper of their pacer or trotter after it is known that he possesses speed. Independence Boy, 2:01½, the Columbus pacer, who still holds the world's record for the three fastest heats ever paced in a race, many will recall had his left hind ankle fractured during a grand circuit heat last fall. He has been in a sling ever since a week ago.

The almost human capacity for making himself comfortable while afflicted brings out many interesting little tricks the great pacer planned to get the most comfort out of his predicament.

Hanging in his big leather and canvas swing, day after day, he managed to hobble into a certain position and then relax his four limbs while he snoozed away for a little respite. However, he did not get a single night's sleep during the eight or nine weeks he was strapped in "the rafters," and one of the oddest incidents ever noted about a healthy horse was noted when he was relieved.

When his ankle was pronounced strong and the canvas was removed he stood on his four legs, looked around at his attendants with genuine horse satisfaction, and with a "here goes for a snooze" tumbled on his downy bed of oat straw and slept for fourteen straight hours. So sound was his slumber that the attendants thought it advisable to turn him over after eight hours, and he was turned over from one side to the other without even stopping his snoring or awakening. Horsemen and veterinarians declare it was the most remarkable exhibition of absolute slumber they had ever seen.

Independence Boy, during his illness, permitted the most exacting attention to his injury without a cross twitch of the ear. He is now permitted to ramble about the lawn outside of his stable, and only yesterday kicked his heels high, declaring by the act that he was practically as good as ever. Charley Hayes, his owner, of course, thinks Independence Boy his best friend, and the animal's intelligent and patient manner during his long siege have made at least one such thing as "horse sense."—American Sportsman.

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Dittmann (St. Louis) Shoes.

Attention is invited to the card of the Dittmann Shoe Company. This is one of the great firms that have made St. Louis famous as the largest boot and shoe center in the United States, and the Dittmann Shoes are all sold in retail stores direct from the manufacturer, so that you can find the merchant in your home town and have the benefit of the full stock of Dittmann Shoes and sizes. You therefore support your home community in the first place and the industries of the nearest city that buys many million dollars' worth of farm products a year in the second place. The Dittmann Shoe Company has an honorable record of sixty-nine years in the business of making shoes, and their card in this paper on page 22 is interesting and instructive.

Goodyear Automobile Tires.

At automobile shows it is customary to take stock of the cars with a view of ascertaining which tire equipment is in the lead. At Boston, Mass., recently, with 310 cars of various makes on exhibit, 120 were equipped with Goodyear Tires, and Goodyear is a Western-made tire. All automobile owners must renew their tires at some time, and it is well to be acquainted with the tire that the manufacturer is able to advertise, first, "more in use than any other tire," and, secondly, "furnishing 25 per cent. more mileage than any other tire." Read the advertisement on page 7 and write to Goodyear Tire and Rubber Company, and ask for the Tire Book, fourteenth edition, as advertised in The National Farmer and Stock Grower.

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Pull an acre or more of stumps a day. Pull any stump in 5 minutes or less. Don't have loafer land when it's so easy and cheap to *pull the stumps out!* Make 1000% profit by using the Hercules. $1281.00 the *first year* on 40 acres! $750.00 every year after. Let us *prove* it.

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Lost Motion.

Some observing man has been making a business within the past year of investigating the methods of modern surgery in some of the best institutions, and he declares that from 10 to 30 per cent. of the time now taken might be eliminated. That is, this amount of time under the influence of an anaesthetic might be cut out, an item which might easily turn the tide of affairs from the unfavorable to the favorable.

If this is true of skilled workmen, how much more is it likely to be true where the main thought is in getting the work done and done properly? The farm is in many ways a typical illustration of this, for while the manufacturer and mechanic have many tools and a multitude of machinery to assist them, the duties of the farm are so varied and cover so wide a range of space that comparatively little has come to supply the needs.

Some time before long much of the farm work will be shortened by machinery; but in the meantime we can individually do a great deal to help ourselves. There are few kitchens in which many steps are not needlessly taken. We get into the habit of going on the impulse of the moment, without regard for the short cuts quite as easily followed. Did you ever stop to think, when getting a meal or washing dishes, how a trifle changed in some way might help in this matter? There are occasional houses so planned that kitchen, dining room and cellar seem to be most closely united for practical purposes; but they are few. In the majority of farm homes there is still chance for a saving of lost motion, and some of this might be gathered up by a little brain work when the labor is being performed. Think over it, and see if this may not apply in your own home. If the skilled surgeon potters without suspecting it, thereby endangering human life, what may we not be losing in the every-day routine of farm life? And yet our time is worth saving; the extra time which we might have could be used in still further bettering existing conditions.—Bessie L. Putnam.

Three Indian Dolls For 30c.

And a year's subscription to the Universal Magazine. These dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—THE PRINCESS TAMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. The Universal Magazine is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashion and poetry—a splendid publication. Send us thirty (30) cents for one year's subscription to the Universal Magazine and one set of Dolls or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed. Address THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Among the Flowers.

When arranging the summer garden, be sure that the ground is thoroughly enriched. This can be more easily done before the seeds are sown than later, although frequent applications of liquid manure later are always beneficial.

If seeding is done among the spring flowering bulbs, work well-decayed fertilizer between the bulbs, for they are gross feeders and the drain upon the soil must be made good, if a robust summer growth is expected.

In bedding plants, take into consideration the surroundings before deciding upon any pronounced colors. If you have a light background, a bed of scarlet salvia or geraniums will be beautiful, especially if margined with the old-fashioned "Dusty Miller," or the dwarf white-edged Mme. Salleroi geranium. But if the bed is backed by a red brick wall, a more unfortunate combination could scarcely be imagined. White or delicate tints will prove more pleasing in such a place.

When receiving fresh plants from the florist, examine them carefully to make sure that no insect specimens which are new may be acquired with the flowers. A nice little colony of mealy bug or aphis is sometimes traced to such a source. In the case of house plants, give them a window by themselves until you are sure that they are immune from such pests.

The beginner will do well to confine her attention to one or two standard species, studying their habits and needs and growing them in the best possible forms. A few well-grown plants are much preferable to a gardenful of shabby specimens. And the present preference is for massing quantities of a single kind instead of growing a multitude of varieties in small quantity..

One will find nasturtiums, the tall-growing varieties, as easily grown and as satisfactory as any variety. When success is attained with these, pansies and sweet peas may be added to the list. One grower makes a specialty of dahlias, and is rapidly adding to her collection, while another has a fine collection of lilies.

But the fact should be emphasized that any well-grown flower is decorative; any neglected one a disgrace; that is, unless circumstances positively prevent giving it attention.

The floral fashions, like those of dress, move in cycles, and many of the old favorites in our grandmothers' gardens are now finding favor. In the Phipps Conservatory at Pittsburg, one of the finest in the world, an entire house was devoted to these old-fashioned plants during the Easter display and attracted no little admiration.

Among the old-fashioned perennials, the Physostegia, or False Dragon, deserves favor as a mid-summer bloomer. Its tall spikes of delicately-tinted flowers are similar in form to those of the False Foxglove.

Do not forget that some of the wild flowers are among our most ornamental plants. Every locality has some which may be successfully transplanted and which seem especially fitted for certain spots. The dainty blues have a charm where a low, modest growth is desired. Ferns and violets may border the shaded porch. And the tall bells of the meadow lily hang gracefully over the edge of the garden fence.

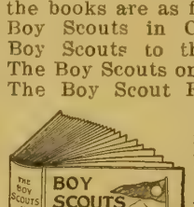
If you have a special fancy for foliage plants, do not allow gruesome thoughts to enter your head if the pure white freak sprout of the white-edged geranium fails to grow. There is no superstition attached to it, but for purely physiological reasons it cannot be expected to live. No flowering plant can live—unless it be parasitic—without some green parts in the leaves.—Bessie L. Putnam.

A PREMIUM FOR BOYS.

A Series of Books Offered as a Premium to The National Farmer and Stock Grower.

This is a proposition for boys who are ambitious to become good, strong men in mind and body. The Boy Scout Movement is by far the greatest and best influence in boys' lives. BIG BOYS, LITTLE BOYS of city, town and country are intensely interested in stories of adventure, the tales that have a dash and go to them, that carry the reader along from beginning to end with absorbing interest and enthusiasm.

We have obtained the books of the Boy Scout Series, written by Colonel George Durston and Major Robert Maitland. These are tales in which the Boy Scouts figure as characters. The books are such that they are never let go for a minute until read through and through. The titles of the books are as follows: No. 1. The Boy Scouts in Camp. No. 2. The Boy Scouts to the Rescue. No. 3. The Boy Scouts on the Trail. No. 4. The Boy Scout Fire Fighters. No. 5. The Boy Scouts Afloat. No. 6. The Boy Scout Pathfinders. No. 7. The Boy Scout Automobilists. No. 8. The Boy Scout Aviators. No. 9. The Boy Scouts' Champion Recruit. No. 10. The Boy Scouts' Defiance. No. 11. The Boy Scouts' Challenge. No. 12. The Boy Scouts' Victory. Each book is nicely bound in cloth, of handy size, and each one is a treasure that any boy will be glad to have.



We are going to make it easy for any boy to get these books. The National Farmer and Stock Grower is published at fifty cents a year. Any boy who will get us one subscriber and send us fifty cents to pay for same can select any two of these books, which we will send as subscription commission, postage paid, safe delivery guaranteed. If he wishes to receive two more books, all he has to do is to send us one more subscription and the fifty cents to pay for it. For six one-year subscriptions the entire set of twelve books will be sent. Boys can start a library with a full set of Boy Scout Books and take it in turns reading them. Address all orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Dr. J. E. Cannaday, 1209 Court Block, Sedalia, Mo.

References: Third National Bank, Sedalia, Mo.

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For any troubles that may be laying up your horse is Absorbine, the antiseptic liniment. This liniment has been on the market for a good many years and has made good. One reason for its great success is, that it does not blister or remove the hair, and horse can be used during treatment. Get your horse ready for spring work by removing any blemishes that may be present. Mr. Geo. Law, Sherrard, Ill., writes under date of December 26th, 1912: "I had a horse about two years ago that had a bunch on his hind leg, caused from a neglected wire cut, but I took it off slick and clean with Absorbine and a bandage and sold him for two hundred dollars, which I thought was fine." Absorbine at dealers, $2.00 a bottle, or sent direct, charges prepaid, upon receipt of price. W. F. Young, P. D. F., 106 Temple street, Springfield, Mass.

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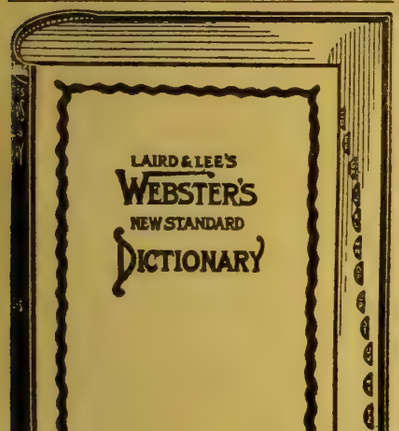

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STRAWBERRY CULTURE.

The Small Fruit Crop That Far Exceeds in Value All Others in the Same Class.

There are few localities in the United States where it will not pay richly to have a strawberry bed or a strawberry field; whether it shall be a bed or a field depends on whether one wants to grow the strawberry for home needs or for commercial purposes.

Many a boy and girl on the farm could send themselves through college with the profits from a strawberry field, if they only knew it. The great labor in the strawberry plantation comes at a time of year when the college and the school are not in session.

There is such a world of experience that can be drawn on in behalf of the strawberry that one has most to consider what not to say. The first great item in the procedure is to form the determination to give early care to the strawberies. Most of the beds that have proved failures, whether on farms or in the towns, have failed simply from lack of care. Therefore, to determine to give good and constant care is the first requisite for success.

The writer has found that the preparation of the ground must be thorough, and the soil must be light enough so that it will not bake hard and crack open in the dry part of summer. Manure must be applied freely, and, if that fails, commercial fertilizers, in the form of potash salts, phosphates and nitrates, should be bought and applied to the ground. The strawberry must have a large supply of readily-available food if it is to be a blessing to its owner.

A new bed or a new plantation should be set out each spring, so that a new two-year-old bed area will come into full bearing every year. The writer has never found that keeping a bed for many years pays. It might under very careful treatment, but it would mean a very large job of thinning every year. The trouble with the old bed is that too many plants take root, with the result that each plant becomes a dwarf, rather than a giant bearing giant berries.

Early spring setting of the plants is better than late setting. The plants in the early spring are not too far advanced to do well when transplanted. The supply of moisture is better then, and this is of great importance, as it enables the plants to get well rooted and growing vigorously before the summer drouth comes on.

Keeping the weeds down is a very easy task, provided one goes over the ground about every two weeks with a soil rake or a hoe, stirring up the surface soil, so the weed seeds cannot take root. Fighting weeds is difficult only when the weeds are permitted to get a start. If the ground is thus frequently stirred early in the season, it frequently will require no attention late in the summer.

The soil must be kept free from weeds, and the oftener it is cultivated on the surface during the dry season the better, as this will hold the moisture for the roots of the plants. The second year not too many additional plants should be allowed to set. It is better to prevent overcrowding than to suffer from the effects. Every plant grown should be a big plant, with massive crown and heavy, shiny leaves. This means an abundance of big fruit.

If the plantation is to be of considerable size, the planting should be in long rows, so that most of the work of cultivating can be done with the horse cultivator, rather than have to be done by hand.

Assisting the Doctor.

While everyone cannot have the opportunity to study thoroughly anything that belongs to trained nursing, most people can, if they try, pick up little points from doctors and nurses that will be a help to them in time of need and of very great assistance to the physician. Some hundreds are kept poor by paying doctor bills because the mother has not taken the time and trouble to lay in a supply of remedies to have ready in emergencies, and all the things needed are very inexpensive and most of them can easily be prepared at home. The hoarse sound of the croupy cough does not startle the mother into spasms if she knows how to relieve her little one and does it quickly. Accidental poisoning is also a frequent occurrence and everyone should learn the simple antidotes to use until the doctor arrives. How to bind up a cut or manage a severe bruise or sprain is also useful knowledge.

It is well to be supplied with hot-water bags or salt bags of different sizes, as nothing proves better than a good, dry heat to quiet pain, and a frequent change of hot plates well wrapped in woolen cloths and placed over the suffering joint as the patient lies in bed will bring great relief.

Unless one can afford a trained nurse, it is well to learn how to take the patient's temperature of pulse, and it is very easy to understand how to tell the pulse, and not at all difficult to learn to use the clinical thermometer.

Many a life has been sacrificed because the doctor had no means of knowing certain facts connected with his patient's illness, which would have been of vital importance to him and might have assisted him in saving a life.

There are certain healing agents that every woman should have in the family medicine closet, and among these beneficial lotions a strong boric solution is one of the best. A cut should always be washed with this solution, and also a bruise, if the skin is broken. This is healing, because it is antiseptic and excellent to use while waiting for the doctor, on small wounds often proving all that is needed, and this solution is prepared by dissolving one-half ounce of the powder in one pint of boiled water. A weak boric solution is specially adapted to the chafings and other irritations of infants, and it may be used freely, and it is fine for bathing the eyes and for washing out the ears and mouth; and by having good remedies to use just when they are needed you will not only assist the doctor, but you may save a human life and much suffering.—A. M. H.

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We are offering the most extraordinary value in a premium that will be found on page 27. The Ladies' Magazine for the household has no superior; there are some that cost more, but with no more intrinsic value. Then there is one-year's subscription to this publication, The National Farmer and Stock Grower; and the third item of the combination is an assortment of eight two-year-old grapevines. These are mailed direct from the most successful grape nursery in New York state, with directions for planting, care, etc. This is the accepted time to receive a dollar's worth that will grow in value and give great pleasure to the family. Fill out the coupon on page 27 and you will not regret it.

MORE MONEY IN HOGS.

It is an economic fact of great importance and one that has of late been commented on by many writers that the food supply of the United States is not keeping pace with the rapid growth of population, and especially that of the cities. This is more noticeable in the country's meat supply than in any other of our food products.

There is good money in hog raising at the present prices, ranging between seven and eight cents, and a prominent packer gives it as his opinion that we are facing a period of relatively high prices, which will continue for a number of years. It is of the utmost importance, therefore, to exert every effort to prevent the outbreak of hog plagues and keep hog losses down to the last notch, so that every hog may be marketed in good condition.

Merry War Powdered Lye quickly puts hogs on their feed—tones up their systems, makes them healthy, sleek and fat and prevents hog cholera. When ready for market a bunch of Merry War Powdered Lye fed hogs will be in prime condition and command top-notch prices.

The expense of Merry War Powdered Lye treatment is very small, only about five cents a month per hog. It is for sale at all druggists, grocers and feed dealers at 10 cents per can. The most convenient way to buy it is by the case of four dozen cans for $4.80. The E. Myers Lye Company have recently issued a most valuable book on "How to Get the Biggest Profits From Hog Raising," a copy of which will be mailed free to any one interested on request. Address E. Myers Lye Company, Dept. 22, St. Louis, Mo.

Pigs Without Worms.

Attention is particularly invited to the card of the S. R. Feil Company on page 21. All of us know that a National Bank can make money faster than a drove of healthy hogs, but they lose money equally fast when they are unhealthy. The S. R. Feil Company make a clean-cut offer which is worthy of acceptance.

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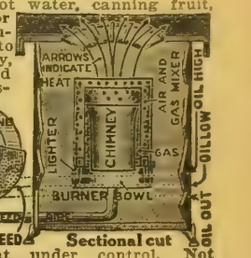

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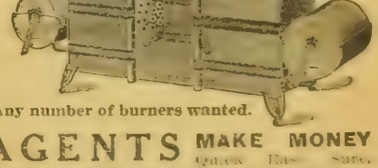

Any number of burners wanted.

AGENTS MAKE MONEY Quick Easy Sure. Sell Self MAKING GAS—[illegible] excited—want it—buy. B. L. Huested, Mich. "Was out one day, sold 11 stoves." W. E. Baird, S. C. "You have the best stove on market; sold 9 in 2 hours; **I do not fear competition.**" (first ordered 1—[illegible] since). Chas. P. Schroeder, Conn., bought 40 stoves one order. Head & Frazer, Tex., write: "Sell like hot cakes; sold 50 stoves in our town." J. W. Hunter, Ala., secured 1—tested it—ordered 100 since. J. G. R. Gauthreaux, La., ordered 1; 155 since. So they go. **These men make money.** You have the same chance. You should make from $10 to $15 a day. Write for our selling plan. Do it today. Send no money.

The World Mfg. Co., 1952 World Bldg., Cincinnati, Ohio.

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Consideration For Others.

Consideration for the rights of others in public assemblies is often deplorably lacking. I was attending a lecture in a course to which I hold a season ticket. These lectures are educative and inspiring. So helpful are they in their influence that the lecturer endeavored to give them to people who will not pay the price of a lecture, and so has arranged that after all the paid-for seats are occupied, the empty seats may be occupied free of charge by outsiders. In the two free seats directly in front of me there sat down an overdressed woman and her escort. The woman was attired in silks and furs and bedecked with jewels. Her hat, a yellow panne velvet, broad of brim and high of crown, was loaded with long, black, willow plumes. This big hat completely hid the lecturer from my view. He is a man whom you must watch while he is speaking, for there is as much in the play of emotions upon his face and in his unstudied gestures as there is in the truths he utters. On the programme, in large black-face type, there is printed a line requesting ladies to remove their hats. I would rather miss almost anything than to request a woman to remove her hat, for usually the one who does not out of consideration for others remove it of her own accord is of an ugly or at least a self-centered disposition and will not take kindly to such a request. I waited until I had seen both the man and the woman read the programme, and I knew that they could not fail to see the line requesting the removal of hats. After missing about fifteen minutes of the lecture I leaned over and asked the woman, as pleasantly as possible, if she would remove her hat. She gave me a glare. Then I learned that she was making it unpleasant for people behind me, too, for a man in the row back of me whispered to his companion: "Good; now we'll be able to see the doctor's face."

The woman glared at me again and then she said to her escort in a tone audible to me: "I won't do it! It's none of her business!" None of my business! And, remember, it was through the courtesy of those who were paying for their seats that this woman and her companion were privileged to sit there free of charge and hear a lecture worth two dollars a seat.

Another woman invariably prepares to go home five or ten minutes before the close of the performance, whether it is a play, a lecture or a church service. She rustles about putting on her rubbers, her hat and her coat. The minute the final word is spoken she is ready to leave her seat. An onlooker for the first time would expect to see her dash out the door to make a train or to keep some important business engagement. But she is the last to linger, chatting with acquaintances and seeming oblivious to the fact that she has partially spoiled the last moments of that performance or service for those surrounding her.

The climax of a good lecture, sermon or play should be in its final word, and if one of the audience doesn't appreciate this fact for herself, she should at least allow others to get the benefit of it.—Janet Thomas Van Osdel.

Star Brand Shoes on Sale.

A very large proportion of all hides and skins produced by farmers by raising cattle, sheep and goats enter into the making of shoes. Shoemaking used to be an exclusive Eastern industry, and money was expended unnecessarily in freight bills going and coming. Of recent years shoemaking has become a Western industry, and shoes are made better and cheaper by reason of the change, because the waste in transportation and in other ways has been recovered and put into the shoes. Roberts, Johnson & Rand Shoe Company, of St. Louis, have demonstrated that a great shoe business can be built up by them in the West, and on page 4 one of the leading brands is advertised. This firm has cut out the wholesaler's profit as another economy, and sells direct to 20,000 retail merchants, who have proven by handling them that "Star Brand Shoes Are Better." The advertisement on page 4 is worth reading.

The Books We Read.

"They turn out books in plenty, they print 'em by the mile, and one in fifty millions is worth a reader's while." Thus sings Walt Mason in the Chicago News, and every discriminating reader will agree with the merrily philosophical Mr. Mason that the quantity is undoubtedly at the expense of quality. A popular book of last year, published by a good house, and strong in plot and character delineation, has in it over twenty grammatical and rhetorical errors. These were picked out only casually when the story was being read solely for entertainment. Probably there are as many more errors in the narrative which were passed unnoticed. The price of this book, with hundreds of others in its class, runs above the dollar mark.

In contrast consider the classics, most of which can be purchased for about twenty-five cents apiece. This is in a cheap binding, of course, but yet it is a very readable form. These books have lived for years, and because of their recognized worth have found a permanent place in our literature. One reading of them is only the beginning of a life-long friendship with them, during which time they will comfort, entertain and instruct. Take George Eliot, perhaps the greatest of modern novelists, and see how feebly does the popular novel of the day compare with her works. The strong plots, the powerful character delineations are presented to the reader in choicest English. Or who can fitly entertain better than our beloved Charles Dickens?

"The Marble Farm," by Hawthorne, happens to lie close at hand. That, as will any classic, opens up a whole new world, nay worlds, to the person who has never read it. First, what is the Marble Farm? Nobody has ever better described it than does Hawthorne in the first chapter of his book. By the time the first chapter is finished the reader will doubtless be hunting up the nearest art collection in the hope of finding therein a cast of Praxteles' Marble Farm. And he will also read all his encyclopedia tells him about Praxteles. Several chapters farther on the reader will be wondering who Guido's Beatrice Cenci is. And that will lead him to look up the painter Guido and also the fascinating, if gruesome, story of the Cencis. This is only the beginning of all the references that he will find himself looking up because he is so interested he cannot help himself. The book in question is only one of the vistas that open up in the reading of any worth-while book. In the present enormous output there is an occasional book that is very much worth while and which will find its place on the shelves besides those other tales that have withstood the test of time. But the reader must have the discrimination to know what is worth while, and if he cannot select for himself he will be safe in falling upon those writings which have earned the right to be named classics.—Janet Thomas Van Osdel.

Mysteries of Scent.

The mysteries of scent will probably never be solved, and it is a matter of everyday observation that, while the trained shooting dog will pass a sitting partridge, a terrier or a fox will find the nest.

OWN A BUSINESS

WE WILL HELP YOU

"I made $88.16 first three days," writes Mr. Reed, of Ohio. Mr. Woodward earns $170 a month. Mr. M. L. Smith turned out $301 in two weeks. Rev. Crawford made $7.00 first day. See what others have done.

LET US START YOU

in Gold, Silver, Nickel and metal plating. Prof. Gray's new electro machine plates on watches, jewelry, tableware and metal goods. Prof. Gray's New Royal Immersion Process latest method. Goods come out instantly with fine, brilliant, beautiful, thick plate, guaranteed 3 to 10 years. No polishing or grinding. Every family, hotel and restaurant want goods plated.

PLATERS HAVE ALL THEY CAN DO.

People bring it. You can hire boys to do the plating as we do. Men and women gather work for small per cent. Work is fine—no way to do it better. No experience required; **we teach you. Recipes, Formulas, Trade Secrets Free.** Outfits ready for work when received. Materials cost about ten cents to do $1.00 worth of plating.

Our new plan, testimonials, circulars and **SAMPLE FREE.** Don't wait. Send us your address anyway.

GRAY & CO. PLATING WORKS,
1583 Gray Building, Cincinnati, Ohio

BANNERMAN

ARMY AUCTION BARGAINS

Saddles	$3.00 up	New Uniforms	$1.50 up
Bridles	.90 "	Army Revolvers	1.65 "
Team Harness	21.85 "	Rptg. Rifles	1.48 "
Leggins, Pair	.15 "	Swords	.85 "
Tents	2.20 "	7 Shot Carbines	2.95 "
Colts Cal. 45, Revolvers	$ 7.50 up.	Cartridges 1c each	
Sp'field Mauser Sp'tg Rifle	11.85.	Cartridges 2c each	
Army Breech Loading Rifle	.98c.	Cartridges 2c each	

MARCH 1913 CATALOGUE, 400 large pages, over 5000 illustrations 16 acres Gov't. Auction Bargains described in cyclopedia catalogue, mailed 25 cents

FRANCIS BANNERMAN, 501 Broadway, New York City

25 cts. a week Buys this High Grade Drop Head Sew Easy Sewing Machine. Guaranteed 25 years. Shipped direct from factory. We save you money. You use machine while paying for it. It has all the latest improvements. Write us to day. Sheffield Mfg. Co., 1421 Olive St., Dept 271 St. Louis, Mo.

"RANGER" BICYCLES

Have *imported roller chains, sprockets and pedals; New Departure Coaster-Brake and Hubs; Puncture Proof Tires; highest grade equipment* and many advanced features possessed by no other wheels. *Guaranteed 5 years.*

FACTORY PRICES direct to you are less than others ask for cheap wheels. Other reliable models from $12 up. **A few good second-hand machines $3 to $8.**

10 DAYS' FREE TRIAL We ship on approval, *freight prepaid*, anywhere in U. S. *without a cent in advance.* **DO NOT BUY** bicycle or a pair of tires from *anyone at any price* until you get our big new catalog and *special prices* and *a marvelous new offer.*

A postal brings everything. *Write it now.*

TIRES Coaster Brake Rear Wheels, lamps, parts, and sundries *half usual prices.*

Rider Agents everywhere are coining money selling our bicycles, tires and sundries. **Write today.**

MEAD CYCLE CO., Dept. D-263, CHICAGO

16 NEW BULBS FOR 20 CTS.

1 New Yellow Calla, very fine and valuable.
3 Emerald Vine, most graceful and elegant of vines.
3 Beliantl, a most showy flower like Cosmos. Tubers make a fine winter vegetable cooked like asparagus.
3 Gladiolus New Hybrids.
6 Shamrock Oxalis. Fine foliage; everblooming.

These 16 Bulbs are all new and extra fine. We mail them all together with a complete treatise on Culture of Summer Bulbs and big Catalogue for **20 cts.**

Our big **Catalogue** of Flower and Vegetable Seeds, Bulbs and rare new Fruits *free* to all who apply. We are the largest growers in the world of Gladiolus, Cannas, Dahlias, Lilies, etc., and our stocks are the best and cheapest.

JOHN LEWIS CHILDS, Floral Park, N. Y.

NEW RUPTURE CURE

DON'T WEAR A TRUSS.

Brooks' Appliance. New discovery. Wonderful. No obnoxious springs or pads. Automatic Air Cushions. **Binds and draws the broken parts together as you would a broken limb.** No salves. No lymphol. No lies. Durable, cheap. Sent on trial. Pat. Sept. 10, '01.

CATALOGUE FREE.

C. E. BROOKS, 59 C State Street, Marshall, Mich.

THE GRANDEST
Subscription Offer.

A Splendid Magazine One Year—The Ladies' World—National Farmer and Stock Grower One Year—Eight Standard Grapevines—All For One Dollar.

This is a startling subscription offer, especially valuable to farmers' wives and families and to anyone who owns a home. **The Ladies' World** is a monthly magazine, forty-eight pages, four columns to the page, highly illustrated, cover in colors, beautiful, delightful, lovely stories, splendidly edited, instructive articles, lessons in housekeeping, domestic science, dressmaking, music, amusements, etc. No better, cleaner or more useful paper can possibly enter the farm home.

The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets and instructive matter concerning general farming, stock raising, dairy, poultry keeping and all the especial features that keep a farmer posted on his own interests in dealing with the world of business.

The subscription offer includes a magnificent collection of **Eight Two-year Standard Grapevines.** These grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early,** a black grape; **Catawba,** dark red when fully ripe; **Diamond,** a large white; **Concord,** black early; **Agawam,** red or maroon; **Niagara,** large and handsome white; **Delaware,** compact red; and **Worden,** a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

We will send **The Ladies' World one year; The National Farmer and Stock Grower one year;** and the **Collection of Grapevines,** nicely packed, postage paid—all for one dollar.

SUBSCRIPTION COUPON.

Please Cut Out and Mail to Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar ($1.00) for which send me **The Ladies' World** one year; **The National Farmer and Stock Grower** one year; and the **Eight Two-year-old Standard Grapevines** as advertised.

Name.. .....

Address.... .....

State.... ....

The Making of Aprons.

The average housewife has little fear of getting too large an allowance of aprons, and yet in many instances she economizes in this article to an extent that is really extravagance. There are now so many materials used in their making, so many different styles, that if she really so rules she can have an adequate supply at comparatively small cost.

Of course, there are the large aprons which cover the entire front of the dress, a most useful kitchen garment. If they are finished with a small ruffle, this will prove more than a mere ornament, for the frill in more than one instance proves its worth in deflecting from the bottom part of the dress some liquid which has been accidentally dropped, finding its way downward.

There is the great oilcloth apron, not handsome, but exceedingly useful. This will require for a person of average size about one and one-fourth yards of table oilcloth. White or white with a tiny line of color is preferred. Cut in one piece and without plaits. It should come up well in front and on the shoulders, and be wide enough to protect the sides of the skirt. Cut crosswise of the cloth; the width of the piece should be sufficient to make the length of the garment. Bind with ordinary cotton braid. Also fasten the shoulder tabs to the back in the same way. This apron has the advantage that any soiled spot can be quickly removed with a damp cloth or sponge. It is most useful in doing some kinds of housework; but where there is much bending over, the strain in places will make it incline to crack. For cooking and washing dishes it is very serviceable, but when washing or scrubbing, the movements would be restricted or the apron is soon cracked and broken.

The dainty housewife who must wait upon her own guests, wears a dainty apron for serving, and over this, when re-entering the kitchen, she wears the great, serviceable gingham one. The latter is as quickly doffed when about to return to the dining room, and the dainty one is again her only protection.

It may be only of white calico with a pale pink or blue figure. It requires a piece just as long as the cloth is wide for the main part. Each of the four corners of the square are slightly rounded. Along two adjacent sides a narrow ruffle is basted and the seam covered by stitching over it white wash braid. The two remaining sides are hemmed in a very narrow hem. Across the middle of these sides a belt is fastened, the slight fullness in the middle being removed by two small pleats. This makes a small bib of the rounded corner, which protects the waist. A tiny pocket bordered with braid completes the apron.

Larger ones may be made in the same way by using percale or gingham. Or two breadths may be used instead of one. One woman used plain unbleached muslin, trimming with red. These aprons looked almost like linen and were really ornamental as well as cheap and durable. Of course, only fast red should be used in the combination. When blue trimming "drents" a little in washing it only serves to make the white look a bit whiter; but the pink tinge is never a desirable one, showing on the face of it the cause.

For the little quiltings and sewing bees which are surely working back, a round apron of dainty muslin with a spray of wild roses embroidered in "shadow" work is most attractive. Catch a few crochet rings around the edge and pass a ribbon through with small bows at the belt. Then when through work, the ribbon may be drawn up and you have the litter all in a bag, where it can easily be disposed of without scattering upon the carpet or rug.—Bessie L. Putnam.

"National" Spring Style Book.

On page 3 will be found the advertisement of the National Cloak and Suit Company, with a coupon that can easily be cut out and mailed. This advertisement is specially addressed to farmers' wives and farmers' daughters, who are enabled to dress themselves perfectly and with strict economy by taking advantage of the books, measurements and samples furnished by the company. Our patrons are advised to use the coupon at once, as it will not again appear this spring. See page 3.

Feed Family of Four For Ten Dollars a Week.

Four adults leading fairly active lives can be supplied well-balanced meals at a cost of $2.50 a week, each. This has been proved at the practice cottage of the University of Wisconsin Home Economics Department, where young women are taught practical home making.

Four young women students take entire charge of the preparation of meals at the cottage each week. The girls not only do all the cooking and serving, but also all the marketing and planning of the various meals. There is much rivalry to see who can serve the best meals at the lowest cost.

A sample menu shows that at a cost of $2.50 a week per person they have oranges, bacon, poached eggs, toast and coffee for breakfast; cream of tomato soup, spaghetti with onion sauce, hot rolls, baked apples, and chocolate for luncheon; and bouillion, beef pot roast, browned potatoes, fruit salad, fresh cake with whipped cream and coffee, for dinner.

Too Many Feet in Bed.

A Harvard student, who, for obvious reasons, does not care to have his name appear, passed up this one: "A cousin of mine, in the western part of the state, came to Boston for a visit, and dropped out at Cambridge to call on me. He asked if he could share my room with me that night, and I told him he could if he came in early enough. He started for a theater, and when midnight came without any trace of him, I called in my regular room-mate, who had sought quarters elsewhere to make room for my cousin. I decided that my relative was going to make a night of it in town.

"We had hardly got to sleep, however, when he came in, packing a highly-flavored breath. We said nothing, and he soon climbed into the bed with us. Everything was quiet for a few minutes, when evidently he sat up, put his mouth close to my ear and whispered: 'Jim, there are six feet in this bed.' 'Forget it,' I said; 'you're crazy.' With that he climbed out, groped his way around to the foot of the bed and began to paw our feet. 'You're right,' he said, after a minute. 'I've counted 'em and there's only four.' "—Boston Traveler.

HOG WORMS—WORMY HOGS.

Hog worms are killing more hogs than cholera. In most cases of so-called hog cholera it is worms, not cholera. Hog worms are very dangerous. They wreck the entire system of the hog. They cause inflammation of the stomach and bowels, and death is the result. A wormy hog will not fatten or grow. The hog man should bear in mind that no simple remedy will rid hogs of worms. If farmers and hog men will keep their hogs free of worms and lice, disease will be scarce and they will have healthy, thrifty hogs.

There is a remedy known as Snoddy's Hog Cholera Powder. The manufacturer of this powder claims it is death to hog worms and also destroys disease germs, and has proof to convince anyone. People who have hogs should investigate this matter, as it is important. Write for "Free Hog Book" to Dr. D. C. Snoddy, Dept. H, Nashville, Tenn.

GRAND INVENTION!

NO MORE WASH DAY!

EASY METHOD Of Cleaning Clothes

Cleans Family Wash in 30 to 50 Minutes—Woman's Hardest Work Made Easy—No Motors! No Chemicals!

NOT A WASHING MACHINE

DOES THE WORK IN ONE OPERATION.

SEE HOW SIMPLE—DIFFERENT, EASY. Put on any stove—add water, then soap, then cloths—**move knob occasionally.** In 5 to 8 minutes first batch washed—next batch same way, same water—in 30 to 50 minutes family wash clean. **No labor, no injury to clothes.**

Cleans woolens, flannels, blankets, or colored clothes, as well as white goods, finest laces, curtains, bed clothes. **Saves time, fuel, labor.**

EASY WAY in 30 to 50 minutes cleans washing which before took entire day. All metal, strong, durable, sanitary, light in weight. Easily used, cleaned, handled—always ready. Child or weakly woman can use it. Saves washday drudgery.

Users Praise the "Easy Way."

J. McGee, Tenn., writes:—"One young lady **cleaned day's washing in one hour** with Easy Way—another in **45 minutes.**" Mrs. T. Bullen, Canada, writes:—"I washed **bedding, heavy quilts, curtains, etc., without rubbing.**" Lauretta Mitchell, O., writes:—"Done a **big washing in 45 minutes—sold 3 already.**" A. D. Poppleton, N.Y.:—"Gives perfect satisfaction. Washed bed quilts, **greasy overalls** and **fine clothes.** Greatest thing on earth. F. E. Post., Pa., writes:—

TWO WEEKS WASHING IN 45 MINUTES.

Clothes cleaned **without rubbing."** J. H. Barrett, Ark., after ordering 38 Easy Ways, says:—"You have the grandest invention I ever heard of." J. W. Myers, Ga., says:—"Find check for 12 Easy Ways. Greatest invention to womanhood, forever abolishing miserable wash day. **Sells itself."**

AGENTS GETTING RICH

R. O. Cowan, N. Y., placed 13 in 6 hours—(profit $39.00.) Mrs. J. Brown sold 10 in 3 days—(profit $30.00.) K. J. Blevins, O., writes: "Made 7 calls, sold 5 one day." (profit $15.00.) R. H. Latimore, Pa., writes: "Sold 4 this morning. **Never yet turned down."** A. G. Witt, Pa.: "Received Easy Way yesterday; sold 4 today—not out for orders." Mrs. Gerrish, Mont., ordered sample, then 1 dozen—then 100—**(profit over $300.00.) Just made one shipment 1000 Easy Ways** to Russian agent. N. Boucher, Mass., orders 75 more, says: "Everybody wants one, **best business I ever had."** A. S. Verrett, La., sold 8 in one day—(profit $24.00.)

FREE SAMPLE To Agents

We want managers, agents, men or women, home or traveling, all or part time, to show, take orders and appoint agents. **Easy Way new article,** not worked to death. Best seller out. Every family wants one. People glad to see it demonstrated; buy without being asked, and throw away costly washing machines to use it. **Only 2 sales a day means $36.00 a week profit.**

Price only $6.00 ready for use. Sent anywhere. Not sold in stores. **Order one for your own use.**

Send for Free Sample offer, special agents' proposition, etc. Costs nothing to investigate. Send name and address anyway for full description. Write today. **Harrison Mfg. Co., 2288 Harrison Building, Cincinnati, O.**

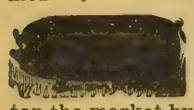
BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

Name. . . . . .

P. O. Box. . . . . R. F. D. . . . . .

Postoffice. . . . . .

Editor's Note.—The Fruitman and Gardener, published monthly, a first-class paper, can be substituted for either of the above papers if desired.

Some Uses For Salt.

If you want the best and cheapest table salt, buy it by the fifty-pound sack—the kind that the farmers use to salt the stock. This is coarser-grained than the table salt, but it is much purer, and also much cheaper. It may incline to become hard and lumpy, but you can afford to break the lumps, having the satisfaction that you are getting the pure article, and at such greatly reduced rates.

If the griddle happens to get scorched when baking cakes, a spoonful of salt rubbed over it will restore it to perfect working order. If the flatiron shows roughness, treat it in a similar way. For a mild sore throat, a gargle of salt and water may be sufficient to ward away the necessity of calling in the doctor. Salt is a better dentifrice than many of the fancy powders sold at fancy prices.

For preserving vegetables, salt is a much simpler method than the laborious long-cooking processes now commonly employed. If sweet corn is cut from the cob, cooked until soft, a teacupful of salt added for each six quarts of corn, and then sealed while hot in ordinary glass cans, it will keep perfectly. When ready to use, pour off the inch or two of juices which should cover the top of the corn in the can, and unless you like it highly seasoned, it will be best to drain off all the brine. Freshen, add a very little sugar to replace that which the salt has taken from the vegetable, reheat, and the corn is ready for the table. String beans may be prepared in the same way; and those who have tried them declare that tomatoes fixed by the same process are as good as when fresh from the garden.

Black and white wash goods are kept clear in color until worn out by using a spoonful of salt in the rinse water. Salt sprinkled around their haunts will rout some species of ants. —Bessie L. Putnam.

Making Over For Children.

Sometimes a little dress that is entirely outgrown can be made plenty large enough by making it all over, and it is well worth the trouble if the material is still good, and sometimes they are prettier than when new.

A little challie dress that was entirely outgrown was ripped apart and the pieces carefully pressed; then a new waist and sleeve lining were cut and made to fit the little girl, and the dressed trimmed with plaid goods to match the challie. The skirt was cut apart six inches from the bottom and enough of the plaid goods inserted to make it the right length, and a new yoke, belt and cuffs were made of the plaid, and the dress was ready for another period of usefulness.

Bands of insertion can be used to lengthen white dresses and to join belts and cuffs or for vests in the waist where they have to be opened to make them large enough.

Yokes and guimpes have lost none of their popularity and are excellent styles for cutting over old garments, and the guimpes are so easy to make that a child can have several to wear with the same dress, and any dress can be altered so it can be worn over a separate waist.

Little drawers can be pieced at the top to make them large enough, and yokes can be used to lengthen underskirts.

Lovely summer hats can sometimes be made from old ones with very little trouble or expense. If the little girl has outgrown her hat, you can remove the crown and take out a row of braid to allow it to fit the head, then make a new crown of some soft material, and it is easy to lower a high crown by removing several rows of braid or to give height to a low one by adding several rows. The fancy straw braids are a wonderful help in transforming old hats, and these braids come in every grade and color.

A little percale dress that was entirely outgrown but still good was pieced out to make it plenty large enough, then it was boiled in strong suds with a little soda added to remove as much of the color as possible; then it was colored a dark blue with Diamond dye for cotton; and some boys' cotton waists were colored at the same time, and they were pieced out to make them plenty large enough first, and they were nice and serviceable garments when finished.

Some faded lawn dresses were colored a pretty shade of light blue and made over for the little girls, and they were as pretty and nice as new garments.

If a dress is too short-waisted, a belt put in will often be all that is needed, or the shoulder seams may be ripped and a piece set in, and the cuffs and belts can be made of the same material.—M. H.

The Day For Pouts and Puckers.

When Margie came into the room with a pout on her pretty red lips and an ugly pucker between her blue eyes, Aunt Hester looked up with a smile.

"Oh, oh, Margie!" she said, laughing. "It's Monday, isn't it? Well, don't you know, dear, that Monday isn't the day to pout up pretty lips and pucker little noses? This is the day when lips should curl into pretty smiles and noses crinkle in fun."

Margie's eyes opened wide in surprise, then in another moment up curled the lips and out came the frown.

"Will to-morrow be a good day, Aunt Hester?" she asked.

"Let me see—Tuesday. That is the day when mothers do get so tired with big ironings that they ought to see smiles chasing each other all day long. Smiley girls are very much needed on Tuesday."

"Can we have them Wednesday?" asked Margie.

"Oh, Wednesday would never do for pouts and puckers. That is mending day, and mother's thread would get into snarls and nothing would go quite right if the pouts and puckers were about!"

"But Thursday would be all right," said Margie. "That's mother's easy day."

"But it's calling day, and you surely would not care to welcome callers with ugly pouts and puckers, now, would you?" said Aunt Hester.

"And Friday's sweeping day. I suppose mamma'd want smiles then, too," said Margie slowly.

"I know it," said Aunt Hester.

"And Saturday's her hardest day," continued Margie.

"Indeed, yes," answered Aunt Hester. "Pouts and puckers are such sour things that I'm afraid they'd curdle the milk and spoil all the baking. We'll have to shut the door on them on Saturday. And on Sunday, of course, we couldn't think of letting them peep in for even a moment."

"But that makes all the days, Aunt Hester," said Margie.

"Does it really? Then there doesn't seem to be any day when we have a place for them, does there? Well, I suppose we shall just have to keep the smiles for every minute of every day of the week, then, won't we?"

"Yes, we will," answered Margie, curling her lips into such a dear little smile that the whole room seemed full of sunshine, although the sky was covered with black clouds and it was raining hard.—Janet Thomas Van Osdel.

$250 Motorcycle Given Away

YOU see in this picture a boy riding one of the $250 Pope Motorcycles we are giving away. In other parts of the picture are the faces of several other boys. They are hard to find but by turning the picture about you will be able to see them. Mark at least two of the faces with a cross (X) and send the picture to me with your name and address and I will tell you all about the contest and how to win the seven horse power motorcycle and many other prizes.

1500 Votes Free I will send you a special coupon good for 1500 votes toward the motorcycle. All you got to do to get this coupon is to send your name and address at once. **PEOPLE'S CO., 538 Popular Building, Des Moines, Iowa.**

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Conyers, Ga., March 2d, 1912.

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No. 7747.—Coat For Misses and Small Women. Sixteen and eighteen years. With cutaway or straight fronts, with or without extensions on front, with fancy or plain back.

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No. 7762.—Child's Dress. Four to eight years. With round yoke extended to form a panel, straight skirt, round or high neck, short or three-quarter sleeves.

No. 7668.—Child's Rompers. Two to six years. With long or short sleeves, leg portions that can be drawn up at the knee or left loose.

The above patterns will be mailed to any address by the Pattern Department of this paper on receipt of 10 cents for each.

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The Hound Dog Bill.

Sam Stannard, a former member of the House of Delegates, was hunting in the Ozarks.

"The farmer called his dogs strenuously: 'Here, Bill! here, Bill!'" Stannard relates. "One dog came running up, but the farmer continued to call: 'Here, Bill!' Another dog responded, but the farmer continued his call of 'Here, Bill!' until three dogs galloped up and wagged their tails.

"'Are all of your dogs named Bill?' I asked the farmer.

"'Yes,' he replied.

"'What's that for?'

"'When I want a dog I want at least one to answer. Then again, I'm not going to worry my fool head off trying to think of names for dogs.'"—Post-Dispatch.

Native Cattle at $8.80.

One of the first cattle sales in April on the St. Louis market consisted of eighteen head, averaging 1,304 pounds, that sold at $8.80 per 100 pounds. The consignment was shipped in by Mr. H. D. Martin, of Callaway county, Missouri, and were the best cattle out of 1,500 head sold on the market that day.

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FRUIT GROWING.

Good Land Required For Thrifty Trees—Practical Talk on the Treatment of the Soil.

Whether it be a commercial or family orchard, the owner is anxious for bearing time to come that he may enjoy the reward for his labor and money outlay; but often he is doomed to more or less disappointment because he has not considered the requirements of fruit trees.

He would not expect a colt or calf to grow into a large, thrifty animal if it had its feed doled out to it with stingy hand; but the tree is frequently set in poor ground and no later fertilization is given it, and yet it is expected to bear fruit at the appointed time of its kind.

The writer has frequently heard men say that poor ground is better for an orchard than rich soil; but observation shows this to be a serious error. Of course, if rich soil means one fertilized with barn-yard manure only, then we have too rank growth of wood and leaf and little or no fruit, as there is an excess of nitrogen; but add phosphoric acid and potash in some form of commercial fertilizer to balance the nitrogen and we have a thrifty tree that has a wood and leaf growth of great luxuriance and a heavy crop of fruit also.

The tree that has been well fed is not nearly so apt to fall a victim to insect pests and it is safer from fungous diseases than the stunted, underfed one, that has little vitality to resist any enemy, even as the half-starved child falls before a disease that the well-nourished one easily recovers from.

There is a difference in the requirements of trees at different periods, and on different soils, clay soils usually requiring larger applications of phosphoric acid than of potash, while sandy soils reverse the order. It is perfectly safe to apply 400 pounds acid phosphate and 100 pounds muriate of potash for two or three years before the orchard is expected to bear, and if there has been much manure put on the ground before or after the trees were set out, a heavier application might be advisable to balance the nitrogen in the manure and to hold it, as an excess of nitrogen beyond the needs of the crop is leached away and lost. This not being the case with phosphoric acid and potash, one can use a considerable quantity beyond the yearly needs of the trees, or any other crop that is grown, and know that succeeding years will witness benefit from these fertilizers.

In the latitude of Central Missouri and south, cowpeas should be planted every year in the orchard, and either be pastured with pigs and poultry, or else, after the seed is gathered, the ground should be disked well so as to incorporate the leaves and stems with the soil as well as possible, and in late August sow to rye for a cover crop, which may again be pastured until it is warm enough the succeeding spring to sow cowpeas again. This treatment of the orchard will fill the soil with humus so that it can stand the drouths of mid-summer, when the bearing trees require large quantities of moisture to mature their fruit, and also furnish nitrogen, thus saving the barn-yard manure for corn and other field crops.—D. C. Cornman.

INCUBATOR EXPERIMENTS.

A Few Remarks on What They Arrived at in Pennsylvania After Considerable Work.

The word "tentative" is not generally understood, but it means that you can accept a conclusion arrived at until by further experiences you can improve upon it or change it. At the Pennsylvania Experiment Station they went into investigations of poultry matters, and in their modesty in estimating the value of the conclusions arrived at they regarded their apparent results as "tentative." When we say "they" we refer to Homer W. Jackson and W. A. Cochel, who are jointly responsible for Bulletin No. 120, issued by the Director of the Experiment Station, State College, Center county, Pa. Such bulletins are free to farmers in the home state, and when a farmer in another state writes and says he is interested he generally receives a copy.

Experiments that require months and years to conduct and many pages to describe can often be boiled down in very small space, which comes under the head of "Conclusions" or "Summary," and another way to express it is by calling it "the milk in the cocoanut." A careful editor will study the account of all the work done, go into the why and wherefore of all the different issues and then improve upon the bulletin as published by the experimenters; but when they say "tentative" instead of final conclusions were arrived at the editor takes a short cut to the conclusions, which in this case were as follows:

General Incubator Experiments.

Under natural conditions eggs not promptly incubated are subject to daily warming by contact with the hen's body, which appears to have an important influence on the life and vigor of the embryo chick.

Warming for sixty minutes gives better results than for thirty or 120.

Eggs held for incubation gave better results when laid flat in the incubator and turned daily.

No special difference due to position was noted in eggs held for less than sixteen to eighteen days.

In both tests the poorest results were secured with eggs placed on end and turned daily, as compared with eggs laid flat, or placed on either end and not turned.

Influence of age of eggs on hatchability varied greatly, presumably due to season or conditions of breeding pen.

Washing eggs for hatching materially reduced hatchability.

Eggs placed on end in incubator for first three days of incubation suffered no perceptible injury.

Eggs turned twice daily generally gave better results than those turned once daily.

Crude Fibre in Rations of Laying Hens.

Rations carrying 3½ per cent. of total weight in crude fibre seem to give better results than those with lower or higher precentages.

Fowls can keep in fairly good condition on a ration carrying 5 per cent. fibre, but will show decreased egg yield.

Fowls fed freely on rations carrying over 5 per cent. fibre suffer from serious intestinal disorders.

Fowls on rations carrying 6½ per cent. fibre and over will probably keep in fair condition if consumption is reduced to maintenance requirements.

Fowls do not seem to make any appreciable use of coarse floor litter to supply deficiency in fibre content of ration.

Confining fowls to house pens or permitting them to run in large yards seems to have no bearing on relative performance on different percentages of fibre.

Amount of green feed consumed is governed to some extent by proportion of crude fibre in ration.

Fowls keep in better health and lay better with bran as a source of fibre than alfalfa meal.

Fowls will not eat alfalfa meal unless compelled to do so by mixing with other more palatable feed stuffs.

Fowls apparently are fond of alfalfa hay, but the proportion actually consumed is small.

Comparison of Simple Rations With Variety in Feeding Laying Hens.

Pullets of Barred Rock, Rhode Island Red and Leghorn breeding will keep in good health on rations carrying very large proportions of corn if bran is also liberally supplied.

A ration of corn, bran and meat scrap does not result in heavy production when long continued.

Eggs from hens on such a ration are larger than where wheat is the principal grain fed.

Hatchability of eggs and vigor are increased by a liberal use of corn in the rations.

The results of this experiment with pullets should not lead to the adoption of extremely heavy corn feeding if other grains are available.

Further experiments will be necessary to prove that a corn, bran and meat ration is a safe ration for general use, particularly with fowls in confinement.

These experiments were made with pullets; care must be exercised in applying results to flocks of older hens.

Eggs can be produced more cheaply on a corn, bran and meat ration than on more varied rations, if the same proportionate egg yield is secured.

Oranges vs. Doctors' Bills.

A London School Board has recently voted to give an orange to each of the 600 children in a certain school for the poor once a week as a preventive against influenza, a disease admitted to be highly infectious. One of the medical fraternity, in commenting upon the resolution, not only heartily endorses it, but wishes that the number of oranges might be increased to two a day. He adds that while this allowance may not entirely shut out the disease, it is certainly a step in the right direction.

If oranges are good for the London children in preventing diseases, they are equally good for our own. The juice is mildly acid, and a corrective against various maladies. The sugar in the fruit is a necessary part of the normal food, and the flavor is an agreeable one, which incites to a better digestion of the food previously eaten. As a laxative the orange has properties which render it a most valuable medicine.

We are too apt to curtail in the so-called food luxuries and then rush to the doctor for medicine, when a little something is the matter, forgetful of the fact that it is much easier as well as cheaper to keep well than to get well. The single visit of a physician will pay for several dozen of oranges at present prices, and the latter will prove much the more agreeable. There is also the saving in pastry making, which should not be lost sight of. The orange is quickly tucked into the lunch box or pocket, without danger of injury in transit to school, or of its damaging any other article of food with which it comes in contact. It is relished more than the regulation pie, and is both cheaper and more wholesome. Surely there is wisdom in cutting out some of the candies and pastry and substituting oranges.—Bessie L. Putnam.

Get the Chopper that Really Chops

Making appetizing, wholesome dishes from "left-overs"—particularly meat—is the every-day purpose for which you use a chopper. You can have these bits of meat cleanly chopped or just mangled—it all depends on the chopper you use. The

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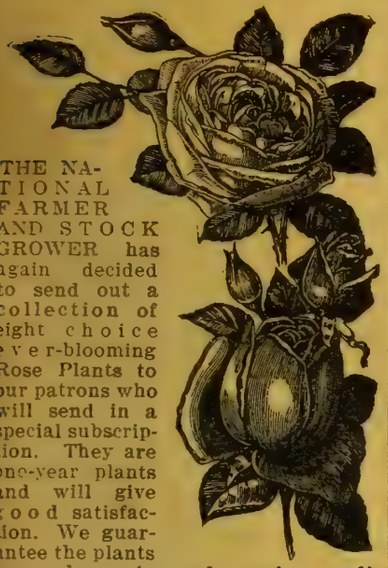

THE NATIONAL FARMER AND STOCK GROWER has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition, and with each package we send complete directions for planting, care and culture. The time to send the order is now—before you forget it—and you will receive the plants at the best time for planting in your section.

The collection consists of:

1. THE OLIVIA—A most gorgeous, distinct rose of deep, brilliant rosy red, and one which excites the admiration of everyone beholding it.
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7. THE BLUMENSCHMIDT — A pure citron-yellow; a first-prize winner at every show.
8. DOROTHY PERKINS—A shell-pink, hardy climber and one that should be extensively planted.

Our Grand Special Offer.

Send us a money order for fifty cents. ONLY fifty (50) cents. We will credit you with ten-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, and at the proper time we will also send you the full set of EIGHT ONE-YEAR ROSE PLANTS as described. The roses are sent out directly it is safe to dig them in the spring. Send in your order at once with fifty (50) cents and it will receive prompt attention.

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SELECTED POETRY.

FATAL MATHEMATICS.

A man should marry a woman half his own age plus seven years.—Old Maxim.

See how the Fates their skill combine
To spoil a tale of "might have been."
They met when he was twenty-nine,
And she was only seventeen.

For years in absence they adore
Each other, just as lovers do;
To greet when he is thirty-four,
And she, alas! but twenty-two.

When next their mutual gaze they fix
The waiting time was nearly o'er,
For he was going thirty-six,
And she admitted twenty-four.

They parted then (as I'm alive,
It was a piteous sight to see)—
Until he totaled forty-five,
And she had weathered thirty-three.

Their fates will never now entwine,
Their courtship's course is nearly done;
For she's a girl of sixty-nine,
And he a swain of eighty-one.
—Harold Adye, in the New York Sun.

THE ROAD UV LOVE.

I've read a little, now an' then,
Pertainin' to the ways uv men,
An' sich-like, an' I'm free to say
There's jest one road that leads away
Frum trouble. An' there's room to spare
On that same road, most anywhere.

It doesn't matter what we be—
The man that has his pedigree
All cleaned an' ready fer excuse
Will find it ain't one bit o' use
Fer traffic, on this road that leads
Through shady lanes o' kindly deeds.

An' when the bitterness that springs
Up ghost-like, frum remembered things—
Jest little things that me an' you
Might well have done, but didn't do,
Begins to sting us like a goad,
It's mighty good to find this road.

Why, man alive! if I could stay
An' tell o' them I meet each day
Along this road where signs pint true
Unto the end we're comin' to,
You'd be right glad to leave yer load
An' jine us, here, on this old road.

But I ain't time to tell to you
The many faces, old an' new,
I find along this road uv love—
This road you know I'm speakin' uv—
Where honest hearts an' friendly ways
Pint to the land where glory lays.
—Clyde Addison Wright.

THE COST OF LIVING.

"I do not see why folks complain,"
Said Jorkins, "of the price of meat;
For fifty cents a pound you get
A sirloin steak that can't be beat.
For the same money you can buy
A luscious English mutton chop.
Why should you ask for more than that?"—
Yes, Jorkins keeps a butcher shop.

"The cost of living ain't so high,"
Said Jobkins. "Why should folks find fault?
For half a dollar you can buy
A full three-months' supply of salt.
Just think what people had to pay
Right after our great civil war!
I tell you, flour cost money then!"—
Yes, Jobkins keeps a grocery store.

But Jobkins went to buy some meat
And said that Jorkins was a skin;
And Jorkins, paying Jobkins' bill,
Declared he had been taken in.
And when the coal man asked for pay,
They both set up a mighty shout;
And just as they were feeling worst,
The plumber came and cleaned them out.
—Somerville Journal.

WE MET; 'TWAS IN A CROWD.

We met, 'twas in a crowd,
And I thought he would shun me;
He came; I could not breathe,
For his eye was upon me.
He spoke; his words were cold.
And his look was unaltered,
I knew how much he felt,
For his deep-toned voice faltered

I wore my bridal robe,
And I rivaled its whiteness;
Bright gems were in my hair:
How I hated their brightness.
He called me by my name,
As the bride of another.
Oh! thou hast been the cause
Of this anguish, my mother.

And once again we met,
And a fair girl was near him;
He smiled and whispered low,
As I once used to hear him.
She leant upon his arm;
Once was mine and mine only.
I wept, for I deserved
To feel wretched and lonely.

And she will be his bride
At the altar he'll give her
Those vows that are too pure
For a heartless deceiver;
And the world may think me gay,
For my feelings I smother.
Oh! thou hast been the cause
Of this anguish, my mother.

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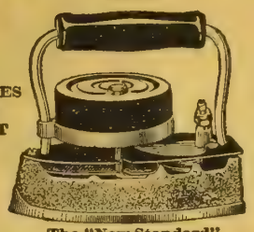

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A RED HOT SELLER

Then farewell, farewell to him
Who my fond heart once cherished;
Then forgive, oh! I pray,
Ere I lie down and perish.
As you pause above my grave
And your feelings you smother,
Then forgive, as I now do,
Oh! forgive my poor mother.
—Exchange.

THE CHAUFFEUR'S STORY.

"I shudder yet," the driver said, "whene'er
I tell the tale—
I'll think of it till I am dead! Its memory
turns me pale.
'Twas when I drove old Brown's imported
high-power racing car—
And I was young and reckless—courted all
the thrills there are!

"Upon the day this occurred, I'd fifty miles
to go
Ere lunch, and you can take my word, I
wasn't driving slow;
The road was good, but narrow. A rail
fence on either side,
And the car sped like an arrow in a swift
and easy glide.

"I took the curve at forty miles, then at
our highest speed—
I shot along those forest aisles with just
the road to heed—
When suddenly there stepped into our track
a little child
With golden hair and eyes of blue—just
looked at us and smiled.

"Not fifty feet ahead was she—and I, too
scared to touch
Or think of the emergency, or e'en throw
out the clutch:
And even then it was too late—no time to
turn aside—
No space, no field, no open gate—the road
was ten feet wide!

"All these I saw as in a dream—the lassie's
happy face,
One of those moments that will seem to
hold a lifetime's space—
'Twas just one smile of innocence—ah,
would it be her last?
And then—she climbed up on the fence, and
watched me thunder past!
—Ted Robinson.

THE DEAR OLD FACTORY PIE.

I am thinking, sadly thinking of the days
that are gone by,
The days when I was gladdened by a piece
of factory pie;
Oh, the dear old basement hashhouse where
I used to go to eat,
Where the coffee and the sinkers made my
happiness complete—
Where the dear old fried-egg sandwich used
to set me back a dime,
Where the waitresses were friendly and the
sandwiches sublime.

I am thinking, sadly thinking, of the appetite I had
When the kitchen odors pleased me and a
small steak made me glad;
Oft the table cloths were dirty and the
crockery was thick,
Where the waitress gayly shouted: "Turn
'em over, and be quick!"
Ah, the coffee and the doughnuts that they
used to serve me there,
When my joy was never shattered by the
finding of a hair.

I am thinking, sadly thinking, of those
golden days of yore,
And I can not cease to wonder why they
make such pies no more.
Oh, the dear old basement hashhouse where
the sinker gave me joy
When I drew the meager wages of an eager
errand boy,
Where the waitresses were friendly and the
sinkers were sublime,
Where the rattle of the dishes cheered my
soul at eating time.
—S. E. Kiser.

GOD KNOWS BEST.

Sunshine and shadows—evening bells and
prayer;
Darkening clouds and rainbows—these we all
must share.
Crowns of thorns and roses; rest, eternal
rest,
Oh, heart of mine—don't worry—God knows
best.

If He filled our days with sunshine and
never any rain,
If He filled our lives with gladness, and
never any pain,
We would be so happy, we would love this
golden land,
We'd cease to look for guidance from His
protecting hand.

He sometimes sends His moonbeams, then
darkest, starless night,
Lest we forget our Father's Home and
never long for light.
So let your Savior guide you when with
sorrow oppressed.
Oh, heart of mine—don't worry—God knows
best.
—Katherine Ward, in New York Globe.

Farmers' Association Formed.

WISCONSIN POTATO GROWERS' ASSOCIATION. Organized November 14, 1912. President, John Hess, Rhinelander; Vice-President, A. J. Pinkerton, Waupaca; Treasurer, Ben F. Faast, Eau Claire; and Secretary, J. G. Milward, Madison.

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5-Passenger Touring Car
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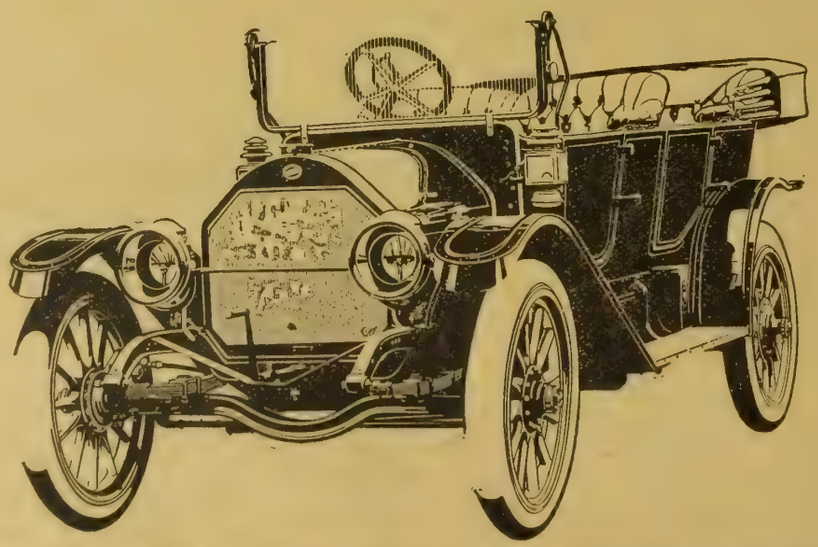
Center Control



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National FARMER

Vol. XXIX. St. Louis, Mo., May, 1913. No. 5.

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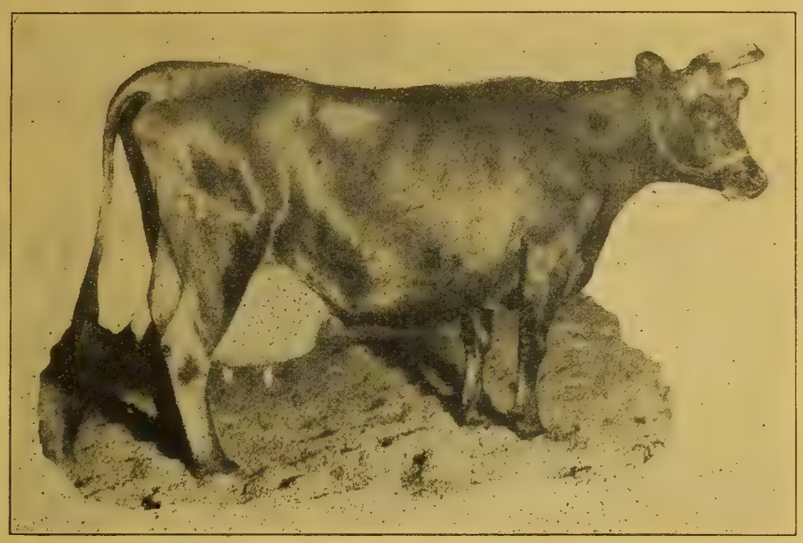

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JAY BIRD—FAMOUS SIRE OF TROTTERS. Picture taken in his old age by McClure, Photographer, of Lexington, Ky. JAY BIRD is on page 338 of the magnificent Book of Live Stock Champions advertised on page 2.

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COTTON IN THE SOUDAN.

The British Government Loaning Planters Fifteen Millions of Dollars to Raise Cotton in the Soudan.

While Congress is in session devising every possible ways and means to foster foreign agriculture at the expense of the agricultural interests of the United States, the British legislators are not idle in taking care of their own people.

The Chancellor of the Exchequer stated before Parliament that the time had come when something ought to be done to give the English mill owner some cotton raised under British control, and without any contrary argument he obtained unanimous vote of fifteen millions of dollars for the benefit for the development of cotton growing along the banks of the river Nile.

The Chancellor said in regard to American cotton that, no matter what the crop may be, there is danger of it being cornered, and he would prefer that British mills be more certain of another supply.

Egyptian cotton, he said, was better from the point of view of the manufacturer and also better from the point of view of the workman, because it was cleaner and healthier to work with than American cotton.

Discing Corn Land Before Breaking.

[By J. C. Hackleman.]

The importance of a good seed bed for corn is not sufficiently appreciated. A poor stand of corn may be due to a poor seed bed as well as to inferior seed or other causes. Briefly, the sort of seed bed which is desirable for corn is one which is loosened deeply, from six to eight inches, but which is well settled together below with a mellow and well-pulverized surface.

One of the best ways to begin the preparation of such a seed bed is with a disc harrow before plowing. This is particularly true of stalk land, while the weighted disc will not only cut the stalks so they may be turned under, but it will also pulverize the surface so that when the soil is inverted, the organic matter which is thoroughly mixed with the soil will not delay the re-establishment of capillarity.

The discing of stubble land is also important. Such discing will make the plowing at least a half horse easier and will provide for much more rapid decay of the stubble. Many men are coming to believe that the same can be said of sod land. Naturally, much depends upon the season as to the best time for doing this. Fall discing or early winter discing on stalk land is usually preferable. Spring discing, however, is much more common and is preferable on stubble land.

With the present late spring, many men who have not already disced their corn land will fail to do it. Of course, no absolute rule can be laid down regarding this, but if dry weather should follow the present wet period, the man who takes time to disc his corn land before plowing will surely be a gainer, as the soil will be prevented from becoming so compact and hard and will work up into a much better seed bed and the moisture conserved by such preparation may be needed before corn is mature.

Missouri Should Grow More Cowpeas.

[By M. F. Miller.]

The cowpea crop is not sufficiently appreciated in most parts of Missouri. As land becomes higher in price, and as it becomes more and more necessary to maintain the fertility to secure a net return, cowpeas or similar crops must come into more general use. They build up the soil, as does clover, but they have the advantage of a much shorter growing season and of lending themselves for use as a catch crop to be plowed under or pastured down for soil-building purposes.

It is true that cowpea seed is somewhat expensive and that cowpeas are hard to cure, but the return that can be secured from them when a man understands how to handle them is as great or greater than that from clover. At present, practically all the cowpea seed in Missouri is produced in the Southeast Missouri lowlands. There is no reason why the uplands of Central or South Missouri cannot produce cowpea seed profitably. This would cheapen the cost of the seed for the individual farmer. Small pea threshers are now on the market which will enable farmers growing small amounts of peas to save their own seed and even put some on the market.

The farmer on average to thin land in Missouri who expects to make good net returns from now on will usually find the cowpea one of his most profitable crops, when he learns to handle it.

Cantaloupes From Cuba.

The first arrival of cantaloupes to reach the St. Louis market this season was disposed of April 18th by the Barry Commission Company, 815 North Fourth street. Half a dozen crates, containing twelve melons each, about the size of a Rugby football, came from Cuba. The fruit was of extra-fine quality and appearance and attracted attention on the market. Offered at auction, they brought $1.25 each.

Hotel and restaurant keepers, on the alert for table novelties, were the principal buyers. The equipment arrived two weeks earlier than the first of last year.

Say,—but that's fine cement! Of course it is, it's ATLAS,—

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SWEET POTATOES A MONEY CROP

The Requirements For Successful Planting—Making the Bed—Method of Cultivation—Favorite Varieties.

There is no truck crop that pays better than sweet potatoes, if one understands their requirements. It is not enough to grow them, but they must be properly cared for at digging time, and if not sold at once must be cured or dried out, or they will not keep; but "catch your hare first;" or, in other words, grow the potatoes and the rest is comparatively easy.

Nearly every one who does not make an extensive business of growing sweet potatoes depends upon buying the plants needed, and this is a very satisfactory plan, especially for the beginner, who does not understand making the hotbed. A few suggestions as to the later work may serve to point the way to success, as the writer remembers how much help he received from directions given in one of the city papers by the late Chas. Murtfeldt, more than twenty years ago, on the subject of planting sweet potatoes.

The knowledge gained from the article in question has been supplemented by many years of growing the crop, and in that time many different varieties have been tried and different ways of making the "bed" for the plants, and we found that except for very early planting the level row was by far the best. For early crop the ground was deeply plowed and harrowed till well pulverized, then the plow was run so as to throw two furrows together to form a ridge. This ridge was raked down by hand and the plants were set fourteen inches apart.

We never lost a plant, for when opening a hole for it a half pint of water was poured in and this furnished plenty of moisture to keep the plant from wilting until it could take root. After the plant was set in this wet soil, we drew the dry soil all about it to prevent evaporation. The ground was hoed between the plants when needed, and the space between the rows was cultivated with horse power, and when the vines shaded the ground they were laid by. We also omitted this cultivation altogether on patches that were set late, when we had old straw or other litter which we could use as mulch. We found that plants set in ridges did not make such thick tubers as when planting in less deep, loose soil, and this, as well as the fact that moisture is saved by level planting, led us to adopt the latter method for the main crop. We like the little early yellow Jersey and also the Nansemond, but for late planting the Southern Queen always made the heaviest crop, as it seems to stand dry weather better than other varieties; in fact, one year of protracted drouth, this kind was the only one that made any crop at all.

Sandy land, if plenty of potash is furnished, seems to be the preference of the sweet potato, but very fine tubers can be grown on any kind of land if the proper elements of plant food are present. Some growers do not favor manure from the barn, as it produces a rank taste to the potato, and use nitrate of soda to stimulate the growth of vine, and this is well, as barn-yard fertilizer should not be applied to ground to be planted immediately in crops whose value lies in the root.

The first crop of sweet potatoes the writer ever raised was grown on Missouri clay upland that had been farmed for twenty or more years without any fertilizer, but as there was an accumulation of wood ashes about the place, these were applied to the patch and the result was very good. We have seen better crops grown by the application of 200 pounds nitrate of soda, 400 pounds acid phosphate and 200 pounds sulphate of potash, the soil being similar, and the grower realized a net profit on the crop of one hundred dollars an acre. Not so bad, when we consider that on unfertilized soil in the same neighborhood farmers were complaining that there was no money in growing crops of any kind. —D. C. Cornman.

FERTILIZERS UP TO THE FARMER

The Farmer by His Own Practical Experiments Must Decide the Questions That Experts Disagree Upon.

We never took any stronger position, or a safer one, than when we said it was up to the farmer to make his own experiments with fertilizers. There is great talk about farm-yard manure being all that is necessary to fertilize crops and add humus to the soil; but farm-yard manure is not so plentiful on the farms, and in this day of gasoline farm power farm-yard manure is getting to be a scarce article. When we go to the cities to ship out the manures from stables and stock yards we are told that there is not enough to fill the requirements of the seed growers, let alone the general grain farmer; and then again we are not able to get it for the hauling or cost of transportation, as was formerly the case.

We are reminded of the corn contest originated and financed by the good old monthly American Agriculturist when the North Carolina planter by reckless use of barn-yard manure and commercial fertilizers produced 255 bushels of corn on one acre; that a New Yorker in the same contest produced with commercial fertilizer 213 bushels at a cost of only sixteen cents a bushel, and the Nebraska farmer, who, with ninety loads of barn-yard manure, was third in the contest by raising 171 bushels of corn at a cost of forty-seven cents a bushel. One would imagine that ninety loads of barn-yard manure on the rich black loam of Nebraska would excel the sandy soil of New York with commercial fertilizers, or at least it would be grown at less cost. But then, before manure spreaders were invented, barn-yard manure, by reason of labor expense, was an example of high cost of living.

The farmer has to fertilize some of his lands to convince himself what commercial fertilizers are worth. The agricultural professors are to some extent "hobby riders," their experiments are not conducted for profit and loss, and they have great difficulty to bring themselves down to the actual farm level where the farmer has to balance his cash and take in as much or more than he pays out. One professor says that there is money in putting ten dollars an acre on land by using raw rock phosphate, which is not an available fertilizer, and at the same time will condemn every commercial fertilizer. Others equally eminent say that available fertilizers are used with profit, and that raw rock and other forms in which the fertilizer is not available are worthless goods.

The farmer must decide for himself. Every year that passes by without a fertilizer experiment is a year lost. When the time of planting is gone by the year is lost. No other industry compares with farming in lost opportunities. "We have left undone those things that we ought to have done" can be written on most farms. Ten years from to-day farms will have to produce very much larger crops or they will not pay interest on the investment.

Rotation is not everything; neither is it new. The ancestor of the writer of this article, William Hale, of London, England, had in his keeping the Doomsday Book of St. Paul's Cathedral, and he had in charge the leasing of the church lands, and in those leases were written the rotations insisted upon by the owner of the land and which had to be grown by the tenant under pain of forfeiture of his lease. Those rotations may have been improved upon since, but the leases of three hundred years ago antedate anything like intelligent agriculture in this country.

In building up European soils commercial fertilizers are not overlooked, and the agriculture of England has never failed to draw upon this country for cotton-seed meal and raw cotton seed before the age of the oil mills.

We repeat, that farmers will find it necessary to conduct experiments and to do it upon the lines laid down by the commercial fertilizer manufacturers, for the reason that the statements made in their literature are clear and capable of verification or discredit. Turn to any other source and you will find nothing that will lead you in any positive direction, unless it be the road to inactivity by reason of the lack of concise instructions that an average farmer can understand.

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Moon, 7-passenger, fully equipped	900
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WHEAT MARKET SITUATION.

Prices on a Very Conservative Basis, Apparently Without Speculation.

If there are to be any decided fluctuations and speculative operations in the wheat market this year, we look for them in the month of May. On May 31st the May contracts have to be closed by limitation, and then we usually have quiet times in the wheat market, because the next option is July, and that is not an excitable option to trade in under ordinary circumstances.

It does not appear that there is enough speculation in the wheat market to cause any complaint. Indeed, a little speculation is better than stagnation. During the month of April, however, the wheat market strengthened in a substantial manner.

On March 31st we left the May wheat option quoted at Chicago at 90⅝ cents a bushel, and on April 30th we find it advanced to 92⅛ cents.

On March 31st we left the July option quoted at 89⅞ cents a bushel, and on looking it up again on April 30th we find the price advanced to 92⅜ cents.

On March 31st we left the September option quoted at 89½ cents, and on April 30th we find the quotation is 92⅛ cents.

Grain men know that No. 2 red wheat is valued at 3 cents a bushel more than No. 2 hard wheat, but they are not accustomed to seeing 15 to 17 cents a bushel difference, as now now upon the cash St. Louis market. On April 30th No. 2 hard wheat was quoted at 93 to 95½ cents a bushel, and No. 2 soft wheat at $1.09 to $1.11 per bushel.

We have always claimed that St. Louis is the best wheat market on the continent, and the reasons for it are that the millers tributary to the St. Louis market prefer to grind soft wheat, and that St. Louis is directly in the center of the soft-wheat-growing territory. The goods suit the market and the market suits the goods.

THE OATS MARKET SITUATION.

A Slight But Satisfactory Gain in Prices During the Month of April.

If we look back to last August we find the best oats were selling at 31 and 32 cents a bushel, and when we go back to the time cash oats sold at 29 and 30 cents a bushel, a couple of years ago, we feel like congratulating ourselves that cash oats at St. Louis are selling around 35 cents a bushel.

In reviewing the market we left the May option on March 31st at 34⅜ cents, and we find it again at 35⅝ cents a bushel on April 30th.

We left the July oats option on March 31st quoted at 33⅞ cents, and we find it again on April 30th at 35 cents.

We left the September option at 34 cents on March 31st, and we find it again a month later at 34½ cents.

The gains are very small, and yet each one is gained by a hard struggle and the market appears to be utterly devoid of speculative elements.

But the most gratifying feature of all is the St. Louis cash trade, wherein the money is paid over for the grain in sight that has been graded by the official inspector. Cash oats were selling at St. Louis on March 31st at 32¾ to 33 cents a bushel, and on April 30th the price for No. 2 oats had advanced to 35 cents.

We see that the traders regard oats to be a good property, notwithstanding there is plenty of remnant of the largest oats crop in history, and it reminds us of the large and ever-increasing population that no act of Congress can take away. Oats are not yet selling for what they are intrinsically worth, and we hope to see the day when farmers will receive 50 cents a bushel for oats on the farm.

Be Sure You Get a Pure Leather Shoe

OVER 90% of all shoes sold for less than $4.00 contain *substitutes* for leather in the heels, counters and soles.

Why pay pure leather prices for such shoes when you never know they are adulterated until you wear them and find them unsatisfactory.

There is one way to be sure you are getting an honest leather shoe. Simply ask for "Star Brand" shoes with the star on the heel and the name on the sole.

"Star Brand" is the largest selling line of shoes in the world. Over seven million pairs sold during 1912. Every pair is honestly made of good leather. No substitutes for leather are ever used.

"Star Brand" shoes are made in over 750 styles—in all the different leathers—for men, women and children. A shoe to meet every demand, both as to style and grade.

Don t pay leather prices for paper shoes. Always ask for and insist upon having "Star Brand" shoes. Nearly 20,000 good merchants sell them. Don't just go into ANY store, but hunt up the "Star Brand" dealer or write to us for the name of the nearest merchant who sells them.

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MANUFACTURERS Branch of International Shoe Co. ST. LOUIS

THE CORN MARKET SITUATION.

The April Movement Scores a Slight Advance in Prices.

When prices were at the bottom last December, few people expected that we would obtain a ten-cent advance in the price of corn in four months, and the corn market has done a little better than that.

On December 31st, 1912, cash corn on the St. Louis market sold at 45 cents a bushel; on January 31st at 49½ cents; on February 28th at 50½ cents; and on March 31st at 54¼ cents; and finally at St. Louis, on April 30th, we get a price of 58 cents. Here is a clear gain of 13 cents in four months.

We are also reminded that we are quoting the current price of a grain crop that was the largest in history, and yet with the country full of corn we are quoting an advanced market.

In the option trading the gain has been almost equal. At Chicago, on March 31st, the May option was quoted at 53⅝ cents; on April 31st the quotation is higher at 55½ cents a bushel. In the same time the July option advanced from 54⅞ cents to 56¼ cents; the September option advanced from 55¾ cents a bushel to 56¾ cents a bushel. These one-cent advances do not make people rich, but they look especially good when in the past, under similar circumstances, the quotations have usually gone the other way.

Certified and Guaranteed Roofing.

On page 20 will be found the advertisement of the General Roofing Company. In addition to furnishing a splendid roofing material this company is prepared to assist farmers in designing their buildings.

A good example of a guaranteed roofing is that made by the General Roofing Manufacturing Company. It is known by the trade name of "Certain-teed." The word is taken from the two words "certified" and "guaranteed." After this concern had been in business a number of years and their roofing had proved its wearing qualities they placed a guarantee of fifteen years on it and gave it the name "Certain-teed," meaning the roofing is certified and guaranteed by them.

The General Roofing Company has many distributing centers in order to save the buyer some freight charges, but for the purpose of answering the advertisement address the General Roofing Manufacturing Company at East St. Louis, Ill.

Bargains in Rebuilt Engines, Separators, Feeders and Saw Mills.

1,501—Jumbo, 12 H.-P., direct flue	$ 250
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596—Minneapolis, 15 H.-P., return flue	575
1,351—Advance, 15 H.-P., direct flue	575
7,959—Gaar-Scott, 15 H.-P., direct flue	500
6,972—Double Star, 16 H.-P., direct flue	1,000
——Buffalo Pitts, 16 H.-P., return flue	575
1,205—Heilman, 16 H.-P., direct flue	375
1,881—A.W. Stevens, 16 H.-P., direct flue	250
——Advance, 16 H.-P., direct flue	800
11,244—Russell Co., 16 H.-P., direct flue	600
7,241—Nichols & Shepard, 16 H.-P., direct flue	700
2,089—Peerless, 16 H.-P., direct flue	325
——Minneapolis, 16 H.-P., direct flue	1,200
1,677—Minneapolis, 18 H.-P., return flue	700
6,488—Nichols & Shepard, 18 H.-P., return fire-box	575
4,181—Nichols & Shepard, 18 H.-P., return fire-box	575
1,565—Minneapolis, 19 H.-P., return flue	575
3,232—Buffalo Pitts, 20 H.-P., return fire-box	575
——Buffalo Pitts, 20 H.-P., return fire-box	700
9,761—Russell, 20 H.-P., direct flue	700
8,200—Gaar-Scott, 20 H.-P., return flue	700
4,583—Minneapolis, 20 H.-P., direct flue	1,250
3,400—Advance, 22 H.-P., direct flue	825
1,566—Minneapolis, 22 H.-P., return flue	975
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24x24 Illinois Special Separator, No. 1,314, equipped with Gearless Stacker, Peoria Weigher, Hand Feed; good as new	520
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32x52 Minneapolis Separator, No. 8,883, with Gearless Wind Stacker and Rich Feeder	600
32x52 Minneapolis Rice Thresher, No. 11,885, with Gearless Wind Stacker and Rich Self-Feeder; in excellent condition	680
36x58 Belleville Separator	125
36-inch Illinois Special Separator, No. 1,068, Rich Feeder and Peoria Weigher	400
36x60 Illinois Special Separator, No. 1,010, with Geared Wind Stacker and Rich Self-Feeder	520
36x60 Illinois Special Separator, No. 631, with Geared Wind Stacker	320

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28-inch Rotary Rich Feeder, rebuilt	85
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8x10 Hall & Brown Pony Planer	150
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No. 2 Buckeye Saw Mill	200
No. 4 Buckeye Saw Mill	250

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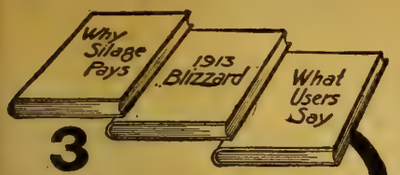

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DIPPING VATS FOR HOGS AND SHEEP.

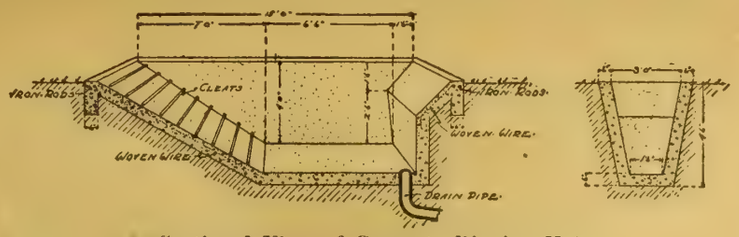
Plans and Instructions For a Concrete Vat.

The passing of the range, the breaking up of the Western ranch into farms and orchards, has caused a decided change in the nation's method of producing meat. The increased prices have made stock raising profitable everywhere. This fact is particularly true of hogs. To grow bone and to put on flesh, swine must be healthy and must have sanitary surroundings. Nothing retards the growth of a hog so much as lice. Years of experience have shown that the best remedy for destroying lice and fleas is dipping in a chemical solution. Dipping also keeps the skin of the animal in a healthy condition and thereby aids its growth. Because of cheapness in first cost and lasting qualities, most dipping vats are now built of concrete.

The best place to locate a dipping vat is close to a fence, near the water supply, and convenient for a chute leading from a small well-fenced lot or corral. At the narrow end of the chute, and in line with it, lay out the dipping tank (in accordance with the dimensions on the plan below) with the entering slide next to the chute. Make the excavation the same depth as the inside of the finished vat, and of the same shape but twelve inches wider. Dig the deep part of the hole first and then slope the earth for the "entrance-side" and the "climb-out." Lay the outer drain pipe with its end even with the surface of the finished concrete bottom.

The side walls only will require forms. If the banks stand firm, inside forms alone will be needed. Make these of old one-inch lumber on 2x4-inch uprights. The full inside length of the tank is fifteen feet, but the deep part is only six feet six inches long. The clear widths at the top and bottom are respectively three feet and one foot six inches. Since the concrete floor, as well as the side walls, is six inches thick, set the side wall forms in place upon six-inch concrete blocks, so that the floor may be built under them. Space the forms properly and cross-brace them firmly upon each other.

Mix the concrete one part Portland cement to two parts sand to four parts crushed rock or one part cement to four parts pit gravel. Lay the floor and inclines directly on the solid earth. The concrete for the sloping ends should be made only medium wet, so that it will tamp well and stay in position without the use of forms. In the concrete for



Sectional View of Concrete Dipping Vat.

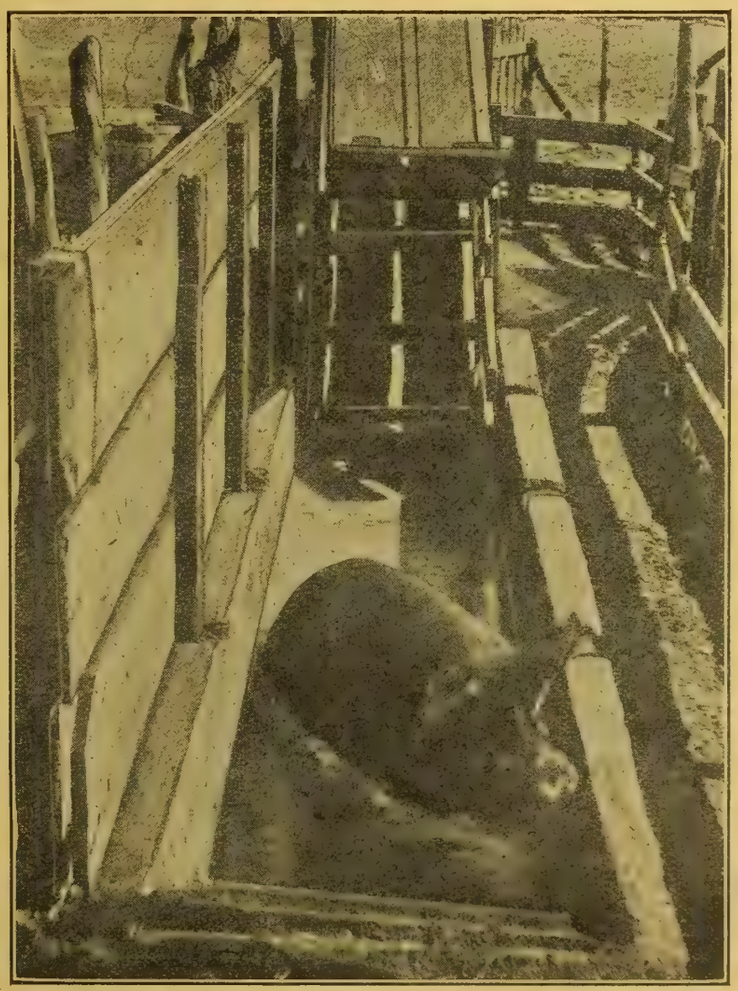
the inclines, two inches from the top, place strips of woven wire fencing to prevent possible cracks from heaving by the frost. As an aid to the animals in climbing out, imbed in the concrete of the "climb-out" the turned-up ends of iron cleats bent at right angles similar to a capital "U." Old wagon tires, straightened and cut in lengths not greater than twenty inches and turned up four inches at each end will do. Leave one-inch clearance between the flat surface of the cleats and the concrete and space the cleats eight inches apart. Fill the six-inch space between the earth and side forms with concrete mushy wet. In placing this concrete, be sure that it strikes the wooden form instead of the earthen side, as dirt in the concrete may make a weak, leaky wall. Carry the walls six inches above the surrounding ground (to prevent surface water from running into the vat) and in each corner, two inches below the surface, lay two old iron rods The entrance slope should be smooth to slide the animals into the vat without skinning them up; therefore finish its surface with a wooden float and a steel trowel.

At the leaving end of the vat there are often built two "dripping pens" with their division fence on a line with the center line of the vat, so that the gate at the dipping vat, hung to this fence, may close either pen, when it is full, and allow the animals from the vat to pass into the empty pen. The floor of these pens is built the same as a sidewalk or feeding floor, except that the surface is grooved and sloped so that the dip running off the animals will drain back into the vat.

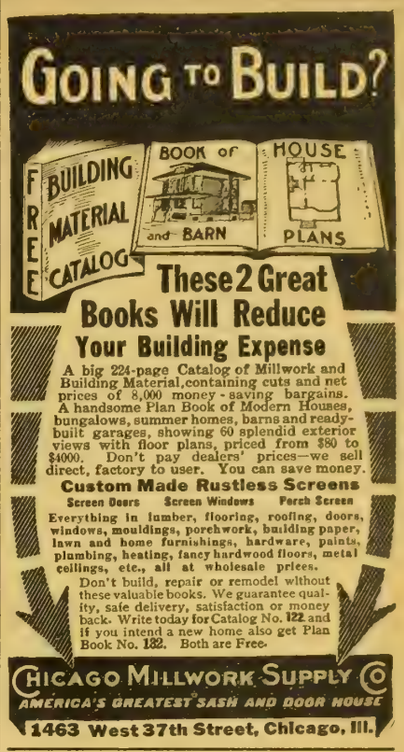
For a dipping vat of the dimensions shown, there will be required three cubic yards of crushed rock, one and one-half yards of sand and five barrels of Portland cement. These materials will usually cost about $10.00.

This same tank may be used for dipping sheep in order to cure mange, scab and other diseases caused by parasites. On account of the resistance of the wool, it is advisable to keep sheep in the tank at least one minute. Very lousy hogs should remain equally long. This result may be secured by the use a drop door, called a "soaking gate," operated from above by a rope and pulley. If a longer tank is wanted, for each three-foot increase of length in the body of the tank there will be required one-half cubic yard of crushed rock, one-fourth yard of sand and four bags of cement.

When not in use a concrete dipping vat needs no care other than providing it with a good cover or so enclosing it as to prevent accidents. It will not rot or rust out and will require no repairs. Such an improvement is a paying investment for every farmer.



How the Concrete Dipping Vat is Used.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1463 West 37th Street, Chicago, Ill.

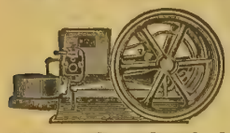
Girls Will Make Boys Hustle.

In the past the boys enrolled in the Missouri Boys' Corn Growing Contest have had a nice, quiet, little time dividing up $1,000 in prizes at the State Corn Show. But this year they will have the girls to reckon with, for the contest has been opened to both boys and girls between the ages of ten and twenty years. It is just as easy for a girl to get a share of this prize money as it is for the boys. The girls will not be required to do any of the actual work, but will be expected to keep all records and pick their sample of corn for the State Corn Show. Of course, there is no objection to girls doing such parts of the work as they can do. There must be at least two girls in every corn-growing county of Missouri who are sufficiently interested to get into this contest and make the boys hustle. Besides the prizes the Missouri Women Farmers' Club will give a $25 cash scholarship in the College of Agriculture to the girl between the ages of fifteen and twenty who wins first prize in this contest. This is your chance to show what Missouri girls can do when they try. Corn-planting time is near. Records should be kept from the start, so send your name to-day to T. R. Douglass, Secretary Missouri Corn Growers' Association, Columbia, Mo., and get full particulars concerning this chance to win your share of this fine lot of premiums.

Oats straw at $6.50 per ton and wheat straw at $7.00 per ton, were the latest St. Louis sales in April.

Read about the Book of Live Stock Champions advertised on page 2.

Gasoline Engines



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The Witte is conceded the best engine in America. Made by E. H. Witte, master builder for 25 years. Ask any Witte user. Any size from 1½ to 40 horse-power all tested to ten per cent overload. 61 special advantages.

And You Now Pay Only FACTORY PRICE

We cut out all dealers—their profits go to you. You also get the full benefit of our low factory cost. We have no power expense at our plant, as we own our gas well; testing, heating, lighting fuel, all free. Take a 60 day trial. Five year guarantee. Write for book, "How to Judge a Gasoline Engine," and complete catalog. Our wholesale factory prices will interest you mightily. Write NOW, telling us size engine you need.

WITTE IRON WORKS CO.
1721 Oakland Ave. Kansas City, Mo.

The WITTE Cuts Gasoline Bills in Half

ARGENTINE AGRICULTURE.

Plow Contest—Wheat Classification — Co-operative Society — Beet-sugar and Apple Growing.

The following items were furnished by the United States Department of Commerce:

Over twenty importing houses entered plows for the tests held by the authorities of the Province of Buenos Aires, commencing on March 30th.

Programmes are already in circulation for the Rosario Rural Society's Show to be opened on August 30th. By reason of the success attained by last year's event the categories of the Fat Stock Show have been increased, and cash prizes will be awarded in addition to the usual medals, etc. Requests for space must be made between forty and ninety days before the above opening date. The Fat Stock Show will be run conjointly with the usual prize stock exhibition, and a gold medal will be awarded to the champion steer, all breeds competing, in addition to the awards for each category.

At Chivilcoy an agricultural co-operative society is being formed for the further protection of the agriculturists of that district. The capital has been fixed at $200,000. It will open a bank for advancing loans to "chacareros" and stores which will supply goods to their members at cost price.

The Agricultural Department has circulated Argentine consuls abroad, and also foreign cereal exchanges, with reference to the regional type of wheat with which the department has recently been dealing. The circular states that to the end of January over 3,500 samples of wheat had been received from the various cereal zones, which had been classified as Rosario, Buenos Aires, Bahia Blanca, Pacific and Entre Rios. After individual classification, the samples from each particular zone were mixed in quantities proportional to the number of packages, the mixture representing the type of that zone for January. The result given was: Buenos Aires zone, 70,730 kilos per hectoliter (61.918 pounds per bushel); Bahia Blanca, 78.850 (61.257 pounds per bushel); Pacific, 78,820 (61.234 pounds per bushel); Entre Rios, 77.350 (60.092 pounds per bushel).

An experiment has been made in the Province of Mendoza in the cultivation of beets for sugar. A well-known variety was planted, and in 750 square meters (8,073 square feet, or about one-fifth of an acre), sown in August, 1,200 kilos (2,645 pounds) of beets were obtained in February. After this excellent result, the beet-sugar industry may soon become an important one in that province.

The Department of Agricultural Education has approached the various schools in that line and experts to formulate a plan for the cultivation of apples on a large scale in the country, both for ordinary eating purposes and for the manufacture of cider, for which it is said there is a great market in the capital and other cities. It is pointed out that about 975,000 dozen apples are annually imported from Europe, North America and Australia, and that these might be supplied from various parts of the republic. To satisfy local consumption alone, about 65,000 more apple trees might be planted, which would represent an annual income of $160,000. At present the cultivation of apples is practically confined to a small portion of the Province of Buenos Aires, and the supply from that source is of little consequence in comparison with the demand in the capital alone

THE WATER TABLE.

Where It Can be Seen—The Variation Thereof—The Lowering of the Table a Cause of Drouth.

The surface of the water in the soil is known as the water table. This may be seen in a well, where it is doubtless much lower than in the soil a rod or so away. In dry weather it sinks very low and in wet weather is near the surface. In low, undrained land it is always high or near the surface. Where it remains long near the surface it stops the growth of all plants except those adapted to living in very wet soil, such as flags, rushes and marsh grass.

When the country was new the water table was everywhere very high, especially in the forests, where the shade from the trees kept the soil always moist. There were no drainage ditches then, and the water drained off but slowly. The coming of drainage ditches greatly lowered the soil water everywhere, and the result was seen in the death of many of the big trees that had stood for centuries.

An illustration of this effect was seen when the lagoons were built in Jackson Park, Chicago, to prepare for the World's Columbian Exposition. An expert on trees told the Park Commissioners that the construction of the lagoons would lower the water table in the whole park, and that many of the best trees in the park would be destroyed. The park covers about a square mile, and the effect of the drainage was felt everywhere. The predicted result occurred, and the trees that had adapted themselves to a certain condition of moisture could not live when deprived of the supply to which they had been accustomed. They died by the scores in all parts of the park.

Government investigations have been made covering a large part of the United States to find out what the general lowering of the water table has been in all the states, of the Middle States especially. In the four states of Illinois, Missouri, Iowa and Wisconsin the general level of water in wells is over ten feet lower than it was eighty years ago. This is a tremendous factor in crop production, for it shows that in the summer time the water in the soil is many feet lower than it used to be, and this makes the loss from drouth more extensive than under conditions as they existed eighty years ago.

With the continued increase in the drainage of land, this lowering is sure to continue. This is going to make irrigation more of a factor in the humid states than it has ever before been. As a crop insurance, where land conditions permit, irrigation will at some time in the future play a large part in all of the so-called humid states; that is, in those states in which it has always been considered that the rainfall was sufficient for all needs of the soil.

This is not an argument against drainage, but it illustrates the fact that we can not have a good thing without some opposite factor going with it. There are many advantages in good drainage. There are some disadvantages, and one of these is the rapid running off of the water, producing such floods as those that have recently wrought ruin in Ohio and other states.

Would it be possible or feasible to construct flood gates to drainage systems, which gates could be closed when it is desirable to prevent the rapid running off of the water? Could the water table be partly controlled in this way?

You can have Running Water in your House and Barn, at even temperature Winter or Summer, at Small Cost.

Send Postal asking for New Water Supply Plan.

It will bring you a Hundred Pictures of it in actual use.

Do It Now.

Aermotor Co., 1144 S. Campbell Ave., Chicago

Aermotor Co., 2nd and Madison Sts., Oakland, Cal.
Aermotor Co., 1213 W. 8th St., Kansas City, Mo.
Aermotor Co., 332 1st St., North, Minneapolis, Minn.

Difference in Beef Prices.

The contract to furnish meats to the Missouri penal institution, about 750,000 pounds annually, was awarded recently at the following prices per pound: Beef, 9.10 cents; pork, 12.30 cents; mutton, 10.84 cents; Frankfurters, 10.15 cents; pork sausages, 10.18 cents; bacon, 15.49 cents. Last year the price of beef was 7.84 cents a pound.

5 Year Guaranteed Buggies At ½ Retail Price

FREE CATALOG

You take no risk when you buy a buggy from us. We guarantee it to please you, and to be a bigger value for your money than you can get anywhere else, or you needn't keep it. *Reference;* S. Ill. Natl. Bank, East St. Louis, Ill.

Mutual Buggies, Surreys, Wagons, etc., are the highest quality, handsomest, most stylish vehicles built. **The only line guaranteed 5 years.** We sell direct at wholesale prices—and save you $25.00 to $100.00. **Write for catalog and delivered prices.**

MUTUAL HARNESS at $5.85 per set up: double $14.10 up; work harness $19. up, all genuine leather; highest quality; **Fully Guaranteed** 25 to 50% cheaper than retail. Catalog Free. Write today.

SENT ON APPROVAL.

MUTUAL CARRIAGE & HARNESS MFG. CO., Station 47E, East St. Louis, Ill.

A STUDY IN MUSHROOMS.

Not Appreciated at Their Value—The Tame and Wild Varieties.

Americans have never really appreciated the value of the mushroom, either tame or wild. The mushroom is considered a dangerous thing to deal with, and so it is. But knowledge makes it safe.

The writer has for many years made a study of wild mushrooms and has done some cultivating of the cultivated variety. For the novice the tame mushroom is safest, as he is less likely to get a poisonous mushroom.

Yet danger may lurk even in the midst of the perfectly safe and edible cultivated variety, not because of the variety itself, but because the spore of a wild, poisonous variety may get in, and, in the bed where the good mushroom is growing, the poisonous one may also come up and be plucked and eaten without being recognized.

About a dozen years ago an accident of this kind occurred in mushrooms grown from some imported spawn. It is probable that some wild poisonous variety was inadvertently allowed to germinate in the manure in which the spawn was being prepared. So when it was used by a grower in this country, it resulted in a poisoning. Such occurrences are rare, but should be looked out for.

The protection comes in the person that grows mushrooms knowing them so thoroughly that if a wrong variety by any chance appears it will be recognized by the man that is gathering them for market. For this reason an uninstructed person should not be put to collecting the mushrooms when they are ready for market.

The spawn can be obtained of any seed house, and horse manure, abundant on every farm, provides the medium in which the threadlike body of the plant will develop. A warm basement of a barn or a cave will give the temperature needed during the fall months. The summer months are too warm for the growing of mushrooms to advantage.

It is not necessary to go into details of procedure, for these can be obtained of the men that sell the spawn. But this caution should be given: Do not soak the heap with water, lest the spawn be killed entirely, and when the bed has begun to produce, apply water only lightly, as water and manure produce a combination very favorable to the rotting of the delicate plants of which the edible mushroom is the fruit.

The wild mushrooms can be studied with the help of government reports, which the writer has found very satisfactory. There are several varieties that produce very abundantly in the fall of the year. Among these is agaricus melleus, or honey-colored mushroom, which grows in masses near the roots of trees or around old stumps. The writer has picked at one time over 200 caps from a single clump around a stump. When cooked like oysters, they remind one of that delicacy and are good fried.

The cultivated variety is agaricus campestris and it also grows wild in the open fields, especially in old pastures where the grass is kept short and horses are pastured. A knowledge of this and other varieties will add an important item to the table supplies of many an American home.

The Supply of Organic Matter in the Soil.

[By M. F. Miller.]

The most fundamental cause of decreased soil productiveness in Missouri is the gradual depletion of the organic matter. A good supply of organic matter in a soil is necessary, first, to keep the soil loose and friable; second, to maintain the supply of nitrogen; and, third, to make available the mineral plant foods through its decay. Commercial fertilizers will, for a time, bring remunerative results on worn land, even when the organic matter of the soil is not maintained; but the continued profitable use of commercial fertilizers on most soils is dependent upon the maintenance of the supply of organic matter.

The growing of grain crops is the most important cause of the depleted supply of organic matter in our soils. Organic matter cannot be maintained under grain farming, unless larger amounts of manure are added to the soil than can be made by feeding the grain crops. Where a man cannot buy manure, as is usually the case, it is necessary, therefore, to alternate grain crops with organic-matter-building crops, such as clover and cowpeas, either feeding all of these back or turning a part of them under.

Thus far, we have lived largely upon the virgin fertility of our soils. From this time forth we must learn to increase soil productiveness, and maintaining of organic matter is the first principle.

"Concerning the Middleman" is the title of an interesting article on page 30. It shows the difference between the speculator and the salesman.

No-Rim-Cut Tires 10% Oversize

How Do We Afford Them?

You ask, perhaps, how tires like these can be sold at Goodyear prices.

The utmost in tires--the final result of 14 years of betterments.

Tires that can't rim-cut—tires 10 per cent oversize.

One process alone costs us a million dollars yearly more than processes generally used.

How are such tires—tires that give such mileage—sold as low as Goodyears? Let us tell you.

Our Cost

We are the world's largest tire builders. We build almost as many tires as any other two plants combined.

Our factories are new. Our equipment is modern. We have invented a wealth of labor-saving machinery. We employ efficiency experts.

Our capital cost is exceedingly low, due to small capitalization.

Grade for grade, our cost of making must be far below the rest.

Our Profit

Then our profit is kept at the minimum. To assure you of this, every year we advertise our profits. In times past this profit has averaged around 8½ per cent. out of which must come the interest on millions of capital invested. This year, with our reduced prices, we do not expect to exceed that.

Those are the reasons why tires like these can be sold at the Goodyear prices.

Lower Prices

Of course tires can be made to cost less. Tires can be sold at half our prices, yet pay a larger profit.

But tire cost means the cost per mile. Goodyears cost far less per mile than any other tire that's built.

The Evidence

This is shown by the fact that Goodyears far outsell the rest, after 2,000,000 have been used.

Our sales last year were larger than the previous 12 years put together.

That's the result of testing these tires on hundreds of thousands of cars. Men have proved enormous savings.

The No-Rim-Cut feature ends rim-cutting completely. The 10 per cent oversize, with the average car, adds 25 per cent to the tire mileage.

You will see these savings clearly when you test these tires.

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With or Without Non-Skid Treads

Write for the Goodyear Tire Book—14th-year edition. It tells all known ways to economize on tires.

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POSTAL SAVINGS BANK DEPOSITS

Ought to be Used For the Purpose of Making Loans to Farmers on the Security on Their Lands and on Other Securities to Co-operative Associations of Farmers.

In The National Farmer and Stock Grower of December, 1912, the suggestion was first advanced that the money deposited in postal savings banks ought to be devoted to the purpose of making loans to farmers, under proper regulations, at low rates of interest, in order that farmers who have the best security to offer of any class of people may be able to obtain money at least on equal terms with other business interests.

Since then it appears that this view is receiving some attention and favorable comment, and if the subject has the consideration it merits it will not be long before the idea will receive the sanction of Congress and money heretofore locked up and hoarded will be available for the best possible purpose in which it can be used.

Up to the end of March the total amount of money deposited with the government was $33,500,000, and we have no doubt that within a few years the total will reach five hundred millions of dollars. Despite the fact that bankers generally opposed the establishment of the postal savings system, 7,248 banks and trust companies have qualified to receive the funds, so that they can loan the money out again. Of the number of banks qualified, 3,808 are national banks, 2,412 state banks, 401 savings banks, 573 trust companies and 54 private banks.

We do not pretend to know much about banking laws, but we do know that national banks cannot accept loans with farm lands as security, because Mr. B. H. Harris, of a bank of Champaign, Ill., is now asking that the laws be changed so as to permit them to do so. We wish to say that unless farmers insist that the money deposited in postal savings banks be made available for farm loans, that the only interest that will not have the benefit of cheap money will be the farming interest.

On page 32 of this publication will be found a **Petition to Congress** that ought to be presented with not less than a million signatures. Each farmer who is interested in this movement should get the blank signed up and tear the page out of the paper and mail it to this office. We will then send more blanks to be delivered to other farmers.

The whole story is this: The United States government is now in the banking business, receiving deposits at postal savings banks that will eventually amount to hundred millions of dollars. Upon most of this money the government pays an interest charge of two and a half per cent., and a little of it bears three per cent. We insist upon it that the government should not tax the people to pay interest on these deposits, but that the money be loaned out again, and under proper regulation it should be made available for farm loans at a rate not over one or one and a half per cent. more than the government pays for it.

We contend that the money should be loaned out through banks and trust companies, if they will accept the proposition to do so at a fair rate; but rather than have the banks use these deposits at high rates of interest the Postoffice Department should be enlarged to take charge of all the loans to farmers.

Don't fail to understand the situation and get to work and do something for the common good of the farming industry.

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

The most important item we can publish at the present day is our industrial policy, so far as it relates to the tariff which is now under consideration at Washington.

The National Farmer and Stock Grower is in favor of the United States Custom House collecting by law a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, the amount of said duties to be applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government can be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people.

Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result.

With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty displace home productions and result in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives far better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and special discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called counsellor in cities will be the first to find it out and be the greatest sufferers. The farmers who can provide for themselves will be slow to increase their products in the face of injurious legislation.

At the present outlook there is every reason to believe that a law will be passed that will be distinctly and positively injurious to all American industries, and to the agricultural and stock-raising interests worse than all others. Without charging legislators who will vote for admission of foreign farm products free of duty with anything more than ignorance and incompetence, we do say that they are serving foreign countries better than their own.

Praises Houston's Department.

That the United States has the best organized Department of Agriculture in the world was the opinion expressed to Secretary Houston by M. Vilmorin, a French agricultural expert, who has spent the last year touring the world studying agricultural systems, and who was recently in Washington. Secretary Houston expressed his pleasure at the compliment, and said the United States hoped to do even greater things in the way of helping its farmers.

Interest on Farm Loans.

Evans, La., April 18, 1913.

Editor National Farmer and Stock Grower, St. Louis, Mo.:—Dear Sir:—I see you are leading a great movement in the interest of farmers. I can say I do more than appreciate the article headed "Interest on Farm Loans." As a subscriber I wish to compliment and thank you very much. It is hitting the nail on the head. Just a few moves like this and we will arise. I will be pleased to see this movement go through. Yours Very Truly, R. D. EVANS.

Our Rose Premiums.

Attention is invited to our rose premium subscription offer on page 31. We have furnished rose premiums for several years, and the plants we buy from the American Rose and Plant Company to fill these orders give general satisfaction. There are some few exceptions, but we test them every year and they are all that is claimed for them. We can fill orders in the month of May. In the meantime, all who are entitled to them should have received them. It is better to be late than too early with roses.

Book of Champions on page 2.

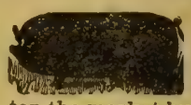
BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

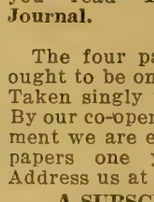
The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**



The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

A SUBSCRIPTION BLANK.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

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P. O. Box. . . . . R. F. D. . . . . .

Postoffice. . . . . .

Editor's Note.—The Fruitman and Gardener, published monthly, a first-class paper, can be substituted for either of the above papers if desired.

MARVELOUS HARVESTS.

What Experimenters are Doing to Show the Possibilities of Agriculture.

While farmers are going upon their own way making such progress as they may with the light before them and experiences gained in pursuit of their occupation, investigators are investigating the minutest details of plant breeding and culture from the standpoint of the possibility of a single seed or of only a few grains of seed.

Although these investigations are upon unworkable conditions, requiring labors that the results would not justify, the contemplation of the experiments and results will do no harm. Our attention has been called to them by the Literary Digest.

In one case by laboratory experiments, twenty seeds of grain yielded an increase of over 700,000, and that within the year.

How It is Done in France.

"The principle is simple. It consists in preparing seed-beds in widely-spaced lines on very mellow land; then at the end of two months dividing the tufts springing from each grain, replanting each of these rooted shoots thus detached; and finally in hoeing and earthing up these new plants many times in such manner as to provide at all the points brought into intimate contact with the earth the growth of numerous adventitious shoots, each of which bears an ear.

"It is, in sum, a combination of 'slipping,' transplanting and pruning.

"The system is, in truth, not new, but a very ancient one, used immemorially by the Chinese, and to it is due the enormous yield on their fields, which have been treated like gardens.

"While our (French) peasants throw broadcast handfuls of grain on the harrowed earth, offering rich pasturage to pillaging birds and rodents, the Chinaman, after furrowing the earth with his wooden plowshare, without turning it, crumbles each lump in his hands till it is like fine powder. This done, at planting time he walks slowly down each furrow carrying a grain-drill which is a marvel of ingenious simplicity.

True Intensive Farming.

"Picture to yourself two pointed plowshares about twenty inches apart and connected by a transverse bar supporting a hopper filled with grain, from which issue two slender bamboo tubes designed to conduct the grains so that each will drop in the wake of one of the shares. The diameter of each tube is just great enough to allow the passage of one grain at a time without letting it drop until it receives the impulse of a slight shock given by means of the handles which complete the apparatus.

"The sower pushes the drill in front of him, inclining it now to the right and now to the left, in such sort that each inclination causes the issue of a single seed, which is instantly pressed under by the track of one foot or the other. The seed plot is thus made in the form of a 'quincunx,' each planted grain being at a distance of sixteen to twenty inches from its neighbors in every direction.

"At the end of a few weeks germination begins. When the young plant is ten or twelve inches in height, there are a score of stalks about its stem, each provided with a fringe of rootlets. The farmer covers each with loose earth by means of careful hoeing, thus raising the level of the furrow. Each stalk again proliferates, and there are soon fifteen to twenty new stalks around its stem, which detach themselves. All are the indirect issue of a single grain, which proves therefore to have been the parent of 300 to 400 stalks, each bearing an ear.

"Transferring this method to experimental fields and perfecting it, it has been found possible to separate from the stem each of the primitive stalklets with its own roots, transplant it, and then treat in the same way each of the new plants thus formed.

The Actual Experiments.

"Thus Philippe Miller planted a seed in the experimental gardens at Cambridge in June, 1776; in August, 1777, he obtained as a harvest from this single seed 576,000 seeds. For unknown reasons the experiment was not repeated until June 12, 1903. On this date our compatriot Bellenoux treated in this manner twenty grains of wheat planted in one square yard of carefully mellowed earth. On April 9 he separated and replanted the numerous stalklets springing from the earth. On October, 8 of the same year, then on March 3 of the next year, and finally on May 13 he repeated the operation. On July 30, 1904, each of his twenty grains had produced 604 clumps bearing 28,388 ears, containing a total of 709,701 grains.

"This prodigious harvest from twenty grains corresponds to a yield of nearly three tons to the acre."

To the objection that this was essentially a laboratory method, and therefore impractical, it is replied that recent experiments have proved its success on a large scale.

The French Woman at Work.

"Toward the end of October, 1911, a French woman, Mlle. Louise Chevalier, residing at Tiflis, in the Caucasus, planted one grain of barley. As soon as the young plant issued from the soil it was earthed up with care, and produced fifteen stalks. In February and March, 1912, two new earthings produced ninety-nine stalks. By May 12 the single grain had produced 212 stalks, and on June 10 our compatriot harvested 236 stalks, 212 ears and 5,300 grains.

"This yield of 530,000 per cent. encouraged her to put two and one-half acres under cultivation. One of our Tiflis readers, to whom we owe these interesting figures, tells me that the field is now (December) in its first earthing, and that from a planting of one grain in a space eighteen inches square there have sprung 20,000 clumps, each of twelve to fifteen stalks, which will be correspondingly multiplied this spring.

"Further still, an Algerian colonist, Mr. Bourdiol-Humbert, has been planting wheat and oats in the same field for five years. He makes his furrows thirty-six inches apart and plants the seeds therein at a distance of twenty inches from each other. Then he harrows the earth constantly, stirring the soil, and without rotation, he has harvested an average yield of 1,800 pounds of oats per acre and 1,600 of wheat; while his neighbor's yield was a scant 830 pounds of oats and 500 of wheat."

The Useful Post Card.

All of our readers will find it to their advantage to obtain a package of post cards before sitting down to read The National Farmer and Stock Grower. The cards should be used for the purpose of writing to such advertisers as invite farmers to do so; also to write for agricultural college bulletins mentioned in this paper. Agricultural implements also should be studied with the catalogues, so as to receive the benefits of the manufacturer's claim for superiority and new points of excellence. We wish our friends and patrons to have the benefit of all that will be a guide in their business of farming in all its branches, and a postal card will be found quite useful in this connection.

GOOD BOOKS AND PAPERS.

THE STOCK EXCHANGE FROM WITHIN.—The American spirit of fair play should impel all those who are in doubt about the Stock Exchange to read this book, the first of its kind to appear in this country. An interesting subject well told and bearing light on the "inside" of the Stock Exchange. It is by William C. Van Antwerp, and is issued by Doubleday, Page & Co., New York City. Price, $1.50.

THE SHEEP AND ITS COUSINS.—This interesting book, with sixty-one fine illustrations, gives the early history and names of sheep, both foreign and domestic. Contains much of interest and value to the sheep breeder. Price, $3.50. It is by R. Lydekker, F. R. S., and issued by E. P. Dutton & Co., New York City.

CO-OPERATION IN NEW ENGLAND, URBAN AND RURAL.—Tells how far industrial co-operation was practiced in New England and the result of its operation there. An enlightening subject, interestingly and clearly set forth. Price, $1.50. It is by James Ford, Ph. D., and issued by New York Survey Associates, Inc., of New York City.

MILK AND ITS PRODUCTS.—This book is a treatise upon the nature and qualities of dairy milk and the manufacture of butter and cheese. It is of great value to the dairyman, and particularly to the dairy student who desires to have set in simple and concise form the principles underlying the modern dairy practice. Price, $1.50. It is by Prof. Henry H. Wing, and issued by the MacMillan Co., of New York City.

A MANUAL OF PRACTICAL FARMING.—This splendid book gives in a plain, practical manner useful knowledge and the result of scientific research as applied to the common things in agriculture, without the use of technical terms or confusing tables. A good book, easily read and understood. Price, 50 cents. It is by John McLennan, Ph. D. Issued by the MacMillan Co., New York City.

PRACTICAL POTATO CULTURE.—A practical and thorough treatise on the potato, brimming over with useful information on this subject. Price, 50 cents. It is by Mr. E. A. Rogers, Secretary Johnson Seed Potato Co., of Brunswick, Me.

SHEEP FARMING IN NORTH AMERICA.—This book will prove of value to every sheep owner. It contains many practical ideas that are the outcome of developments of recent years and are not found elsewhere in book form. Price, $1.50 By John A. Craig, and issued by the MacMillan Co., New York City.

HOW TO KEEP HENS FOR PROFIT.—Those who have been looking for the reason why their poultry ventures were not yielding a fair profit; those who are just starting in the poultry business; and seasoned poultrymen, will all find in this book much of value. Price, 50 cents. By C. S. Valentine. Issued by the MacMillan Co., New York City.

PAVEMENTS AND ROADWAYS.—This is issued in the form of a hundred and twenty-page booklet in the interest of triangle mesh wire for the re-enforcement of concrete in the construction of pavements and roadways. It is full of useful information and is issued free to farmers by the American Steel and Wire Co., 72 West Adams street, Chicago, Ill.

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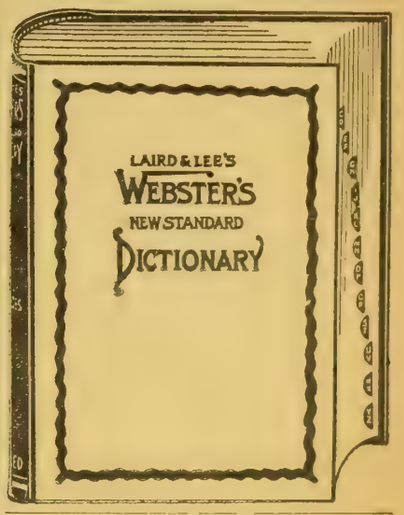

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INCREASING DAIRY PROFITS.

A Simple Statement How to Do It, by One of the Ablest Dairy Authorities.

Profit is the difference between cost of production and the selling price. To insure the largest profit in milk production, the cow owner must know that each cow in the herd is producing enough milk to pay for feed, labor, interest, taxes and depreciation, and then leave some for profit. In one herd, eleven cows produced $200 worth of butter-fat above feed cost, while four others ate $20 worth of feed more than the returns for their butter-fat paid for. So that the whole fifteen only averaged $15 each above cost of feed. While, if the man had had only the best eleven, he would have had $20 more money, saved the feed and the labor of handling. The only certain way in which these "robber" cows can be located is by yearly records of milk production. No man has yet been found who can guess accurately on every cow in a herd. Records may be made by the owner, or by several joining together in a cow-test association, and employing a man to do the work.

Having located the unprofitable cows, and eliminated them, their places can be filled in a few cases by purchase. The prices are getting high. The best way is through the purchase of a pure-bred sire from a profitable cow, and the saving of his daughters out of the best cows in the herd. Each community should adopt one breed and all buy sires of the same breed. In a short time the grade surplus stock will command from $10 to $50 apiece above the common scrub stock, because of the large amount of it to be found in one community and the reputation they will acquire for breeding that one class of stock.

Profits can usually be increased by better feeding. Each cow must have enough food—first, to maintain herself; second, with which to make the milk she yields, and any surplus above this is stored up in the form of fat to be used later when she don't get enough food. The cow that has the ability to produce forty pounds of milk a day, does not make milk as cheap as she would when fed to her capacity. In the judgment of the writer, the dairy cow that has the ability to make thirty pounds of milk a day, or better, cannot eat enough alfalfa hay to enable her to do her best work, and she should be fed some form of grain or by-product concentrate low in protein to supplement the alfalfa hay eaten. Every cow must have enough feed. The feed she does eat must contain the minimum amount of protein required for her maintenance and for production of milk. An insufficient amount of feed limits production; an insufficient amount of protein limits production.—H. E. Van Norman, College of Agriculture, Berkeley, Calif.

FRUIT AND DAIRYING.

The Dairy and the Orchard a Splendid Combination—Apples, Rather Than Small Fruit.

If there is one thing more than another that hampers the fruit grower it is the lack of manure. There is no crop grown that requires more fertility than does fruit. What, then, would appear more businesslike than the coupling of the dairy and orchard? I am speaking mainly of apple orchards, as they work in better as a farm and dairy adjunct than does small fruit—peaches, pears and plums. These can, of course, be planted, and with profit, too, if the dairy interests are not so great as to take up all the time, as small fruit will not grow without care, any more than a cow will succeed without regular milking.

In my opinion, a five or ten-acre apple orchard on a forty to sixty-acre dairy farm would seem to be in good proportion. This undoubtedly induces the thought that this land would not be lost, as it could be used as pasture land and thus get the apple crop extra, but not so. To the true horticulturist, cows in an apple orchard are about as much out of place as would be a bull in a parlor. This orchard land should be as thoroughly cultivated as is the corn field and guarded as carefully from stock. Too much manure in an orchard is not desirable, especially in a bearing orchard, as it induces wood growth at the expense of fruit. The design in planting an orchard is its fruitfulness rather than for good growth, so that no dairyman need feel that his little orchard is going to require all the manure made on the farm at the expense of field weeds. With from a light to fairly liberal sprinkling of barn-yard manure each spring and this thoroughly disced in and the ground thoroughly cultivated up to July 15, then a cover crop sown and the work is practically finished until the crop is ready to be gathered, taking for granted that the varieties are largely winter apples. I do not wish to infer that this orchard is to pose as a mere plaything; far from it. Like all other crops, it is full of hidden rocks and shoals made up of hard days' work, diseases and insect pests that require muscle, study and spray material, which spells cash. This, however, is not radically different in this respect than is the farm and dairy. We have to buy cows occasionally in order to reinforce the dairy herd, binders and mowing machines for the harvesting of our crops, and wagons, horses and harness as a means of transporting our products, and from the implements required for the working of the dairy farm can be found all tools necessary for the working of the orchard except pruning and spraying tools and apparatus.

Little do many of our working dairymen realize as to the amount of hidden treasure that lies buried in the neglected orchards that grace—no, disgrace—their farms. Trees trimmed by cows and robbed of every blade of grass and the ground pounded hard as a rock through continued tramping can do nothing more than barely live, let alone bearing fruit; but when given equally good treatment with other crops or dairy cows, then will the orchard fill the bushel and show the gold. Now, don't fall into the common error of saying that the writer, like many writers, is paid for spinning out words rather than wisdom, for the first is not so. As to the latter, I am handing out wisdom gained from personal experience as well as experience gained from the doings of others; indeed, I know of a case in Southern Illinois where a ten-acre orchard was abandoned about twenty-two years ago and the farm of 120 acres given entirely over to dairying. In these years a young man had been produced and in some way he inherited a streak of extraordinary good sense, which for the past three years he has bestowed on that fifty-year-old orchard, and out of those old trees two new silos have been built, the house newly shingled and painted and a new family surrey bought. He further says that all his father wants himself and family to know is to pull teats the year around and to smell like the stable. I am told on good authority that this orchard cleared over $200 per acre last year. —Wm. Hardy, Rural Route No. 2, Tunnel Hill, Ill.

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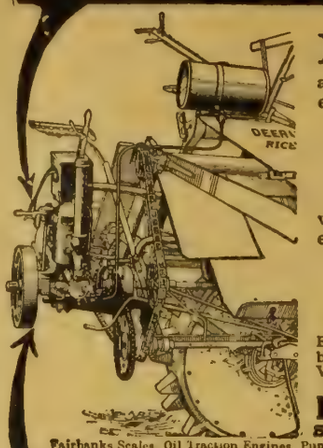

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How Poor Milk is Produced.

"The conditions that have the most objectionable effect on the milk are dirty barns, dirty milk cans, uncleanly dairy utensils, manure in the barn-yard, cows not properly bedded, dirty ponds of water for the cows to wade into and drink. Also flies in the milk because the cows are not sprayed with a fly killer, cows' udders and teats not kept clean or washed before they are milked. The common use of a dish rag to wash out the cans and milk utensils, instead of a brush. The lack of using a cleaner and cleanser."—F. W. Culbertson, of Washington, in the Cheesemakers' Discussion Club of the New York Produce Review.

DAIRY NOTES.

The cold-storage industry is recently treated in a bulletin by George K. Holmes, of the Bureau of Statistics, United States Department of Agriculture. It is probably the most important piece of literature on a very great subject, and it does not detract from the value of the industry.

The New York Produce Review and American Creamery says: "Compared with 35½-cent fresh butter, new cheese at 12½ and 13 cents doesn't look very attractive. It is at times like the present that the combined butter and cheese factory in the cheese districts brings home the bacon."

It is expected that when Congress gets through with the tariff bill considerable money will be sent to Australia for butter for the reason that the Canadian tariff on butter is higher than the American tariff will be.

From Sidney Center, N. Y., it is reported that many of the farmers who own Holstein dairies are buying in a few Jerseys in order to raise the quality of their milk to secure the extra 10 cents a hundred pounds now paid for the milk testing 3.8 per cent. butter-fat or over.

Read the article on page 23 entitled "The Iron of the Future."

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DETECTING DAIRY LOSSES.

Cost of Cow Testing Associations—How They Do It in California—Evening and Morning Test Once a Month.

A conservative estimate of the butter-fat production of the average dairy cow in California would place the amount at about 150 pounds, but calculations made from statistics for 1912, which are available, show that the production is still lower than this, being nearer 125 pounds. Under prevailing conditions in California, no dairyman can afford to feed and care for those cows whose records approach such a mark as either of these, and even where cheap pastures are available there is a limit below which a cow does not pay for her keep. For the year ending March 1, 1913, the average price paid for butter-fat in California, based upon a two-cent margin, San Francisco quotations, was thirty-three (33) cents, and during the same time the price of alfalfa hay hovered around the $12 mark. If an ordinary cow is fed alfalfa alone, which is common though probably not the best practice, she will consume annually an amount near to five tons, and there will be other additional expense in the nature of labor to milk and care for her. Using the two sets of figures mentioned, those relating to expense and those relating to profit, a pencil and paper will quickly show that there must be a great number of cows in this state which are a dead expense to their owners. How many dairymen know whether or not they have cows which are in this class?

Profitable dairying is an established possibility. Regardless of the low average production cited, this condition is not a problem incapable of being solved, as facts and figures even here in California have already shown. The solution lies through the use of milk scales and the Babcock test. Periodic and systematic herd testing is the means of turning loss into profit, and is a matter deserving of the attention of dairymen, for it forms the true basis from which the cow's actual performance may be determined. High cost of production demands economy, and dairymen are compelled to eliminate from their herds the poor producers.

Many dairymen own Babcock testers but too few use them. The value of the test is lost unless regularly made. Where dairymen find it impossible to make periodic and regular tests, one of the most satisfactory means of conducting the same is through the form of a cow-testing association. The nature of these associations is co-operative, each dairyman paying in proportion to the number of cows owned. In the Ferndale Association the cost per year is eighty (80) cents for each cow in herds of fifty or more, and one dollar ($1.00) in smaller herds. The present year this association has 2,600 cows under test, and two testers are maintained. In the Stanislaus Association the cost is one dollar and fifty cents ($1.50) per cow, and in the Tulare Association one dollar and twenty-five cents ($1.25) per cow. These amounts vary according to the number of cows entered, and in no case are they prohibitive when the value received is considered. The results in one herd, which has been tested regularly for three years, show that the average butter-fat production was 256 pounds for the first year, 290 pounds for the second year, and 335 pounds for the third year. While the first-year's average is higher than the annual production of the common dairy cow in the state, the great increase during the two succeeding years simply serves to show the possibilities through periodic testing for butter-fat production.

In testing dairy herds for annual butter-fat yield, system and regularity are essential points. The plan of testing an evening and morning milking once each month has been found very satisfactory, as this gives a close estimate of a cow's ability, if carried on regularly throughout an entire year. When testing periods occur at regular intervals, the figures thus obtained can be used to estimate the yield for the month, or for the fifteen days before and after test day. In the association the tester visits each dairy once each month. The milk of each individual cow is weighed night and morning, a composite sample taken and a test for butter-fat made. Owners of cows are provided with record sheets for each cow, and on these the tester enters the monthly calculations, making it an easy matter for the dairyman to pick out the unprofitable producers. Procedure, such as this, eliminates guesswork, and puts the whole matter on a logical basis. Every dairyman could test his own cows, but too often he fails to do this, and it is for such a reason that a co-operative movement proves its value. Where it is impossible to maintain a community enterprise, individual owners must take the work upon themselves, for through the use of milk scales and the Babcock test lies the true means of determining a dairy cow's worth. In these days, when the cost of feed is universally high, cows must deliver the goods.—By L. M. Davis, in Circular 95, College of Agriculture, Berkeley, Calif.

New York Milk Market.

"There is quite an increase in the milk supply in the sections from which New York draws her receipts, and while some factories are disposed to make butter because of the relatively high prices for such, the arrivals of market milk are running about 3 per cent. heavier than a year ago. For the week the total receipts were 312,400 cans of milk and 12,670 cans of cream. Demand did not increase sufficiently to take up the supply and the surplus caused a weaker feeling than was anticipated. A special meeting of the Exchange was called to discuss the situation, and it was decided to lower the rate one-fourth of a cent, to become operative April 11. Shippers in the 26-cent freight zone are now receiving 3½ cents a quart net for Grade B, and 3¼ cents for Grade C. The cost, delivered in New York, is $1.71 and $1.61, respectively, per forty-quart can."—New York Produce Review and American Creamery, April 16.

DAIRY AND CREAMERY.

The production of milk, although increasing, cannot possibly keep up with the demand for city, state, federal, local and general milk inspectors.

Late in April, in St. Louis, extra creamery butter was selling at 33 cents a pound; firsts, 30 cents; seconds, 28 cents; ladle-packed, 25 cents.

Cheese quotations, late in the month of April, on the St. Louis market, were as follows, quote per pound: Northern—Twins, 14¾c.; Singles, 15c.; Longhorns, 15¼c.; Young Americas, 15¼c.; Prints, 16½c.; Limburger, 19c.; Swiss, 24c. for No. 1 and 22c. for block and No. 2; Brick, 14 to 14½c.

An Ayrshire cow is credited with 22,106 pounds of milk in one year, 4.02 per cent. fat, equal to 1,046 pounds of commercial butter.

$65,000,000
would be saved annually by the exclusive use of
DE LAVAL
CREAM SEPARATORS

It is estimated that a million cow owners in the United States are still skimming their milk by some wasteful "gravity" method.

At an average of four cows to the farm and an average cream loss of $10. per cow per year (it is more often from $15. to $25.) all of which could be saved with the use of a De Laval Cream Separator, this alone represents an annual cream loss of $40,000,000.

Then there are, all told, perhaps a half million inferior and old and worn out machines in use whose owners could easily save $5. per cow per year by exchanging their "cream wasting" machines for De Lavals, and figuring on an average of six cows per farm, this represents another loss of $15,000,000 at least.

Then to this tremendous cream waste through the use of inferior separators must be added the excessive cost for repairs on cheap and inferior machines and the cost of replacing machines which should last from ten to twenty years but which are ready for the scrap heap in two or three years. There must also be taken into consideration the loss in lower prices received for cream and butter due to inferior quality of cream produced by poor separators, all of which must easily equal at least $10,000,000 more.

This makes a grand total of $65,000,000 which would be saved to the cow owners in this country by the exclusive use of De Laval Cream Separators.

At first sight these figures may seem startling but any experienced dairyman or creameryman will agree that the cream and other losses without a separator or with an inferior one will average a good deal higher than the above estimates and that these figures are really very conservative.

Any cow owner who is selling cream or making butter and who is not using any cream separator or an inferior machine, is really paying for a De Laval in his cream losses and at the same time depriving himself of the benefit of its use.

De Laval Separators are not only superior to all others in skimming efficiency but are at the same time cheapest in proportion to actual capacity, while they are so much better made that they last from two to ten times longer.

No cow owner can logically make the excuse that he cannot afford to buy a De Laval, because it will save its cost over "gravity" separation in six months and over any other separator in a year and is sold for either cash or on such liberal terms that it will actually pay for itself while it is being used.

It will surely be to your advantage to join the million and a half satisfied users of De Lavals. A little investigation will prove to you that the truth of the matter is you really cannot afford to sell cream or make butter WITHOUT the use of a De Laval Cream Separator.

The nearest De Laval agent will be glad to demonstrate this to your own satisfaction or you may write to us direct.

The De Laval Separator Co.

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It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The Auto, Reo the Fifth.

We continue to receive the most enthusiastic letters from our patrons upon the reliability, economy and efficiency of the Reo the Fifth Automobile advertised on page 19, and particularly upon its unique smokeless oiling system. Willis Barber writes that he has just completed a run of 17,000 miles with his Reo the Fifth, in which he used but two gallons of lubricating oil. He says that it is next to impossible to get his Reo engine to smoke, and that he is astonished at the small amount of water which the Reo cooling system requires, which is another good proof of the perfect design and smooth-running qualities of its motor. This is the same model Reo which R. M. Owen drove 1,460 miles as the official pilot car in the last Glidden tour from New York to Jacksonville on less than a quart of water. For full particulars and car catalogue please write to R. M. Owen & Co., Lansing, Mich., and kindly mention this paper.

Greatest Value to Cow Owners.

The advertisement of De Laval Cream Separators on page 11 is well worthy of attention of all who own cows. It applies more particularly to dairymen, but there is no other farm production that is worth as much for so small an investment as butter-fat, and the butter-fat from milking a few cows, properly separated, realizes more money than any grain crop on the farm.

Plants For the Shaded Porch.

For sub-tropical richness on a shaded porch there is nothing more appropriate than the rubber plant **Ficus elastica,** the dark green, glossy leaves of which persist for years. This plant delights in a rich, fibrous loam, with plenty of root room and frequent draughts of liquid manure. So long as the newly-formed leaves are as large and of as good color as their predecessors one may feel assured that the plant is thriving. The new foliage is a sure index as to health, and when it dwindles or lacks intensity of color, there is probably a shortage in nourishment or a larger pot is needed.

Each new leaf is originally encased in a delicately-tinted sheath of light brown, which drops as the leaf is ready to expand. The contrast with the light green of the new leaf and the dark hue of the matured one is as pleasing as it is unusual.

While the old leaf is occasionally shed at the base, strive to encourage persistence as long as possible by keeping the plant always in health, for a leaf that drops is never replaced and a bare stem is not inviting. Also guard against injury of the terminal bud, which induces branching. The single stem, covered with great ovate leaves of perfect form, is the ideal plant.

Water freely during the growing season, which should be practically continuous. Sponge the leaves or spray frequently to keep the plant free from dust. The scale is its chief insect enemy, and this can be readily routed, the large, glossy leaves furnishing no secret nooks for hiding.

When the old plant insists upon branching, new ones may be started by partly severing a branch near the main stem and binding damp moss over the incision. In due time the slip will take root in the moss, after which it may be severed from the parent stem and potted.

The old-fashioned leopard plant, **Farfugium grande,** is another strikingly beautiful foliage plant with thick, leathery leaves often nearly a foot across, dark green, beautifully mottled with cream or yellow. But beware of exposing it to the hot sun. Even a single hour will ruin its appearance.

A mixture of rich loam and muck suits this plant, good drainage being assured. Liquid manure applied frequently will increase the luxuriance of growth, for it is a hearty feeder. If it strives to blossom, nip the flowering stem at once. The flowers, rarely produced, are yellowish green and unattractive, while the effort made to produce them drains uselessly upon the plant. The mottled foliage of a well-grown specimen is quite as handsome as any flower and much more so than any this plant would produce.

The scale and aphis are its chief enemies. The former may be easily sponged off, as with the rubber tree; the latter is prone to attack the young, downy leaves, and may be treated with an infusion of tobacco tea.

Sanseviera Zeylandica is an elegant plant with variegated foliage, which thrives well either in or out of doors without direct sunshine. The leaves are very dark green, barred transversely with white, and as beautiful as the spike of white flowers. It is easily grown, enduring more neglect than almost any other plant, yet responding most generously to good treatment.—Bessie L. Putnam.

Jewish Agricultural Experiments.

At Chicago, in January, Prof. Aaron Aaronsohn, Director of the Jewish Agricultural Experimental Station at Haifa, Palestine, discoverer of wild wheat which scientists predict will ultimately double the wheat supply of the world, explained his experiments with the plant before a scientific fraternity of the University to Chicago. He asserted that the discovery would revolutionize the cultivation of wheat in the United States.

The scientist said that many other varieties of great commercial value had been produced at the Experiment Station. Among these is a variety of the sesame plant, the oil-producing qualities of which had been doubled.

The lecturer recommended the importation of other plants from the Orient into America, affirming that millions of dollars could be gained in this way.

Peter Frohling a prosperous feeder of Webster City, Iowa, had four loads of cattle of his own feeding on the Chicago market, April 30th. The steers averaged 1,584 pounds and sold to Swift & Co. at $8.75 per 100 pounds. He also had twenty-seven head of 1,400-pound stags at $7.60.

Fencing! Fencing!

20 % to 40 % Saved.

Four hundred thousand (400,000) pounds of new Galvanized Barbed Wire, ready for immediate shipment.

Perfect wire except under the water for a few days. Not damaged for the user.

Two (2) Point Cattle, Two (2) Point Hog, Four (4) Point Cattle, Four (4) Point Hog. Early buyers will get a wonderful bargain. Write for particulars and lay-out.

A. J. CHILD & SONS,
Est.1874. 517 Main St., St. Louis, Mo.
Please mention Nat. Farmer and Stock Grower.

We Pay The Freight
Brown Fence
Strongest, most durable made. Basic open hearth wire. Double galvanized. Compare our quality and prices with others.
BARGAIN PRICES—DIRECT from FACTORY
150 STYLES—13 CENTS PER ROD UP
We pay freight anywhere. Write now for free fence book and sample to test
THE BROWN FENCE & WIRE CO.
Dept.45 Cleveland, Ohio
BOOK FREE — WRITE NOW

ELECTRIC Steel Wheels Save YOUR Back

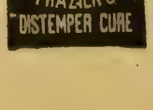
Save draft—save repairs. Don't rut roads or fields. Send today for free illustrated catalog of wheels and wagons.
Electric Wheel Co., 40 Elm St., Quincy, Ill.

ENTURY MFG. COS. PAINT GUARANTEED FOR 10 YEARS
$1.20 per Gallon—Delivered Free
Century House Paint made in all colors, in gallon cans, only $1.20 per gallon.
Century Barn Paint, Red, Gray or Green, gallon cans, only 65c per gallon.
Freight Paid on orders of 6 gallons or more to any station east of the Rocky Mountains, except N. & S. Dak., Colo., N. Mex., Tex., Okla., Miss., Ala., La., Ga. and Fla. Delivered Free to these states for 5c more per gallon.
These prices for 4 weeks only—order now. Satisfaction guaranteed.
Reference: So. Ill. Nat'l. Bank.
Catalog and Color Card Free.
CENTURY MFG. CO.,
Dept. 48
East St. Louis, Ill.

WANTED—SALESMEN AND SALESWOMEN
Hundreds of good positions now open paying from $1,000.00 to $5,000.00 a year. No former experience required to get one of them. We will teach you to be a high grade Traveling Salesman or Saleswoman by mail in eight weeks and assist you to secure a good position where you can earn good wages while you are learning Practical Salesmanship. Write today for full particulars and testimonials from hundreds of men and women we have recently placed in good positions; also list of good positions open. Address (nearest office) Dept. 159, National Salesmen's Training Assn.
Chicago New York Kansas City San Francisco New Orleans Toronto

Bickmore's Gall Cure

The old-time remedy for keeping horses free from sores. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, etc. Money back if it fails. Be sure to ask at the store for Bickmore's Gall Cure. Gray Horse trade mark on every box. Sample and 84-page horse book sent on receipt of a stamp for postage.
BICKMORE GALL CURE CO., Box 482, Old Town, Maine.



"WE SHOULD WORRY"

Not you. Your money will be refunded in all cases of Distemper, Shipping Fever, Pink-Eye, Coughs and Colds, that FRAZIER'S DISTEMPER CURE fails to give satisfaction as a Cure or Preventive among Stallions, Mares and Colts. Our $1.00 size bottle makes the other fellow worry: it holds eight ounces (just two ounces more than any distemper cure on the market). Small size 50 cents per bottle. Send for free horse booklet. Sold by all druggists.
BINKLEY MEDICAL CO., Mfg. Chemists, Dept. H, Nappanee, Ind.

The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal**, both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave.,St.Louis,Mo.**

CANADA WINS AGAIN.

The Colorado Silver Trophy For Oats Won a Second Time by Canada.

The most recent achievement of Canada's West is winning for the second time the magnificent $1,500 silver trophy awarded by the state of Colorado for the best peck of oats. At Columbus, Ohio, in 1911, J. C. Hill & Sons, of Lloydminster, Saskatchewan, placed a peck of oats grown on their farm in competition with oats from every part of the world. The judges had no difficulty in deciding, and the award was given to the Saskatchewan-grown oats. In 1912, the National Corn Show had no exhibition, and our Canadian friends had no opportunity. In 1913, the exhibition was held at Columbia, S. C., and it was one of the best yet held. At this exhibition, which comprised corn and all the smaller grains, Hill & Sons, of Lloydminster, had on exhibition for the contest another peck of oats grown on their Saskatchewan farm in 1912. There was no trouble for the judges, no time necessary to be lost in reaching a decision. Hill & Sons won, and for the second time their name will appear on the crest of the cup. The third space will doubtless be occupied by their name, and then this splendid trophy will be theirs.

During the past few years Western Canada grains—wheat, oats, barley and flax—have been in competition with grains from all other countries, and in every case their superiority has been shown. It is not only in oats, but it is in wheat, in barley and in flax that Canada more than holds its own, when placed side by side with grains from other parts.

Western Canada presents innumerable opportunities for the big farmer who wants to cultivate his thousands of acres, the medium man satisfied with a few hundred acres, the man who is content to farm his free homestead of one hundred and sixty acres; it has opportunities for the investor, the capitalist, the business man, the manufacturer and the laborer.

Men's Acre Yield Contest For 1913.

The Men's Acre Yield Contest organized in January, 1912, proved to be one of the most interesting classes of the 1912 State Corn Show held in Columbia during Farmers' Week, January 13-17, 1913. Practically every one who visited the show asked to see the reports and final scores on the acre yield. Mr. Morris McCauley, of Doniphan, Mo., won the sweepstakes prize in the Men's Acre Yield Class, with Mr. L. F. Cottey, of Edina, second. The judges based the awards on practicability of methods, score of the ten-ear sample, net profits from the acre and the yield of air-dry corn.

The Men's Acre Yield Contest will eventually become one of the largest classes in the State Corn Show, for after pure seed corn is disseminated throughout every part of the state the work will naturally tend towards increasing the yield per acre by more intensive methods of culture. Very few farmers to-day realize just how hard it is to produce 100 bushels of corn on a measured acre, and fewer still know just how much per bushel it costs to produce an average crop of corn.

The Missouri Corn Growers' Association will award several hundred dollars in prizes in the Men's Acre Yield Contest alone this coming year and every Missouri farmer who is interested in corn improvement should write to-day for information regarding this contest. Remember, there will be a sweepstakes prize, valued at $150, for the best acre yield.

For all information regarding this contest or the Boys' Acre Yield Contest address T. R. Douglass, Secretary, Missouri Corn Growers' Association, Columbia, Missouri.

Missouri Butcher Heifers.

On the St. Louis market, May 1st, J. L. Reading, of Pike county, Missouri, marketed a consignment of fancy light-weight native heifers, 681 pounds average, that topped the market at $8.65 per 100 pounds. These were fed since November last year on a ration of crushed corn, cotton-seed cake and alfalfa hay. Mr. Reading makes a specialty of handling heifers and tries to see how good he can make them. Of such cattle the St. Louis butcher trade sells a great many.

Feather Prices at St. Louis.

In the wholesale market of St. Louis, May 1st, feathers were quoted as follows: Prime white live goose, 63c.; prime gray do., 44c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck—White, 44c.; dark, 30c. Chicken—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c. Turkey—Body, dry, 8c.; quills (mixed), 18c.

St. Louis Fur Trade.

On May 1st it was reported that the season was virtually over and prices were about two-thirds of winter values. For current receipts quotable round: Raccoon, 25c. to $1.00; mink, $1.00 to $2.00; 'possum, 30 to 50c.; skunk (central), 75c. to $1.25; muskrat (do.), 40 to 45c.; civit, 50 to 60c.; house cat, 10 to 15c.; gray fox, $1.00 to $1.50; red fox, $2.50 to $4.00; wolf, 25c.

Mule Trade at St. Louis.

Holland, Nugent & Maxwell Bros. on May 1st reported all grades of miners and big mules selling readily at satisfactory prices. Out-of-class big mules and light-boned cotton mules should be left in the country, as there is no demand for them.

Native cows are selling remarkably well at the St. Louis National Stock Yards. On May 1st the top price paid was eight cents a pound, a gross price of $104.80 for a fat cow weighing 1,310 pounds.

WOOL MEN!

We can interest you. Do you know that St. Louis is a **Spot Cash** market? In 20 years we have handled **more separate lots** of wool, each season, than any other commission house here. Over **40 years' experience** in the business, and your shipments receive our personal attention. We guarantee **top prices, quick sales** and **prompt cash returns.** Write for our 1913 Wool Circular, giving full particulars and points in regard to the preparation of wool for market. Wool Sacks, Shipping Tags, Market Reports, etc., sent Free upon request.

Write what you have to offer. Estab. 1874.

A. J. CHILD & SONS, St. Louis, Mo.

[Please mention National Farmer and Stock Grower.]

St. Louis Sales of Sheep.

Mutton sheep were selling at the St. Louis National Stock Yards on May 1st at $5.45 to $6.50 per 100 pounds. The sales included twenty-five head, 115 pounds average, at $6.50; thirty-seven head, 130 pounds, at $6.50; and ten head, 165 pounds, at $5.75, Stock sheep sold at $4.25 to $5.00 per 100 pounds, and bucks at $5.00 to $5.25 per 100 pounds.

BARNES KNOWS HOW.

A recent letter from Charles E. Barnes, of Taylorville, Ill., who breeds the champion strain of Buff Plymouth Rocks, says:

"At the late National Buff Rock Club Show, held with the Illinois State Show, at Springfield, January 6-11, last, with 243 Buff Rocks in competition, I won five ribbons, on five entries, winning the much-coveted national ribbon for the best colored male, with eighty-one males competing. I also may say I have raised my chicks on Chamberlain's Perfect Chick Feed for the past ten years." Yours truly, CHARLES E. BARNES, Taylorville, Ill.

A Pocket Book Circulation Premium.

THE NATIONAL FARMER Folding Bill Book.

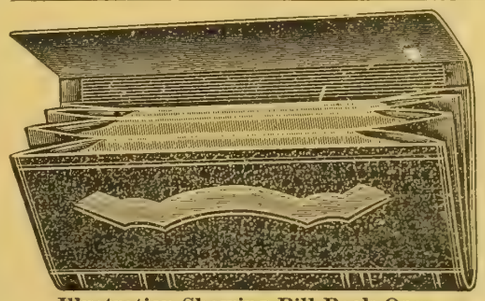
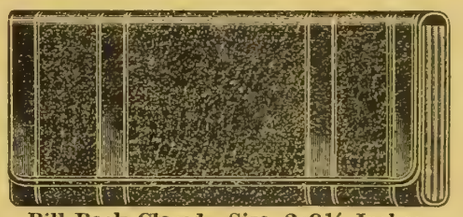


Illustration Showing Bill Book Open.

Convenient to carry Currency, Bills, Notes, Receipts, Railroad Tickets, Lodge Identification Cards, Stamps, Etc.

BEST VALUE AND MOST SERVICEABLE PREMIUM EVER OFFERED.

Every Prospective Subscriber Wants One and Needs One.



Bill Book Closed—Size, 3x8½ Inches.

National Farmer Folding Pocket Bill Book, Genuine Seal Grain Leather Cover, Very Fine Finish, Fancy Embossed, Good Quality Throughout.

Our Subscription Offer.

WE have adopted THE NATIONAL FARMER FOLDING BILL BOOK as a subscription premium with the best monthly farm paper in the United States.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

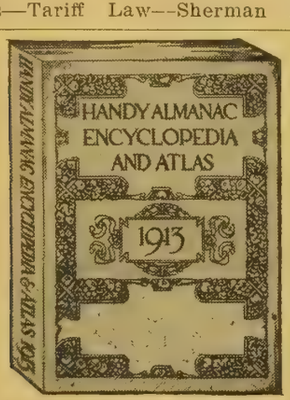
THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS FOR THE YEAR 1913.

A Book of Knowledge For Home or Office—Book Mailed Promptly on Receipt of Order.

For the purpose of furnishing the subscribers of THE NATIONAL FARMER AND STOCK GROWER a splendid book of up-to-date information we have published the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS, a book of 216 pages, 6x9 inches, including a carefully-prepared index and a number of maps printed in colors.

To give an idea of some of the good things it contains we mention the subjects treated of, such as the Postal Banks—the Parcels Post Mail—new Pension Law—new Eight-hour Law—Highest Structures in the World—Olympic Records—World's Crops—Aeroplane Records—United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—the Panama Canal—the Panama Exposition—Astronomical Calculations and Eclipses For 1913—How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-



trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—Highest Mountains—Governments of the World—Sporting World's Records—Important Dates in American History—Rules For Spelling and Punctuation—Household Hints—Cooking Time Table—First Aid to the Injured—Etc.

There is very much more in the book than we have stated, and in addition thereto there is the vote at the Presidential election.

A Subscription Proposition.

Anyone who will send us fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.: Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS.

Name.....

Address.....

COST OF RAISING HORSES.

Average Figures Given by 10,000 Correspondents of the United States Department of Agriculture.

Reports have been received from about ten thousand correspondents of the Bureau of Statistics of the Department of Agriculture upon the cost of raising colts on farms to the age of three years. The average for the United States is found to be $104.06; or, if we deduct the value of work done by the horse before he has passed his third year, namely $7.52, the net cost is $96.54; this is 70.9 per cent. of the selling value of such horses, which is estimated at $136.17.

The cost varies widely by states, from an average of $69.50 for New Mexico, $71.59 for Wyoming, and $82.47 for Texas, to $156.60 for Rhode Island, $149.98 for Connecticut, and $141.80 for Massachusetts.

Itemized, the average cost is made up as follows: Service fee, $12.95; value of time lost by mare in foaling, $10.06; breaking to halter, $2.22; veterinary service, $2.04; care and shelter, first year, $4.98; second year, $5.36; third year, $6.35; cost of grain fed, first year, $4.14; second year, $7.14; third year, $9.56; hay, first year, $4.14; second year, $5.61; third year, $8.48; pasture, first year, $2.56; second year, $5.41; third year, $6.21; other costs, $5.01; total, $104.06.

The total cost for all feed is $56.30, being $21.68 for grain, $19.23 for hay, $14.18 for pasture, and $1.21 for other feeds. The total cost of care and shelter is $16.69. Of the total cost, 54 per cent. is charged to feeds, 16 per cent. to care and shelter, and 30 per cent. to other items, as enumerated above.

As more than half the cost of raising a three-year-old horse on the farm is chargeable to feeds, it is readily observed how important is the influence of variation in prices of feedstuffs upon such cost.

Breeding Army Horses.

The Bureau of Animal Industry of the United States Department of Agriculture has completed arrangements for standing of government stallions in the state of Virginia to encourage the breeding of horses for military purposes in that section. The horses will be placed as follows for the season of 1913:

At Front Royal, Warren county, the Thoroughbred stallions Henry of Navarre, Octagon and Demodus; the Saddle stallions Richmond Choice and Victor Peavine.

At Gainesville, Prince William county, the Thoroughbred stallions Gold Heels, Foot Print, Ganadore and Dandy Rock.

At Aldie, Loudoun county, the Thoroughbred stallion Charcot.

At Harrisonburg, Rockingham county, the Thoroughbred stallion Jack Parker.

At Savannah, Alleghany county, the Thoroughbred stallion Kind Sir.

At Staunton, Augusta county, the Thoroughbred stallion Belfry, II.

At Lexington, Rockbridge county, the Thoroughbred stallion Boola Boola.

At Crab Bottom, Highland county, the Thoroughbred stallion Single File.

At Monterey, Highland county, the Thoroughbred stallion Lynchburg.

At McDowell, Highland county, the Thoroughbred stallion Myles O'Connell.

At Fredericksburg, Spotsylvania county, the Standard-bred stallion Richford Jay.

These stallions are now available for breeding under the plans already outlined by the Department. Competent men are in charge at each of the points named.

Rid Your Hogs of WORMS and You'll Have HEALTHY Hogs

E. Myers, President, E. Myers Lye Company

An enormous part of the swine plague known as "cholera" that sweeps over the country killing hogs and causing a loss of millions of dollars every year, is not **cholera** at all. It is stomach, intestinal or lung **worms.** The symptoms of hog worms are easy to detect. When you see a hog slinking around with his nose to the ground, hair sticking up, tail down, coughing, off his feed and losing flesh, don't jump to the conclusion that he's getting "cholera". He has **worms,** and if you don't act quickly your whole herd will have them, too. Feed all your hogs **twice daily** according to directions on every can on a ration mixed with

Merry War Powdered Lye

It destroys hog worms quicker than anything else in the world. And, even though there should be an epidemic of **real** hog cholera in your neighborhood, **your** hogs will be healthy and strong to resist it. MERRY WAR POWDERED LYE is the **proven preventive of hog cholera.**

The Folly of Vaccination

Vaccination may be all right for putting a hog's system in a condition to resist the cholera germ. But no amount of vaccination will cure a single hog of worms, nor will it make him well if he's sick. Vaccination will not keep him on his feed, make him fat, sleek, skin free from scurvy, and condition him so that he will be a prime hog at market time. **That's what** MERRY WAR POWDERED LYE does. Feed it to your hogs from weaning time on and you'll have healthy hogs. Cholera won't alarm you and your hogs will weigh in heavy.

Read This Convincing Evidence

C. F. NEWMAN, Lebo, Kan. "Have best results with my hogs and no sickness since I've used Merry War Powdered Lye while our neighbors have lost heavily."

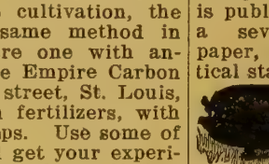
Refuse Substitutes

Don't experiment with ordinary, old-fashioned lye. **It might prove dangerous.** MERRY WAR POWDERED LYE is the specially prepared lye that is **safe** to feed hogs. Experience has **proved** its worth. **Insist** on getting it. **There are no substitutes.**

10c A Can—120 Feeds

MERRY WAR POWDERED LYE is for sale at most grocers, druggists and feed dealers. It is convenient to buy in case lots, 4 doz. cans, $4.80. **Order direct from us in case lots (4 doz. cans $4.80) if dealers won't supply you.**

E. MYERS LYE COMPANY, Dept. 22 ST. LOUIS, MO.



FREE

If your dealers can't supply you write us stating their names. We will see that you are supplied and also send you, **free,** a valuable booklet "How To Get The Biggest Profits From Hog Raising."

Heavy-weight Pigs.

On the Chicago market, April 24th, Mr. E. G. Miller, of Melbourne, Iowa, marketed a load of 351-pound hogs at $8.65 per 100 pounds. They were last May pigs, his own feeding, and very choice. This items shows very clearly what good breeding, ample feeding and good health in hogs will do. The gross price was $30.36 per head.

Empire Fertilizers.

Every farmer should know something aobut fertilizers. It is the easiest experimental work in the world—one field fertilized, another one not; both the same soil, the same seed bed, the same time of planting, the same cultivation, the same season, the same method in harvesting. Compare one with another. Write to the Empire Carbon Works, 421 Locust street, St. Louis, Mo., for a book on fertilizers, with formulas for all crops. Use some of these fertilizers and get your experience, so that you may know if it is profitable, and to what extent it is profitable, to use commercial fertilizers. Write for the book anyway. It costs nothing, and it will teach you something.

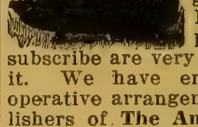
Stood Up For His Department.

The Farmers' Co-operative Demonstration Work of the United States Department of Agriculture was in danger of being withdrawn from Oklahoma. It appears that one of the experts of the Department was wrongfully accused of pernicious political activity. Secretary Houston issued an ultimatum that the work would be withdrawn from Oklahoma unless harmonious co-operation was assured.

An effort was made by the Board of Agriculture to have the Department expert dismissed and another man appointed. When satisfied there was no foundation for the charge of political activity, Secretary Houston took the position that his Department should not be criticised without cause.

The American Swineherd.

We have been requested by our patrons and friends to arrange a club whereby we can offer them a swine raiser's paper as a premium with The National Farmer and Stock Grower, and we have succeeded in doing so. **The American Swineherd** is published monthly, and is usually a seventy-two-page, three-column paper, splendidly edited from practical standards and always interesting from the very beginning to the end. It is a satisfactory paper, and all who subscribe are very much pleased with it. We have entered into a co-operative arrangement with the publishers of **The American Swineherd,** whereby we can offer for a limited time The National Farmer and Stock Grower and **The American Swineherd,** both papers, for the price of one. Anyone who will send us a money order for fifty (50) cents in answer to this proposition will be supplied with both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



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The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screw-driver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

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SCIENCE IN AGRICULTURE.

What It Has Taught—Muscle and Manure—Increase in Variety of Crops, Etc.

Not long ago we read the statement (written, too, by a farmer) that the "Science of Agriculture" consists mainly of muscle and manure, and he also stated that "sixty years ago we had twice as much of each as we have now."

It would seem that in the light of all the researches of science in these later years there was no reason for such a statement. If it were really true that the Science of Agriculture, which is conceded to be the most important science in the world, is, first, manure, then muscle, the man who possesses the muscle should also possess brain sufficient to understand the science of "why or how manure aids in his farming." Sixty years ago the farmer could not inform us regarding the elements of his farm manure; he could give no definite reason for the size of his plants or tell the reason that grains or cereals were developed, or why these cereals possessed fine milling qualities, or were deficient.

The "Science of Agriculture" has taught us that the size of a plant is controlled by nitrogen, the formation of grains by the content of phosphorus or phosphoric acid, and the the fine or poor quality of grains, vegetables and fruits, etc., by the content of potash. And the man who owns brains as well as brawn must have discovered that some farm manures possess qualities which are in others lacking. Sixty years ago the elements of plant life were not truly known, and the brawny farmer's system of farming was on the "hit-or-miss" plan. He grew only the staple crops because the demand for special crops was limited and the changed conditions of farming are shown in these later years in the increasing demand for market-garden crops and fruits. The many varieties of vegetables and fruits grown now were then considered as luxuries and only a small space was devoted to them. Fifty or sixty years ago the soil had not been worked or cropped so extensively, and the farm manures were perhaps adequate to the growing of the staple farm crops; but under the present system of management the amount is not sufficient to meet the annual losses from the sale of crops, much less to provide an increase, and "science" has supplied the deficiency with the artificial or commercial fertilizer which, intelligently used, is effective in its work. It is true that farm manures are exceedingly valuable, and not one pound should be wasted; their vegetable content improves a clay soil by rendering it more open and porous, so that water and air may penetrate more freely and thus act directly upon the dormant or insoluble constituents contained in it, and the soils that are light and sandy, making them more compact, because the open spaces are more filled.

The fermentation or decay of manures produces bacteria which assist in growth, but the plowing under of certain crops, combined with commercial fertilizers, I have found in a series of experiments, will produce as good results. It is a well-known fact that farm manures contain, as a rule, too much nitrogen in proportion to their content of phosphoric acid and potash. This is shown by the lodging of wheat, oats or other grains.—E. A. Season.

FIGURING FARM PROFITS.

Different Ways to Figure—Farm Profits Undervalued—One of the Best Plants to Turn Under.

There are a good many ways of figuring the same thing. By one kind of figuring we may make a crop appear a loser of money for us and by another process we may make it a winner of money. We have many instances of this diverse kind of figuring.

Here comes an expert and tells a farmer that a certain product taken from his land has in it, among other things, several pounds of nitrogen, worth, if he has to put it back on the land in the form of a commercial fertilizer, fifteen cents per pound. The value of the other fertilizing elements are figured up and the cost of the labor, the man's wages, the cost of the team and the cost of marketing, and the farmer is shown that he is selling his product at a loss.

That is one way to figure, and it may be right for some kinds of land and some conditions. But it is an old saying that "circumstances alter cases." There are many farms where the loss of the nitrogen is of no consequence because the soil has in it a large supply, and the arrangement of crop rotation is such that the supply of nitrogen is being constantly renewed automatically. And this kind of a rotation should be aimed at.

Even where there is no such rotation, conditions may be such that the supply of nitrogen is kept up at a very insignificant cost. The writer has in mind a big dairy farm, where over 150 cows are kept, or were being kept at the time the writer visited that farm. There was a great surplus of manure to be applied to the fields the year round, for the soiling system was partly followed. That surplus manure being applied to the fields year after year made them very rich. It was an unsalable product and had to be disposed of. The nitrogen it carried back to the fields could not be figured at a cost of fifteen cents per pound or at any other certain figure.

Then there is a figuring on the interest. Often a man that thinks himself an expert at agricultural figuring will figure six per cent. on the entire investment as a part of the cost. Along comes another man and refuses to figure in the interest at all. He says that a man has no right to figure in six per cent. or any other per cent. as a part of his expense. There is no such expense, unless he is actually paying that or some other rate on his land.

To assume that any man can take a certain sum of money and loan it out safely at six per cent. or like interest, is a fallacy. He may do that; he may not. Many a man has tried to do it and has lost, not only his interest, but his principal as well. Simply because a man owns a certain amount of property is no reason why he should figure a fixed interest as an emolument that necessarily goes along with it. His investment in his farm is an insurance of permanent occupation for himself, and that is worth more than a doubtful interest.

There are a good many kinds of farm profits. Work in the open air and in the sunlight is one of them, and this is immensely undervalued by farmers. The stuffy offices, stores, factories and workshops in a great city are not to be compared with the freedom of the farmer working surrounded with the glories of nature. Even the drifting snow and the driving rain have in them a fascination to the man hwo has learned to see the glories of country life.

Health and happiness on the farm are two profits that are undervalued.

You Need Empire Fertilizers

to enable your crops to take advantage of good weather conditions. No matter how fine the weather or how good your own cultivation of the soil, there is never enough plant food in the soil of the **available** sort to produce the largest possible crop. Why not take the advantage good weather and cultivation can give you with the aid of our ready-to-act plant food? A small amount to the acre supplies just the **available** elements needed to produce large crops of vegetables, grain or forage.

EMPIRE FERTILIZERS

These fertilizers supply to growing crops in available form the plant food elements required which in connection with good seed, cultivation and weather and the plant food supplied by the soil and air, are producing good crops of profitable size and quality. Farmers depend upon them as upon other old friends, and have done so for years.

Agents wanted where we have none. Address early for prices and terms,

EMPIRE CARBON WORKS

421 Locust Street, St. Louis, Mo.

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St.Louis. The announcement is hereby made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales from 1,200 to 2,500 Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale rings were originally well-bred Range Horses, fed, educated and mannered to be good work stock. The first Auction of the season will be held on

THURSDAY, JUNE 12,

And every two weeks thereafter a sale on Thursday will be held until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

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TRADE MARK REG.U.S.PAT. OFF.

will reduce inflamed, swollen Joints, Sprains, Bruises, Soft Bunches; Heals Boils, Poll Evil, Quittor, Fistula, or any unhealthy sore quickly as it is a positive antiseptic and germicide. Pleasant to use; does not blister under bandage or remove the hair and you can work the horse. $2.00 per bottle delivered. Book 7 K free.

ABSORBINE, JR., antiseptic liniment for mankind. Reduces Painful, Swollen Veins, Goitre, Wens, Strains, Bruises, stops pain and inflammation. Price $1.00 per bottle at dealers or delivered. Will tell you more if you write. Manufactured only by
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An Absolute Cure for
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Shying horses all suffer from diseased eyes.
"Visio" will convince any horse owner that it will absolutely cure defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE to refund money if it does not cure.
$2.00 per bottle, postpaid on receipt of price.
VISIO Remedy Ass'n, 2472 Calumet Ave., Chicago, Ill.

Louisiana Steers at St. Louis.

On May 1st, at St. Louis, L. F. C. Pierce, a well-known shipper and extensive cattle feeder of Caddo Parish, La., was on the market with a load of steers. They were well-finished products and sold for $7.25 per 100 pounds and well displayed their feeder's ability when they tipped the scales at 864 pounds. This is the highest price realized for Louisiana steers in some time. The cattle were sold in the quarantine division.

Colorado Lambs at St. Louis.

On April 30th, at St. Louis, W. C. Macey marketed 266 head of 75-pound lambs, which sold at $7.85 per 100 pounds. They were clipped lambs from Colorado and the first arrivals of the season at St. Louis. Another consignment, not so good, nearly the same average, sold at $7.60 per 100 pounds.

On May 1st, W. C. Macy had in another consignment, weighing 71 pounds, that sold at $8.00 per 100 pounds. The salesmen managed to advance the market.

The St. Louis Wool Market.

The wool market is not high; indeed, it takes light-shrinkage, medium wool to sell at 20 cents a pound, and other wools at 15 to 18 cents; but St. Louis is always fully up to Eastern standards, and is a quick market when others are slow. A. J. Child & Sons do a strictly commission business in wool and have done so for twenty-nine years. Write for their wool circular and address the letter to A. J. Child & Sons, 515 North Main street, St. Louis, Mo.

Southern Cattle in St. Louis.

Milton-Marshall Live Stock Commission Company, National Stock Yards, Ill., made the following report of cattle from Alabama, Lounsiana and Mississippi, April 30:

"We have had light receipts of Southern cattle here this week, and a good, strong market has prevailed on all classes. While there have been a few good, fat cattle on the market, the bulk of the receipts have been canner and yearling stuff. Some good cattle sold here yesterday at $8.10 per 100 pounds, averaging around 1,100 pounds. These were experimental cattle, fed by the State Agricultural College of Starkville, Miss.

"The demand has been better for cows than for anything else. We sold some just fair light-weight cows at $5.50 per 100 pounds; some fairly good heifers at $6.50. The bulk of the good cows are selling from $5.50 to $6.25, while medium grades are selling from $4.50 to $5.25. The bulk of the canners around $4.25. Yearlings are selling from $4.00 to $5.00, owing to flesh and quality. Calves from $4.50 to $6.00, with vealers from $7.00 to $9.00. It looks as if we would have a good, strong market all season on all classes of cattle from the Southern territory."

St. Louis Hog Market.

At the St. Louis National Stock Yards, on April 30th, the top price was $8.65 per 100 pounds, and those that brought the money averaged 178 to 194 pounds. Best mixed hogs sold fairly well at $8.45 to $8.55, while the plain mixed and heavy offerings went at $8.25 to $8.40. Some strictly good heavy hogs, that is, those weighing around 300 pounds, sold at $8.30 to $8.35. The best grades of lights, weighing 165 pounds, sold at $8.25 to $8.60, while the fair offerings sold around $8.00 or but little better, and some of them not quite as good as that.

The Milton-Marshall Commission Company, doing business at the St. Louis National Stock Yards, give it as their opinion that most of the hogs going to Kansas City would net the shippers more money if they were sold at St. Louis.

East St. Louis Sale of Herefords.

At the St. Louis National Stock Yards, April 22d, Sidney B. Smith, of Springfield, Ill., conducted a sale of Herefords. The result was an average of $174 for thirty-six head. Twelve females averaged $192, and twenty-four bulls averaged $163. The top-price female was the cow Mamie, consigned by John R. Buss, sold for $370 to J. M. Burlbaw, of Farmington, Mo. Mr. Buss also consigned the top-price bull Curley Chief, sold to Wm. M. Weiss, of Perryville, Mo., for $300.

Shorthorns at Omaha.

At South Omaha, Neb., April 22d, the sale of Shorthorn cattle by Geo. Allen & Sons, of Lexington, Neb., resulted in an average of $316 for eight bulls and $319 for forty-five females. The best price for a bull was $415, paid by W. A. Wells, of David City, Neb., for Blossom Lad, calved March, 1912, and the high figure for females was $765, paid by Bellows Bros., Maryville, Mo., for the cow Golden Lady.

First-class Commission House.

The best-organized live stock market is St. Louis, and one of the best firms doing business in that market is the Milton-Marshall Live Stock Commission Company. Shippers who consign stock to this firm to be sold can be assured of obtaining the best results possible. Mr. A. J. Milton, President of the company, is an expert cattle salesman, and, assisted by his brother, L. H. Milton, make splendid sales. J. S. Jackson and J. S. Mulberry, selling hogs, are equally expert in their department, and are noted for skill, ability and good judgment. It is a finely-equipped firm, doing business efficiently in the interest of their customers. All who will apply to Mr. R. E. Marshall, Secretary, P.O. Box 94, National Stock Yards, Ill., stating what they have to ship, will receive special information concerning the market prospect, coming directly from the salesmen.

Texas Steers in St. Louis.

On May 1st, at the St. Louis National Stock Yards, sales of Texas and Oklahoma cattle were as follows: Forty head 1,121-pound steers at $7.65; fifty steers, 858 pounds, at $7.15; twenty-five steers, 840 pounds, at $6.50; seventy-six steers, 850 pounds, at $7.15; and thirty-one head, 723 pounds, at $6.15. All quotations being at the price stated per 100 pounds.

April Receipts at St. Louis.

At the St. Louis National Stock Yards, in the month of April, 1913, live stock receipts were above the average in all departments. The arrivals were 49,184 cattle, 180,479 hogs, 48,611 sheep and 8,379 horses and mules.

Sale of Pure-bred Shorthorns.

The sale of Shorthorn cattle by F. W. Harding, of Anoka Farms, at Waukesha, Wis., in April, resulted in a grand average of $564 for thirty-seven head. Eleven bulls averaged $708.65, including three young bulls—Cruickshank Fashion, sold at $1,200; Gloster Mine at $1,625; and Prince Lavender at $1,100. The heifers averaged $502.30 for twenty-six head, including Sultan's Aconite, 2d, at $1,750, and Mischief E., 3d, at $1,075. The top-priced buyers were Hearts' Delight Farm, Chazy, N. Y.; Howell Rees, Pilger, Neb.; H. H. Diers & Son, St. Olaf, Iowa; and E.A.Hess,of Council Bluffs,Iowa.

An Appreciated Compliment.

"I take five or six farm papers and I like The National Farmer and Stock Grower the best of them all."
—Clifford Schutt, Rock Falls, Ill.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. $5 case cures 40 hogs. Book and test reports free. Agents wanted. DR. D. C. SNODDY CO., Dept. H, NASHVILLE, TENN.

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VACCINE FREE!

SEND names and addresses of 20 cattle-raisers, we will send $1.00 box Cutter's Blackleg Pills, FREE. Low-priced, always fresh and reliable, they are used by practically all California and Western stockmen. Write for booklet and prices.
THE CUTTER LABORATORY
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Insist on Cutter's. If druggist doesn't stock, order from Laboratory.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Best Conditioner
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Death to Heaves
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NEWTON'S Large for Heaves.
At druggists' or sent postpaid.
THE NEWTON REMEDY CO., TOLEDO, OHIO

Corn silage and cotton-seed meal as cattle feed are to solve the live stock problems of the South.

Do not overlook the Book of Live Stock Champions advertised on the second page.

Your horses positively can not have Distemper, Influenza, Coughs, Colds or other similar ailments if you use
CRAFT'S DISTEMPER REMEDY
in time. If the disease is started it will not fail to cure in any case. Safe at all times and under all conditions. Price 50c and $1.00 at druggists or direct from us, prepaid. Write for our two valuable Free horse books.
WELLS MEDICINE CO., 17 Third St., Lafayette, Ind.

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Over 106,000 Satisfied Users.

There is no better time than while the horse is working and sweating for our treatment; which penetrates both bone and tissue — reaching the cause — and cures without blistering or loss of hair.

We Originated the treatment of horses—Under Signed Contract to Return Money if Remedy Fails.

Our Latest Save-The-Horse BOOK is our 17 Years' Discoveries. Fully describes how to locate and treat 58 forms of lameness—Illustrated.

This BOOK—Sample Contract and Advice—ALL Free to Horse Owners and Managers only). Address

TROY CHEMICAL CO., 62 Commerce Ave., Binghamton, N. Y.

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No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Not used on splint, curb or soft bunches. Write for

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Best book on blemishes, and we send it free. Read it before you treat any kind of lameness in horses. 192 pages, 69 illustrations, durably bound in leatherette.

FLEMING BROS., Chemists, 218 Union Stock Yards, Chicago, Ill.

Try GORDINE WHITE LINIMENT

On All Stock, for open cuts, soreness, galls, swellings, ulcers, mange, lameness, etc. Does not blister. Will grow hair the natural color. The best liniment as recognized by leading horsemen. 6 ounces of

PREVENTION AND CURE

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By Mail $1.00.

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$10,000,000 A Year Wasted On Trusses

Wrong to Buy Anything For Rupture Without Getting Sixty Days Trial

A conservative estimate shows that nearly ten million dollars a year—in this country alone—is practically wasted on worthless rupture appliances—all because people trust to a mere try-on instead of making a thorough test.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial — the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times —including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why druggists should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—CluthesCo., 125 E. 23rd St., New York City

Western Range Horses.

We are again authorized to announce that Campbelll & Reid and Western Sale Stables Company will hold their sales of Western range horses and mules on the St. Louis market as usual during the season of 1913. The first sale will be held Thursday, June 12th, and the second on June 26th, and thereafter sales will be held every two weeks. Ranchmen who are likely to have horses for sale will find it to their advantage to consign to these sales, because they are the best conducted of all the sales of Western range horses. Eleven or twelve of these sales are held each year. The number offered may be 1,200 or 2,500 at each sale. The sales take place with the regularity of clockwork, being held every other Thursday after the first sale. The sales are always largely attended by buyers. Horsemen having horses to sell should write for any information they require to J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Great Horse and Mule Salesmen.

At the last sale of horses held at the St. Louis National Stock Yards in April by Holland, Nugent & Maxwell Bros., 1,050 horses were sold at auction. A large proportion were draft horses and good Eastern chunks, and they sold readily at fair prices. Farm chunks and farm mares also sold readily. Messrs. Holland, Nugent & Maxwell Bros. sell horses at auction on Monday and Tuesday of each week. Mr. T. H. Holland, Chief Auctioneer and Manager, will be glad to advise car-load shippers in regard to the class of horses they can ship to the St. Louis to advantage. Address, T.H.Holland, National Stock Yards, Ill.

Great Importing Horse Firm.

The catalogue issued by Trumans' Pioneer Stud Farm, of Bushnell, Ill., includes Shire, Percheron, Belgian, Suffolk and Hackney stallions and mares. A list of horses sold by this firm in one month includes twenty-three Shire stallions, one Shire mare, thirteen Percheron stallions, three Percheron mares and four Belgian stallions. Their new catalogue for 1913 is just out and will be sent to any of our readers who will write for it.

Life of a Show Horse.

Mr. and Mrs. John Gerken and Charles L. Bailey were standing together along the rail at the Brooklyn Horse Show on Saturday evening, when the club class for harness horses was in the ring. A bay mare entered as Elegant suddenly attracted the Kentucky horseman's eagle eye and he turned to Mrs. Gerken and exclaimed:

"There is old Contributor in harness as sure as you live. Do you realize that just ten years ago tonight I was on that mare in this ring when she won the saddle championship for you, beating Mrs. Grosvenor's Petroleum?"

Sure enough, the harness mare of 1912 was Mrs. Gerken's saddle champion of 1903, La Contributor. While owned by Mrs. Gerken, she won sixteen first prizes and two championships. She won third prize in harness at the Brooklyn Show, and looked as fresh on her legs as she was a decade ago, notwithstanding the fact that she has been doing service as a runabout horse for several years in Brooklyn.—New York Herald.

Ten-thousand-dollar Saddle Horse.

My Major Dare, a famous Kentucky saddle horse, was sold recently by Mr. Paul Brown, of St. Louis, to Mr. R. A. Long, of Kansas City, for the sum of ten thousand dollars, and the sale included a few mares and colts, bringing the total amount up to $16,000. Mr. Brown is giving up the breeding of saddle horses on his farm near Kansas City, and Mr. Long is establishing a breeding farm for that purpose. Mr. Brown recently purchased My Major Dare from Mr. Presley, of Bowling Green, Ky., is breeder of My Major Dare, and in his hands won many blue ribbons and championships.

Purchase of a Fine Jack.

Mr. Thos. H. Ezell, of Nashville, Tenn., himself a breeder of the highest-quality jack stock, has purchased the good colt Ben Hord (now named Ezell's Champion), raised by Davis & Wallace, of Lewisburg, Tenn., for a fancy price. The actual cost is not made public, but it is known to be well up in four figures. This colt will be two years old in May; stands full fifteen hands standard, and measures to grow to 15¾ hands standard; is 116 inches from mouth to root of tail; ears measure 34½ inches from tip to tip; has a nine-inch bone, large foot, deep body, flanks down; weighs 915 pounds, and is short-haired and black with white points. Ezell's Champion is bred in the purple. Mr. Ezell bought this colt to be his herd jack and to add to his show string of jacks and jennets. This colt was exhibited once and won the championship.

Topped the May Market.

On May 1st, at the St. Louis National Stock Yards, E. K. Lee & Son, of McLean county, Illinois, brought in a load of 1,272-pound steers that went to the packers at $8.25 per 100 pounds. Lee & Son had fed these beeves for about 100 days on corn and timothy hay, and they gained right at three pounds per day. These cattle topped the market on the first of May.

Hog Market Quotations.

All hogs are sold at the price stated per 100 pounds, and there are many grades of hogs in a great market. At Chicago, on May 1st, the top of the market was $8.80, paid for a small lot of fancy summer-weight butcher hogs averaging 200 pounds. The general market was quoted as follows by the Live Stock World: Bulk of sales, $8.45 to $8.65; mixed, 215 to 250 pounds, $8.35 to $8.50; mixed, 170 to 210 pounds, $8.45 to $8.60; medium weights, $8.45 to $8.55; light butchers, $8.60 to $8.70; heavy butchers, $8.50 to $8.60; light shipping, $8.65 to $8.75; heavy shipping, $8.45 to $8.55; heavy packing, $8.15 to $8.35; rough heavy packing, $8.00 to $8.15; throwout packing sows, $7.75 to $8.05; fair to choice light, $8.45 to $8.65; light-light, 125 to 165 pounds, $8.35 to $8.60; pigs, good to fancy, $7.40 to $8.65; pigs, inferior to fair, $6.50 to $7.35; boars, poor to good, $3.50 to $4.35; stags, subject to dockage, $8.50 to $8.80; government throwouts, $4.00 to $6.00; government pigs, $1.50 to $3.00.

Good Sale of Hackneys.

Trumans' Pioneer Stud Farm, Bushnell, Ill., have sold to Samuel Insull, Hawthorn Farm, Lake county, Ill., the imported Hackney stallion "Tollington" and the imported Hackney mares "Nene Lady Gay," "Lynd-

Milton, Marshall LIVE STOCK Commission Company

Shipments of Cattle, Hogs and Sheep solicited for sale upon the St. Louis Live Stock Market.

The St. Louis Market is the most active and competitive of all markets. Many shippers selling elsewhere will obtain better returns at St. Louis.

We are thoroughly equipped to obtain the very best results in the interests of our customers, and in all market matters we will be found to be leading the procession.

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Please mention Nat. Farmer and Stock Grower.

hurst Peggy" and "Sthoreen Bawn," together with an outstanding imported Hackney pony stallion. "Tollington" will be remembered as one of the greatest Hackney stallions in America, having won first and champion prizes at the leading State Fairs and Shows of the West. "Nene Lady Gay" has also been a very noted prize winner, and the other two mares are in the same class.

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GERMAN DISTEMPER REMEDY for distemper, coughs, colds and worms in horses and stock. Price, 50 cents a bottle at all druggists, or we will send it prepaid upon receipt of price.

GERMAN DISTEMPER REMEDY CO., Goshen, Indiana.

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The healing power of this famous remedy is wonderful. We have letters from all parts of the U. S. telling of fine animals that have been cured of sores, barbed wire cuts, collar and saddle galls, without leaving a blemish.

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Write for copy of Dr. LeGear's Stock Book of 112 pages—it's free.

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Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

MISSOURI EGG-LAYING CONTEST.

Seventy Pens, Ten Hens to the Pen—700 Birds in All—Report For 4½ Months, 136 Days.

Black Langshans Make Record For the Month of March—English White Leghorns Lead For the Entire Time.

Twelve Pens Lay Over 200 Eggs Each in 31 Days—One Hen Lays 29 Eggs in 28 Days—Methods of Feeding—Important Suggestions.

At the end of four and a half months the race is becoming more interesting. The majority of the hens have settled down to business and nearly every pen is making a very creditable showing, some doing much better than others, of course. The total record for the month was 12,889 eggs, which runs the grand total for the four and a half months up to 34,525 eggs. No remarkably high records have been made thus far, but the general average is much better than last year.

The English pen of S. C. White Leghorns is 120 eggs in advance of the next highest pen. From the results obtained thus far at this place and at Storrs, Conn., and from our own knowledge of conditions, we believe the English breeders have been studying the question of breeding for egg production much more than have the breeders of this country. This is one of the objects of this contest. We hope to stimulate some such interest in this country. Notwithstanding the views of some of our leading authorities to the contrary, we believe if the fowls have been properly bred, if given reasonably good care and reasonably good feed, they will produce a greater number of eggs than another pen of fowls of the same variety which have been carelessly and promiscuously bred, even though this last-mentioned pen may get as good or perhaps better feed than the first-named pen. Our observations and investigations thus far bear out these facts.

One Buff Orpington pullet, No. 647, laid 29 eggs in 28 consecutive days in March, laying two eggs in one day. She then went broody for the second time this season. Broody hens now begin to trouble us. Six hens—one White Wyandotte, one Buff Plymouth Rock, one Black Langshan, two White Orpingtons and one Buff Orpington—each laid thirty eggs in the thirty-one days. One hen which made a high record last year has only laid two eggs this year. Another high-record hen is also making a good record the second year. A pen of Black Langshans, No. 57, from Missouri, won the silver cup for the best record for March by laying 248 eggs in the thirty-one days. Three out of the twelve highest pen records for March were made by Black Langshans, two were White Wyandottes and two were Silver Wyandottes.

Pen Records—136 Days.

The twelve highest pen records for the first four and a half months of the contest are as follows, three pens out of the twelve highest having tied:

Pen No.	Eggs.
2—S. C. White Leghorns, England	890
23—Silver Wyandottes, Illinois	761
57—Black Langshans, Missouri	736
19—Silver Wyandottes, Iowa	711
33—Barred Plymouth Rocks, Illinois	668
58—Buff Orpingtons, Missouri	640
49—Black Langshans, Missouri	637
30—Buff Wyandottes, Vermont	633
20—White Wyandottes, Arkansas	627
24—White Wyandottes, New Jersey	627
56—White Orpingtons, Kentucky	627
43—S. C. Rhode Island Reds, Florida	620

Pen Records—Month of March.

Nineteen pens of ten hens each laid more than 200 eggs per pen during the month. The twelve highest pen records for March were as follows:

Pen No.	Eggs.
57—Black Langshans, Missouri	248
2—S. C. White Leghorns, England	234
56—White Orpingtons, Kentucky	233
49—Black Langshans, Missouri	224
27—Silver Wyandottes, Missouri	223
47—Buff Plymouth Rocks, Missouri	222
46—R. C. Rhode Island Reds, Indiana	220
23—Silver Wyandottes, Illinois	220
11—Black Minorcas, Iowa	219
39—Barred Plymouth Rocks, Iowa	219
9—S. C. Brown Leghorns, Missouri	218
53—Black Langshans, Indiana	216

Individual Records.

During the first 136 days of this year's contest the leading pen has laid more eggs than the two leading pens of last year's contest laid in the first 151 days. The leading hen this year has laid 113 eggs in the first 136 days of the contest, and the leading hen last year laid 116 eggs in the first 151 days. The individuals and pens are each making better records this year than last. The twelve leading hens have made the following records for the first 136 days:

Hen No.	Eggs.
66—S. C. White Leghorn, England	113
860—Buff Wyandotte, Vermont	108
735—Black Langshan, Missouri	104
600—Buff Wyandotte, Missouri	103
656—White Wyandotte, Arkansas	103
2,076—Buff Orpington, Missouri	102
708—Buff Plymouth Rock, Missouri	102
68—S. C. White Leghorn, England	102
601—Silver Wyandotte Iowa	101
62—S. C. White Leghorn, England	101
2,158—Buff Orpington, Missouri	101
65—S. C. White Leghorn, England	100

The Feeding Test.

We are now beginning to hatch a few chicks from these pens to determine, if possible, if the different methods have any noticeable influence on the percentage of fertility of the eggs, the hatchability of the same and on the liability of the chicks. We have male birds of the same age and breeding in all pens.

In the pen where the same kind of feed has been kept before the pen of five White Leghorns and five Buff Orpingtons, and are allowed to eat as much or as little of each kind of food as they desired, the results have been as follows:

They have laid more eggs than any other of the ten feeding-test pens and have eaten the following:

77 pounds oats, principally rolled oats.
66 pounds wheat.
60 pounds corn, principally cracked corn.
36 pounds millet.
24 pounds sunflower seed.
18 pounds Kaffir corn.
12 pounds cane seed.
10 pounds oyster shell.
189 pounds water.
130 pounds buttermilk.

They are allowed to help themselves to either and drink a little more water than buttermilk.

They have eaten but little of anything else than the feeds mentioned above and but very little ground feed of any kind. They have eaten twice as much cracked corn as whole corn. The hens in this pen do not seem to be any fatter than the hens in the other pens. They are in just good laying condition thus far.

Pen No. 64—The Canadian Method of Feeding Laying Hens.

This is one of the most simple methods of feeding hens. Thus far it has proven to be one of the most satisfactory, and the hens are making a good egg record.

In winter months the grain mixture is composed of two-thirds corn and one-third wheat, thrown into the straw litter. In summer, one-third corn and two-thirds wheat. In the spring and fall months, equal parts corn and wheat. We feed about a pint to ten hens in the morning and perhaps a little more at night. Rolled oats are fed from a hopper. The hens are also supplied with grit, shell, charcoal and some wholesome green food. They are given nothing to drink except buttermilk. In our opinion, this is a very well-balanced ration for any farmer to use. It is about as simple as you can make it and still get the best results.

Care of Growing Stock.

Do not fall into the all-too-common habit of thinking that after a chick is past the first three weeks it will raise itself. If a chick is to develop into a healthy, vigorous cockerel or a strong, active pullet that will shell out the eggs next winter, it must have the best of feed and care throughout the entire growing period.

Do Not Overcrowd.—Many of the ills and much of the mortality among growing chicks is due to overcrowding. The brooder or coop should furnish ample room for the little fellows to stretch themselves out at night without coming in contact with each other. Plenty of fresh air should be admitted at all times in such a way that there will be no draughts causing the chicks to huddle together.

Fight Lice and Mitts.—Like the poor, these little pests are always with us, and a continual warfare must be waged to keep them from exacting a heavy toll of dead, dwarfed and stunted chicks. Watch for head lice. Greasing lightly the heads of all chicks over two weeks old with a mixture of kerosene and lard, equal parts, will serve either as a preventative or cure. Also grease lightly under the wings. Be careful not to use too much grease and oil. Application should be repeated in about two weeks if chicks are badly infected. For mitts, paint or spray brooding quarters with a mixture of eight parts kerosene to one part crude carbolic acid. This will also serve as a good disinfectant.

Provide Pure Water.—The importance of an abundance of fresh, cool, pure water cannot be overestimated. Filthy drinking water is one of the most common causes of disease, and lack of water a too common cause of unsatisfactory growth. All drinking vessels should be scalded at least once a week. In cool, damp weather sufficient permanganate of potassium to give the water a deep reddish tinge will assist in preventing cold and bowel trouble.

Good Food Properly Fed.—Good feed and plenty of it, easily accessible at all times, is one of the most important "secrets" of successfully producing the best birds, either for market, laying, or exhibition and breeding purposes. After chicks are six weeks old, if they are on free range, they should have free access to a hopper containing equal parts by weight of cracked corn and cracked wheat. If they are confined to runs in which there is no green food, they should be given, daily, lettuce, sprouted oats or lawn clippings. The grain mixture above mentioned should be sifted and fed in a deep litter of cut clover or alfalfa, or chaff from a barn mow, or finely cut straw, so as to induce plenty of exercise. Plenty of clean, sharp grit should be provided, and a hopper containing the following mixture kept before them at all times. The proportions given are by measure.

Eight parts bran.
Four parts corn meal.
Four parts shorts or middlings.
Two parts fine meat scraps.
One part fine charcoal.

Do not forget that "Eternal vigilance is the price of success" in the poultry business.—T. E. Quisenberry, Director, Mountain Grove, Mo.

Poultry at San Francisco.

D. O. Lively, Chief of the Department of Live Stock, Panama-Pacific International Exposition, to be held in San Francisco, Calif., in 1915, publishes this item in his press bulletin: "Poultry—Nothing less than a 12,000 bird show at San Francisco in 1915 will meet with the expectations of this Department and the leaders in poultry husbandry in this country. A futurity, a national laying contest that will reach its termination at San Francisco, and a truly international show are among the features that will attract attention. Extensive plans are being made by fanciers all over the world to be represented."

POULTRY NEWS AND ITEMS.

Incubators and brooders, efficient and cheap. Send to Belle City Incubator Company, Box 74, Racine, Wis., for free incubator book and it will please you.

A poultry farm in Maine advertises that shipments of day-old chicks to Montana and distant points are entirely successful.

Bees and poultry are a fine combination. Send five cents to pay postage on the "Bee Book" and the book "How to Double Poultry Profits." Address, Blanke Mfg. and Supply Co., 512 Blanke Bldg., St. Louis, Mo.

"The eggs from matured hens will hatch better and produce stronger chicks than the eggs of pullets. They are usually larger, too."—American Poultry Advocate.

Eggs From Full Blood Stock Eggs

26 White or Brown Leghorn Eggs	$1.00
13 Barred or White Plymouth Rock Eggs	1.00
13 Silver or White Wyandotte Eggs	1.00
13 White Orpington Eggs	1.50
13 Rhode Island Red Eggs	1.00
13 Black Minorca Eggs	1.00
10 White Pekin Duck Eggs	1.00
10 Indian Runner Duck Eggs	1.00

100 Leghorn Eggs, $5. 100 White Orpington, $8. Others $6 per 100. Send 25c extra for each setting and we will ship by Parcel Post, prepaid. Otherwise by Express. Remit by Postal, or Express Order, on St. Louis.
W. F. CHAMBERLAIN, *(The Perfect Chick Feed Man)*
Dept. 4, KIRKWOOD, St. Louis County, Mo.

LICE KILLER Liceell, strongest lice killing compound made. Works like magic. **Simply** put a few drops in nests and hang bottle in coop. Powerful evaporating vapors go into feathers, cracks and crevices. No painting, spraying or dusting. Easy to use. Circular free. Pound bottle prepaid 50c. Money back if it fails. **Agents wanted**
W. H. Metzger Co., No. 28, Quincy, Ill.

Tells Why Chicks Die

J. C. Reefer, the poultry expert of 1866 Main St., Kansas City, Mo., is giving away free a valuable book entitled "White Diarrhoea and How to Cure It." This wonderful book contains some new scientific facts on white diarrhoea and tells how to prepare a simple home solution that cures this terrible disease over night and actually raises 98 per cent. of every hatch. Everyone interested in poultry should certainly write Mr. Reefer for one of these valuable FREE books.

FARM POULTRY HOUSES.

Samples of Bad Locations—Not So Large as They Ought to be—Dampness to be Avoided.

The farm poultry house is often located and constructed with little thought. One of the principal thoughts in its location has often been to have it as conveniently near the house as possible. This is not a good idea, if the poultry are not to be yarded, as it makes them a nuisance near the house. The farther away the house is, the less likely will it be that the fowls will make the life of the housewife a burden by the mud they track on the sidewalks and porches.

There are many poultry houses so badly located that it would be a profitable piece of work to tear them down and locate them elsewhere. The writer has in mind one farm on which the poultry house is a part of the barn and the fowls are given the run of the farm. On a visit to the farm the writer found about seventy Plymouth Rock fowls roosting chiefly on the wagons, carriages, plows and other implements kept in a big shed that was an adjunct to the establishment. It certainly would take a good deal of washing up to undo the dirty work done by the fowls. This man was a tenant and did not feel like going to the expense of constructing a poultry house in the proper location. But it was an illustration of an arrangement that ought not to be.

The location of the farm poultry house should be on high and naturally dry land. In this connection the writer remembers a poultry establishment in the outskirts of a village. It was on low and wet land, and in a wet time one could only get to the poultry houses by walking on boards. On a visit to the establishment, the man occupying it said that he had been there two years and had had poor success on account of the numbers of diseases he had to contend with. He said the previous tenant had abandoned the place for the same reason. In a year or so the last man gave up the effort to raise poultry under such unfavorable conditions. What is true in this establishment is equally true in principle with every poultry house. Farm fowls will not successfully endure dampness when that dampness continues through many months of each year.

Farm poultry houses should be larger than they generally are, or there should be more small ones. Probably the larger number of houses will give better results. It is very seldom that a farmer succeeds well with a large flock. His success is more likely to materialize if he has only a comparatively small number together. Then, if a disease breaks out in one flock, it can be kept from the other flock. If mites and lice get into one house they do not necessarily have to get into both or all of the houses. Moreover, for some reason hard to explain, birds in a small flock seem to thrive better than when many are kept together.

If a poultry house is built on high, dry ground, and is given a large amount of window space on the east, south and west, the best possible conditions will exist for the thrift of the flock, so far as the poultry house is concerned.

It should, as far as possible, be made an ornament to the farm, as should every other building that goes up on the farm. There is a value in beauty for the family and for the possible purchaser in the future, if it ever becomes necessary to place the farm on the market.

Watch These Things

By R. E. Olds, Designer

The leading cars this year have these features in them. They are things you should insist on.

Left Drive

Practically all the great cars of 1913 have the left-side drive. That means, of course, that others must adopt it.

They don't have projecting side lamps. They use electric set-in dash lights, as used on Reo the Fifth.

They are not under-tired. Skimpy tires, which double one's tire bills, are now much out-of-date.

Better Parts

Then today's idea among leading makers is to build enduring cars. To cut down cost of upkeep.

The best cars now, for years and years, will run as well as new. But that isn't so with cars hurried and skimped—cars merely made to sell.

Note what it means to build a really honest car.

Reo the Fifth is built of steel made to formula—steel that we analyze twice.

Its gears are tested in a crushing machine of 50 tons' capacity. Its springs are tested for 100,000 vibrations.

Each driving part, as a margin of safety, is 50 per cent overcapacity.

We use 15 roller bearings, costing five times as much as common ball bearings. We use 190 drop forgings, to avoid the risk of flaws.

A $75 magneto—a doubly-heated carburetor—tires 34x4.

Parts are ground over and over to get utter exactness. Engines are tested for 48 hours. Cars are built slowly and carefully. There are countless tests and inspections.

Every Reo the Fifth marks the best I know after 26 years of car building.

New Control

And it has the new control. All the gear shifting is done by a single rod between the two front seats. It is done by moving this rod only three inches in each of four directions.

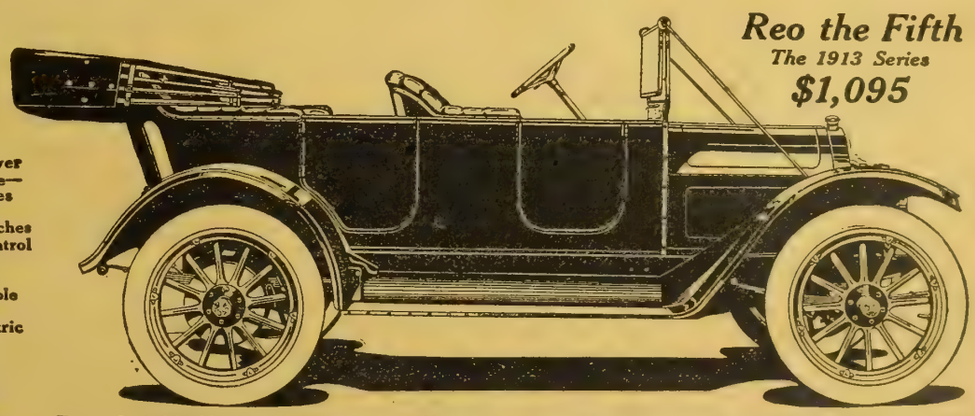
There are no levers, side or center. Both brakes are operated by foot pedals. So both front doors are clear.

Men are coming to cars built like this. Last year's demand was twice our factory output. Every man who buys a car for keeps ought to know this car.

Write for our catalog and we will direct you to the nearest Reo showroom. They are everywhere.

R. M. Owen & Co., General Sales Agents for **Reo Motor Car Co., Lansing, Mich.**

Canadian Factory, St. Catharines, Ont.



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The 1913 Series
$1,095

30-35 Horsepower
Wheel Base—112 Inches
Tires—34 x 4 Inches
Center Control
15 Roller Bearings
Demountable Rims
Three electric lights
190 Drop Forgings
Made with 5 and 2 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slipcover, windshield, Prest-O-Lite gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for $100 extra (list price $170).
(Gray & Davis Electric Lighting and Starting System at an extra price, if wanted.) (194)

Poultry News and Items.

"Any poultry flock is better off away from near neighbors. Three or four suburban lots that are handy and vacant will do."

"It is harder to keep the ground sweet, raise good chicks, maintain vigor in the adult birds on the village lot than on the farm."

"If your plot is square and your poultry plant is in the center, you are better off than if it was at one side."

"The idea of a one-man poultry plant is to own and care for hens and chicks to the limit of the single person's ability."

"Old poultry buildings may have red mites in big lots as well as filth and disease of many-years' standing."—N. W. Sanborn, in American Poultry Advocte.

Sales of Shorthorns.

In the year 1912, in Great Britain, were held sixty-seven sales of pure-bred Shorthorn cattle, disposing of 5,377 head at an average price of $176.36 per head.

Late in April old cabbage were selling on the St. Louis market at $9.00 to $12 per ton, and new cabbage from Texas at $24 to $25 per ton.

Read about the Book of Live Stock Champions on page 2. It is the greatest live stock book ever published.

LIVE STOCK BREEDERS' CARDS.

The NATIONAL FARMER and STOCK GROWER

is a first-class medium for the purpose of advertising pure-bred beef or dairy cattle, hogs and sheep, horses, jacks and jennets, goats and poultry. The circulation is always upwards of a hundred thousand copies, and the average of all editions in 1912 was 123,483 copies. We can let live stock breeders state what they have to sell for very little money. Breeders will find it to do astonishingly good service. Send your copy for an estimate to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Fifty Poland-Chinas, 40 to 200 pounds; twenty-five Durocs, 100 to 150 pounds. All of the Poland-China Hogs were sired by the great Meddler and Walbrige Boars and from some of the most noted Sows in America. Durocs sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for it and mention this paper.
THE GRANDVIEW BREEDING FARM, Marmaduke, Ark.

POLAND-CHINA PIGS.

Orders booked now for Spring Pigs. Will do to ship May. $12 and $15. Big, fine Pigs. Best of breeding. Come and see or write.
D. F. BEAUCHAMP, Meredosia, Ill.

TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,
J.G.TRUMAN, Manager, Bushnell, Ill.

LARGE STRAIN POLANDCHINAS.

I am offering nothing but Spring Pigs at present. The best that money can buy. They have a tendency to make extra large ones.
S. R. GRIGG, Proprietor,
The Golden Ridge Farm, Mulberry Grove, Ill.

SINGLE COMB WHITE ORPINGTONS,
Cook and Kellerstrass Strains.

Eggs, $3.00 for 30; $7.00 per 100; from heavy-laying, large, massive, true-typed stock. Can fill orders promptly.
RAYMOND RUEBUSH, Sciota, Ill.

SALE OF HOLSTEIN CATTLE.
Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.

250 Matured Cows, very heavy producers, springing up; ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me regarding your wants.
JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.
WILLARD MILLER, R.F.D. 2, Anita, Iowa.

DOGS FOR SALE.—White and Silver Gray Spotted Shepherds, with glass eyes. Natural-born heelers. **J. C. BENTLEY, Brighton, Macoupin County, Ill.**

SADDLERS.

Forty Saddle Stallions, Mares, Colts and Fillies of the best Denmark and Chief blood. Special prices on Stallions for the next thirty days. **J. F. COOK, Lexington, Ky.**

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.
R. O. JOHNSTON, Lawrence, Kansas.

JACKS AND PERCHERONS.

We have twenty-five of the biggest and best mammoth Jacks in Kentucky and a few Percheron Stallions. We will cut the price from $100 to $300 per head on every one. We have a big stock of High-grade Percheron Mares, Hampshire Swine and big Black Pigs. Write your wants and visit the Cloverdale Farm.
H. T. BROWN & CO., Lexington, Ky.

TAMWORTHS FOR SALE. The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned be me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

EGGS FOR HATCHING

From stock scoring 90 to 95¾. Write for mating list. Twelve standard varieties.
MUELLER FARM, Wellsville, Mo.

MILL CREEK STOCK FARM.
(The Home of the Starlights.)
THOS. H. EZELL, Proprietor.

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Send for catalog.
R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

They Keep It Up

There are some cattle that give more milk when they are fresh than a Jersey, but there isn't any breed that gives as rich milk as

The Jersey

at as small feeding cost, nor is there any breed of cattle that will *keep it up* like Jerseys will, *year in and year out.* That's why you ought to buy Jerseys to increase your herd's efficiency. Send for Jersey facts.

AMERICAN JERSEY CATTLE CLUB
324 W. 23d St., New York

BLOODED STOCK NOTES.

At Atlantic, Iowa, April 8th, fifty-eight head of Aberdeen-Angus cattle were sold at auction at an average of $187 per head. The sale was on behalf of the estate of the late Walter Roberts. Godfrey Dreher, of Audubon, Iowa, paid $500 for a two-year-old bull, and William Williams, of Atlantic, paid $330 for a cow with bull calf at feet, these two purchases representing the high mark in males and females.

At Jackson, Miss., April 8th, W. J. Davis & Co. marketed thirty-nine head of Hereford cattle at an average of $251.41 per head. The twenty-one bulls averaged $273.80, and eighteen females at $225.28. The top price for a bull was $500, paid by Overton Harris, of Harris, Mo., and $490, paid by Lee Bros., of San Angleo, Texas, for another bull; and J. H. McCaskey, of Decatur, Texas, paid $480 for another. The top price, $300 for a female, was paid twice, once by M. A. Burford, of Independence, Miss., and the second time by J. W. Johnson, of Panther Burn, Miss.

The Mueller Farm at Wellsville, Mo., have some prize winners of the following varieties of poultry: S. C. Buff Orpingtons, Light Brahmas, S. and R. C. Rhode Island Reds, S. C. Brown Leghorns, White Wyandottes, Toulouse and Embden geese.

Attention is invited to the card of S. R. Grigg, of Golden Ridge Farm, Mulberry Grove, Ill., advertising large strains of Poland-Chinas. He is on the Vandalia Line, in Bond county, near the crossing of the Burlington Route, having elegant shipping facilities and fine stock to ship.

Under the management of Mr. W. N. Rogers, of McCook, Neb., various breeders sold fifty-five Hereford bulls for an average of $168, and fourteen females at an average of $136, making the grand average of $161 for sixty-nine head. Guy Swabb, of Murray, Iowa, paid $410 for the highest-priced bull, and J. C. Osborne, of Meadow Grove, Mo., paid $355, the highest price for a female. The sale was held at Omaha, Neb., in April.

At Botna, Iowa, April 16th, Chas. Escher & Son marketed nine Aberdeen-Angus bulls at auction for an average of $309 per head. The top-price bull was Bromo, a calf of September, 1911, which sold to R. W. Franks, of Renwick, Iowa, at $1,120. The fifty-two females averaged $269, and the top price, $530, was paid by W. H. Hurdle, of Holly Springs, Miss.

Attention is invited to the card of the American Jersey Cattle Club on page 21. The Jersey breed has many claims to merit in the economy of production and high percentage of butter-fat. Nobody ever lost money by raising and milking Jerseys. They are gilt-edge money makers.

A sale of Shorthorn cattle by D. R. Hanna, of Ravenna, Ohio, at Chicago, April 4th, resulted in an average of $426 for thirty-five head. Seven bulls averaged $482, and twenty-eight females averaged $482. The highest-priced bull was a calf of September, 1911, Village Chieftain, bought by H. G. McMillan & Sons, Rock Rapids, Iowa. The top-price heifer, Village Primrose, sold for $760 to Hearts' Delight Farm, Chazy, N. Y.

Attention is invited to the card of James Dorsey, of Gilberts, Kane county, Ill.. who has Holstein cattle for sale and is able to fit a farmer with some useful grades or a breeder with a top-notch selection of bulls and heifers.

At a sale held by Thos. Stanton, of Wheaton, Ill., held at Chicago, April 4th, the general average for fifty-seven head was $390; average for seven bulls, $588; average for fifty females, $362. Sittyton Sultan, calved June, 1912, a prize-winning bull, sold at $1,825 to James Yule, of Winnipeg, Manitoba; Howell Rees & Son, of Pilger, Neb., bought the cow Lady Cumberland and bull calf for $1,000; and James Yule paid $1,025 for the cow Sittyton Lady.

Attention is invited to the card of Thos. H. Ezell, of Mill Creek Stock Farm, R. F. D. 7, Nashville, Tenn., the home of the Starlight family of jacks and jennets, which includes some of the best in the United States. Mr. Ezell issues a catalogue that is worth looking over.

New York Eggs, April 30th, 1913.

Western fresh, storage-packed, firsts, 20½ to 21c.; fresh-gathered regular firsts, 19 to 20c.; seconds, 17½ to 18c.; do. thirds, 16 to 17c.; do. dirties, 16 to 13½c.; do. checks, 15 to 17c. Duck eggs—Western, 19 to 22c.; do. Southern, 15 to 19c. Goose eggs, 25 to 35c.

Don't get caught with leaky roofs when the spring thaws come

Remember the roof on your house, barn or other buildings that leaked a few drops last fall—a little investigation *now* may mean a *big saving* when you put on a new roof or replace an old one.

Certain-teed

(Quality *Cert*-ified—Durability Guaran-*teed*)

Roofing
in Rolls and Shingles

There is a ***Certain-teed*** Roofing and a simple method of applying it for every building on the farm. Look for the ***Certain-teed*** label of quality and 15-year guarantee on every roll and crate of shingles. Get prices from your local dealer—he will save you money.

General Roofing
The World's largest manufacturer of Roofings and Building Papers

Valuable Book Free You will find many valuable suggestions in our new book, **"Modern Building Ideas and Plans"**—it tells you what to do and what not to do—it suggests economies and conveniences that will save you money. A book of this kind would ordinarily sell for $1—but as it shows the use of our ***Certain-teed*** Roofing on all kinds of model homes and farm buildings, we offer it to you at 25 cents.

We prefer to have you go to your lumber, hardware or building material dealer, who will gladly get you a copy FREE. If you write us, enclose 25c to cover cost, postage and mailing.

General Roofing Mfg. Co.
E. St. Louis, Ill. York, Pa. Marseilles, Ill.
Minneapolis San Francisco Winnipeg, Can.

Atlas Portland Cement.

Anyone who has cement construction on his mind will gain much information by writing the Atlas Portland Cement Company, Dept. 165, at 30 Broad street, New York City, and ask for a free copy of the Farm Book on Concrete Work. It is very instructive. Read the article in this issue on page 5.

The Great Ensilage Cutter.

Read about the Blizzard Ensilage Cutter advertised on page 5. Ensilage is the key to large and economical production of live stock. The Blizzard is a cutter par excellence.

A Great Horse Story

KATE and QUEEN

By Prof. Jesse Beery

Surpasses the famous "Black Beauty" "Kate" a victim of poor handling is vividly contrasted with "Queen" who was more fortunate. You sympathize with one—rejoice with the other.

Prof. Beery has woven into this intensely interesting story, many valuable suggestions for handling horses—a result of a lifetime's experience. Thousands praise it. Sells for 50c, but a limited number only will be sent for the names and addresses of 5 horse owners and 10c to cover postage and pack'g.

FREE With each book we also send **FREE** a beautiful colored picture of Queen—oil painting effect—suitable for framing. Send today.

Prof. Jesse Beery
Box 714, Pleasant Hill, O.

"Queen"

A BOOST FOR MUTTON.

Particularly Wholesome Food—United States Department of Agriculture Issues a Bulletin—Household Recipes, Etc.

Farmers' Bulletin 526, "Mutton and Its Value in the Diet," which has just been issued by the Department of Agriculture, tells of good ways of preparing old dishes and of new ways to utilize, and new dishes which can be made from mutton, and is the latest of the bulletins which have been given the popular name, "Uncle Sam's Cook Books."

Mutton and lamb have always been regarded as particularly wholesome, and there is reason for this belief, as shown by work of the Department of Agriculture. Of the two meats, lamb has been the more popular in the United States in recent years, perhaps because special attention has been given to raising it for the market and to extending its season. On the other hand, mutton is the favorite in England. The whole question is simply one of taste, and mutton in some form or other has always been a staple and favorite food, used in large quantities, and on account of its good qualities worthy of much more extensive use.

In composition and nutritive value mutton is practically the same as beef, and the average loss in weight in preparing the two kinds of meat for the table is also practically the same, yet mutton has for some time been a cheaper meat in our markets than beef. Buying in quantity is recognized as economical where the housewife has facilities for storage. There are many cases where a side of mutton could be economically purchased for home use where a side of beef would be too large for such a purpose. This would imply an economy in the selection of the mutton.

As regards digestibility, there is no practical difference in beef and mutton, both being very thoroughly assimilated. The characteristic flavor of mutton is commonly said to have its origin in the fat. It is generally relished, and may be developed or modified by various methods of cookery to meet the tastes of the family. That mutton fat can be used in the household in many ways has been demonstrated by experimeets which have been made with it.

The ways in which mutton can be prepared for the table are very numerous. Some of these are well known to the housewife, and others are less familiar. All are worthy of a trial, since the ability to make many dishes with any given foodstuff is an easy way of securing variety in the diet, which is so desirable. The housewife who wishes to economize can make many savory dishes from the inexpensive cuts of mutton, which are palatable as well as wholesome.

Judged by its composition, palatability, wholesomeness, digestibility, relative cost and the number of ways in which it can be prepared for the home table, mutton is an important foodstuff, which is well worth the attention of the housekeeper who wishes to provide her family with an attractive and palatable diet at a reasonable cost.

The Department of Agriculture bulletin on mutton and its value in the diet was prepared by C. F. Langworthy, Chief of Nutrition Investigations, office of Experiment Stations, and Caroline L. Hunt, Expert in Nutrition, who has had much experience in the study of scientific and practical problems relating to food. Miss Hunt made an extensive study of mutton cookery especially for this bulletin.

All who are interested in this subject can obtain a copy of Farmers' Bulletin No. 526 by writing to the Hon. Secretary of Agriculture, Washington, D. C.

Grapevine and Magazine Premium.

We are offering the most extraordinary value in a premium that will be found on page 27. The Ladies' Magazine for the household has no superior; there are some that cost more, but with no more intrinsic value. Then there is also a one-year's subscription to this publication, The National Farmer and Stock Grower; and the third item of the combination is an assortment of eight two-year-old grapevines. These are mailed direct from the most successful grape nursery in New York state, with directions for planting, care, etc. This is the accepted time to receive a dollar's worth that will grow in value and give great pleasure to the family. Fill out the coupon on page 27 and you will not regret it. It will not appear again this season.

CASH GRAIN AT ST. LOUIS.

Quotations on April 30th, 1913.

Wheat.—No. 2 red sold at $1.09 to $1.11; car No. 1 at $1.12; No. 3 red sold at $1.05; No. 4 red quoted at 90c. to $1.01; No. 2 hard quoted at 93 to 95½c.; No. 3 hard quoted at 92 to 93c.; No. 4 hard, about 90c.

Corn.—On track: Unchanged to half cent higher; good demand; No. 2 corn, 57½ to 58c.—mainly 58c.; No. 3 corn, 57c.; No. 4 corn, 56c.; sample grade, 49 to 51c.; No. 2 yellow, 58 to 58½c.—mainly 58c.; No. 3 yellow, 57 to 58c.; No. 4 yellow, 55½c.; No. 2 white, 60 to 60½c.—red cob, 61¼c.; No. 3 white, 58c. for poor.

Oats.—On track: Steady to half cent higher; demand good; No. 2 white, 37c.; standard, 36½c. to 37c.; No. 3 white, 35½ to 36c.; No. 4 white, 33¾ to 34½c.; No. 2 oats, 35c.; No. 3 oats, 34c.; No. 4 oats, 33c.

Hay Sales at St. Louis.

The following hay sales were made at St. Louis on the last day of April: One car No. 2 heavy clover-mixed at $11; part car No. 2 clover-mixed at $13; part car do. at $13.50; part car No. 1 do. at $14. Timothy—Part car thrashed at $9.50; two cars No. 3 at $12; four cars No. 2 at $13; one car part No. 3 at $13 and part No. 1 at $15.50; three cars No. 2 at $13:50; one car good No. 2 at $14; part car do. also at $14; two cars scant No. 1 at $14.50; one car No. 1 at $15; one do. at $16. Prairie—Three cars slough grass at $6.00; one do. at $6.50; four cars common No. 2 at $9.50; one car No. 2 at $11; one car No. 1 at $11.50; one do. at $12. Alfalfa—Three cars No. 2 at $11.50; one do. at $12; two do. at $13; one car scant No. 1 at $14.50; one car high No. 1 at $17; one car part No. 1 clover-mixed and part good No. 2 timothy at $14 round, delivered to St. Louis. Timothy—Two cars good No. 2 at $14; one car No. 1 at $15; one do. at $16, do.; two do. also at $16; one car choice at $17.50, do. Alfalfa—One car scant No. 1 at $14.50.

Goodyear Automobile Tires.

Automobiles wear out tires, that have to be replaced very much as a horse has to be shod. The automobile owner should investigate the tire question before the time comes to buy them, so that he decides in advance what he intends to buy. Automobile tires are now made by experts, and the best makes are well known. Probably the best showing at the present time is being made by the Goodyear Rubber Company, claiming the least cost per mile of any tire that's built. We advise our readers to send to the Goodyear Tire and Rubber Company, Akron, Ohio, and ask for a copy of the Goodyear Tire Book. It tells the whole story of the automobile tire. See page 7 of this edition.

Look Out ... For Worms This Month ... Look Out

Mr. Feil Is a Registered Pharmacist Under Ohio State Laws.

Read These Letters

I have been in the hog business for 30 years and have tried every known remedy for hogs, but have never found anything equal to your Sal-Vet. It certainly does the work and is easy to feed. I feed it to little pigs, boars, pregnant sows and find it O. K. I will never be without Sal-Vet.

C. F. MARSHALL & SON,
Per G. F. M. Monroe, Ia.

"I had a lot of sick hogs and I lost five of them. I began feeding them Sal-Vet, my losses stopped and the hogs soon got into a fine, healthy condition.

V. P. UNDERWOOD,
R. D. No. 1, Roachdale, Ind.

While I cannot say positively Sal-Vet kept my hogs from having Cholera, I had no such sickness while my neighbors almost without exception lost hogs from Cholera. I certainly have great faith in Sal-Vet and it is all and more than you claim for it.

J. C. CONOVER,
Chrisman, Ill.

I used your Sal-Vet regularly while feeding a bunch of fattening hogs and can say it is just the article. It made my hogs double their weight in 50 days. It is a great conditioner and worm destroyer—E. E. SHULL, LaCynge.

I'll Stop Your Worm Losses I'll Prove It Before You Pay

Don't let worms breed **contagious diseases** among your hogs this year. Don't let them kill off the young pigs and rob you of your season's profits. You can **prevent it** if you will just take "a stitch in time." **Now** is the time when worms begin to get in their **deadly** work. **Now** they are breeding, multiplying by the millions in the stomach and intestines, and if you don't get the best of them, they will surely get the best of you. Let me show you how. I'll get rid of stomach and free intestinal worms in your hogs, sheep, horses and cattle and prove it to your satisfaction (not mine) before you pay me a cent. I'll do it with

Beware of Imitations — SAL-VET — Look at the Name Carefully

The Great Worm Destroyer and Conditioner

I've done it for thousands and in addition they write me they never had stock thrive better, look better and bring them such profitable returns. Here is my offer to you.

Send No Money—Just the Coupon

Simply fill in the coupon, tell me how many head of hogs, sheep, horses and cattle you have. I will then ship you enough Sal-Vet to last them 60 days. You pay the small freight charge when it arrives—put it where all your stock can get free access to it—**and they will doctor themselves.** They eat it as they do salt—just as they need it, and at the end of the 60 days if you don't feel **satisfied,** write me and I'll cancel the charge. I take your word as final—I let you act as judge of its merit—I put everything up to you. How can you risk loss—how can you let your stock drag along when they should be thriving, growing into profit when such a fair, open offer like this is put at your disposal? You have all to gain—nothing to risk. Fill out and mail the coupon **now.** Don't put it off—lest you forget. Read the letters above.

Sidney R. Feil, Pres.—*The S. R. FEIL CO.*—Dept. NFSG Cleveland, Ohio

Prices: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12

60-day trial shipments based on 1-lb. of "Sal-Vet" for each hog or sheep, and 4-lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

[37] No orders filled for less than 40 lbs. on 60 day trial offer.

Sal-Vet always comes in original "Trade-Marked Packages. Never sold loose in bulk or by the pound. Look for the "Sal-Vet" trade-mark.

Sidney R. Feil, Pres. The S. R. Feil Co., Cleveland, O.

Ship me enough SAL-VET to last my stock 60 days. I will pay the freight and report results in 60 days and will then pay for it if it does what you claim. If it does not, you are to cancel the charge.

Name ..... P. O. ..... Shipping Sta. ..... State ..... Hogs ..... Sheep ..... Cattle ..... Horses ..... NFSG 5-1-13

The Fruitman and Gardener.

We have made arrangements with the publisher of **The Fruitman and Gardener** whereby we can furnish both papers for the price of one. It is a limited arrangement on the co-operative plan that we help each other, giving our efforts towards increasing each other's business. **The Fruitman and Gardener** is all right in every respect, with a special talent in adapting articles for all climates. No better paper is published for the money, and we have selected it as the best of several that have been offered. Anyone who will send us the usual fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower can select **The Fruitman and Gardener** for one year as a subscription premium. This offer will not last long, for the reason that the number we can accept on this half-price arrangement is small. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

WATERMELONS OR CANTALOUPES

How to Grow Paying Crops—Where Commercial Fertilizers Are Helpful and Profitable, and Not Expensive.

Whether one desires to raise watermelons or cantaloupes, the soil must be plowed deep and a good seed bed prepared. The object of deep plowing is to allow an abundance of water to be stored to be used by the crop when fruiting time comes. If the soil is not fertile it should be made so by applications of stable manure or commercial fertilizers, or both. The melon crop is a heavy feeder, and it costs no more to prepare the ground and cultivate it if one raises a crop that will net a hundred or more dollars to the acre, than one that yields little or no profit beyond the cost of labor.

It has been found by actual experiments that if the ground be treated with a complete fertilizer, applying from 500 to 1,000 pounds of a mixture containing four per cent. nitrogen, six per cent. available phosphoric acid and eight per cent. potash half sowed broadcast and the balance scattered along the drills, or in the hills, if this method of planting is preferred, will enable one to grow a very good crop, even if no barnyard fertilizer is available. If the soil is pretty sandy, more potash might be used with good advantage, and if the land has not been planted to a leguminous crop just previously, more nitrogen would also result in a larger yield, but an excess of nitrogen is to be avoided, for, as in other crops, it will result in too much leaf and vine.

A melon grower who never fails to make a good profit uses 200 pounds nitrate of soda, half applied at time of planting and worked well into the soil along the row, and the other half applied at the second cultivation. This hastens the growth of the young plants, and in a backward season is especially valuable in bringing the fruiting period earlier. The nitrogen is supplemented with 500 pounds of acid phosphate or bone meal and 150 pounds sulphate of potash, these fertilizers being broadcasted at the time the ground is prepared for planting.

This method of fertilizing is not expensive, and if a rotation can be followed that would bring cowpeas into the plan of farming the nitrate of soda may be finally dispensed with and no loss result.

For very early melons it is desirable to plant in a hotbed, either putting the seed in little thumb pots made of cones of heavy manilla paper, and filled with rich soil, or else take small squares of sod and cut a hole in each large enough to admit of planting two or three seeds. Pots or sods can be set closely in shallow trays and these can be taken out of the hotbed and carried to the field and the plants be removed to their permanent home without loss.

The field planting is the most general, and the hill and row methods are both used. The writer likes the latter the best, planting the seed in rows as far apart as for corn, thinning the young plants, when the rough leaves appear, to sixteen or eighteen inches apart, at the same time hoeing them pretty thoroughly. This is all the hand work they need, and they soon begin to vine if they are cultivated well, and when the vines once shade the soil they can take care of themselves.

Cucumbers can be grown in the same way and the bearing period hurried by pinching off the end of the vine, thus causing it to throw out laterals. If melons or cucumbers suffer from blight or mildew, the trouble may be checked by spraying with Bordeaux mixture made up of three pounds of copper sulphate, three pounds of fresh stone lime and fifty gallons of water. If one spraying does not check the trouble, follow it up with others.

About the only insect pest that attacks the melon and cucumber is the striped bug or beetle, which may be controlled by sprinkling with lime or tobacco dust. If this bug has been troublesome, all vines and rubbish should be raked from the patch or field in the fall and burned, as the insects may have found shelter there and will be destroyed.—D. C. Cornman.

GOOD ROADS ITEM.

Where Overseers Fail in the Construction of Roads.

It has been said that a good road consists of a tight roof and a dry cellar, and this is true in every particular.

No road can be lasting that absorbs water to any appreciable extent. No road can be lasting that has a subsoil sufficiently wet to keep the earth moist and spongy; these roads will always be rough and rutty, and no amount of surface work can remedy the existing condition.

When new earth is placed on the road and is subjected to the action of hoof and wheel, together with occasional rains, the grinding action of the wheel and the pounding action of hoofs compact the earth, break up its texture, it becomes puddled and then drying forms a hard, dense material practically impervious to moisture, and if the surface of the road is given the correct shape, the water falling from the clouds will drain to the side and away from the road rather than be absorbed by it. In this way an earth road can be made with a tight roof.

If water exists in the subsoil and the water table is sufficiently close to the surface to cause the earth to be continually damp, there is only one remedy, and that is, to drain this land in such a way as to drop the water table sufficiently below the surface that the surface becomes dry and also the ground for some distance below. By this means we get a dry cellar. In Colorado we will not be troubled much with wet soil as indicated above, only in places of small extent will drainage be necessary.

Our road supervisors are familiar with the poor construction of the surface of a road; that is, they give the new road the proper crown. This crown will force the water into the side ditches, as they are called. It runs down these ditches until it is delivered into some draw formed by the natural drainage of the country and passes away from the road.

Here is where more mistakes are made than anywhere else in road construction. Whenever there occurs a bad piece of road, nine chances out of ten it is because of the fact that the side drainage or the water in the side ditches is not taken care of properly. It is allowed to run down these side ditches parallel to the road until it comes to a low spot and there it collects until the whole road surface is flooded, and we have a mud hole formed that prevents heavy loads from being hauled over the road. The remedy for this is of course obvious, and as much care should be taken in the survey of the side ditches and precautions taken to relieve them of water as in giving a road the proper crown.

We must not forget that this water must be taken away from the road and never allowed to collect in ponds at the side of the same.—E. B. House, Colorado Agricultural Collins, Fort Collins, Colorado.

What Milly Learned.

"I guess I can't play with you any more, 'cause you tell things that aren't true," said Milly, and she ran down the path without even a good-bye for Dorothy. She did not see the pain in Dorothy's brown eyes as she looked longingly after her angry little playmate.

"Back so soon?" said Milly's mother when the little girl came into the sitting-room. "Wasn't Dorothy at home?"

"She's at home, but I know you won't want me to play with her any more. She tells awful stories," answered Milly.

"That dear little Dorothy! Why, it can't be; there must be some mistake."

"No: there isn't, mamma. They're out-and-out stories that anybody could tell weren't true. Why, she said she went to a Sunday school out in the woods the day after Christmas and they had swings and ice cream and they picked wild flowers. I told her that couldn't be so, and she said it was, too, and then she said that she went sliding on ice on her birthday in August. Now, aren't those stories?" demanded Milly. "No, dear, you have done Dorothy a great wrong. All that she has told you is true. You are a very little girl and have so much to learn about this big world. I know that Dorothy came from South Australia, and everything there is just the opposite from here, so far as seasons are concerned. When you are picking up bright-colored autumn leaves the children are looking for the first spring flowers. While you are dressed in flannels and furs and go ice skating they are wearing their coolest summer dresses and going picnicking and boating. In the spring, when you are watching for Robin Redbreast to make his first appearance, they are having autumn weather, and during your warm summer vacation they are having their coldest weather."

Milly's face wore a surprised and sorry look as she picked up her hat.

"I'm going over to see Dorothy," she said.

Dorothy, who was a most forgiving little girl, ran to meet her friend as she came up the path, and when Milly said: "You told what was true and I'm sorry I said you storied. I didn't understand, but mamma explained about climates." She gave her a happy kiss and they ran off hand in hand to playing in the doll house.—Janet Thomas Van Osdel.

This Book Free To Farmers and Orchardists

Send for this book. It is free for the asking. It tells *how* to get rid of the insect pests—how to kill them *quick* and *why* you should ask for—*insist* on

ANSBACHER'S Pure Paris Green

"Standard for over half a century"

Paris Green is a positive, powerful poison. It does *most* work at *minimum* cost. It is the logical insectitude for *you* to use. Let us tell you the facts about Ansbacher's. Send for our free book today or ask your dealer.

A. B. ANSBACHER & CO.
2629 Dearborn Street • Chicago, Ill.

Reasonable Objection.

Fair Bud—"Uncle, I wish you'd give me that beautiful lace handkerchief we saw to-day for my birthday. It was only $5.00.

Uncle—"Nix; that's too much to blow in."—Exchange.

Real Humility.

Calvin—"I have my opinion of your rector. The idea of his preaching on humility! Why, he never goes to church excepting in an automobile!"

Martin—"I know he doesn't; but he uses a 1910 machine."—Judge.

Civic Beauty Pays.

No city in the world spends so much for making the city beautiful as Paris, and no other city receives anything like the same amount of money from the visitors of the world.

On the St. Louis market popcorn is selling on the cob at $1.00 to $1.60 per 100 pounds.

Three Indian Dolls For 30c.

And a year's subscription to the Universal Magazine. These dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—THE PRINCESS TAMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. The Universal Magazine is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

Send us thirty (30) cents for one-year's subscription to the Universal Magazine and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE IRON OF THE FUTURE.

The Story of a Valuable Invention—Corrugations Double the Load-carrying Capacity—The Resistance to Corrosion of High-purity Iron.

It has been said that a poet is one who can see romance and beauty in the life of his next-door neighbor; and the saying contains a truth that is applicable to men of genius of any sort. All the possibilities resulting from the power of steam existed before the day of James Watt's meditations of the raising of the kettle cover; the Chinese knew of the explosive force of gunpowder for a thousand years, and never thought of making it send a bullet; and hundreds of generations of men had bent their backs with the toil of the harvest field before one appeared who could apply the ages-old principle of the shears and produce the modern reaper.

In the early nineties, James H Watson was a drug clerk in Crawfordsville, Ind. He was doing exactly the same work as ten thousand other drug clerks, and might have dispensed soda water and ipecac to the end of his days, but for the quality which he shared with the poet and the artist, of discerning the wonder and promise of the things that lay nearest at hand.

Like all the rest of his trade, he had handled bottles without number, encased in the familiar pasteboard coverings designed to protect them from the shocks of travel. Unlike the others, however, he found in the construction of these little cylinders qualities that seemed worthy of close attention. The feature which engrossed his mind was the great strength and rigidity of the contrivance in proportion to the material employed. This he found by experiment was vastly greater than in a plain pasteboard tube of the same weight, and he traced the cause to the corrugated form into which it had been pressed. "I wonder," he said to himself one day, "how that would work in metal." Then and there was the beginning of the corrugated iron culvert.

There soon appeared on the market a new form of pipe. It was made from sheet iron, rolled into circumferential corrugations about half an inch deep and two inches wide. The first corrugation of each two-foot section overlapped with the last corrugation of the preceding, making a joint which was actually stronger than the remainder of the pipe. The strength of the new construction was altogether surprising; the weight which it would sustain seemed almost without limit. After it had run the gauntlet of doubt and criticism and given practical demonstration of its efficiency, the learned ones came forward with the explanation that its load-carrying capacity was due to the fact that its design was practically a constant repetition of the I-beam, and that the rigidity of a sheet of metal rolled into corrugations half an inch deep was more nearly comparable with one half an inch thick than with that of a smooth sheet. In other words, its potential thickness had been enormously increased.

The corrugated culvert was light, strong, easily and quickly installed, and by virtue of its quality of elasticity, especially adapted to situations where it was difficult or impossible to secure a solid and permanent foundation. A shifting in the substratum that would mean the utter downfall of brick, stone or concrete, only caused the new culvert to sink or bend sufficiently to accommodate itself to the new conditions without interfering in the least with its usefulness. It could sustain its own weight and that of the water it carried for a considerable distance, and so was just the thing for many places where the outlet was on a bank or fill. A wagon-load of this material would take care of almost as many road crossings as a car-load of the heavy and rigid constructions which had preceded it.

The earliest makers had an eye to permanence also. They used charcoal iron or other high-grade stock which was fairly rust-resistant; and there are examples of their product which are doing yeoman service today. It was, however, soon evident that all manufacturers were not so scrupulous and that the benefits of the invention would be nullified unless a material were employed which was capable of resisting the action of the elements for very long periods, for the potential thickness of the new pipe in resistance to external pressure shrunk immediately to the actual thickness of the metal employed in respect to resistance to corrosion. With ordinary iron or steel the corrugated culvert is little better than a temporary expedient.

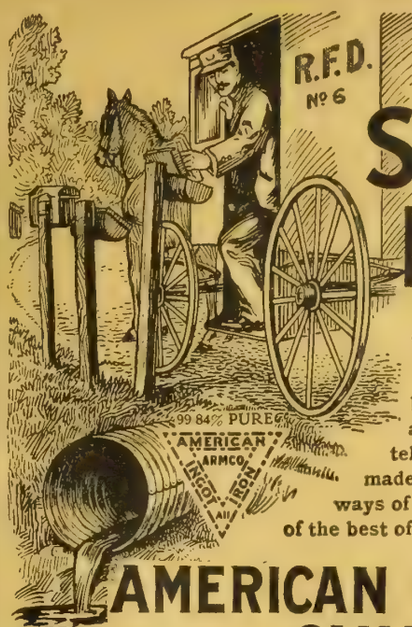
This was the culvert situation at the time of the appearance of high-purity iron. It is doubtful if in the progress of science and invention two discoveries were ever made which so exactly supported and completed one another. The gasoline engine and pneumatic tire, which together have made possible the automobile, constitute perhaps the closest parallel. Here was a form of pipe construction which so multiplied its strength that sixteen or fourteen-gauge metal would do the work of heavy-plate steel; and now came a material of such resistant character as to correspondingly increase its lasting qualities. High-purity iron was adopted by all the better-grade culvert makers, and the corrugated metal conduit became the basis of a great industry.

The remarkable success of pure iron, when used for culverts and storm drains, has very naturally led to a demand for its use for all sorts of exposed iron work. The United States Reclamation Service began specifying iron of the highest possible degree of purity for pipe lines; railroad engineers demanded it for boiler tubes and the roofs of locomotive round-houses; irrigation companies installed gates and outlets of ingot iron and many miles of semi-circular flumes. For these the corrugated form is employed where great strength and rigidity are required, and a smooth type for other conditions. The metal flume is light and easily transported; can be made perfectly water-tight; and, if made from pure iron, will last for a lifetime. It is an interesting fact that the semi-circular form gives the very greatest water-carrying capacity of any type of conduit in proportion to the material used.

Until very recently the field of irrigation pipe was occupied almost wholly by a sheet-steel product. High-purity iron, like every other really good thing, costs more than an indifferent substitute, and the proposition that the actual cost of an article is the price paid, divided by its term of service, is not yet clear to everyone. However, some of the more far-seeing land owners are beginning to install the high-quality product, and the future will no doubt prove the wisdom of their choice.

Quite a serious problem in irrigation is the selection of the best type of small outlet checks or gates. Wood is comparatively cheap and easy to obtain, but in most irrigating sections its period of usefulness is not more than two or three seasons. Concrete is largely used, but it is heavy and clumsy to manipulate, is never very nearly water-tight and is wholly immovable. Many ranchers on the Pacific Coast now believe that they have found a solution in a piece of corrugated pipe, running through the ditch bank, and fitted at the inlet end, with a metal slide, working through a slot cut in the upper half and seated in a groove rolled in the metal. As in the road culverts, the corrugations very much decrease the danger of washing out; but where conditions are such that trouble may still arise from this cause, it is a simple matter to have the pipe fitted with a metal collar or bulkhead. This type of gate is sufficiently water-tight and very light and convenient. The use of a rust-resisting iron makes such a device practicable and reasonably permanent.

Any practically observant person can instance a hundred uses for an iron which will endure exposure. It is probable that we are entering upon a period in all branches of industry wherein there will be less of cheap, rapid and ill-considered construction, less talk of mileage and tonnage, and more effort toward durability, symmetry and permanent worth.—B. G. Marshall.



A Year's Subscription Free to You

THE Highway Magazine devoted to the cause of "Good Roads" is now read by more than 50,000 tax payers and officials every month. It tells about the progress that is being made in the improvement of the highways of the country and advocates the use of the best of road materials, including

AMERICAN INGOT IRON
Guaranteed **CULVERTS** 99.84% Pure

This magazine is beautifully illustrated, with handsome colored covers, and is an addition to the reading table of the home. It explains in readable style the reasons for recommending certain road materials and discouraging the use of others, and points out the fundamental principles of economy in road making and maintenance.

Send us your name and the name of the man who is responsible for the roads in your township, and we will put you on our complimentary mailing list, and send you the Highway Magazine regularly for a year, FREE. Write today.

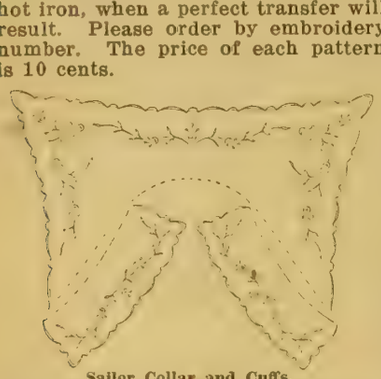
Publisher HIGHWAY MAGAZINE

532 Walnut Street Cincinnati, Ohio

CHARCOAL IRON CORRUGATED CULVERT INSTALLED AT CRAWFORDSVILLE, INDIANA, IN THE YEAR 1896. See article on this page, entitled "The Iron of the Future." See also advertisement of Highway Magazine and send in the name of the Road Overseer of your township.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down, and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number. The price of each pattern is 10 cents.



Sailor Collar and Cuffs.

No. 729.—Design for embroidering a sailor collar and cuffs.

Appropriate Panels and Sprays.

No. 726.—A design for embroidering a blouse front or any object for which small panels and sprays are appropriate. The largest panel is seven and one-quarter inches deep; the shorter panels are five inches deep.

For Yoke and Sleeves.

No. 728.—Design for embroidering the yoke and sleeves of round-neck night gown. Especially adapted to May Manton's Pattern No. 7742.

Collar, Cuffs and Belt.

No. 731.—Design for embroidering the collar, cuffs and belt of a child's dress.

Collar, Sleeves and Belt.

No. 731.—Design for embroidering the collar, sleeves and belt for a child's dress.

Towel End Cross Stitch.

No. 725.—Design for border or towel end in cross-stitch style. Two transfers eighteen inches long are given.

Each embroidery pattern is 10 cents, and is well worth the money.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Rice Recipes.

Rice is the main article of food for a goodly proportion of the human race, and with milk or gravy to supply the other essentials of a balanced ration it contains great food value. It is easily digested, and is therefore a favorite in the sick room, while the great variety of appetizing methods for cooking it should render it a staple produce in a far greater number of homes.

Boiled Rice.—After carefully looking over and washing the rice, pour it gradually into four times its bulk of boiling water. Lift it up carefully with a fork once or twice and shake the kettle to prevent its scorching on the bottom, but avoid stirring, as this will break the grains. Boil twenty minutes, remove from the fire and pour off any water which may be left. Set back where it will dry out and finish swelling but will not burn. The grains should be whole, light and fluffy, instead of the pasty mass which the name so often implies. If milk is used in the cooking instead of water, the product will be much richer. Serve with cream and sugar; or, cooked as a part of the vegetable dinner, it is excellent eaten with gravy like potato.

Rice Omelet.—Beat separately the yolks and whites of three eggs. Add to the yolks one-third cupful of milk or water, one-half cup of boiled rice, two tablespoonfuls butter, salt and pepper, and, last of all, the beaten whites of the eggs. Cook rather slowly.

Rice Snowballs.—One cup cold boiled rice, the whites of three eggs, three spoonfuls sugar, one teaspoonful melted butter; mix well and make into balls. Set in a baking pan and bake for ten minutes, but avoid browning. Pour over the beaten whites of three eggs with three teaspoonfuls pulverized sugar; flavor with lemon and return to the oven to harden but not to brown. Serve with whipped cream.

Rice a la Creole.—Boil six ounces of rice in a kettle of water for five minutes; drain. Fry six ounces of bacon that has considerable lean and cut into inch squares until nicely browned, with a slice of onion and some green pepper. Then add the rice and three cupfuls of the water in which it was cooked. Cook in a double boiler until tender. Season with salt and pepper and a cupful of tomatoo sauce. Garnish with slices of meat.

Rice Pudding.—To nine cupfuls of sweet milk add a cupful of rice and a cupful of sugar. Season with salt and nutmeg. It is better to soak for an hour before putting in the oven. Then bake in a moderate oven, stirring it up frequently from the bottom and also stirring in the brown crust which forms at the top. When the rice is tender and the pudding of a rich creamy consistency, it is done. Serve either hot or cold, as preferred. If bits of butter are placed around the edge of the pan before baking it will be less likely to run over.

Burbank's Crimson Winter Rhubarb.

A PREMIUM worth a fortune. A plant that can be grown in paying quantities on any small piece of ground, also in the house cellar. Returns $1,000 profit per acre. This is a creation by the famous plant specialist, Luther Burbank, of California. Rhubarb is a universal plant, and this Burbank's Crimson Winter Rhubarb is the King of the entire species, producing stalks of medium size, twelve to eighteen inches long, and producing them in all the fifty-two weeks of the year, whereas the productive life of common sorts is twelve weeks.

Burbank's Crimson Winter Rhubarb—Improved by Wagner.

A few roots of Crimson Winter Rhubarb will supply a large family and at the same time increase roots to enlarge the crop. We have decided to use a few roots of Burbank's Crimson Winter Rhubarb in connection with the Subscription Department of The National Farmer and Stock Grower.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains many good poultry facts, etc., etc., etc.

THIS IS A DOLLAR PROPOSITION.

Send us One Dollar ($1.00) and we will credit you with two-years' subscription to The National Farmer and Stock Grower, we will send you by mail prepaid Six Roots of Burbank's Crimson Winter Rhubarb, and we will also send you a copy of J. B. Wagner's booklet, entitled "RHUBARB FOR PROFIT." This premium is in line with the policy of the publishers of The National Farmer and Stock Grower to furnish premiums that can be developed. Rhubarb is never dormant in warm climates, and in any country the roots can be planted any time the frost is out of the ground. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Rice Pie.—Boil half a cup of rice in half a pint of milk and water until very soft; rub through sieve and add half a pint of cream, three beaten eggs, a pinch of salt and a cup of sugar. Pour into the tins previously lined with a rich crust and bake twenty minutes.

Rice Cups.—Butter the inside of as many cups as you wish plates and put into each boiled rice, pressing it firmly against the sides and bottom and hollowing out in the middle. Fill the middle with cooked fruit of any kind, first draining off the juice; cover with rice and set aside to firm. Serve with cream and sugar. Fresh fruit in its season is fine served in the same way.

Lemon Rice Pudding.—Boil a cupful of rice in a quart of milk until soft. Add while hot the beaten yolks of three eggs, juice and grated rind of two lemons, eight tablespoonfuls sugar and a pinch of salt. It should be a little thicker than boiled custard. Turn into a pudding dish, beat the whites of the eggs very stiff with six tablespoonfuls powdered sugar; spread over the top and brown slightly.—Bessie L. Putnam.

Bull Calf Brings $3,000.

From Middletown, N. Y., April 30th, it was reported that John Arfman, of Fairmount Farm, Middletown, N. Y., had sold the six-weeks-old bull calf King Pontiac Alcartra Pietje to Dr. H. B. Hand, of Scranton, Pa., for $3,000. The sire of the calf is the $10,000 bull, King Segis Pontiac Alcartra. The dam of the calf is Fairmount Zerma Segris Pietje. She produced 35.61 pounds of butter in seven days, a junior four-year-old world's record.

Value of the Lingo.

"Learn to speak French. Then things won't cost so much in Paris."

"Oh, you can't make 'em think you are a Frenchman."

"No; but sometimes you can make 'em think you are a Russian or a Spaniard."—Washington Herald.

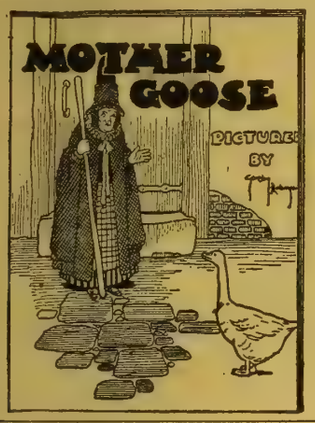
TOY BOOK PREMIUMS.

Pleasure and Instruction For Children, Especially During the Holiday Season.

We are always on the lookout for something that will please the children and at the same time be of an educational advantage to them. Our beautiful toy books, the first we have ever used as a subscription premium, are delighting the hearts of the little ones, and we are greatly pleased to consider these books as one of our very best premiums. We are issuing these toy books as supplementary premiums to The National Farmer and Stock Grower. These toy books are substantial, beautifully colored and illuminated. The illustrations are astonishing in the delightful colorings. There are four sets. They are as follows:

Animal Series.

No. 101—Three Bears.
No. 102—Three Kittens.



No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

Fairy Tale Series.

No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.

Mother Goose Series.

No. 113—Mother Goose.
No. 114—Cinderella.
No. 115—Jack and the Beanstalk.
No. 118—Little Red Riding Hood.

Little Darling Series.

No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

In offering these delightful toy books we make several propositions:

1. Send us twenty-five (25) cents for six-months' subscription to The National Farmer and Stock Grower and you can select one set of four (4) toy books.

2. Send us fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower and select two sets of four (4) toy books as a premium.

3. We publish the Universal Magazine. It is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. Send us twenty-five (25) cents and we will send you the Universal Magazine for one year and you can select a set of four (4) toy books as a premium.

Order toy books by numbers. Select either four you desire. Address your orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Ripping Story, Old Chap!

Sir Donald Mann, of the Canadian Parliament, is stopping at a local hotel.

"The other day," said Sir Donald, "I witnessed a funny scene in a refreshment room of the Canadian Pacific station in Montreal. An Englishman was sitting at one of the large tables, and next to him a man who seemed to belong to the humbler walks of life.

" 'Please pass me those potatoes,' said the man to the elegant gentleman. The latter slowly focussed his eyeglass on the speaker and haughtily asked: 'Did you think I was one of the waiters?' I expected to see our poor friend shrivel up, but he turned and beckoned to a waiter:

" 'George, come here, please.'

" 'What is it, sir?' asked George.

" 'I want to apologize to you. You see, I mistook this party here for you, but I hope you won't be offended at it. And now pass me those potatoes.'

"That's what you call a boomerang, eh, what?" laughed Sir Donald.—New York Press.

Elasticity of Language.

Dr. Osler tells the following to illustrate the elasticity of the English language, as used by the Southern negro.

One day there came to the clinic a negress with a broken jaw. The examining physician, intent on discovering the exact nature and extent of the injury, asked numerous questions. To all of them the negress returned evasive answers. Finally she admitted that she was "hit by an object."

"Was it a large object or a small object?" asked the physician.

"Tolle'by large."

"Was it a hard object or a soft object?"

"Tolle'by hard."

"Was it coming rapidly or slowly?"

"Tolle'by fast."

Then, her patience exhausted, the negress turned to the physician. "To tell the truth, doctor, I was jest kicked in the face by a gen'leman friend."—Everybody's.

Utilizing the Telephone.

"I was standing in the lobby of a New York hotel late one night recently," said H. L. Palmer, District Agent of the New York Telephone Company at Jamaica, "when one of the telephone operators at the hotel switchboard approached the manager, with whom I was talking, and said:

" 'What do you think that man in Suite 23 asked me to do? He said his wife had gone to the theater with some friends and had left him with the two children, who were fast asleep. Could he leave the telephone off the hook while he came downstairs and walked about the lobby for a change, and would I call him if I heard the children wake up and cry?' "—New York Tribune.

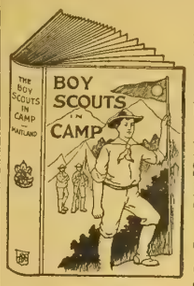
St. Louis is a famous horseradish market, and this season prices are low, $1.50 to $2.50 per barrel being paid for loose supplies delivered by farm wagons.

A PREMIUM FOR BOYS.

A Series of Books Offered as a Premium to The National Farmer and Stock Grower.

This is a proposition for boys who are ambitious to become good, strong men in mind and body. The Boy Scout Movement is by far the greatest and best influence in boys' lives. BIG BOYS, LITTLE BOYS of city, town and country are intensely interested in stories of adventure, the tales that have a dash and go to them, that carry the reader along from beginning to end with absorbing interest and enthusiasm.

We have obtained the books of the Boy Scout Series, written by Colonel George Durston and Major Robert Maitland. These are tales in which the Boy Scouts figure as characters. The books are such that they are never let go for a minute until read through and through. The titles of the books are as follows: No. 1. The Boy Scouts in Camp. No. 2. The Boy Scouts to the Rescue. No. 3. The Boy Scouts on the Trail. No. 4. The Boy Scout Fire Fighters. No. 5. The Boy Scouts Afloat. No. 6. The Boy Scout Pathfinders. No. 7. The Boy Scout Automobilists. No. 8. The Boy Scout Aviators. No. 9. The Boy Scouts' Champion Recruit. No. 10. The Boy Scouts' Defiance. No. 11. The Boy Scouts' Challenge. No. 12. The Boy Scouts' Victory. Each book is nicely bound in cloth, of handy size, and each one is a treasure that any boy will be glad to have.



We are going to make it easy for any boy to get these books. The National Farmer and Stock Grower is published at fifty cents a year. Any boy who will get us one subscriber and send us fifty cents to pay for same can select any two of these books, which we will send as subscription commission, postage paid, safe delivery guaranteed. If he wishes to receive two more books, all he has to do is to send us one more subscription and the fifty cents to pay for it. For six one-year subscriptions the entire set of twelve books will be sent. Boys can start a library with a full set of Boy Scout Books and take it in turns reading them. Address all orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Barb-wire Bargains.

A few cars of new barbed wire that had been under the water for a day or two were sold to A. J. Child & Sons, and it is advertised at bargain prices. See page 12.

A Splendid Seed House.

The A. W. Schisler Grain Company do a splendid business in reliable seeds. It is safe and advantageous to do business with them. Write to the A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo., and ask for the Golden Arrow Seed Catalogue.

Star Brand Shoes on Sale.

A very large proportion of all hides and skins produced by farmers by raising cattle, sheep and goats enter into the making of shoes. Shoemaking used to be an exclusive Eastern industry, and money was expended unnecessarily in freight bills going and coming. Of recent years shoemaking has become a Western industry, and shoes are much better and cheaper by reason of the change, because the waste in transportation and in other ways has been recovered and put into the shoes. Roberts, Johnson & Rand Shoe Company, of St. Louis, have demonstrated that a great shoe business can be built up by them in the West, and on page 4 one of the leading brands is advertised. This firm has cut out the wholesaler's profit as another economy, and sells direct to 20,000 retail merchants, who have proven by handling them that "Star Brand Shoes Are Better." The advertisement on page 4 is worth reading.

Deafness Positively Cured

Cure Yourself at Home.

Five Minute Treatment Will Convince the Most Skeptical. Head Noises Relieved from the First Trial.

You Won't Have to Strain to Hear.

Nature's Own Way Is the Best Cure. Send the Coupon.

The secret of how to use the mysterious and invisible nature forces for the cure of Deafness and Head Noises has at last been discovered. Deafness and Head Noises disappear as if by magic under the use of this new and wonderful discovery. Dr. L. C. Grains Co. (Physicians and Scientists), will send all who suffer from Deafness and Head Noises full information how they can be cured, absolutely free, no matter how long they have been deaf, or what caused their deafness. This marvelous treatment is so simple, natural and certain that you will wonder why it was not discovered before. Investigators are astonished and cured patients themselves marvel at the quick results. Any deaf person can have full information how to be cured quickly and cured to stay cured at home without investing a cent. Write today, or send the coupon to Dr. L. C. Grains Co., 938 Pulsifer Bldg., Chicago, Ill., and get full information of this new and wonderful discovery, absolutely free.

FREE Information Coupon

DR. L. C. GRAINS COMPANY
938 Pulsifer Bldg., Chicago, Ill.

Please send me without cost or obligation on my part, complete information concerning the new method for the treatment and cure of deafness or head noises. If I wish you to make a diagnosis of my case after hearing from you, you are to do so FREE OF CHARGE.

Name.....

Address.....

Town.....State.....

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron, stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE DECORATION OF THE HOME.

Address of Mrs. James C. Bradford, Before the Homemakers' Association.

In speaking of the decoration of the home it is well to consider the influence of environment upon the formation of taste and character, and the importance of surrounding the child with things of beauty and refinement. The home is the center of the life of the family. From the home emanates all the influences that go to build up the character of the family. As the child's home is, so is the child, the boy, the man, the citizen. The home should shape and form his moral, physical and mental character.

The very foundation of the state is the home, and the farm home is the home upon which the very life of the people depends. Hence the great cry: "Back to the farm." We expect the farm home to solve many of the perplexing economic and industrial questions of the day, upon which the judicious reduction of the cost of living so much depends. The farmer's home must be an anchor to keep the farmer on the farm, so that the farm may be an inheritance, a precious legacy to the children of the farmer, who will feel that the great agricultural interests of the country are their own, so that some of the great wealth of the country may remain in the farmer's hands.

The ultimate need is better rural life in the development of community effort and social resources. There is no education without a good school, and no social intercourse without good roads. The farmer's home should be the most important factor in the rural life of the community, contributing to the social, moral, educational and religious life of the community. In this day and generation the school goes hand in hand with the home. In our development they have a most reciprocal influence. But the home must set the standards. So great is the reciprocal influence of home and school that some one has said: "The home may well be made the center of rural school teaching. The school is capable of changing the whole attitude of the home life, and the part that women should play in the development of the best country living."

To attain a more thorough knowledge of better methods of living in the farmer's home, it is necessary to have a better community life in the country, which is accomplished by greater facilities for bringing people together. We need better roads, better educational advantages; clubs for the study of all that pertains to the betterment of the home and school should be formed. Then we will know that which will make the home and the school more beautiful and more attractive, so that children may love the home, and they may love the school.

In considering the beauty of the home, the location, the construction, and its relation to the outside, environments must not be overlooked.

The interior decoration and the construction of the house must conform to all the requirements of the decorator—for good interior decoration has its beginning in good architecture. A room which has good lines, good proportion, requires less decoration, and looks much better than one not so constructed.

Proportion is "good breeding in architecture." There are a few fundamental principles of artistic decoration which one must consider. Proportion of room, its location and its color harmony. In the room to be decorated there must first be good lines. If the room is too high the effect of lowering the ceiling may be attained by allowing the ceiling paper to be dropped to meet the wall paper, and put a picture moulding where the ceiling paper and the wall paper meet. A low ceiling may be made to look higher by using a striped paper from baseboard to ceiling, but one must avoid big stripes, as stripes must be unobtrusive and of same color-tone as background of paper.

Limiting door space adds to the wall paper. After line and proportion comes color scheme. The color treatment of a room depends upon the quantity and the quality of the light in the room and its location. Harmony and appropriateness are to be carefully watched in the selection of colors. Harmony in color is the selection of colors somewhat in the same tone, or of contrasting colors of the same depth of tone. Contrasting colors emphasize each other. Red, green and blue are the primary colors. A knowledge of complimentary colors is important. Colors when combined should make a harmonious tone, altogether harmonious and pleasing to the eye. These colors form the strongest contrast. There are cool colors, such as blues in various grades, grays and apple greens; the warm colors are the reds, golden browns, pure gold, olive green.

Colors are also classified as grave, gay, or sober. In the selection of color schemes for a room, one must first consider the harmonious whole, which depends upon the background. In a room in which the walls are colored bright red, and the floor covered with a bright green rug, the contrast between the two will make both stand out and will be offensive to the eye. If the background of floor and the walls is so striking, it is difficult to have furnishings blend with the color. Better to have one prevailing color as the predominant tone, or, rather, two contrasting ones. The background depends upon the floor color, the wall color and the hangings. In selecting these colors we must be guided by what is called gradation of color. The strongest color should begin at the base, which is the floor. The walls should represent the next lighter color, and the ceilings the last and third lightest color in the gradation. Therefore, the floor, wall and ceiling should have a certain relation to each other, as they are the setting or background of the furnishing, which includes furniture, curtains and other accessories in the decorations. Hangings and furniture cover should blend into the walls and the floor.

In summing up the principles and rules of good taste in furnishings and decoration there are a few simple rules that should guide one. Simplicity of treatment, floor covering, the size of the room, height of ceiling and location of the room, and all that pertains to cleanliness and sanitary conditions. Simplicity is the first law of good taste. The Japanese understood this to a very great degree. The bric-a-brac and dust-catching articles were kept in cupboards.

In decorating begin with the fixed stationary parts, floor, walls, ceiling. Furniture, draperies, pictures, bric-a-brac are used to complete the picture. To secure good results, attend first to the floor. It is the foundation color. Carpet, if used, should conform to the conditions of the room. The size of the room will determine the size of the figure in the carpet. Have your design restful to the eye. Bare floors with rugs are much more sanitary and pleasing. Furniture should conform to the room and its uses. The choice of furniture is determined by the use to which the room is to be put. The cost of an article of furniture is not the measure of its value. Pictures not alone adorn the home, but should be selected for the development of the taste and character of the family. Good photographs and good prints help to educate the taste of the child. Framing and hanging of pictures are essential. Pictures are more desirable than bric-a-brac. Put bric-a-brac, if it is good, in a cabinet.

Plants and flowers add much to the beauty, grace and harmony of the decoration. Window boxes add much to the beauty and pleasure of the home.

Appropriateness and the eternal fitness of things should always be considered in the decoration. One beautiful picture, comfortable chairs, a table that will hold something, will add to the simplicity and comfort of the house. Above all things, study comfort and the restfulness of the home, for it is the place where the good man, after the day's labor is over, goes for rest and comfort.

Girl Makes Corn Record.

One of the many interesting stories in connection with last-year's corn-growing contests is that of Miss Pauline May, of Macon county, Alabama, a girl in her teens, who grew 114 bushels and 51 pounds of corn on one acre, and has a certified record of that achievement. Miss May is believed to be the champion girl corn grower. She did all the work in connection with her crop and wrote to The Southern Field as follows:

"My method of cultivation was this:

"The land was broken March 20 and the corn was planted April 1. It was harrowed, cultivated, scraped, harrowed again and scraped twice.

"The corn when gathered was worth $1.00 a bushel. The total expense was $31.82 and the value of my crop was $114.91."

That's what a girl did on a Southeastern corn field. Doesn't it illustrate what progressive farmers can accomplish in this favored region?

She Didn't Intend To.

A middle-aged couple, made suddenly rich through an unexpected turn of fortune's wheel, were visiting the Senator from their district at his Washington residence.

At breakfast the first morning after their arrival, the woman, nervously trying to chip off the top of her egg with her knife, attacked the problem with so much zeal that the egg was knocked out of the cup and rolled under the table. Not knowing just what was the proper thing to do under the circumstances she nudged her husband.

"Hank! Hank!" she whispered. "I have dropped an egg. What shall I do?"

"Don't cackle," came the matter-of-fact reply.—Exchange.

Intense Torture.

"How dare you advertise that you do painless dentistry?"

"Did I hurt you, miss?"

"Absolute torture. You talked for five minutes at a time when I couldn't interrupt."—Puck.

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And how to get rid of them is a problem many poultrymen cannot solve. It is very easy if you use **Licecil Compound.** Simply hang the bottle in the coop, the vapors leaving the bottle are three times heavier than air and descend in a misty form, penetrating feathers, cracks and crevices. Lice have no lungs and breathe through the pores of their body and positively cannot live in this vapor. It is not necessary to paint, spray or dust. **Licecil** is so easy and convenient to use. Write **METZGER CO., No. 28, Quincy, Ill.,** for free circular telling of this marvelous preparation.

25 cts. a week Buys this High Grade Drop Head Sew Easy Sewing Machine Guaranteed 25 years. Shipped direct from factory. We save you money. You use machine while paying for it. It has all the latest improvements. Write us to day. Sheffield Mfg. Co., 1421 Olive St., Dept 271 St. Louis, Mo

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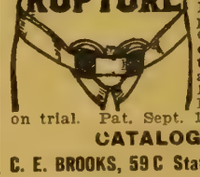

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The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets and instructive matter concerning general farming, stock raising, dairy, poultry keeping and all the especial features that keep a farmer posted on his own interests in dealing with the world of business.

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While Swinging in the Hammock.

Spend every possible moment with the little one out in the fresh air. From the hammock all sorts of entertainment will come if we only train our eyes to look for it. One mother is so fortunate as to have her hammock hung in the same tree with that of the oriole. And baby's sharp eyes have been trained to watch the bird movements eagerly, while the birds have learned that the big hammock below contains only friends, and to swing their babies in the wee one in the tree top quite unconcerned.

As soon as the young birds were hatched the labor of the parents in collecting food commenced. And the number of trips in an hour was quite surprising as well as entertaining. Mamma showed the child how hard both birds worked, gathering the worms and then carrying them in their little bills to their own little ones.

Yet they always seemed glad to do it—happy; and sometimes a note of joy came. The gay plumage of the male was a perpetual delight to the child, and the love notes gave to it the foundation for that feeling which leads when older to a fostering of bird life. Later, when the little birds ventured forth from the swinging nest and made their first efforts to fly, there was more amusement for the little one and for mamma. And both thoroughly enjoyed the fact that their hammock and that of the orioles had been hung in the same tree, while the little one learned to love the birds and strive to help them.—Bessie L. Putnam.

Work in the Garden.

Many housewives consider gardening a man's work, and will have nothing to do with it. If the farmer regards it as profitable, good; but if, as in many instances, he has not time or regards it "cheaper to buy," the family usually misses one of the greatest luxuries of farm life; for few spend very much money in fresh vegetables, even if they have the chance to buy them in good condition, which is not often the case.

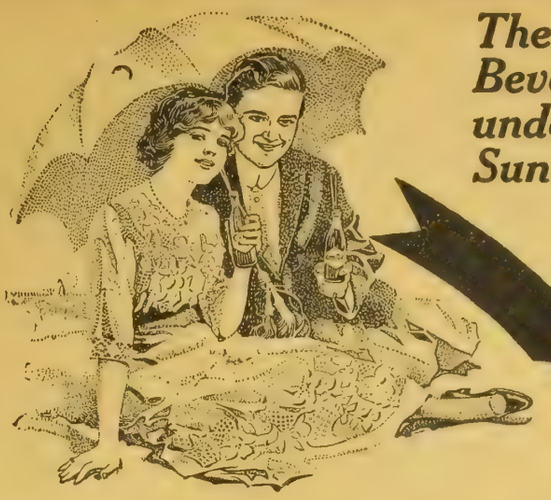
Really, the woman of average health who so determines, can have, with a little help on the start, a good family garden, the growth of which will supply her table better and cheaper than working over the stove in baking and roasting the articles which it replaces. The small daily work required in the fresh air will prove beneficial instead of the reverse. The health of the family will be improved by the substitution of delicious vegetables for the accustomed pastry.

Those who have experimented, find the rectangular plot much preferable to the square one, giving the long rows so easily adapted to the one-horse cultivator. And with a steady horse one may do a great part of the first hard cultivating in this way. Rows should be three feet apart to insure plenty of working room.

But it is not without some disadvantages, great as is the saving over the old hand hoe. Even the most steady horse will sometimes make a misstep or nip some especially thrifty plantlet. And the wheel hoe, with other attachments, is for this reason still better. It is always ready for work at a moment's notice; never tired or wanting to wait for oats. With it one may plant the rows two feet or less apart, thereby securing a far greater yield from the same amount of ground. Even in midsummer it can be taken in, where the horse cannot go without doing more damage than good, and worked where a new crop takes the place of the early peas or lettuce. It works up very close to the rows, almost entirely eliminating the hand-weeding process, and certainly making the man with the hoe as pictured by the artist a thing of the past.

The various parts are quickly adjustable; you can have a tool with a single wheel if you wish, or with a turn of the wrench you have one with two wheels, which neatly works up on both sides of the small plants at the same time. When the hoes and rakes are attachel, as in working the first time or two, it requires manpower to manage it; but after a little of this treatment the soil becomes so light that the weed cutters are all that is necessary, sharp knives cutting off a thin slice of surface soil, which falls back and crumbles into dust.

With this the garden can be kept practically free from weeds; the soil is constantly kept pulverized in a way that no other tool ever has succeeded in doing. The dust mulch is present in summer, thus helping to solve the dry-weather problem. This tool can be used easily long after the plants are too large to be cultivated with a horse. With the lighter attachments weeds can be kept down and a loose soil maintained easily and in a very much shorter time than by any other method. The dealer who tries to make you think that a wheel hoe is too heavy for a woman, but that the long-handled-rake affair, which is dragged over the ground, is the proper tool, either does not know what he is talking about, or has the other kind to sell. It is very much harder to use, considering the work actually accomplished.—Bessie L. Putnam.



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Why He Was Suspicious.

Two friends, a Welshman and a Scotchman, happened to be lunching together recently in a restaurant. The latter kept turning round to see that his hat and coat remained still on the peg where he had left them.

"You are a suspicious chap," said his friend at last. "Who do you think is going to walk in here and steal our coats?"

"Can't say," replied Scotty, "but I'll take good care nobody gets mine; yours went ten minutes ago."—Cardiff Western Mail.

Both Fly.

"Young man, you must learn that time is money," counseled the father.

"Well, dad, at least I have noted points of similarity between them."

"In what way," askd the encouraged parent.

"You know the expression, 'time flies,'" replied the young hopeful.—Buffalo Express.

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No. 7799.—Fancy Waist. 34 to 42 bust. With high draped girdle having straight or pointed outline, with high or low neck, or with V-shaped neck with Medici collar.

No. 7786.—Box-plaited Blouse. 34 to 40 bust. With or without chemisette and under-sleeves.

No. 7789.—Girl's Costume. Ten to fourteen years. With three-piece skirt, with long or three-quarter sleeves, round or high neck.

No. 7800.—Two or Four-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With underlying side panels, with high or natural waist line.

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No. 7455.—Girl's Dress With Two-piece Skirt. Ten to fourteen years. With round or high neck, elbow or long sleeves, with or without fichu.

No. 7643.—Semi-Princess Dress For Misses and Small Women. Sixteen and eighteen years. With low or high neck, long or short sleeves, with two-piece skirt that can be made with or without plaited flounce and panel.

No. 7668.—Child's Rompers. Two to six years. With long or short sleeves, leg portions that can be drawn up at the knees or left loose.

No. 7724.—Girl's Bertha Dress. Four to eight years. With body lining, high or round neck, short, elbow or long sleeves, with Bertha and skirt having straight edges adapted to bordered material.

No. 7793.—Sport or Mannish Skirt. 34 to 40 bust. With rolled-over or straight cuffs, straight or pointed yoke on back.

No. 7797.—Infant's Single or Double Cape. One size.

No. 7810.—Long Coat. Small, 34 or 36; medium, 38 or 40; large, 42 or 44 bust. With pointed or straight cuffs.

No. 7809.—Girl's One-piece Dress. Eight to twelve years. With or without shield, with long or elbow sleeves.

No. 7796.—Three-piece Skirt. 22 to 32 waist. With high or natural waist line.

No. 7704.—Fancy Blouse For Misses and Small Women. Sixteen and eighteen years. With long or elbow sleeves, with or without frills.

No. 7488.—Blouse For Misses and Small Women. Sixteen and eighteen years. With set-in sleeves, with or without eyelets and lacings.

No. 7728.—Semi-Princess Gown. 34 to 42 bust. With five-gored skirt and blouse that can be made with shaped or straight front edges, with long or elbow sleeves, with or without chemisette.

No. 7031.—Boy's Suit. Two to six years.

No. 7560.—Boy's French Suit. Six to ten years. With or without sailor collar, with sleeves tucked or joined to bands.

No. 7806.—Fancy Tucked Blouse. 34 to 42 bust. With long or short sleeves, square or high neck.

No. 7804.—Norfolk Blouse Suit. Six to ten years. With straight trousers, with or without standing collar.

No. 7785.—Semi-Princess Gown. 34 to 42 bust. With long or three-quarter sleeves.

No. 7798.—Five-gored Skirt. 22 to 32 waist. With high or natural waist line.

No. 7812 A.—Blouse Coat in Balkan Style. 34 to 40 bust. With three-quarter, bell or long plain sleeves, straight or diagonal closing, peplum that can be made with square or round front edges.

No. 7813.—Blouse With Robespierre Collar. 34 to 44 bust. With long or elbow sleeves, with or without chemisette.

No. 7787.—Russian Blouse For Misses and Small Women. Sixteen and eighteen years. To be buttoned over or rolled back to form revers, with straight or outaway peplum, with long or elbow sleeves.

No. 7801.—Waist With Overblouse and Tunic. 34 to 42 bust. With long or three-quarter sleeves, with or without collar, with tab over or under belt, with high or natural waist line. To be worn over any skirt.

No. 7795.—Girl's Sailor Dress. Eight to fourteen years. With straight skirt attached to body lining or finished with belt, with belted Middy or Regulation blouse, with sleeve perforated for shorter length.

No. 7792.—One-piece Straight Skirt. 22 to 30 waist. With high or natural waist line.

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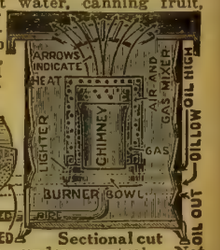

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The invention is so simple that even a child can now master music without costly instruction. Anyone can have this new method on a free trial merely by asking. Simply write saying, "Send me the Easy Form Music Method as announced in The National Farmer and Stock Grower.

FREE TRIAL

The complete system together with 100 pieces of music will then be sent to you Free, all charges prepaid and absolutely not one cent to pay. You keep it seven days to thoroughly prove it is all that is claimed for it, then if you are satisfied, send us $1.50 and one dollar a month until $6.50 in all is paid. If you are not delighted with it, send it back in seven days and you will have risked nothing and will be under no obligations to us.

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In the Home Laundry.

In nearly every house there are curtains and blankets to be laundered at this season of the year, and they can be carefully washed and dried at home, and come from the washing looking as fresh and pretty as ever. After the curtains have been thoroughly dusted, they should be neatly darned before washing, for very small rents are apt to become large holes during the laundering process, unless they are carefully darned or mended.

Lace and muslin curtains that have been exposed to dust and smoke must be put to soak in plenty of cold water for several hours, for cold water washes off the soot and dust, whereas hot water turns the dust speedily into mud and simply soils and discolors the article.

After soaking in the cold water, put the curtains to soak over night in warm water with a little soap and ammonia added; then in the morning they are ready for the clean suds.

With careful washing light-weight comforts will come through a washing soft and light instead of heavy and stiff. Use plenty of warm suds and wash them on a clear, windy day to ensure quick drying. Rinse through clear warm water, press some of the water out and hang over the line without wringing. When nearly dry, whip them on the line with limber switches, and when dry shake thoroughly before bringing them into the house. This treatment lightens up the cotton batting and prevens it from matting together in lumps and wads. They should not be folded over the line, but pinned by one edge or end, so they can hang straight and smooth, and after you pin them to the line, pull and stretch them several times while drying to keep them in good shape.

There is nothing better for washing curtains, blankets and comforts than a soap solution made by dissolving some borax soap chips in hot water and then stirring enough of this soap solution in the wash water to make a strong lather. The chips make the water very soft and this loosens all the soil in the goods, so that the squeezing and pressing between the hands in the suds that they require will get them perfectly clean. Carefully shake the blankets to remove all dust and lint. Half fill two tubs with warm, soft water, then pour enough of the soap solution in one tub to make a strong suds and into the second tub a weak suds, then wash through the two tubs and rinse through two clear, warm waters and run through a loosened wringer. Curtains washed and boiled in suds made with the Twenty Mule Team Soap Chips come out beautifully white and clean and the blankets will be almost as clean and soft as when new, if carefully washed.—M. A. T.

Railroad and the Cow.

It was a cruel thing to say about a nice railroad whose chief aim was the speedy transportation of its passengers, but the conversation had turned to lightning expresses, and Wallace Irwin, the author, simply could not help it.

On the road in question, as Mr. Irwin related the story, a train stopped one day and the passengers were told that a cow had gotten on the track and had to be driven off.

Up the road a few miles farther the train stopped again, and once more the explanation was given that a cow was on the track. Two miles, perhaps, of continuous going, and there came another stop. This time a passenger glanced wearily toward the end of the car.

"Mr. Conductor," he called out in yawnful accents, "could I speak to you a moment?"

"Certainly," answered the conductor, moving down the aisle, "what is it?"

"Do you really mean to say," returned the passenger in a voice that was almost a sigh, "that we have caught up to that cow again?"

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card

cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Why He Went Broke.

"I wonder," said the youthful student, "how the prodigal son came to go broke?"

"I suspect," replied Farmer Corntossel, "it was because he spent his time in town hangin' around talkin' about how to uplift the farmer."—Washington Star.

Meat and Food Choppers.

For catalogue of every possible size of the best sausage stuffers, meat and food choppers, to suit home, farm, butcher shop or packing house, write to the Enterprise Mfg. Co., Dept. 87, Philadelphia, Pa.

Bah! The Materialist!

"Are you interested much in what the cubists are doing?"

"Not much. Takes all my time now looking after the fellow I've hired to do the spring washing around my place."—Exchange.

A Mortgage Lifter.

"Father," boasted the farmer's son, home from college for over the holidays, "I'm the strongest man in our college this year."

"You don't mean to tell me!"

"Yes; they tested me with different kinds of strength-testing machines in the gymnasium, and my record shows that I'm the strongest student enrolled there this year. The physical director says I'm a 'modern Hercules.'"

"My son, I'm glad to hear the good news. Instead of going back to college you can stay home here and help me lift the mortgage off the farm."—Exchange.

Are Growing Shorter.

An Eastern divine remarks that the world is growing better day by day. How about the nights?"—Milwaukee Journal.

THE FINEST CANDY MADE.

A Novel Subscription Premium—The First of the Kind Ever Offered.

This is a subscription proposition in connection with the Universal Magazine. That publication is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid magazine, at the low price of 25 cents a year.

The parcels post rates enable us to send out a box of candy at reasonable

The Universal Candy Girl.

rates. Therefore, as a premium to club raisers, we will send a splendid one-pound box of the very best Chocolate Cream Candies to anyone who will send us fifty (50) cents for two one-year subscriptions to the Universal Magazine, or one subscription for two years. We guarantee that no purer or better candy is made. We pay the postage and guarantee satisfaction or money refunded. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

CONCERNING THE MIDDLEMAN.

Misunderstandings That Ought to be Cleared Away—A Few Remarks on the Commission Man, Also the Speculator.

At the conference on Marketing and Farm Credits, held recently at Chicago, the middleman came in for the great share of condemnation as absorbing too large a share of the money received for farmers' products. But nearly every speaker seemed to think it was the business of the commission man to buy those products, thereby confounding the middleman who is a salesman on commission, with the speculator, who is buying strictly on his own account for the purpose of again selling the goods either at wholesale or by retail transactions. Until these two classes of people—the commission man on the one hand and the speculator on the other—are separated and distinguished as different classes of business men it is useless to expect any improvement on present market conditions.

There are people who combine the two functions of speculator and commission man simply because farmers try to force them to do so. The duty of a commission man is to sell all consignments of the farmer to the best advantage, deducting from the proceeds a fair commission for selling them. But the farmer will often cause the commission man to change into a speculator by asking: "What will you give?"

In our opinion, the commission man as an institution was grown of necessity. In St Louis a man came in to sell his own cattle and remained to sell his neighbors' cattle, hogs and sheep. Someone had to do the selling in town, and all the farmers could not be in to sell the hogs and cattle and sheep; then regular charges were adopted for selling live stock, and thus the commission man was born. And from now on. so long as the sun, moon and stars remain, we will have with us the commission man. In the live stock trade a commission man is well defined and understood. He buys and sells cattle, hogs and sheep for others strictly on commission, never speculating in the consignments entrusted to him for sale. All sales are kept on record, showing the name of the shipper, the name of the buyer, the price paid, and the total amount, less the commission and freight and other charges, is remitted to the owner on the day of sale.

A force of commission salesmen, each one acting independently and trying to excel each other in the results obtained for the consignments entrusted to them, is an element in the interest of the producer that is astonishingly efficient. When supplies are light and conditions favorable, they gain point after point in selling prices, and when times are not so good they hold a steady market; and when conditions are entirely unfavorable and the market is overstocked, it is not easy to stampede a lot of commission men who know their business; the consequence is that the interest of the producer is in good hands and the service is well worth the money it costs; and, as a general proposition, the people who pay for the service do not fail to be satisfied with it. No one complained of the live stock commission men at the conference on Marketing and Farm Credits.

But in other lines, notably in vegetables, the commission man and the speculator are so intimately connected they cannot be separated, and there the trouble begins. A commission man who charges a commission for selling and then sells the consignment to himself is only a common thief, and he who as a commission man receives a consignment and sells it to himself, even if he does not charge a commission, is engaged in a questionable line of business. Many commission men are practically forced to buy remnants of consignments in order to close accounts and pay off the shipper, and there begins the excusable mistake that leads to opening the door to fraudulent practices.

We believe that commission men should conduct a commission business and be debarred from speculating in the goods they sell on commission; that they should not be allowed to sell to any firm they themselves are interested in; that all sale transactions should be recorded and open to inspection of proper authorities, and that commission men should not receive consignments unless licensed by the state, or, what would be better, by the association the shipper belongs to. For instance, the fruit growers' associations practically license the commission houses that handle their fruits on commission. The onion growers designate the commission men who sell their onions, the cattle raisers could easily license commission men to handle their products, leaving each individual shipper to consign his market offerings as he may see fit inside of the number licensed by his association. This applies to all products and all conditions. The St. Louis county vegetable growers can license a number of commission men on the St. Louis market. The fruit growers could do the same. It would not be long before the farmers' associations would control the terms under which their products were sold, and the change would take place without disturbing any people now in the business. It would do away with all fraudulent houses. It would do away with fixing charges first and telling the stockman and the farmer afterwards. We hold that present conditions are very nearly right and that very few changes will be necessary to make everything right, and one of those changes is to separate the commission salesmen from speculators, and each man should be required to say what he is.

By not having shipping units of their own to market many farmers are forced to sell their small lots to local speculators, who make it their business to ship out car-load lots. Their speculative business is perfectly honorable and necessary, and speculative shippers' associations could license their own commission men. Many fruit growers sell their entire crops to speculators. Merchants who deal in butter and eggs and creamery associations could easily better their selling conditions by designating the commission firms they have confidence in. There are also many firms of city dealers who buy direct from country shippers. This is especially so of furs. We need a few strictly commission fur houses.

This subject is too wide and too deep for one article, but we hope we have made ourselves clear in advocating that a commission man should not engage in speculation, and that the different shipping associations should license the commission houses and have some say in regard to the terms of sale.

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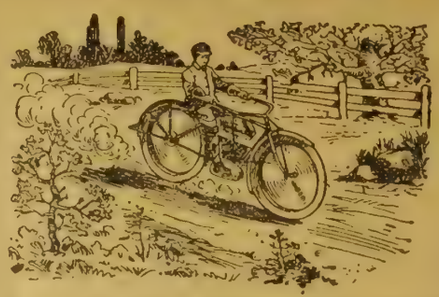

For Boys Living in Illinois, Indiana, Iowa, Wisconsin, Michigan and Missouri

This picture shows one of our boys riding the famous five horse power Harley Davidson Motorcycle we are giving away. In other parts of the picture are the faces of several other boys. They are hard to find, but by turning and twisting the picture around you will finally locate them. Mark at least two of the faces with a cross (X) and send the picture to me. As a reward I will send you a

FINE FREE PRIZE

that certainly will please and surprise you. Be sure to send me your name and address and I will tell you all about the contest in which you can win a five horse power Motorcycle and many other prizes. In this contest **everybody wins prizes.**

5,000 VOTES FREE. If you answer promptly I will send you a special coupon good for 5,000 votes toward the Motorcycle. All you have to do to get this coupon is to send me your name and address at once.

C. S. NADEN, Ellsworth Building, Chicago, Illinois.

SOIL FERTILITY NOTES.

Analyzing the Soil—Is the Soil Acid or Not?—Wrong Applications of Fertilizers a Dead Loss.

Every farmer should have the various soils of his farm analyzed, that he may be able to fertilize his land intelligently. This will cost a little money, but it will be worth more than it costs. The State Experiment Stations are the institutions on which to call, not for the actual performing of the analyses, but for information as to who can be secured to do this kind of work.

Analyzing farm soils should be a profitable field to be occupied by agricultural students, for the work should be done, and the Stations do not find that doing free work of this kind is a part of their work, though there are many persons who think it is.

The analyzing of the soil of a farm is not so easy a task as one might think, on account of the various treatments that have been given the different parts of any farm, especially any old farm. Some fields have been treated with manure and commercial fertilizers, and leguminous crops have been grown upon them. This latter has increased the nitrogen content. On the other hand, some of the pastures have been cropped year after year with nothing put on them. Of course, the analyses of these soils will show enormous differences. Yet those differences must be known, if the farmer is to understand how to prepare his soils for future crops.

One of the most important items to be found out is whether a soil is acid or not. It has sometimes transpired that a soil that was unproductive was unproductive because it had in it too much acid. Whole counties have been regarded as of little value agriculturally that have later been discovered to be rich agriculturally after it was discovered that the only fault was lack of lime in the soil to neutralize the acid.

Two other points that should be looked after are the presence of potash and the phosphates in the soil. If these two elements are lacking, they must be supplied by the purchase of potash in some form or of phosphorus in some form of the phosphates, such as ground bone. For, with a soil relieved of its acidity, clover, soy beans, cow peas, common field beans or some other legumes may be grown to bring in the nitrogen.

In hard soils, one of the best plants to grow to get the nitrogen into the soil is the common sweet clover, known as melilotus. There are two varieties of this, the white and the yellow, known botanically as melilotus alba (white) and melilotus officinalis. It does not make any difference which of these two is grown, but the white variety is the most common. The writer saw this being grown in one Illinois field where it stood so high that the man and the mowing machine were hidden from sight when driving through it when it was being cut, preparatory to turning under the sod.

There is an immense waste of money in the fertilizers that are annually wrongly applied to the land on American farms. To know just what kind of fertilizer to apply to each field and each crop is an essential of careful farming.

At Chicago, April 23d, A. C. Barr, a prominent feeder of Warren county, Illinois, was on the market with a car of choice Hereford steers that sold for nine cents a pound and averaged 1,357 pounds.

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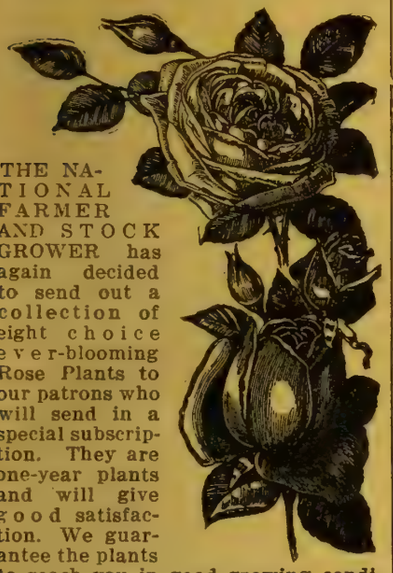

THE NATIONAL FARMER AND STOCK GROWER has again decided to send out a collection of eight choice ever-blooming Rose Plants to our patrons who will send in a special subscription. They are one-year plants and will give good satisfaction. We guarantee the plants to reach you in good growing condition, and with each package we send complete directions for planting. care and culture. The time to send the order is now—before you forget it—and you will receive the plants at the best time for planting in your section.

The collection consists of:

1. THE OLIVIA—A most gorgeous, distinct rose of deep, brilliant rosy red, and one which excites the admiration of everyone beholding it.
2. THE SUNBURST—An intense exquisitely beautiful rose of orange-copper and golden yellow.
3. THE BRIDE—The most satisfactory white rose of dainty, chaste, beautiful flowers and healthy growth.
4. MY MARYLAND — A pink beauty, rapidly developing a sturdy, shapely plant and large flowers.
5. SOUV. DE PRESIDENT CARNOT — A wonderfully handsome rosy-blush color creation.
6. THE METEOR—For intense, rich, velvety, crimson color no other rose compares. The flowers are large and double.
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8. DOROTHY PERKINS—A shell-pink, hardy climber and one that should be extensively planted.

Our Grand Special Offer.

Send us a money order for fifty cents. ONLY fifty (50) cents. We will credit you with ten-months' subscription to THE NATIONAL FARMER AND STOCK GROWER, and at the proper time we will also send you the full set of EIGHT ONE-YEAR ROSE PLANTS as described. The roses are sent out directly it is safe to dig them in the spring. Send in your order at once with fifty (50) cents and it will receive prompt attention.

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SELECTED POETRY.

THE VEGETABLE DOCTOR.

What's the use to call a doctor
When you have got a pain or ache,
Just go out and get the gardener,
And there won't be any wake.
If an onion's good for smallpox,
Would a carrot cure the pip?
Would a dose of spuds cure colic,
Or a parsnip knock the grip?
Would an allopathic pumpkin
Put pneumonia on the blink?
Or a modicum of spinach
Tie the measles in a kink?
Would the scallops on the squashes
Put a polish on the spleen?
Could you catch a floating kidney
If you'd eat a kidney bean?
Would a head of curly lettuces
Cure a misery in the head?
Would the place for an insomniac
Be in a parsley bed?
Would a sweet potato sweeten up
A disposition sour?
If so, we know a lot of folks
Should take one every hour!
Horseradish, which is very hot,
Should surely cure a cold,
Would radishes preserve us all
From ever growing old?

—W. H. James.

THE LOST WATCH.

Some ten or fifteen years ago,
But just how long I do not know,
A man, while crossing in a boat,
A Western river of some note,
Dropped in the stream, as I was told,
Ah! sad mishap, a watch of gold.
He saw it sink, 'twas new and bright,
Down, down and down, quite out of sight.
He made long search, but all in vain;
The watch could not be found again.
Who knows, says he, at last, but what
Some hungry fish just in that spot
Has quickly seized it for his prey,
And then as quickly fled away?
So in despair he leaves the river,
And gives it up as lost forever.

Well, years rolled by when on a day,
As fortune led him round that way,
And times were dull, he felt inclined
To see if he some fish could find
Perchance in that unlucky stream.
But still he did not hope or dream,
By fishing then to find the prize
So long concealed from human eyes.
He only hoped with fair success
To catch enough for one good mess.

He cast his line, but needs must wait,
And many times renew his bait—
The hours passed by, 'twas getting late—
And not one fish, such was his fate,
When suddenly, to his delight,
He felt a most uncommon bite,
And hauling in with skill and care,
Lest from the hook the fish should tear,
Up comes at length to greet his eyes,
A salmon trout of largest size.
It was enough, he did not stay
For more, but homeward took his way,
With lighter heart but heavier load
Than when he traveled that same road
The day he lost his watch, you know,
Some ten or fifteen years ago.

As through the streets he lugged his prize
It drew the notice of all eyes,
And many wanted much to buy it,
But "No," says he, "my wife shall fry it.
I'll have to-night as rich a treat
As ever lord or king did eat."
Ah, lucky man was he to hold it,
How sad indeed if he had sold it.

But still the thought ne'er crossed his mind
That in the fish his watch he'd find.
It had been lost so long ago,
Some ten or fifteen years, you know.
Right on he keeps his homeward way,
Arriving just at close of day.
He lays his load upon the table,
And says: "Dear wife, if you are able,
Come dress this fish, 'tis something nice,
Then cook it well and in a trice.
The dinner hour is long since past,
I've had a long and weary fast."

So now his wife whets up a knife,
And straightway goes to dress it,
When lo! indeed, need I proceed?
You all no doubt will guess it.
But this I'll state, at any rate,
'Twill take me but a minute—
She dressed the fish as he did wish,
And took out what was in it,
Then with the roe, that's good, you know—
Believe it if you will. She cooked the fish,
They ate the fish;
The watch is missing still.

—Unknown Author.

TO WHOM DOES THE RIVER BELONG?

The river belongs to the nation:
The levee, they say, to the state;
The government runs navigation,
The commonwealth, though, pays the freight.
Now, here is the problem that's heavy—
Please, which is the right or the wrong?
When water runs over the levee,
To whom does the river belong?

It's the government's river in summer,
When the stage of the water is low;
But in spring, when it gets on a hummer
And starts o'er the levee to flow,
When the river gets suddenly dippy,
The state must dig down in its till
And push back the old Mississippi
Away from the farm and the mill.

I know very little of lawing:
I've made little study of courts;
I've done little geeing and hawing
Through verdicts, opinions, reports;
Why need there be anything more said
When the river starts levees to climb?
If the government owns the aforesaid
It must own it all of the time.

If the bull you are leading should bellow
And jump over somebody's fence,
There isn't much doubt you're the fellow
Expected to bear the expense.
If it follows a Sunday school teacher
And chases the maid up a tree,
You're owner the same of the creature,
Undoubtedly all will agree.

If it's your Mississippi in drytime,
It's yours, Uncle Sam, when it's wet;
If it's your Mississippi in flytime,
In floodtime it's your river yet.
There's no other way you can make it,
And so, when I give the alarm,
Come and get your darned river and take it
Away from the timber and farm!

—American Lumberman.

SHE KNEW.

She knew she was wrong when they quarreled that night
And heartlessly sent him away.
She knew that his conduct was perfectly right,
But she scorned everything that he'd say.
She knew that the fault was all hers, and she knew
That she meant not a word that she said:
She knew that the charges she made were not true,
And she knew that her love wasn't dead.

She knew when she told him that she'd never be
At home when he wanted to call;
That never again did she wish him to see
That she didn't mean it at all.
And she knew when he said that he'd never return,
And grabbed up his hat and his cane
And angrily left, that to-morrow she'd yearn
And long to be with him again.

She knew, yes, she knew, she was wronging him then.
But you'd never have guessed it to hear
The way she denounced him that night in the den,
There was never a sign or a tear.
She heartlessly kept up her verbal attack
And her real feelings skillfully hid,
For she knew in her heart that he'd surely come back,
And the very next evening—he did.

—Detroit Free Press.

DON'T BE A GROUCH.

Don't be a grouch; kind words and smiles are best;
None but the pessimist need be oppressed
By constant gloom and doubt of all mankind;
Blessings and sorrows are ofttimes combined.
Don't grumble if the plans on which you dote
Go oft awry. Just pause and note
That sunshine follows storms in every case,
And after winter spring smiles lighten Nature's face.

Don't be a grouch. You're not of Fate the only victim left;
While health is yours, you're not of hope bereft.
And out of dire disaster, if you choose,
May make a winning, where you thought to lose.
Be brave; keep cool your head and steel your nerve
To meet reverses. Let your judgment serve
To turn the lessons of the past to good account;
Stop sliding down and strive your best to mount.

There's always sun behind the darkest cloud,
There's often joy in the most somber crowd;
Life's cares are but the trials set to place
A due restraint upon gay pleasure's pace.
Look up, not down! Face trouble like a man;
Press on; don't tarry with the halting clan;
Don't rail at thorns when roses line your couch,
Just think that all is best. Don't be a grouch!

—J. L. Nixon, Boston.

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A RED HOT SELLER

C. BROWN MFG. CO.
1012 Brown Bldg.
Cincinnati, Ohio

Old Potatoes Weak.

Late in April, on the St. Louis market, old potatoes were giving place to the new. The old potatoes had to be good to sell in car lots at 40 to 50 cents a bushel. The highest price was paid for Russet Burbanks.

FENCE BARGAINS.

We are just in receipt of a letter from James Brown, President of the Brown Fence and Wire Company, of Cleveland, Ohio, in which Mr. Brown invites every one of our readers to write for his new 1913 Catalogue. If you need fencing of any kind, for any purpose, or if you will need fencing later it will pay you to write to Mr. Brown at once. Brown Fence is sold direct from factory, all freight prepaid wherever you live, and the prices are exceedingly low. Brown Fence quality is such that over 25,000,000 rods have already been sold direct from factory to customers in all parts of the country. Brown's catalogue tells all the facts. Write a postal now; address Dept. 45, Brown Fence and Wire Company, Cleveland, Ohio, and mail at once.

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Not in one case or a dozen cases but in multitudes of cases, where people say they have been cured of Paralysis, Rheumatism, Lung Troubles, Kidney, Liver, Stomach and Bowel Troubles, nervousness and most every other form of disease after medicine failed.

Our MAGNETIC ABDOMINAL AND KIDNEY VITALIZER for ladies and gentlemen here illustrated is only one of the many Shields we make. IT IS A WONDERFUL INVENTION, scientifically constructed and floods the system with magnetism, supplying LIFE, STRENGTH and VIGOR to the BACK, KIDNEYS, STOMACH, LIVER, BOWELS and BLADDER, giving that buoyancy, tone and renewed vitality to the system that Magnetic force alone can supply.

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THACHER MAGNETIC SHIELD CO., Inc., Suite 452, 110 So. Wabash Ave., Chicago, Ill.

Where Emmy's Mother Failed.

"But how can I tell whether things are cotton or linen, or whether they're imitation or real?" cried Emmy with tears of vexation in her eyes as she wrapped up a mercerized tablecloth and threw it aside. Its beautiful rose pattern and its glossy finish had attracted Emmy's eye. When she learned that the price was only fifty cents a yard she purchased two yards and rushed over, jubilant, to show her bargain. She had to be told that there was not a thread of linen in the cloth, and that in the first laundering the beautiful sheen would all be lost. Thereafter she would have a flimsy, cheap-looking tablecloth, easily soiled, hard to keep white and of poor wearing qualities.

Emmy is a bride and she has not a dollar to spend foolishly. Now, Emmy has a mother living several hundred miles awaw who has kept house for over a quarter of a century. From Emmy's reports her mother is undoubtedly an excellent housekeeper. She would probably be highly indignant should anyone tell her that she had failed in the training of her daughter, for Emmy has very pretty manners and knows just the right thing to say and do on every occasion. Socially she has been well trained, but she has not been taught the business of running a home.

Take only one branch of this business—the purchasing end. Suppose Emmy's mother had taken her little girl along frequently when she went shopping and let the child help select goods, explaining wherein her choice was good or bad, as the case might be. On the shopping expeditions she should have learned the tests of linen, not only in tablecloths, but also in bedding, towels, dress goods, handkerchiefs and laces. She should have learned to tell the difference between all-wool goods and shoddy; th durability of various textures, and the chemical composition of coloring, so that she would know how to select sun-proof and waterproof colors.

Not long ago Emmy bought a cotton ingrain rug for a back room. Poor Emmy has shed bitter tears over the five dollars lost in that cotton rug. For twice the money she might have had a body Brussells that would have worn ten times as long and looked better on its last day than did the cotton ingrain on its first. It was on those shopping expeditions with her mother years ago that Emmy should have learned the difference in the makes of rugs, how the prices vary and why, and the wearing qualities of each make.

In her tiny kitchen Emmy makes delicious and expensive desserts, whipped cream and many eggs figuring largely in these delectable concoctions. But Emmy doesn't know the difference between a porterhouse steak and a piece of beefsteak in its uncooked state. She does not know how to go to the market and buy for fifty cents a piece of meat that will serve for three meals instead of for one. And the young couple are already worrying about the bills and talking about the high cost of living. —Janet Thomas Van Osdel.

Silos in the Buffalo Range.

From San Angelo, Texas, quite recently, it was reported that C. H. Rathje, ranching in that section, had sold 600 steers that he had fed on cotton-seed meal and sorghum ensilage. The steers brought an average of $96.12 per head. Mr. Rathje was one of the first men to construct a concrete silo in Tom Green county, which was thirty-five years ago the feeding and stamping ground of two millions of buffalo.

The High Rate of Interest on Farm Loans.

A Petition by Farmers of the United States Asking That the Moneys Received as Deposits at Postal Savings Banks be Loaned Out to Farmers Upon Proper Security at Fair Rates of Interest.

To His Excellency, the President of the United States, and to the Senate and House of Representatives:

WE, the undersigned farmers, ranchmen, land owners and citizens of the United States, do hereby present this petition for your consideration, and represent that the rates of interest usually charged upon farm loans are uniformly too high, and that in hundreds and thousands of instances the rate is so burdensome and unreasonable as to perpetuate loans and interest charges and cause many honorable, industrious farmers to lay down their burdens and forsake agricultural pursuits. Furthermore, other loans on crops and upon collateral securities when made by individuals or banks to farmers are in many cases so exorbitant as to become unbearable. We also represent that these facts, being of common knowledge, a great movement is on foot to ameliorate these conditions and to find ways and means to give the tillers of the soil the necessary loans required for the conduct of their business, based upon security of the land or upon the joint security of co-operative associations of farmers. We believe that a short cut towards solving this entire problem is for the United States government to undertake to see that the funds are furnished under supervision in regard to the rates of interest, fees and expenses to be charged in making said loans.

The great purpose of this petition is to request that suitable and necessary laws be passed requiring that the moneys received on deposit by the Postal Savings Banks be made available for the purpose of loans to individuals upon farm land securities or upon the credit of responsible associations of farmers duly organized for the purpose of assisting each other to obtain and repay such loans.

With a Commission now appointed to investigate the farm loan associations of Europe and now at work to that end, we do not assume to specify by what methods our desires and wishes be carried out, but the point we wish to make is that as farm lands represent the best security in the world they should constitute the preferred security in loaning out the money which the government as a banker is receiving on deposit for such a purpose.

Believing it to be the policy of the United States government to build up a nation upon a foundation of farm homes for the people who cultivate the soil, and believing that the good intention of the government is being defeated by the present system which establishes and maintains high rates of interest which the majority of the farming people are unable to pay and many are unable to obtain, we therefore ask the immediate consideration of this subject that a better and more wholesome condition of affairs may be brought about by patriotic and conservative legislation.

Sign the Full Name Here.	Rural Route.	Postoffice.	State.

☞ When ten signatures have been obtained to this petition, it should be neatly cut out from the paper and sent by mail to PHILIP H. HALE, Editor, 3550 Vista Ave., St. Louis, Mo. Copies of this petition can be had by writing for them.

National FARMER

Vol. XXIX. St. Louis, Mo., June, 1913. No. 6.

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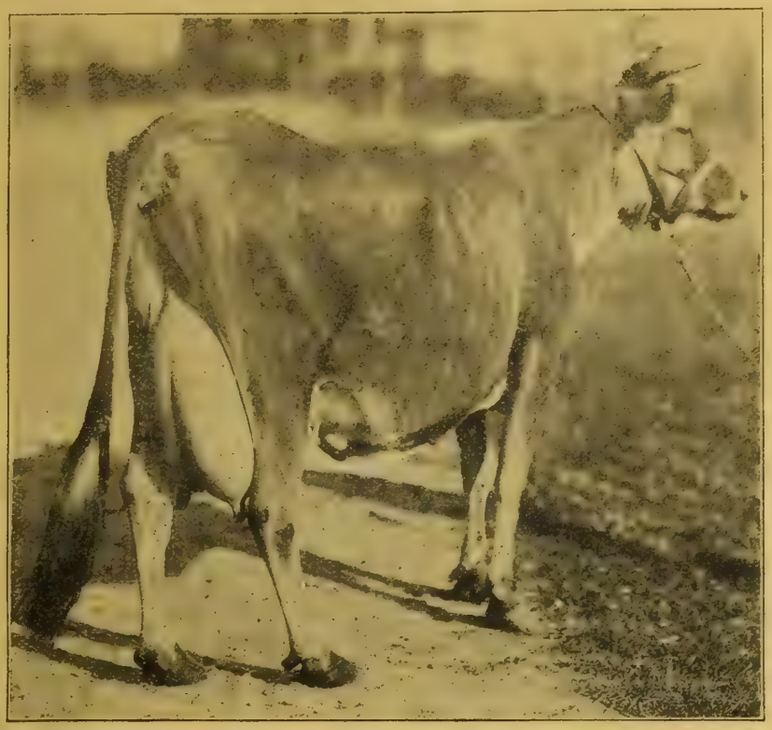

FIGGIS—FAMOUS JERSEY COW. At the Louisiana Purchase Exposition, 1904, FIGGIS was the grand champion Jersey cow and had a calf during the progress of the Fair. Bred on the Hood Farm, Lowell, Mass., but exhibited by Thos. W. Lawson. Her picture is on page 233 of the Book of Live Stock Champions advertised on page 3.

The Book of Live Stock Champions.

It is difficult to understand how such an elegantly-printed and bound book as the Book of Live Stock Champions can be sold for a dollar and include a subscription to The National Farmer and Stock Grower, but it is the large edition that accounts for it. The first copy cost five thousand dollars, because there are seven hundred and fifty pictures in the book, to say nothing of the continuous work of collecting and editing the book, the paper, the printing and the binding. The book is 6x9¼ inches; 352 pages; weighs 25 ounces; costs 15 cents in postage to mail it; is elegantly bound in dark blue cloth and with gilt title. We have several thousand more to be disposed of. There never was such an elegant book issued before for the money, and may never be again. See page 3.

Panama Car-lot Classes.

The Live Stock Department of the Panama-Pacific International Exposition has set aside $7,500 to be paid as premiums for car-lots of cattle, sheep and swine at San Francisco in 1915. This early announcement is made so that breeders may select animals to enter into this competition. In addition to a liberal premium list, there will be sales at auction of the animals that will insure attractive prices.

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and Stock GROWER

Involved Fertility Problems.

The problems of agriculture are never simple. All of them are so mixed up with other problems that any fixed rule of procedure along any line is impossible. The fertility problem is one of extreme complication. This is why people having but a few ideas on the subject are likely to go wrong. The few facts they think they have learned are each one true only under certain conditions.

We have an illustration of this in the case of the enriching of the soil by the growing of clover. The fact that clover is an enricher of the soil has become quite firmly fixed in the minds of many farmers, who, however, do not understand the limitations that go with the principle involved.

It is a mistake to assume that the growing of clover alone will take the place of all others' efforts along fertilizing lines. In fact, the continuous growing of clover on certain kinds of land will reduce the crop-producing power of those lands, unless other kinds of fertilizers are supplied.

If a piece of land is very low in its content of potassium or phosphorus, every crop of clover grown reduces the quantity of those two in the soil and the time will soon come when the supplies of available potassium and phosphorus will be reduced to a point where even a good crop of clover cannot be produced. For, it must be remembered, the fertility element in the soil that is least in supply is the one that determines how much of a crop can be grown.

If the potash in the soil be insufficient for a good crop, it does not matter how rich the soil may be in the other elements—a good crop cannot possibly be grown. Just such a case as this was found in the marsh lands along the Kankakee river. The potash was very low in supply, so low that often not more than five bushels of corn could be grown to the acre. Yet that same land was very rich in nitrogen and had a fair supply of phosphorus. Addition of potash worked wonders, and the corn crop jumped to seventy bushels per acre. Here was a condition where even a good crop of clover would have been impossible, though the soil had in it a great supply of nitrogen.

If a man does not know how his soil is constituted he must assume that it needs all kinds of fertility, and he must give all, if his land is running down. The right way is to find out what a soil needs and go at the matter intelligently.

It is not possible to get away from the truth that ultimately all soils must have added to them lime, phosphorus (called generally phosphate), potassium (spoken of commonly as potash), and nitrogen, with some other elements that are usually in sufficient supply. The four mentioned are the ones most likely to become exhausted by continuous cropping.

The other great factor in the soil is organic matter, which, in a decayed form, we speak of as humus. This, while not a fertilizing element, is a great help to crop production, as it holds moisture and assists the true fertilizers in other ways.

The Old Farmer on the Big Farm.

A prosperous farmer helpless on his big farm is the mental view the writer has of an acquaintance of his. The farm is located in one of the middle states, noted for its agriculture. The farmer has spent his whole life on it and has become rich, but in his old age he finds it impossible to get help to carry on his farm to a profit. He has over 300 acres of land. The buildings cost him $14,000. He has an up-to-date dairy with over forty cows, and yet he has just sold out for $11,000, which is less than the mere cost of the buildings, constructed when building materials were cheap, and in good repair now. The secret is, that this man found himself marooned on this big farm. His son had died and his daughters have become school teachers in a big city. He finds it impossible to work the big farm.

Many a man is killing himself and his family trying to increase the number of his acres, adding farm to farm, to be confronted in old age by the proposition of the farm too big to live on. It is not wise to labor merely for more acres. The wise farmer knows when to quit in his grasping for more land.

The old farmer on the little farm is not worried to death trying to find someone to manage in his place. He can do the managing with little trouble from his windows, if he has to, and the expenses of the hired labor do not become the problem they do on the big farm. The little farm usually means a comfortable old age, even if no big bank account.

There is another thing that affects the old farmer on the big farm, and that is the fact that his social intercourse is vanishing. The big farms make dwelling houses far apart. It was not so bad in the younger days of the old farmer and his wife, for their bodily activity made little note of distances; but it is different now, and the old friends seldom meet. Most of them have moved away and their farms are being cut up into smaller ones.

In some of the old-settled localities it looks as if the big farm were destined to go. This is especially true in the localities given over to milk production and the raising of truck crops.

A friend of the old farmer on the big farm took a ride for a few miles round the farm in question. He found several farms abandoned, the farm houses being without tenants. The explanation given by local inhabitants was: "Boys and girls all went to the city; the old folks couldn't do the work, and so went, too."

Yet that locality is a rich one agriculturally, and the land has been kept up in its fertility. Their ancestors had lived on those farms for a hundred years before and had prospered, multiplying their live stock. But the modern changes have upset the old conditions and have drawn away the younger generation to more illuring fields. These well-to-do farmers gave their children a good education and this education weaned them away from the farm to the attractions of the cities and the pursuits of commerce.

Comment on the Wheat Report.

An authority on the Board of Trade, commenting on the May wheat report, said:

"As far as the crop outlook is concerned, there is nothing in the situation to indicate that the crop can go back materially from its present favorable position, unless the unexpected happens, as it did in 1905, when the May 1 condition was 92.5 and at harvest 82.7, and in 1903, when in May it was 92.6, and at harvest 78.8.

"In only six years in the past twenty-five has the crop shown a betterment from May 1. That was in 1888, 1892, 1893, 1894, 1898 and 1904. This improvement was mostly a slight one in June.

"In 1899 the May condition dropped from 76.2 to 67.3 by June 1; in 1895 from 82.9 to 71.1. The biggest gain in the twenty-five years between May and June was from 84 to 88.3 in 1892."

Co-operative Beef Clubs.

Co-operative beef clubs or rings are beginning to solve the problem of furnishing fresh meat for the farm home during the summer months at a nominal cost.

Such a club is composed of about twenty or more farmers, who organize and form a club to dispose of at least one beef a week. This is operated in connection with a creamery or some convenient place in the community.

A beef is slaughtered once a week, usually on Friday evening, and put in a cellar to cool over night. The next morning the carcass is cut and divided into twenty portions, or as many portions as there are members in the club. A sliding scale is followed, and each person gets a different portion of meat each week, until each has received a whole carcass.

A price per pound is agreed upon and cash paid for the meat. The proceeds are used for buying the animal and paying for the labor spent in dressing and cutting the carcass.

Several of these clubs have been successfully operated in Minnesota during the past summer and the farmers have had fresh meat all the season at from five to twelve cents per pound.

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when fire, rat and vermin proof concrete construction is cheaper in the end? (Write us for a free blueprint of the farm house pictured above.)

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Is It Safe to Pasture Cane?

A Missouri correspondent asks if cane will make good pasture for young stock? I do not recommend cane alone for pasture, for many instances are on record where stock died from eating young cane, and also it is claimed that second growth of cane will be fatal to stock. A safe method of feeding the crop is to cut it for hay when the seeds begin to harden, and then cure it well before it is offered to stock. Cane is quite difficult to cure and should be handled promptly. Where it is grown on a large scale it may be economically handled with a mower and the big self-dumping rakes.—L.C.Brown.

Good Hay Crops in Ontario.

United States Consul H. J. Harvey at Fort Erie, Canada, repors that in Ontario, Canada, there was a large hay crop harvested last year. The high price prevailing in 1911 and 1912, caused by the unusual demand from the United States, induced Canadian farmers to hold their last crop too high to interest purchasers, and they have a surplus on hand. Hay did not winter kill last winter, and the indications are that this year's crop will be enormous. Clover looks better than for the past six years.

Russia Would Win at Tulsa.

Russia will be at the International Dry-farming Congress to be held in Tulsa, Okla., next October with crop exhibits from six provinces. The Russian government has made a special appropriation to cover the expense of collecting and transporting to Tulsa a representative lot of crop products grown in that country, and the Russian Agricultural Department announces that the exhibit will be made with a direct view to capturing some of the world's prizes to be offered here. Alexander Kol, Agricultural Commissioner for Russia in the United States, of St. Louis, will have charge of the exhibit on its arrival in this country. The Dry-farming Congress begins October 22d and continues to November 1st, 1913.

Cane For Silage.

A Kansas correspondent asks if cane will make good silage for horses and cattle? Cane is used in this way, but results are more uncertain than with silage made from common dent corn. Cane or Kaffir silage must be put up at the right stage, and good results are reported from using part cane and part corn. All through Kansas and Oklahoma, Kaffir corn is used quite extensively for silage, and farther north frequently one-third cane and two-thirds corn are used. Still where good dent corn is grown I would prefer to use straight corn silage to any mixture with cane.—L.C.Brown.

For Speed and Power.

The Western Horseman, published at Indianapolis, said recently that the common idea on horse conformation is expressed in these words: "Long muscles for speed; short muscles for power." Long muscles, true enough, enable a horse to get over the ground rapidly. Short muscles, however, are not powerful because they are short, but because in horses constructed on that plan the muscles are thicker and contain more fibres, all of which, pulling together when contracted, exert a much greater pulling force than a long, more slender muscle.

One of the greatest barb-wire offers will be found advertised on the top of page 6 of this publication.

THE BOOK OF LIVE STOCK CHAMPIONS.

Published in 1912.

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True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

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THIS is the latest edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in the Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented magnificently. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

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Name.....

Address.....

My occupation is.....

FOR THE DAIRY BARN.

Method of Laying Sanitary Concrete Floors With Farm Labor.

In the voluntary movement of farmers for better milk at better prices, the first step toward improvement is the making of the barn more sanitary by laying concrete floors. The method is so simple that any man can do his own work. The cost is so small and the cash returns are so great that the floors soon pay for themselves in preventing the breeding of flies, in the saving of liquid manure, in the reduction of labor, and in the increased flow and improved quality of milk. The plan described below is for a barn in which the two rows of cows stand heels toward each other, with a driveway between. It is easily modified to the opposite arrangement. Likewise the method is adaptable to both old and new barns.

Planning and Grading the Floor.

For average conditions lay out the stalls on three-foot six-inch centers and four feet six inches in length from six-inch manger wall to drop-gutter. The manger is two feet six inches wide at the top and two feet at the bottom, with one face sloping up to the feed-alley floor. The depth is seven inches, measured from the stanchion setting, and eight inches from the alley floor. The feed alley is four feet six inches wide. The drop-gutter has a width of eighteen inches. It is eight inches deep gauged from the stall floor, which is two inches higher than the eight-foot driveway. For establishing grade lines a carpenter's spirit level (or a water level) and a chalk line are very helpful.

To prevent possibility of the floor settling, remove all manure before grading the surface of the earthen floor. Carefully tamp back the dirt around water pipes and the drains which carry waste water and liquid manure to the water-tight concrete manure pit. Do all filling as long as possible before building the concrete floor. As a foundation for the stall floors proper, place a six-inch thickness of coarse broken stone or screened gravel to keep the floor from direct contact with the ground. Since the stall floors are of prime importance, it is well to make them first. During this operation the unpaved driveway and alleys can be used as working space. Then finish, in the order named, the feed alleys, the driveways, the mangers, and, lastly, the gutters.

Mixing and Laying the Concrete.

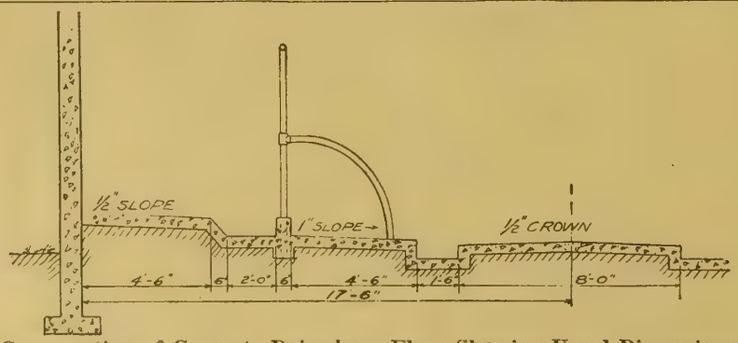
For the plan given, five feet six inches from the center line of the driveway stake on edge (and to line and grade) a two by twelve-inch plank, to serve as a form for the stall floor at the gutter. Likewise set a similar board, five feet distant, to mold the six-inch manger wall and stanchion setting. Bear in mind that the stall floor has a slope of one inch toward the gutter and the stanchion setting rises seven inches above the stall floor. Drainage for gutters and mangers will be provided by sloping their concrete bottoms.

Proportion the concrete one bag of Portland cement to two and one-half cubic feet of sand and five cubic feet of crushed rock, or one bag of cement to five cubic feet of clean pit gravel. At one operation lay the full five-inch thickness of the stall floor and finish three stalls the same as one section of sidewalk. No surfacing mortar is needed. For setting patented stall divisions, follow the manufacturer's directions; for home-made divisions, make mortises by tamping the concrete around greased tapering wooden cores, which are withdrawn as soon as the concrete stiffens. A wooden float is best for finishing the floor. A steel trowel yields a surface entirely too smooth, and such a finish should always be roughened by brushing with a stable broom.

Sanitary Floor With Concrete Manger and Swinging Stanchions.

While the concrete of the three stalls is still soft, mold the stanchion-setting (six inches thick) upon it. As forms use the projecting seven-inch height of the two by twelve piece already in place and two one by six-inch boards toe-nailed together so as to provide another seven-inch height and a bearing plate to rest on the green concrete. These forms may be made dish-shaped for swinging stanchions. Fill the forms with mushy wet concrete, trowel the surface, round the corners and set the stanchion holders. Repeat the operation until all stall floors are completed. The feed alleys and driveway are easily built; they are merely rough-finished sidewalks. Place the waste-water outlets in the mangers at intervals of twenty-eight feet and give the bottom a slope of one inch toward each outlet for a distance of fourteen feet on each side of it. The drop gutters may be drained in like manner or can be sloped slightly in one direction for their full length. For ease in cleaning, round all angles and corners (except at the bottom of the drop-gutters) by applying a one to two cement-sand mortar immediately after removing the forms.

With the proportions and thickness given above, four bags (one barrel) of cement, ten cubic feet of sand (say three-eighths cubic yard) and twenty cubic feet of crushed rock (about three-fourths cubic yard) will lay forty-five to fifty square feet of floor. The usual cost of this much material alone is $2.50. The floor soon pays for itself many times over.



Cross-section of Concrete Dairy-barn Floor Showing Usual Dimensions.

Caring For Cattle and Floor.

Regardless of the kind of floor, bedding of straw or litter is an absolute necessity; it keeps the cow clean and absorbs the valuable liquid manure. If the help can not be depended on to bed the cows properly, it is advisable to use a removable wooden grating or platform. Cork bricks also give satisfactory results, but are somewhat expensive. They are set in a two-inch depression in the floor and are held in position on all sides by the concrete acting as a curb.

SCIENTIFIC AGRICULTURE.

The Large Increase in German Productions Compared With Smaller Results in the United States.

Dean Homer C. Price, College of Agriculture, Ohio State University, Columbus, writing on "Increasing the food supply of the nation," says:

"A nation's food supply may be increased either by increasing the area cultivated or by increasing the yield per acre. In America we have been using the former method, and in Germany the latter method has been used. Within twenty years the cultivated area of grains in Germany has not increased over 5 per cent., but within this time the total product has increased over 60 per cent., due to the increased yield per acre. This increase has been due to the application of science to the practice of agriculture, and has resulted from a better cultivation and handling of the soil, from the more abundant and intelligent use of stable manures and commercial fertilizers and from the selection and breeding of more productive varieties of crops.

"A comparison of yields between single years is of little value because one year the crop may be abnormal, due to an unusual season, but by taking an average for a period of years a representative yield is given that is a safe basis for comparison. In taking the government statistics of Germany, and making a comparison between the average yields for the ten years from 1883 to 1892 and for the five years from 1906 to 1910, they show that the following increases in crop yields have been secured by the German farmers within twenty years:

Increase in Yield in Farm Crops of Germany in Twenty Years.

Crop.	Period. 1886-95. Bushels.	Period. 1906-10. Bushels.	Increase in 20 Years. Per Cent.
Wheat	21.2	31.2	47.3
Rye	16.6	38.3	70.0
Oats	34.1	57.5	68.6
Barley	24.5	37.2	51.8
Potatoes	130.0	210.1	71.6

"Practically the same figures for the United States present a very different picture. Our yields are not only in most cases less than one-half what they are in Germany, but the percentage of increase has been very much less, as shown by the following table:

Crop.	Period. 1886-95. Bushels.	Period. 1906-10. Bushels.	Increase in 20 Years. Per Cent.
Wheat	12.7	14.7	15.7
Rye	12.7	16.4	29.2
Oats	25.6	29.0	13.3
Barley	22.6	24.6	8.8
Potatoes	73.2	96.9	32.3

"While the yield of wheat per acre in Germany has increased 47.8 per cent. in twenty years, in the United States it has increased only 15.7 per cent., notwithstanding the fact that the yield in Germany is over twice as great as in America. A comparison of the tables will show that what is true of the wheat crop is true of the other crop yields. The German farmer is not only producing much more on the same area, but he is increasing his yield much more rapidly than the American farmer. And yet the German farmer has not reached his limit by any means, and one of the leading German agricultural authorities, Prof. Wohltmann, said recently that he was confident the German farmers could increase their present yields 40 per cent. within the next twenty years. However this may be, it can at least be pointed out that the German crop yields are constantly increasing from year to year, and as yet there is no tendency to go back or even stand still.

"What has made this rapid increase and why are the yields so much greater than in America, is the question that naturally arises. Primarily, it is due to more intensive systems of farming, and certainly not to land that is naturally more fertile than in America. The German farmer spends much more labor and capital in the growing of his crops than the American farmer. His fields are prepared so that they look like a garden, and the soil is in fine condition before the crop is planted. He is more careful in the selection of his seed and his stand of the crop on the ground is more perfect. He has also learned how to feed his crops with fertilizers. In the first place, he scrupulously saves every bit of waste on the farm and returns it to the land. Stable manures are carefull preserved and then generously supplemented with commercial fertilizers. The German farmer has learned how to use commercial fertilizers, and he knows they are not to be used to replace stable manures, but only to supplement them. He has also learned the necessity of keeping his land filled with humus to make it 'crumbly,' so that it may be easy to cultivate and will hold rain water that falls on it. He does this by growing alfalfa and legumes, by plowing green crops under and by the use of stable manures."

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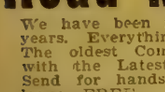

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1,565—Minneapolis, 19 H.-P., return flue	575
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WHEAT MARKET SITUATION.

In May the Price of Cash Wheat Declined Sharply, and So Did Contract Wheat a Fraction.

Article Written May 31st, After the Close of the Market.

We hope we will not be put out of the church for stating that we regret the absence of speculation. When the housewife pays ten cents for five cents' worth of bread and complains of the high cost of living, we hope that somebody will come along and say: "Well, I don't understand it, because there was a total absence of speculation." The only day of activity was May 31st, and that on account of adverse crop reports.

There has been monotony in the wheat market, and the first thing noticeable is, that in the trading in cash wheat the soft and the hard wheats are nearer together, not because hard wheat has gone up, for it has not, but because soft wheat has come down.

On April 30th, on the cash market at St. Louis, soft No. 2 wheat was selling at $1.09 to $1.11 per bushel, and on May 31st the prices had come down to $1.03 to $1.06½ per bushel, whereas hard wheat that had sold at 93 to 95½ cents a bushel on April 30th had changed to a range of 93 to 94 cents a bushel. A difference of 3 cents a bushel in favor of soft wheat is recognized by the trade, and any other difference in speculative prices may be attributed to unusual conditions.

The speculative market of Chicago (in which there has been little or no speculation) is based on deliveries of hard wheat, and on April 30th we left the May quotation at 92⅛ cents, and when it closed out on May 31st the quotation had been changed to 91⅞ cents a bushel. Thus is closed out in a very quiet manner the option that in other years has caused great excitement.

The July quotation behaved very much the same, declining from 92⅜ cents a bushel on April 30th to 92¼ cents a bushel on May 31st.

The September quotation during the same period declined from 92⅛ cents on April 30th to 91⅞ cents on May 31st. This is followed by a new quotation for December of 94⅛ cents a bushel, and we regard it as the most significant figure that is mentioned in the wheat trade.

Our readers must remember that there is a cloud hovering over the wheat market. Congress has about agreed to let foreign wheats come into this country free of duty. Wheat is undoubtedly a world's crop, and if duties are taken off there will be a settling of the wholesale market and wheat growers of this country will have to grow wheat again, for a time at least, at a loss, if they raise any wheat at all. Wheat at 91 cents a bushel, out of which freight and selling charges have to be paid, does not represent a profit to the farmer. It may represent swapping dollars, and that is all.

THE CORN MARKET SITUATION.

Not a Bad Showing For the Month of May—Article Written May 31st, After the Close of Market.

The practical independence of the American farmer in regard to the corn crop is well known. That situation was sized up to the editor of this paper thirty years ago when a farmer said: "When corn is scarce and high, I sell all the corn I am able to spare; and when corn is cheap and plentiful, I borrow money to buy corn." The corn crop is not purely American, but it is one crop at least in which farmers lose no sleep on account of expected importations. Corn and hogs go together, and when all other grains and live stock will go back on them, corn and hogs will continue to be the mainstay of the American farmer.

We all know that one large corn crop followed another and reached the largest figure on record, and yet since last November the corn market has advanced. It advanced because farmers were willing to stand by the crop, and if other people did not or would not or could not buy it, they could, would and did. Later on it may be different, because cattle, hogs, sheep and horses may be lowered in price, and then corn would have to come down also, and all the congressional investigations would not stop the downward trend of the market.

Let us congratulate ourselves while we can, first that corn is a good crop to raise; next, that hogs generally pay for the corn they eat, and that probably the last industries that Congress can injure beyond recognition are corn growing and hog raising.

On April 30th, cash corn at St Louis sold at 57½ to 58 cents, and on May 31st the price of No. 2 corn had advanced to 58¼ cents a bushel.

On April 30th, at Chicago, the May corn option at the close of the market was 55½ cents, and on May 31st the aforesaid May option was closed out at 59 cents, and that is, as compared with 80 cents, the closing figure of the May option last year.

On April 30th, the July corn quotation was 56⅛ cents, and on May 31st the July option closed for the day at 57½ cents, which is not enough advance to talk about.

On April 30th, the September corn quotation was 56¾ cents, and on May 31st the price had advanced to 58¼ cents. There was also a December corn quotation of 56⅝ cents a bushel.

Here we will leave the corn prices. We are cleaning up the immense corn crop in good shape, and in view of the large and ever-increasing population that have to be fed, it is proper and patriotic for farmers to raise more corn.

OUR INDUSTRIAL POLICY.

The article entitled "Our Industrial Policy," appears on page 23. This is a very opportune article, and we wish it to be understood that The National Farmer and Stock Grower has had something like it in every issue for over a year. The editor of The National Farmer and Stock Grower is a consistent advocate of moderate duties being levied upon all foreign so-called raw materials and upon manufactured goods on arrival in this country; that these foreign manufactures carry at least the same charge as would be against them in the taxation that all of our people have to pay to a half a dozen taxing powers before we get our products on the market. Why all the burdens of this country shall be borne by our own citizens and all the benefits should go to foreign producers we do not understand and we do not intend to understand. The language of the article entitled "Our Industrial Policy," is plain enough, and it does not require an interpreter.

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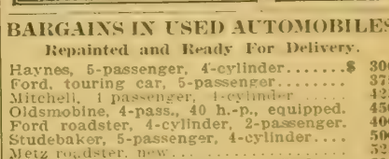

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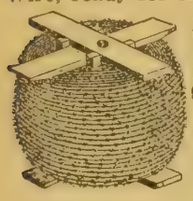

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Grow More Cowpeas.

As a hay crop, green-manure crop or as a pasture crop, cowpeas are filling a gap where other crops fail. In feeding value I place cowpea hay right alongside of alfalfa, and it has the advantage over clover and alfalfa in that it will produce a good crop of hay from 80 to 100 days from time of seeding. Where clover utterly fails or makes but feeble growth, where alfalfa is difficult to start, cowpeas thrive and make the cheapest feed. Besides, cowpeas may be grown from Texas to Wisconsin, although its real home is in the central and southern corn belts. Sow cowpeas for hay, sow them for soil improvement, and they will make good.

Sow them alone for hay; or, for pasture or green manure; sow them among corn after the corn is laid by. Instead of broadcasting, I believe that much better results may be had by drilling the peas in between the rows of corn. This will cover them enough to insure quick germination. The trouble with sowing broadcast is, that many of the peas are not covered.

Young hogs are good harvesters of cowpeas. Turn them in when the peas are well podded, and, with the corn, they will make remarkable gains. I do not know of any cheaper method of making pork, for an acre of cowpeas with the corn will feed twenty young hogs for five or six weeks, and the droppings from the hogs will almost equal the total value of the crop as green manure.

As a hay crop cowpeas are worth as much as clover, stand ahead of timothy, and millet is not in the same class at all, and if one is careful to not put the crop up too green, it may be cared for as easily as clover.—L. C. Brown.

Too Much Wheat.

In many sections of the winter-wheat belt lands are becoming "wheat sick," as are large areas of lands in the corn belt becoming "corn sick." Wheat following wheat, with shiftless methods naturally following increased acreage, pests are encouraged and the condition of the ground becomes worse year after year. Already some counties in Kansas are showing the inevitable results of this one-crop practice. A Kansas farmer reports his wheat literally alive with a small white grub, which authorities are unable to identify. These pests are new to wheat growers, and they urge the necessity of giving wheat a rest and growing other crops for two or three years.

Discing and plowing early would help matters, or some early-sown leguminous crop plowed under will build up, and earlier seeding will be a good thing. In Illinois we have thousands of acres of lands so infested with the corn-root louse that it is almost impossible to produce a decent crop.—L. C. Brown.

Alfalfa For Kentucky.

A Kentucky subscriber asks these questions about alfalfa: "Will alfalfa do well here? Will it be necessary to treat with lime and inoculate? Sweet clover grows all over this country. When is the best time to sow the seed?"

If the ground is well drained and reasonably good, alfalfa should do well in Kentucky. I should apply two or three tons of ground limestone per acre before plowing this ground and would also inoculate by using soil from some other alfalfa field, or from some spot where sweet clover is growing. Then if our correspondent will thoroughly prepare his seed bed and sow his seed during the first part of August he should have no trouble in getting a good stand.—L. C. Brown.

Raising the Average Yield Per Acre of Corn and Other Crops.

The agitation of better methods of growing corn through different agencies interested in promoting the welfare of the farmer has resulted in much good to both single individuals and to communities, and we may expect a substantial increase in the average yield, resulting not so much from phenomenal crops in isolated instances as from a general awakening on the part of farmers to the opportunities that they have too long neglected. Every corn field that shows the effect of better soil preparation, a better system of fertilization and seed selection is an object lesson that will, like Scripture says, "leaven the whole lump," or, in other words, quicken the spirit of better farming.

When land is made to produce well there will not be so much lying idle, for it will be too great a loss to the owner to grow a crop of weeds, when he could just as well have a revenue from his holdings. The farmer will realize that his soil is his chief asset, and whether it gives him an income or not largely depends on himself. If he does not grow corn, he will find some other crop that better suits his soil or the conditions that are before him, to which he will apply the same methods that make big yields of the "King of the Cereals," for all crops are governed by the same laws.

Good seed, fertile soil and a well-prepared seed bed with well-timed cultivation will win success, and all are so important that if not provided for there is danger of partial failure. Any one of these factors to successful farming will be a strong aid, but all are required before it can be said of the farmer "he has done what he could."

When we read the history of the prize-winning yields produced by members of corn clubs, we find that the soil was made as fertile as the means at hand would allow. Not only was barn-yard manure used in abundance, but commercial fertilizers as well, particularly in those sections where the use of such plant food is common. There is no question that barn-yard fertilizer is valuable, as it contains much plant food and also by the fermentation set up by its decay probably liberates some mineral elements useful to the crop that might otherwise have remained unavailable. It also improves the mechanical condition of the soil by the organic matter it contains, but if it is applied in large enough quantities to supply the potash and phosphoric acid needed by most crops, much of its nitrogen is wasted, as the growing plans cannot assimilate the excess and it is leached away and lost. It is better therefore to make only moderate applications such as would supply the needed nitrogen and make up the deficiency of potash and phosphorus in the manure by purchasing these elements of plant food in commercial form.

Sulphate and muriate of potash are cheap, and kainit still cheaper, but only one-fourth as effective, pound for pound, and in these days of home mixing the farmer does not care to buy any kind of fertilizer low in plant food, for freight rates are the same on high and low-grade stuff. This is the reason why acid phosphate or bone meal are favored as sources of phosphorus, and when the effect on the crops of these fertilizers has once been shown in connection with manure or leguminous crops, there are very few farmers that hesitate to make the outlay required for their purchase.

Analysis of the soil is not always conclusive; clay soils are assumed to contain plenty of potash, but the writer is acquainted with land of this nature that has been farmed for several decades and the best crop yields have been made when potash has been applied in addition to the other fertilizers. No doubt the virgin soil had plenty of available potash, but after successive crops had been fed there was not enough to supply the wants of a heavy yield of corn, wheat, potatoes or other staple, and it certainly pays better to make a small outlay and secure such yields that a profit can be made on time and money invested in producing the crop. Another point, too, in favor of high fertilization—if the season is backward, plants on rich soil will grow much faster and thus make up for lost time that cannot be regained, and the crop will come to vigorous maturity, while that on poor soil is making a feeble growth that does not promise a profit.—D.C.Cornman.

Swift & Co. in Australia.

Consul General Jno. P. Bray at Sydney, Australia, in a report to the Department of Commerce, said: "Swift & Co., trading in Australia as the Australian Meat Export Company (Ltd.), more than a year ago obtained a tract of land 120 acres in extent on the banks of the Brisbane river, Queensland, near the city of Brisbane, upon which a fully-equipped slaughtering and packing plant is being constructed. This will be ready to begin practical work in about a year."

On May 22d, the best native steers at Chicago averaged 1,509 pounds and sold at $8.80 per 100 pounds.

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The Fruitman and Gardener.

We have made arrangements with the publisher of **The Fruitman and Gardener** whereby we can furnish both papers for the price of one. It is a limited arrangement on the co-operative plan that we help each other, giving our efforts towards increasing each other's business. **The Fruitman and Gardener** is all right in every respect, with a special talent in adapting articles for all climates. No better paper is published for the money, and we have selected it as the best of several that have been offered. Anyone who will send us the usual fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower can select **The Fruitman and Gardener** for one year as a subscription premium. This offer will not last long, for the reason that the number we can accept on this half-price arrangement is small. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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How to Treat the Strawberry Patch After Picking is Over.

Much of the expense of strawberry growing is in the cost of the plants and setting them, and if the bed or patch can be made over after the first fruiting year, so that it will bear as heavily the next season as the first, there is an additional profit the second season from saving in this direction, hence the net gain from the crop is proportionately greater.

It is not hard to thus rejuvenate the bed, patch or field by cutting the plants down to the crown the very next day after the last picking of berries and let the plants and any weeds that have fallen before the mower lay till dry, then burn off. If there are not many weeds, so that the dry litter is continuous, it would be best to rake it directly in the row, where the fire may sweep over the plants. Choose a day when the wind is stirring to do this. If loose straw be scattered evenly and thinly over the patch the burning will be general, and it serves a double purpose—it has a favorable action on the soil and kills all insects and also spores of fungi.

Immediately after burning, cultivate close to the row, and, if there is room between the plants, stir the surface with a narrow-bladed hoe. If poultry droppings are available, scatter freely between the plants, also in the row. The droppings should be dry and as fine as possible, and may be mixed with dry earth to make the application more uniform.

Rotted stable manure may be applied in this way, too, if it is at hand, and the coarse, fresh barn-yard product makes a very good mulch, if placed in the "middles," thus saving much cultivation, as it will keep the soil loose and free from weeds and hold moisture in it. Keep up cultivation between the plants till there is a new crop of leaves so luxuriant as to shade the ground from the sun. In the absence of the above home-made fertilizers, nitrate of soda may be used to feed the plant, so that new leaves will start and grow freely. An application of 150 pounds to the acre is sufficient, unless the soil is low in fertility.

To balance the fertilizers that produce leaf growth, we must use wood ashes or some form of commercial plant food supplying potash. In a three-years' growth an acre of strawberries uses up 223 pounds of nitrogen, 83 pounds of phosphoric acid and 375 pounds of potash, according to good authorities, therefore with or without the application of manure we need potash for best results. If seven tons of barn-yard manure were applied to the acre it would hardly supply the phosphoric acid needed, as it has been estimated this amount of fertilizer contains 57 pounds of that element, and it is believed that the three-years' growth exhausts only 83 pounds, but the seven tons contain only 74 pounds of potash, while the strawberry uses 375 pounds.

This shows how necessary it is that we add potash, either in the form of unleached wood ashes, if it can be secured locally and cheaply, or sulphate of potash, using 150 pounds of the latter, if the former cannot be had without much trouble or expense.

If no manure is used, 200 pounds of acid phosphate will be a valuable addition to the other fertilizers, all of which should be applied around, not on the plants. The strawberry, like all other fruits, is making ready in the fall for the next year's crop, and it is essential to encourage luxuriant growth by cultivating and fertilizing. When the crowns send out new leaves, cut out all plants that appear weak and not up to the average. These take up room and will not bear large berries nor many of them, and their places can be filled by runners from the more vigorous plants.

Keep up cultivation as long as is needed to encourage growth and to destroy weeds and the late fall will find a bed as fine appearing as it was the first year, and we have followed the same plan after the second fruiting, securing a most abundant third crop. When the ground is frozen, mulch with straw or any other material that will protect the plants without smothering them. Where the winters are like in Central Missouri, the mulch does most good in preventing alternate thawing and freezing during mild spells and so does away with the heaving that is weakening to the plants.

When the cold of winter is gone, uncover the plants, placing the mulch around them, so the fruit cannot come in contact with the ground, and the pickers will not tramp the soil so hard if there is a cushion from the mulch; therefore, if a dry spell should come in fruiting time, the berries will not suffer. If there are no very late varieties in the patch, the fruiting time can be prolonged by leaving the mulch on a part of the patch a few days longer than on the larger portion, thus keeping the plants dormant.—D. C. Cornman.

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11% Less This Year

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No-Rim-Cut tires, when they cost more than clinchers, came to outsell all others.

The demand for these tires has doubled over and over. It has become the sensation of Tiredom.

More Goodyear tires were sold last year than in the previous 12 years put together. And car makers alone have contracted this year for 890,680 of them.

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All we urge is fairness to yourself. Test the tires which, on countless cars, have shown the lowest cost per mile.

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Hundreds of thousands of men who have done that now use Goodyear tires.

Also be fair to us. For 14 years our experts have worked to lessen tire upkeep. And we are still spending $100,000 yearly on research and experiment.

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AUSTRALIAN BEEF.

California Gets a Touch of It and Cattle Growers Feel the Effects.

A few years ago the duty on dressed beef imported into this country was two cents a pound, but Congress took off one-half cent a pound when the duty was taken off hides, and at the present time the duty is only 1½ cents a pound, and that is what the Australian beef paid as duty when 650,000 pounds of it arrived at San Francisco during the month of May.

We were reading the speech of Hon. William Kent, member of Congress from Marin county, California, on the subject of the tariff on meats, and he said that "this talk of the farmer being wrecked and ruined by the advent of free meat from Argentina and other places is the veriest nonsense."

He said he was selling upwards of 5,000 corn-fed cattle a year beside a good many grass cattle, and he was not afraid.

The next week the Australian meat arrived, and, although subject to the duty of 1½ cents a pound, did for the time being demoralize the wholesale market of San Francisco for meats to the amount of three cents a pound, although it is not known that it had even a cent a pound difference in the price of beef cuts as bought by the housewife from the retail butcher.

The reason that meat went to San Francisco is because Melleville Schweitzer, a wholesale butcher, went after it. He could not get any from New Zealand, because the New Zealanders are separating with cream separators, selling butter-fat instead of beef, and the same ship that brought the meat brought in butter that supported the United States government to the extent of six cents a pound.

Mr. Schweitzer is credited with saying that with the low duty now collected, Australian meats could be sold below the market (he means the wholesale market) price of home production, but to make a sure thing all the time, so as to insure prosperity to the shipper, the steamboat company and the wholesaler, the United States government must give up the cent and a half a pound, and the cattle raiser will have to take his medicine in the loss of what little protection he has.

There is no doubt about it, the Congress of the United States can bring about a considerable improvement in the condition of the beef growers and mutton and wool raisers of Australia at the expense of the beef growers, mutton and wool producers of the United States, and appear bound to do so before they get through, but they will not cheapen anything to the beloved and so-called consumer until by reason of distressful conditions brought about in other industries by the same means, the alleged and beloved consumer has not the money to fill the market basket.

For the sake of the unafraid Hon. Mr. Kent we are glad that the meat that will come in before the Panama Canal is completed will be largely distributed on the Pacific Coast.

LICENSED COMMISSION MEN.

A New York Law Placing the Commission Business Under the Espionage of the Commissioner of Agriculture.

In New York state the government has done what the farmers and shippers failed to do. The state has licensed commission men and requires them to give bonds for the faithful performance of their duties.

In several articles appearing in this publication we have advocated that each stock raisers' association, each dairy association, each cotton raisers' association, and each association representing any kind or class of farm produce, should issue licenses to a number of commission men in each market where their shipments are usually sold for the purpose of designating the firms that have entered into agreements as to certain rules of sale and charges for the service.

Although the New York law goes much farther than is necessary and is full of complications, all it really does is to provide for faithful rendition of accounts and to prevent certain forms of skulduggery that are popularly supposed to belong to the city commission men who receive farmers' products for sale on commission, either from the hands of the farmer or some other man who may have come into possession by purchase or otherwise.

The Cole Commission Act, as it is called in New York, requires each and every firm engaging in the commission business to file a bond amounting to $3,000 and pay ten dollars to take out a license.

Some of the provisions of the law are as follows:

No. 1. The Commissioner of Agriculture may decline to grant a license or may revoke a license already granted where he is satisfied of the existence of the following cases or any of them. 1. Where a money judgment has been entered against such commission merchant and upon which execution has been returned unsatisfied.

2. Where false charges have been imposed for handling or services rendered.

3. Where there has been a failure to account promptly and properly or to make settlements with intent to defraud.

4. Where there have been false statements as to condition, quality or quantity of goods received or held for sale on commission when the same might be known on reasonable inspection.

5. Where there have been false or misleading statement or statements as to market conditions with intent to deceive.

6. Where there has been a combination or combinations to fix prices.

7. Where the commission merchant directly or indirectly purchases the goods for his own account without prior authority therefor or without notifying the consignor thereof.

The license to do business will be the main qualification. Joining the Fruit Growers' Exchange will not make a man a commission man, neither will the Merchants' Exchange be able to license a commission man, but there will be no obstacle that will keep a properly-organized commission house out of business. There will be no excuse for shippers to consign to fake commission houses because of the high figures quoted in circulars, which some shippers seem to take a delight in doing. The New York law goes into effect immediately and has been signed by the Governor.

OUR WEBSTER'S DICTIONARY.

Webster's Dictionary of the English Language was originally compiled by one of the greatest Americans that ever lived. It is the standard dictionary for a hundred million of people. Noah Webster, the originator of the Dictionary, died in 1843, and since that time different editions have been issued, all containing the original wordings but some of them greatly enlarged and improved. What is really entitled the authentic unabridged edition costs ten dollars or more per copy, and it is used in all colleges where the complete work is necessary. But other editions have been completed for the purpose of eliminating the extra matter of little value in business and farm life and yet furnish all that is absolutely necessary. There are several such Dictionaries, and the one we adopted is, in our opinion, the best of them all. It is also so cheap that we can include it as a premium with a two-year subscription of the paper. Our Webster's Dictionary is advertised on page 27. It is not overstated, and we wish to say that we do not expect always to furnish so well printed a volume. The high cost of living is affecting almost everything that we buy, but it has not reached brain food yet, to any extent, but we do expect to see the price put up so that we cannot afford to use such a valuable book for premium purposes.

The Silo to Perfection.

Many ranchmen and stock farmers have come to the conclusion that a well-constructed silo is worth forty-four acres of fertile soil added to the farm. So much of a necessity has the silo become since it is demonstrated that silage-fed stock are the most economical meat producers; that manufacturers are competing for the trade in a manner never known before. The fir silo is the great competitor to-day, and the advertisement on page 10 is worth studying. You can buy a silo, and woodwork for a house or barn, and have the car delivered at your nearest railroad. It is claimed that you get a better, stronger and more lasting silo at a saving of 40 to 60 per cent. on the cost of the average timber silo. Do not hesitate to write to Hewitt-Lea-Funck Co., 488 Union Avenue, Seattle, Washingon, and enclose the coupon on page 10. There are distributing centers on all railroads, and you will be dealing with the lumber producer direct.

To Market Apples Extensively.

Apple growers are getting a move on themselves for the purpose of marketing their product to the best advantage, and, what is more important, to increase the demand for the apple. We recollect very well the meeting of the American Apple Growers' Congress held in 1906, when October 16th was declared to be "Apple Day," and to be celebrated from that time forward. We published the same in a booklet entitled "The Date Book History of Live Stock and Agriculture." We have celebrated Apple Day ever since, but we have an idea that the apple growers have forgotten all about it and we believe Apple Day ought to be revived.

BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.

The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

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The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

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Editor's Note.—The Fruitman and Gardener, published monthly, a first-class paper, can be substituted for either of the above papers if desired.

MONEY FOR FARM LOANS.

Postal Savings Banks Deposits Ought to be Used For the Purpose of Making Loans to Farmers on the Security on Their Lands and on Other Securities to Co-operative Associations of Farmers.

All the world is interested in financing the farmer. The matter is opportune. There is a Commission from the United States in Europe investigating the subject with a view of adopting Eurpean methods. That Commission will probably make some practical recommendation. The subject of trying to find means to reduce the high• rates of interest originated in this paper, when in the year 1906 we forwarded petitions on the subject to the Honorable James Wilson, who was then the Secretary of Agriculture. We have now reached the second stage of the same matter by getting up another petition asking that the money be provided for that purpose.

In The National Farmer and Stock Grower of December, 1912, the suggestion was first advanced that the money deposited in postal savings banks ought to be devoted to the purpose of making loans to farmers, under proper regulations, at low rates of interest, in order that farmers who have the best security to offer of any class of people may be able to obtain money at least on equal terms with other business interests

Since then it appears that this view is receiving some attention and favorable comment, and if the subject has the consideration it merits it will not be long before the idea will receive the sanction of Congress and money heretofore locked up and hoarded will be available for the best possible purpose in which it can be used.

On page 32 of this publication will be found a **Petition to Congress** that ought to be presented with not less than a million signatures. Each farmer who is interested in this movement should get the blank signed up and tear the page out of the paper and mail it to this office. We will then send more blanks to be delivered to other farmers.

The whole story is this: The United States government is now in the banking business, receiving deposits at postal savings banks that will eventually amount to hundred millions of dollars. Upon most of this money the government pays an interest charge of two and a half per cent., and a little of it bears three per cent. We insist upon it that the government should not tax the people to pay interest on these deposits, but that the money be loaned out again, and under proper regulation it should be made available for farm loans at a rate not over one or one and a half per cent. more than the government pays for it.

We contend that the money should be loaned out through banks and trust companies, if they will accept the proposition to do so, at a fair rate; but rather than have the banks use these deposits at high rates of interest the Postoffice Department should be enlarged to take charge of all the loans to farmers.

Don't fail to understand the situation and get to work and do something for the common good of the farming industry. We are now receiving signed-up petitions. A few are coming in every day, but not one-tenth are coming. During the month of June we hope to receive a thousand petitions all ready to be forwarded to Washington. Farmers ought to attend to this business without delay.

California Meat Quotations.

The following were wholesale meat quotations at San Francisco when the Australian beef arrived in the month of May: Beef, 11½ to 12 cents a pound for steers; 10½ to 12½ cents a pound for heifers; veal, 10 to 12½ cents a pound for large; 11 to 12½ cents a pound for small: mutton, wethers, 10 to 10⅞ cents a pound; ewes, 8 to 9 cents a pound; lambs, 11½ to 12½ cents a pound.

California Live Stock Quotations.

The following were the San Francisco live stock quotations before the Australian meats arrived in the month of May: No. 1 steers over 950 pounds, $7.50 to $7.75 per 100 pounds; under 950 pounds, first-class steers, $7.25 to $7.50; second-quality steers, fat, $6.25 to $7.00; thin, $4.50 to $5.00; No. 1 cows and heifers, $6.50 to $6.75; second quality, $5.75 to $6.25; common, $4.00 to $4.50; bulls and stags, desirable, $4.00 to $4.50; half fat or thin, $2.00 to $3.00; calves, light-weight, $7.25 to $7.50; medium, $6.50 to $7.00; heavy, $5.00 to $6.00; sheep, desirable, wethers unshorn, $5.50 to $6.00; ewes, $4.50 to $5.00; shorn, 50 to 75 cents per 100 pounds less; suckling lambs, $6.00 to $6.25; hogs, hard-grain-fed, 100 to 150 pounds, $7.75 to $8.00; 150 to 275 pounds, $8.00 per 100 pounds; and 250 pounds and upward at $7.50 per 100 pounds.

California Butcher Prices For Beef.

When the Australian frozen meat was on sale in San Francisco, a daily paper, the San Francisco Call, published the prices charged at retail for the native and foreign meats, as follows:

	Australian.	American.
Porterhouse steak.	20 c.	25 to 30c.
Sirloin steak	15 c.	17½ to 20c.
Rump steak	12½ c.	17½ c.
Soup meat	7 c.	10 c.
Corned beef	10 c.	12½ c.

The amount of Australian meat that the butchers said they could sell in San Francisco from one year's end to the other was placed at 2,000 tons a month, and arrangements were made to provide that much refrigerating space on the ships of the Union Steamship Line. It must be remembered that under the present laws, admitting foreign meats by paying a duty of 1½ cents a pound, there is nothing to prevent the Australian shipments being kept up. The burning question is, "Shall the law be changed so as to present the 1½ cents per pound to the carriers instead of letting it go, as now, to pay the expenses of the United States government?" Thus far it is a revenue matter, although it involves a small measure of incidental protection to the American meat producer.

Weaning Calves With Ease.

No matter what our problem, it seems there is always some one to solve it. Where we often had considerable trouble weaning calves, now it can be done with ease, thanks to the Humane Calf Weaner.

This little device absolutely prevents sucking; allows the calves to eat and drink with perfect freedom and they can run with the cows while being weaned.

Considering the price, 25 cents for the small size and 35 cents for the large size, postpaid, and the efficiency of the Humane Calf Weaner, certainly no farm should be without them. Address, Jacobsen Farm Supplies, Dept. A, Racine, Wis., and let the Humane solve your weaning problem.

Book of Champions on page 3.

GOOD BOOKS AND PAPERS.

DAIRY FARMING AND BUTTERMAKING.—The dairy agent of the Southern Railway has written a nice, practical, clever booklet on the subject of dairying, with special reference to the Southern States. He characterizes the cow as the most economical producer of human food and proceeds to prove it. Naturally, the dairy expert is in favor of cleanly methods, and he goes through the entire process of milking and buttermaking. He is also strong for the use of the cream separator whenever the farmer has three cows or more. Anyone who will take the trouble to write for it to M. V. Richards, Land and Industrial Agent, Southern Railway, Room 71, Washington, D. C., will receive a free copy of the booklet entitled "Dairy Farming and Buttermaking."

FERTILIZING PEACHES.—This is one of the valuable booklets issued by the German Kali Works and more particularly refers to potash in its relation to peach growing. Potash is one of the three principal fertilizing elements, and in the case of peaches twice as much is required than nitrogen and four times as much phosphoric acid. There is considerable of interest to the peach grower outside of the subject of potash, and to read it is to obtain the benefit of a valuable lesson in horticulture. In this connection it is in order to say that we rely upon such pamphlets for the clear-cut statements of fact that we can understand, more than we do on compilations from almost any other source. The German Kali Works is certain of all positions taken before publication. All who are interested in peach growing will find it to their advantage to write to the German Kali Works, 1901 McCormick Building, Chicago, Ill., and ask for a copy of "Fertilizing Peaches."

THE FARMER OF TO-MORROW.—A well-written book, dealing chiefly with the important subject of "fertility of the soil." This article is written in a simple, smooth and interesting manner and makes an excellent addition to the business farmer's library. Price, $1.50. By Frederick Irving Anderson, and issued by The MacMillan Company, New York City.

WITTE ENGINE CATALOGUE.—These engines are only sold from the factory to the user. For that reason it is a user's catalogue, giving price of each size and variety of engine in plain figures, with particulars of sixty-day free trial and the five-year guarantee. The catalogues shows the works, the officers, interior and exterior, and every engine made. Witte claims thirty distinct points of superiority, which are carefully set forth and explained. Not the least of all is the Witte Portable Saw Rig that appears to be a scorcher and was unknown to us until we saw the catalogue. There is too much in the catalogue to be described in a notice. Send for one and see for yourself. Address, Ed. H. Witte, 1721 Oakland Avenue, Kansas City, Mo.

St. Louis Wool Market.

Quotations for wool are not very high, but it will be found that St. Louis is a very good market. Missouri, Illinois, Northern Arkansas and Southeastern Iowa wools were selling at 12 to 18 cents for fine wools, and 18 to 21 cents for medium fleeces. Texas and Western wools were quoted from 15 to 18 cents. The uncertainty of the tariff question, or rather the unsettled condition of the manufacturing interest, because it is expected that the duties will be taken off woolen goods, is even now costing wool producers several cents a pound. At the same time it is well to understand that the St. Louis market recovers quicker than any other. Mills buy direct from St. Louis. A. J. Child & Sons, strictly commission merchants in wool, engaged in business since 1874, are capable and reliable. If you will write for their latest wool report you will get up-to-date facts and your sales will be equal to any representations they may make. Address, A. J. Child & Sons, 517 North Main street, St. Louis, Mo.

The Most Useful College.

Our readers are reminded of the card of Highland Park College on page 25. This is no ordinary college. It turns out capable men who can earn large pay and fits them to be heads of manufacturing enterprises. Willing youths with an aptitude for mechanics are soon put through the necessary course that in older countries require a four-year apprenticeship. There is a home study to which 8,000 students are enrolled. It is without doubt the best correspondence course. The terms at the college begin June 10th, another September 2d, another October 13th. Business and trade-school courses begin every month. Expenses are reasonable. Do not forget to mention The National Farmer and Stock Grower when you write. It will be a good introduction.

Cash Grain at St. Louis.

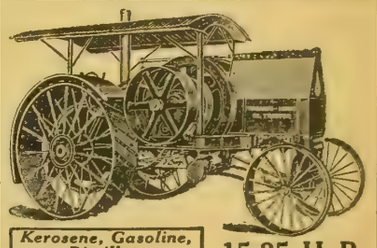
These figures represent the trade in cash grain on the St. Louis market May 31st, 1913:

Wheat.—No. 2 red at $1.03 to $1.06½; No. 3 red at 95 to 98c. (choice more); No. 4 red at 94c.; No. 2 hard at 93 to 94c; Turkey at 97½c. No. 3 hard at 91c.; Turkey at 96½c.

Corn.—No. 2 corn, 58 to 58¼c.; No. 3 corn, 57½c.; No. 2 yellow, 58¼c.—couple cars 58½c.; No. 3 yellow, 57¾ to 58c.; No. 4 yellow, 56c.; No. 2 white, 59½ to 60½c.; No. 3 white, 58½ to 59½c.

Oats.—No. 2 white, 38¾ to 39½c.; standard, 38½ to 39c.; No. 3 white, 37 to 38½c.—mainly at 38c.; No. 4 white, 37 to 38c.; No. 2 oats, 37 to 37½c.—mainly latter—car 38½c.; No. 3 oats, 37¼c.; No. 4 oats, 36 to 36¼c.

Fairbanks-Morse Oil Tractors



Kerosene, Gasoline, Distillate

15-25 H. P.

The power of 15 horses concentrated in a single machine.

Easily handled—everything that requires the operator's attention in easy reach.

Single Lever Control. This patented feature simplifies handling and makes stripping gears absolutely impossible.

Economical. Develops more than rated power on Kerosene, Gasoline or Distillate.

Engine is our well-known horizontal type, used by farmers everywhere. Simple. Dependable. You can handle it from the start.

Details of construction and actual service records gladly forwarded on request. State size of your farm and general character of soil. Ask for Catalog No. FM692

Also build 30-60 H. P.

Fairbanks, Morse & Co.

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FARM AND RANCH LANDS.

MICHIGAN.—WE SELL OCEANA FARMS—Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

MISSISSIPPI.—Farms of 80 to 120 acres near railroad: high; healthy; no overflow. Rich; rolling; cultivated; housed; fenced; sufficient timber. Best land in Mississippi. $12 to $15 an acre. **Jarnagin & Co.,** Goodman, Miss.

MISSISSIPPI.—280 acres, east of Corinth, one mile from county seat and from Southern Railroad. Will sell for $2,800 cash. **P. H. Hale,** 3550 Vista Ave., St. Louis, Mo.

TEXAS STATE LANDS—$1.50 to $5.00 acre; one-fortieth down; balance forty years. Information and Texas map free. **Journal Pub. Co.,** Houston, Texas.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Bldg., Chicago.**

WANTED to hear from owner who has good farm for sale. Send description and price. **NORTHWESTERN BUSINESS AGENCY, Minneapolis, Minn.**

Easy to Run
Simple to Set Up
A 10 year old boy could set up a Blizzard Ensilage Cutter. Comes in three pieces. Can't be put together wrong. Self feed table. Almost runs itself. Big capacity with small power. The
BLIZZARD
Ensilage Cutter
elevates to any height in any direction. Rigidly guaranteed. Lasts many years without repair expense.
These Books Free
(1) "Why Silage Pays"—(2) 1913 Catalog—(3) "What Users Say."
Write today for any or all of these books mentioning whether or not you have silo.
The Jos. Dick Mfg. Co.
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Canton, Ohio
Why Silage Pays
1913 Blizzard
What Users Say

Economy in Dairy Distribution.

At the recent meeting held in the interest of Farm Marketing and Credits, one of the speakers, a lecturer of the National Grange, spoke of the waste in distribution of farm products and with special reference to the delivery of milk and cream, stating that four wagons delivering on one block, representing four different distributers, was an example of waste that could be corrected to the advantage of all concerned. The speaker said that the four concerns distributing on one block were not willing to combine for delivery purposes only, and, of course, they could not, because it would lead to carrying all the milk in one can, lead to joint collections of bills, joint price lists, and finally to avoid the penalties of anti-trust laws would lead to all selling out to one concern that would be a monopoly in restraint of trade. If the course of waste leads to monopoly, waste is very likely to be preferable to the remedy.

But the subject cannot be let drop here, because if we are not doing it others may and prove that the lecturer of the National Grange was right. We read in the reports of the United States Department of Commerce as follows:

"The high cost of distributing merchandise to the consumer is one of the foremost questions of the day. It has especially been mentioned that in the daily delivery of milk, bread, etc., many supply wagons pass over the same street, each serving only a few of the residents. This adds greatly to the cost of the articles. Out in Sydney, Australia, one of the plans presented to the Parliamentary Food Commission is for the block system of bread delivery. A calculation made by the chairman showed that, taking the government statistician's figures, two loaves per head were consumed by each of Sydney's population of 670,000. On this basis the block system of delivery would save $70,000 per week, or 6 cents per family, while the baker's profit would remain the same."

Dairy Loans the Safest.

At one of the meetings of the North Dakota Dairy Association a member said that the banks in his town were willing to loan money to the farmers to buy cows, when they refused the same men the money to buy more land. The reason for this attitude on the part of the bankers was summed up in a few figures which he quoted. A farmer in his neighborhood went to the bank in the fall of 1911, after a partial crop failure, and wanted to borrow $300 to keep his family during the winter. The banker refused him the money, but said he would let him have all he wanted upon condition that he purchase cows with it. The farmer took the money and purchased two calves and six cows. He already had two cows and two calves, which made him a herd of eight cows and four calves. He fed these cattle roughage of the farm during the winter and the family lived off from the proceeds of the herd. A year later he had sold $354 worth of cream and young stock, and the herd he had on hand was worth something like $400. Had he simply existed during the winter on the $300 he would have had nothing left at the end of the year, but as it was, he had lived off the proceeds of the herd and had the herd left. A few dairy cows will make a living for a family every year and make a better living the last year than the first.

The Winter Wheat Crop.

On May 8th, at Washington, D. C., the first official estimate of the size of the crop of winter wheat was made in the May crop report of the Crop Reporting Bureau, Bureau of Statistics, United States Department of Agriculture.

The report shows the condition on May 1 of winter wheat, rye, meadow lands, pastures, etc.

Winter Wheat.—The average condition of winter wheat on May 1 was 91.9 per cent. of a normal, compared with 91.6 per cent. on April 1, 79.7 per cent. on May 1, 1912, and 85.6 per cent., the average for the last ten years for May 1.

The area of winter wheat remaining on May 1 to be harvested was about 80,938,000 acres, or 1,449,000 acres less than the area planted last autumn, but 4,367,000 acres more than the area harvested last year (26,571,000 acres).

The condition on May 1 in indicative of a yield per acre of approximately 16.6 bushels, assuming average variations to prevail thereafter. On the estimated area to be harvested this would produce a final crop of 513,571,000 bushels, compared with 399,919,000 bushels in 1912, 430,656,000 bushels in 1911, 434,142,000 bushels in 1910, and 417,780,000 bushels in 1909. The outturn of the crop probably will be above or below the figures here given according to the conditions from May 1 to time of harvest is above or below the average change.

Rye.—The condition of rye on May 1 was 91 per cent. of a normal, compared with 89.3 per cent. on April 1, 87.5 per cent. on May 1, 1912, and 89.6 per cent., the average for the last ten years on May 1.

Meadow or Hay Lands.—The average condition of meadow or hay lands on May 1 was 88.5 per cent. of a normal, compared with 85.7 per cent. on May 1, 1912, and a ten-year average on May 1 of 88.5 per cent

Hay on Farms.—The stocks of hay on farms on May 1 were estimated to be 10,828,000 tons, compared with 4,744,000 tons on May 1, 1912, and 8,673,000 tons on May 1, 1911.

Pastures.—The average condition of pastures on May 1 was 87.1 per cent. of a normal, compared with 81.7 per cent. on May 1, 1912, and a ten-year average on May 1 of 86.1 per cent.

Spring Plowing.—Of spring plowing 67.2 per cent. was completed up to May 1, compared with 52.8 per cent. on May 1, 1912, and a ten-year average on May 1 of 65.7 per cent.

Spring Planting.—Of spring planting 57 per cent. was completed up to May 1, compared with 48.9 per cent. on May 1, 1912, and a six-year average on May 1 of 54.3 per cent.

Clear Fir Silo
at 40% to 60% Saving
Buy your silo of us, and you buy direct, not only from the maker but from the lumber producer as well.
We own forests, railroads and six big mills
There are thousands of acres of timber in our tracts. The fir is the finest in the land. Tall, straight and close of grain. Only the choicest goes into Seattle Silo Staves. They show no knots, sap or other defects. Do not warp, shrink or swell. The toughest, best wearing wood in existence. All the cutting, logging and manufacturing of this timber is handled by us. One continuous operation. One overhead expense. Hence the big saving that we effect in producing cost—and why we save you 40% to 60% on a silo of better quality. Mail the coupon for catalog.
Seattle Silos
have patented swinging doors
These are far the best silo doors ever devised.
Quick detachable with special iron cross-bar or hoop connection. The steel bars on the door provide a solid ladder from which hoops can be tightened—the result of a new invention. They close absolutely air-tight. Cannot stick or bind—never have to be lifted. They swing in or out readily on their hinges.
When silos are ordered without additional lumber to make full cars, we can usually arrange to ship with other cars to nearby points.
To one farmer in every township we offer the chance to get a silo, at a great saving, by helping get together a carload order.
Mail the coupon today.
Save 40% to 60%
on Lumber and Millwork
Five middlemen come between the mill and you when you buy of your local lumber dealer. All get a fat profit; no wonder lumber is high. We put an end to this hold-up game. Sell you direct. Give you better materials at our mill price. Save you 40% to 60%.
We make shipments within 24 to 48 hours after receiving orders. Our shipments get to destination within an average of two weeks. Write today for price list. Better still, send your list of materials for our prepaid prices. Money back unless satisfied. Mail coupon today.
HEWITT-LEA-FUNCK CO.,
488 Union Avenue, Seattle, Wash.
Kindly send the following, quoting prices delivered my station.
[ ] Catalog of lumber and millwork. [ ] Special silo folder.
Be sure to write plainly
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I am planning to build as follows

DAIRY AND CREAMERY NOTES.

At a sale of Holstein cattle held recently at Lake Mills, Wis., ten bulls averaged $156.50, and seventy-one females averaged $226.20. The sale included old and young from well-known breeders.

At a sale of pure-bred Jersey cattle held April 17th at Worthington Ranch, W. Va., one hundred and thirty head averaged $154.10, or a total of $20,034.

The dairy cattle premium list for the Eighth National Dairy Exposition, to be held at Chicago, October 23d to November 1st, has been published in the form of a twenty-page pamphlet. Copies may be obtained by addressing W. E. Skinner, General Manager, 819 Exchange avenue, Chicago, Ill.

New York prices for milk: At present, in the 26-cent freight zone, shippers are paid 3¼ cents a quart, net, for Grade B, and 3 cents for Grade C. The cost delivered in New York is $1.61 for Grade B and $1.51 for Grade C, per 40-quart can.

Australian Live Stock.

Reporting to the United States Department of Commerce, Consul General Jno. P. Bray at Sydney, Australial said:

"At the close of 1911 there were estimated to be in the Commonwealth 93,003,521 sheep, 11,828, 954 cattle, 2,279,027 horses and 1,110,-721 pigs. It is probable that the 1912 returns will be found to vary little from those of 1911, save in the number of sheep, which have suffered a reduction of about 6,000,000 owing to bad weather and bad lambing." In considering these figures it must be remembered that Australia is a large country with a small market at home and therefore a great surplus.

California Cattle, Hogs and Sheep.

During the census year 1910 California was credited with having on farms 467,332 dairy cows, 576,989 other cows, 218,480 yearling heifers, 267,799 calves and 485,712 steers and bulls, a total of 2,016,232 classified cattle.

California was also credited with 482,810 mature hogs and 283,741 pigs, a total of 766,551 hogs of all ages.

California was also credited with 1,217,515 ewes, 307,773 rams and wethers and 892,189 lambs, a total of 2,417,477 sheep.

California has as many cattle as Oklahoma, as many dairy cows as Georgia, as many swine as Virginia, and as many sheep as Michigan.

No Sale.

Hubby had arrived home while wifey slept and at the breakfast table there was a cold silence.

"A penny for your thoughts, my love," he daringly ventured.

"For two cents I'd tell you what I think of you," she retorted, with a dangerous gleam in her eye.

He did not raise his bid.—Boston Transcript.

CO-OPERATIVE CREAMERY.

The True Organization Thereof is on Basis of Patronage and Not on Capital Stock.

Co-operative creamery organization based on true co-operative principles distributes its profits on the basis of patronage and not on capital stock. Capital stock which is necessary to establish such an enterprise should receive compensation. A just rate of interest must be paid out of any profits accumulated, above interest on capital stock and cost of operation, which shall be divided pro-rata according to patronage. Indeed, such a division would be only fair, since the success of the creamery business is directly dtermined by their patronage.

There have been failures among co-operative enterprises, but with sufficient patronage and proper business management these would never have occurred. The co-operative creamery has been a great success in Minnesota, Wisconsin and Iowa, our leading dairy states. Insufficient patronage has been the cause of most of the failures. It is absolutely necessary that there be on hand enough butter-fat so that interest on capital and cost of operation will not reduce the price to the patron below current prices. Therefore a creamery should not be organized unless at least four hundred cows can be secured within convenient reach of the creamery. It is also advisable to have the patrons own the capital stock, so that they will stay with the organization during unfair competition.

The organization should also get the right start and be properly organized under proper business management. If a group of farmers are interested, let them call a meeting and invite a representative from their agricultural college or United States Dairy Division to attend and discuss plans of organization and management of a creamery, instead of a dairy supply house promoter.

The co-operative creamery is not as popular as it should be, chiefly because many have been started prematurely or else were started by promoters who robbed the farmers of three to four thousand dollars on buildings and equipment, thus putting them out of business right in the start. It is sure, however, that if Colorado farmers will go into this enterprise more advisedly the co-operative creamery will prove a great success, as it has elsewhere.—H. E. Dvorachek, Colorado Agricultural College.

CONDEMNED MILK.

How to Find a Way to Utilize It Instead of Emptying the Cans in the Gutter.

It is the custom of officials in many cities to condemn milk because of the failure of the milk dealers to comply with certain temperature standards. Usually this milk is disposed of by emptying it into the gutter, though some attempts have been made to denature the milk by adding certain substances which would render it unfit for use in its fluid state. It is unfortunate that this milk, which is valuable for feeding farm animals, should be heedlessly wasted. This loss can be prevented if the milk is returned to the farms, where it can be utilized for feeding live stock. Condemned milk could also be used in the city for making casein and for other purposes.

The Dairy Division of the Bureau of Animal Industry, United States Department of Agriculture, has recently conducted some experiments in order to devise some practical method of denaturing milk so that its sale as market milk may be prevented and yet leave it in a condition suitable for feeding farm animals. The work thus far has proved that the use of a rennet solution is effective for this purpose at the temperature at which milk is condemned.

In these experiments a three per cent. water solution made from powdered rennet of a strength of 1 to 30,000 was used, and forty cubic centimeters of this solution were added to five-gallon cans of milk at different temperatures. The tests were made in a room where the temperature was eighty degrees Fahrenheit, as that is about the temperature of the air in summer, when most of the milk is consumed. In one test the rennet solution was added to a five-gallon can of milk at a temperature of fifty degrees Fahrenheit. In one hour and fifteen minutes the milk was slightly thickened, its temperature then being fifty-seven degrees. Thirty minutes later the temperature had reached fifty-nine degrees and a soft curd formed. An equal amount of milk at an initial temperature of sixty-five degrees was treated at the same time. In one hour and ten minutes the milk in this can firmly coagulated, and it is probable that the rennet had produced the desired effect in much less time. At the end of this period the temperature had been raised only one and two-tenths degrees, or to sixty-six and two-tenths degrees.

In the light of these experiments it is believed that if a rennet solution of this strength is added to condemned market milk satisfactory results can be secured under ordinary conditions without the disadvantages of the other methods which have been tried.

If a three per cent. solution is made from rennet, strength of 1 to 30,000, about two and one-half ounces (eighty cubic centimeters) of this solution will be required for a ten-gallon can of milk at a temperature of fifty-three degrees or higher. The cost of the material for this method of denaturing is very small, being only about three and one-third cents for a ten-gallon can when powdered rennet costs $7.00 a pound.

It is recommended that those who contemplate using this method should test their solutions in the laboratory before using them in practice, so as to know definitely the strength of each solution prepared.

ECONOMICAL DAIRYING.

Selling the Cream Instead of Milk the Better Plan.

In a recent edition of Kimball's Dairy Farmer, Lynford J. Haynes has a word to say in favor of selling cream instead of milk, as follows:

"Progressive farmers are beginning to appreciate the advantages of separating milk on the farm in preference to sending the whole milk to a creamery. Each year more separators are introduced on farms and a greater number of farmers do the separating at home and deliver the cream to its destination.

"When a creamery is patronized and the whole milk is delivered, there is a needless haul of large quantities of milk both ways. For example, if the daily output is 300 pounds and whole milk is delivered, this quantity must be hauled to the creamery. Here it is separated and about forty pounds of cream are removed. The skim milk, about 240 pounds, must be hauled back home again. Thus in order to deliver only forty pounds of cream, the farmer must haul both ways the total amount of milk.

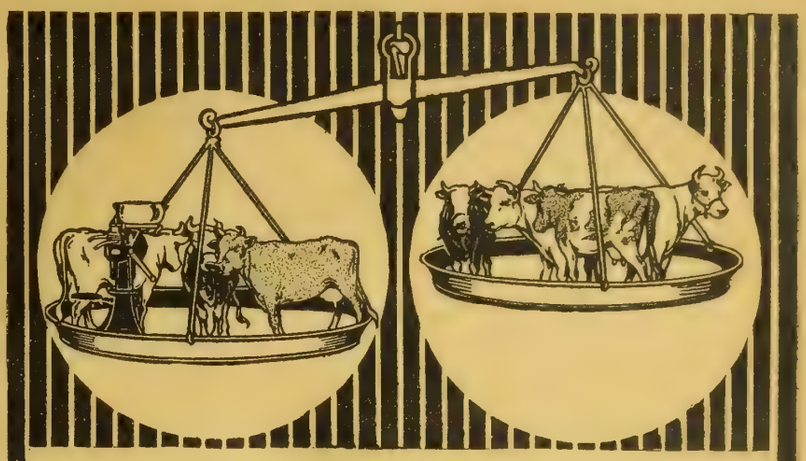
"When it is separated on the farm, the skim milk has a greater feeding value for the calves. Then it can be fed to them while it is yet warm with the original animal heat. The milk is always sweet, being only a few hours old. When one has to depend upon that brought from a creamery, there is always more or less trouble with sour milk, especially in hot weather. It is not available for feeding until the return trip from the creamery is made. This delays the morning feed, and, as half of the milk is held over until night, this is often sour.

"When whole milk is delivered to a creamery, one may not get a correct test of the milk. After cream has set once on the milk it is difficult for the buttermaker to get a representative sample. Unless it is most thoroughly mixed at the creamery, the sample for testing is apt to be either too low or too high in butter-fat. When cream is delivered, there is less danger of making this error.

"Another reason in favor of delivering cream is the time saved both going to and from the creamery and in not having to wait one's turn at the creamery for the milk to be weighed. Every one who has had experience in drawing milk knows what it is to wait in line behind a dozen or more milk wagons for an hour or more and then often have to wait again in line for the separated milk to take home. When cream is delivered, one can drive up to a side door with a small can of cream and it is received without any waiting on the part of the farmer. On account of the several hundred pounds lighter load which can be taken in a buggy, quicker time can be made in going back and forth. This saving, when one's time and the horse are needed for pressing farm work, is an important consideration.

The practice of sending cream is becoming more popular each year. Farm separators have been perfected, so that the work can be done easily and quickly. The separators are durable, easily taken care of and are valuable machines for each dairy farm."

Remember to send for a copy of the Book of Live Stock Champions advertised on page 3.



Three cows and a

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will make more money than four cows with gravity setting

Thousands upon thousands of cow owners have already proved this statement; any experienced dairyman will verify it for you.

With such a big saving it is hard to understand why any cow owner should try to get along without a De Laval Cream Separator.

If you are selling cream or making butter, and have no separator, or else an inferior machine, we know if we could put a De Laval on your place we would be doing you a personal favor.

If you haven't a separator don't make the mistake of starting with a "cheap" or inferior machine. When you do buy a separator—as sooner or later you surely will—be sure to get the best—the De Laval.

Remember, you can't make money by trying to save money in the purchase price of a cream separator. A De Laval costs only a little more than the cheapest and will save you twice as much and last five to ten times as long as other separators.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

HUMANE CALF WEANER

Absolutely prevents sucking—no trouble to wean calves—can eat and drink with perfect freedom. Can't hurt either cow or calf. Every farm needs several. Send your order now. Small size 25c, large size 35c, postpaid. Agents wanted. *Write for circular.*

Jacobsen Farm Supplies, Dept. A, Racine, Wis.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.
EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. Schisler Grain Co.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Melons at St. Louis.

On Friday, May 29th, the first car of watermelons of the season arrived in St. Louis. The car was of 25,000 pounds capacity and was shipped to P. M. Kiely by J. W. Fry, of Barton, Fla. There were 1,040 melons of the Watson variety, light green in color, and weighing an average of 24 pounds.

Mr. Kiely said the first shipment this year is about two weeks earlier than it was last year. He said this car was five days on the road and cost $400. The first car-load last year cost $500 delivered, owing to the scarcity of the melons.

Razorback Seed Corn.

H. M. Cottrell, of Rock Island, Ill., says: "I recently saw a razorback pig four years old that had good feed for four years and weighed 85 pounds. In the same yard were eight-months-old pure-bred pigs that averaged 300 pounds. There is just as much difference between scrub and pure-bred corn as there is between razorback and pure-bred hogs. There is too great a proportion of razorback seed corn planted."—National Crop Improvement Service.

Concerning Red Peppers.

Red peppers form the subject of Bulletin 163, by L. M. Tolman and L. C. Mitchell, issued by the Bureau of Chemistry of the United States Department of Agriculture. In it all varieties of red pepper used in the United States are described and analyzed.

The same variety of red peppers, grown under different climatic and cultural conditions, yields products adapted to different uses. We import wild chillies from Mombasa and Zanzibar, gathered by a semi-civilized population and dried on the ground, so that they come to us covered with dirt and sand and must be cleaned before grinding. They are ground and used principally as spices. On the other hand, the cultivated Japanese chillies are used unground in the preparation of chilli sauce. Similarly the Hugarian paprika is prized as a spice, while the Spanish paprika has a distinct commercial use as a coloring for such products as sausage and tomato ketchup.

The investigators of the Bureau sought to determine the normal composition of the various red peppers, with special reference to the deviations in amounts of ash, sand, ether extract and crude fibre, and also to study the distinctive odor, flavor and taste, that the part of the fruit to which the characteristic properties are due may be known. Another object has been to investigate the effect on the composition of ground pepper of including or excluding seeds or stems, for the purpose of detecting their presence or absence.

An interesting point noted is that the pungent principle occurs almost exclusively in the placenta, a thin, membraneous partition inside the shell. In some cases, however, a better result is obtained by grinding the seed with the rest of the fruit, as the oil freed in this way dissolves the color of the product and apparently develops the flavor and aroma.

We presume the term "floating population" originated with Noah and the ark.

THE OATS MARKET SITUATION.

Quite a Little Gain in Selling Values During the Month of May.

Lower Than Last Year, But Stronger Than Almost Anyone Expected —Written May 31st, 1913.

If we claimed that The National Farmer and Stock Grower had exercised a beneficial influence upon the oats market, so far as strengthening the situation in the interest of oat growers is concerned, it is possible that many people would doubt it. But the circulation of the paper is in the neighborhood of 125,000 copies each edition, and quite sufficient of the farmers reached by the paper are growers of the oats, that, when all is said and done, represents the oat surplus which finally reaches the grain market.

We advised oats growers to have confidence in the outcome and not to be scared into marketing the oats on a low basis. Furthermore, we have reason to believe that our words were not wasted, and that some little good came of the advice that we constantly gave.

It must be remembered that the crop of oats amounted to the largest on record. It may also be well to remember that the world's crop of oats was the largest on record, and a simple guess would most likely have been that the oats market would be lower. But we argued that all the oats sold for table consumption were sold as oatmeal so much higher than the best oats on the market, that buyers, if they wanted oats, would not be particular about a few cents; and three times three are nine, and that represents the advance that has taken place since the crop was harvested. Allowing that we have no foreign shipments to contend with, the same crop, if repeated again, would sell as well or better. And that is not saying much, for at present prices oats are selling very little better than a cent a pound and not above a cent and a quarter.

On April 30th we left cash oats selling at St. Louis at 35 cents a bushel, and we find them on May 31st at 38½ cents. On August 31st last, cash oats sold at 31 and 32 cents, but a full year ago, on the previous year's light harvest, cash oats sold at 54½ to 55½ cents a bushel.

When we pass from the cash market at St. Louis and place ourselves on the contract market of Chicago we find not only substantial gains in regard to the old crop, but we also find a cheerful comparative prospect for the new crop. Our readers will notice that we take but little concern in regard to the causes that effect changes in prices, and that is because we accept without argument the accomplished fact. It requires all the skill of the traders competing one against another to arrange a scale of prices, and every man well posted as to conditions, and having no money up, should not dispute with them as regards the reasons that have brought about a certain range of prices. And we advise our friends and patrons not to quarrel wtih market figures and accomplished facts.

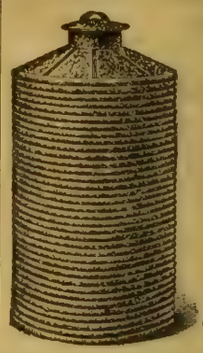
On April 30th we left the May oats option at 35⅝ cents a bushel, and thirty-one days later the option closed out at 43 cents and against 36¾ cents, the first May figure we saw quoted last July.

On April 30th we left the July quotation at 35 cents, and we find it again on May 31st at 39 cents. Not so great an advance, you will say, as the May option, and that is so, but the July option is not yet ripe, and before it is ripe the extent of the new crop and its quality will be considerably better known. The September option, also influenced by the new crop, was left at 34½ cents and was found again, May 31st, at 38⅝ cents. But there is one quotation we have not had before, and that is December, and on May 31st that quotation was 39⅛ cents. And there we must leave it for thirty days, remembering that the composite opinion of the greatest traders in the world is, that new-crop oats delivered next December will be worth 39⅛ cents a bushel on the Chicago market.

Our Special Offer

60 DAYS ONLY.

DELIVERED AT YOUR RAILROAD STATION.



GUARANTEED, CORRUGATED GALVANIZED

Steel Tanks.

29 TIMES STRONGER THAN THE PLAIN TANKS.

20 Barrels, $17.50
30 Barrels, 20.50
40 Barrels, 24.50

Complete With Tops.
We Pay All Freight.

O. K. HARRY STEEL CO.,
2353 Papin Street, ST. LOUIS, MO.

Feather Quotations at St. Louis.

The following prices were paid at St. Louis for consignments of feathers during the last few days in May: Prime white live goose, 63c.; prime gray do., 44c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck—White, 44c.; dark, 30c. Chickens—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c. Turkey—Body, dry, 8c.; quill (mixed), 18c.

Bickmore's Gall Cure

The old-time remedy for keeping horses free from sores. Don't lose the services of your high-priced horses. Bickmore's Gall Cure cures Galls and Sore Shoulders while the horse works. Approved remedy for Cuts, Wounds, Scratches, etc. Money back if it fails. Be sure to ask at the store for Bickmore's Gall Cure. Gray Horse trade mark on every box. Sample and 84-page horse book sent on receipt of a stamp for postage.

BICKMORE GALL CURE CO., Box 482, Old Town, Maine.

ABSOLUTELY FREE

If Frazier's Distemper Cure fails as a cure in any case of Distemper, Epizootic, Influenza, Coughs, Colds and all affections of the Nose and Throat, ask for your money back. Safe for Mares, Stallions and Colts. No bad after effects. Write for free Horse Booklet. $1.00 bottle contains three times the quantity of the 50-cent size. Sold by all druggists, or prepaid from

BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.

THE PANAMA-PACIFIC.

Prominent Agriculturist in Charge of Exhibits at the Panama-Pacific International Exposition.

The Directors of the Panama-Pacific International Exposition, which will be held at San Francisco in 1915, have appointed Thomas G. Stallsmith, of Chicago, as Chief of the Agricultural Department in the Division of Exhibits.

Mr. Stallsmith has spent a number of years representing large manufacturers of agricultural implements, both in America and abroad, and is recognized as an expert in his field. His assumption of duties as Agricultural Director for the Exposition is endorsed by the agricultural interests of the country.

The Agricultural Department of the Exposition will be one of the largest and most comprehensive ever presented. Every exhibit in that department will represent some international phase of the land industry, and the applications which have been received from exhibitors throughout the world have already far exceeded the space allotted to the department.

The newly-appointed Director, who will take up his duties immediately, will have charge of the Agricultural Building and the pure-foods exhibit. At the very outset of his work Mr. Stallsmith is able to announce with confidence that the largest agricultural implement manufacturing interests in the world will have a full representation at San Francisco in 1915.

For about twelve years Mr. Stallsmith was the representative of an amalgamation of agricultural implement manufacturers in foreign countries, during which time he became intimately acquainted with the leaders of this industry all over the world. His personal experience on the business side of the agricultural industry will be invaluable both to him and the Exposition.

Agricultural implements and farm machinery form one of the most important of the many groups in the Department of Agriculture, under the wonderful classification of exhibits just prepared for the Panama-Pacific International Exposition, which opens in San Francisco, February 20, 1915, to commemorate the completion and opening of the Panama Canal. No less than seven distinct classes will be required for the exhibits relative to this one group. These classes will comprise implements, machines and appliances for agricultural preparation, for seeding, for cultivation, for harvesting, portable agricultural power generating machines and apparatus for preparing food for animals. Under the class of miscellaneous implements and machinery will be exhibited the feed cutters and grinders, cider millls, machines for ginning and baling cotton, hay-baling machines, horse-clipping machines, sheep-shearing machines, windmills, tanks, pumps and other water-lifting apparatus for agricultural use, machines for use on farms for grinding, weighing, etc.

In addition to this one group of implements and machinery the Department of Agriculture, to which one of the fourteen magnificent exhibit palaces will be entirely devoted, will include displays of farm equipment and methods of improving lands, of appliances and methods used in agricultural industries, of the theory of agriculture and agricultural statistics, of fertilizers, of tobacco culture, and of the inedible agricultural products. Forestry, treated as a product of the soil, is grouped under the head of Agriculture, and the exhibits relative to this subject will be displayed in the Agricultural Building instead of in a separate building, as at previous Expositions.

While food products naturally are grouped under the head of Agriculture, a separate and splendid exhibit palace will be devoted to them. In the group of animal food products the dairy exhibits will play an important part. There will be separate classes of milk and cream, fresh or condensed; sterilized milk; butter and cheese in all forms; eggs; albuminoid foods and preparations; dairy fittings and appliances; churns, butter workers, cans, pails, cheese presses, vats, separators, testers, pasteurizers, etc., including all fittings and appliances for the preparation, transportation, preservation and distribution and delivery of milk for the supply of cities and towns. Thirteen other groups, subdivided into many classes, complete the food-products exhibits.

The live stock exhibit will be of peculiar interest to dairymen, not alone because of the immense exhibits of thoroughbred cattle which are being arranged for, but because of the breed milking contests and other special features which are being prepared. The Live Stock Department is under the supervision of D. O. Lively, one of the most prominent live stock men of the Northwest. It will include horses and mules, cattle, sheep, goats, swine, dogs, cats, ferrets, poultry and birds.

A SILO ON EVERY FARM.

The Silo Committee in Every Farm Bureau Should Get Busy at Once—Farmers Should Build Silos Early—Bankers Ready to Finance a County-wide Campaign.

The average farmer waits until his corn is almost in the milk before planning his silo, when, as a matter of fact, he should be planning it the winter previous, said a noted agricultural expert recently. The farmer should plan his silo before he plants his crops, otherwise he cannot tell how much corn to plant for ensilage purposes.

As the winter is past, the next best thing the farmer can do is to figure out right now how big a silo he wants and plant his corn crop accordingly. If he has also read up some good literature on silos, such as he can get free from Uncle Sam's Agricultural Department at Washington, from the State Agricultural Schools, or the leading cement companies, he probably knows how large a silo he wants. Experts say that it is better to get the capacity by having a tall, narrow silo than a short, wide one, as at least two inches must be fed off every day after the silo is unsealed and feeding commenced.

If the farmer is far-seeing, he will put in the foundation for his silo immediately after the spring plowing and planting, and then, in the first days of late spring and early summer he can economically build his concrete silo. Long before the corn has begun to ripen his silo will be finished. As a silo should not be filled for at least three weeks after being erected, so that the concrete may properly harden, it can readily be seen that the early building is most advantageous to the farmer, not only on account of the labor, but also because the silage will be 100 per cent. better if cut in a succulent state, just when the corn is in the milk.

Bankers' associations all over the country are discussing farm credits, and in many places the plans are being laid to finance all permanent improvements at a very reasonable rate, either on long time or short time.—National Crop Improvement Service.

WOOL MEN!

We can interest you. Do you know that St. Louis is a **Spot Cash** market? In 20 years we have handled **more separate lots** of wool, each season, than any other commission house here. Over **40 years' experience** in the business, and your shipments receive our personal attention. We guarantee **top prices, quick sales** and **prompt cash returns.** Write for our 1913 Wool Circular, giving full particulars and points in regard to the preparation of wool for market. Wool Sacks, Shipping Tags, Market Reports, etc., sent Free upon request.

Write what you have to offer. Estab. 1874.

A. J. CHILD & SONS, St. Louis, Mo.

[Please mention National Farmer and Stock Grower.]

Sample Day in Strawberries.

It is impossible to quote strawberries because the market changes rapidly. The following report represents the trade on the last Thursday in May at St. Louis: Aggregate supply was smaller, although wagon receipts of home-grown berries were fully as large; offerings ample, however, and prices about steady. Local consumptive demand fairly active, but shipping business in home-grown berries is being restricted on account of the style of boxes now being used, as many places that formerly drew supplies from here have legislated against short measure, hence shippers must demand full-quart boxes to avoid discrimination and loss. About 200 cases received by express from Southeast Missouri and sold at extreme range of 80 cents to $1.25 per six-gallon case, mainly at $1.15; light express run from Southern Illinois (Gandys) sold at $1.25 to $1.40, and Arkansas Aromas (overripe) at 75 cents to $1.00 per six-gallon case. Home-grown wagon receipts were about 7,000 trays, and sales ranged in extremes at from 50 cents to 90 cents per three-gallon tray loose—bulk of sales of choice berries at 75 to 80 cents.

St. Louis Broom Corn.

On May 31st, at the St. Louis market, broom corn sold as follows: Receipts normal and demand fair—best for selections. Per ton, at first hands, on track: Parlor stock, dwarf—Fair, $50 to $55; medium, $65 to $75; bright green hurl, $85 to $90. Standard brush—Fair at $65 to $75; medium, $80 to $90; choice, $90 to $100. Coarse or common parlor, crooked, damaged, etc., less.

Beans and Peas.

Late May market at St. Louis—quote by the 100 pounds: White beans—Choice hand-picked at $2.45, prime at $2.35; screened at $2.10 to $2.15—inferior and artificially dried at $2.05 to $2.10; Blackeye at $2.00 to $2.15 for Southern to $2.80 to $2.90 for California; Scotch peas at $2.75 per bushel; split peas at $2.70 per bushel for yellow and $3.25 for green; pink beans at 5¼ cents per pound; Lima beans at 6½ cents per pound; lentils at 5 cents; red kidney at 4¾ cents.

First Get Your Roots.

We have continual inquiry in regard to roots, but few say what they have to ship. The following prices were paid at St. Louis for country consignments during the last few days in May. Quote by the pound: Spring-dug—Golden Seal at $3.00; Lady Slipper, 14c.; Seneca, 36 to 38c.; Pink, 20c.; Black, 7c.—damp, dirty, less; May Apple, 4c.; Snake, 27 to 29c.—stemmy and leaf less; Kansas Black Snake (Echinacea), 9c.—split root half price; Oklahoma Black Snake, 8c.—Missouri worthless; Angelica, 5c.; Wahoo—Bark of root at 20c.; bark of tree at 5c.; Blood, 4½c.; Blueflag, 2½c.; Sassafras—Bark of root, 5c.; Wild Ginger, 7c.; Spikenard, 3c.; Skullcap leaves—Bright at 8c.; dark less; Wild Ginseng, $6.50 to $6.90; cultivated at $2.00 to $3.50.

Cattle From South to North.

According to the Miles City Stock Growers' Journal of May 21st, a train-load of twenty-six cars of cattle from El Paso, Texas, consigned to the Powder River Land and Cattle Company, were due to pass through over the Northern Pacific. The stock were to be unloaded at Blatchford, near the junction of the Powder river and the Yellowstone.

DISEASE GERMS.

The distemper germ is a deadly enemy to healthy, growing colts. And just as sure as you do not take steps to stop the ravages of this germ, just so sure will your colts come down with distemper, pink-eye, coughs, influenza and catarrhal diseases. The above disease may be prevented by using Frazier's Distemper Cure. It purifies the blood, kills the germs and cleans the system of all contagion. Send postal card to-day for free horse booklet. A $1.00 size bottle holds eight ounces, three times the quantity of the 50-cent size. Sold by druggists or prepaid from the manufacturers, Binkley Medical Co., Dept. H, Nappanee, Ind.

Hay Sales at St. Louis.

The following are a few of the sales of hay on the St. Louis market during the last days in May: On St. Louis Side—Part car damaged clover-mixed at $5.00; two parts of cars do. at $6.00; part car at No. 2 clover-mixed at $11; part car do. at $12.50; half car do. at $13. Timothy—One car threshed at $8.00; part car do. at $10; part car no-grade at $10; one car at $10.50; part car No. 2 at $12.50; one car do. at $13; one car do. at $13.50; part car do. also at $13.50; two cars good do. at $14; two cars No. 1 at $14.50; five cars No. 1 at $15; one car part No. 1 at $15 and part car threshed at $10; three cars No. 1 at $15.50; two cars at $16; two cars at $16.50. Prairie—One car no-grade at $8.00; one car No. 2 at $10.50; one car at $11; three cars scant No. 1 at $12; one car No. 1 at $12.50; three cars at $13. Alfalfa—Old, one car rejected at $10.50; one car No. 2 part at $12 and part at $14; new, five cars No. 1 at $16. On East Side—One car part No. 1 timothy and part No. 1 clover at $16, round. Timothy—One car No. 3 at $11; one car No. 2 at $13, delivered to St. Louis; one car at $13.50 do.; two cars at $14; two cars No. 1 at $15; five cars at $15.50; one car at $16; four cars at $16.50, two switched. Wheat and oats straw sold at $6 50 per ton.

Boston Wool Shipments.

The shipments of wool from Boston, January 1 to May 28, were 74,531,368 pounds, against 115,549,995 pounds last year. The receipts were 70,292,732 pounds, against 110,542,567 pounds last year.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Truths About Hogs.

The continuing high prices for ham and bacon are but one of the collective evidences of the world-wide use made of both of them. On the sea, and in the great armies, the hog is the most popular food animal, and the world of farmers does not seem to be able to grow enough of them to satisfy the demand at reasonable prices. For the hog is being grown everywhere in the temperate regions of the earth.

Wherever he is grown, the hog's food is the great problem, and this is easiest solved in the regions where cows and corn are also produced. That great by-product of the farm, dairy skim milk, is one of the most economical of feeds where butter is still made. It is rich in the nitrogenous elements, and, when added to corn and pasture, is a great stimulant of growth. The loss of this by-product is one of the great arguments against selling whole milk, and the question will become more and more acute as the selling price of the hog increases.

The leguminous pasture is the great hope of American hog raisers. The soaring prices for grains and mill products make more important than ever the pasture for the hogs. Where alfalfa can be easily grown the alfalfa hog is becoming an institution. In other localities the red-clover pasture is, as of old, the most profitable food producer. The American hog raiser is thus having the legume in its various forms forced upon him as a field crop to be harvested by the hogs.

The prices for ham and bacon are having an influence on the agitation for improved breeds of swine on every farm. The old-fashioned, nondescript hog does not produce the right kind of ham or the right quality of bacon, and is not much wanted anywhere. The man that expects to make money out of hogs will have not only to grow hogs of an improved breed, but he will have to select the best of the improved breeds. The word quality now means more money than perhaps ever before.

The pig that can reach a weight of about 275 pounds in seven to nine months, and that will finish well in a few weeks, is the kind that is sure to make money if the pasturage is available and finishing feed is at hand. The northern half of the United States has a great advantage in this respect over regions farther north or farther south, and is likely to remain the great area of profitable hog production.

The feeding of hogs and pigs is sure to develop into more of a science than it is to-day, though much work has already been done on this problem, both by energetic breeders and Experiment Station men. The effort has been to the present time to find suitable feeds and learn their comparative values. Little has as yet been done to find out just the quantity that should be fed per day to a pig or hog of a certain weight. It is fairly well established that a hog or pig eats much that he does not digest by reason of an oversupply in the stomach. This means waste, but it will require some very close work to get at the underlying principles.

What Grade of Hay Are You Making?

The farmer who can answer this question with pride, conscious that he is doing his best to feed the animals that consume his crop, is not yet one of the majority, as there is not as much attention paid to quality as it should be, because except in certain localities hay is not a cash crop grown by the general farmer, and what he sells, if any, is only the surplus above the needs of his own stock.

But whether fed at home or sold, hay is most valuable if cut at the right stage of growth, which is when it contains the most digestible nutrients. This period is when the plant is in full bloom. The stem and leaves then contain material to mature the seed that is still in embroy; but if the seed is allowed to ripen, these valuable elements are transferred to it and there is mostly dry, indigestible fibre left, which is of very little account for feeding.

Many farmers do not realize this, but instinct teaches their stock that there is little nourishment in hay cut when the plant is ripe, or else it is their palates that guide them to choose the early-cut hay when they can have their choice. Even wild creatures that store their winter food when plants are green always select those which are in bloom in preference to those more mature. A friend in Montana writes that alfalfa in bloom is the winter food of some little furred brothers of the squirrel family, and this is stored against the cold season, but in uncovering the places where they have "cached" their supply he says he has never found a ripe head of alfalfa, and yet there is a difference of opinion among men as to the time when forage plants are at their best for saving.

Aside from the time of cutting there is also the matter of curing that makes for quality in hay; but growers pay more attention to this phase of making hay, probably because it affects the appearance of it to get wet while curing. If hay can be cut early on a bright, sunny day, and as soon as well wilted be raked and cocked and let cure free from rain, we have a green, attractive product that has not lost its nourishment either by leaching or bleaching. Incidentally, we might mention that when it is possible to meet the expense it is a good investment to get canvas covers to protect the hay from the rain, and it is also money well spent to build a shed to store the hay under, for there is then no discolored stuff to be wasted, except the little exposed at the sides and ends.

The next consideration is to have the hay free from weeds. This is secured by feeding the meadow well, so that the grass does not lose out and weeds, plants less particular in their requirements, take its place. If the hay is fed at home, the least that one can do is to return to the meadow as a top dressing all stable manure that can be spared from the garden and truck patches and make the growing of hay a part of a regular rotation that will include some leguminous plant, having the soil full of organic matter at time of each seeding. This will make the meadow less liable to suffer from protracted drouth, for the ground that is full of humus, as we commonly understand that term, is very greedy for water and holds it till needed.

Successful growers of hay—the late Mr. Clark, of Connecticut, for instance—used large quantities of commercial fertilizers for their land, and they made it possible to make seven tons to the acre, which when sold at the nearby city markets at a high price, gave them a good profit in spite of the money spent for the plant foods that they had to buy. Any grower would find it profitable to give his meadow a light application of nitrate of soda after cutting, so as to stimulate the aftermath, so that there would be good protection for the roots during the following winter and at the same time two hundred pounds of acid phosphate and sixty pounds of muriate of potash be broadcasted, running over the meadow lengthwise and crosswise with the harrow, so that the fertilizers may be partly incorporated with the top soil, and the surface will not become so hard and dry if given this treatment. If the growth of grass is very heavy in the fall, burn off the following spring, as soon as dry enough, choosing a windy day, so that the fire will be carried rapidly over the meadow. This has a beneficial action on the soil and destroys the old grass that might affect the quality of the hay. —D. C. Cornman.

THIS WILL PROVE That Your Hogs Have Worms

For years and years I have been telling you farmers that a great part of hog sickness can be traced directly to worms—just ordinary, every-day **hog worms.** Yes, sir! and what's more I say to you that many of the hogs you own have worms **right now,** unless you have already cleaned them out with MERRY WAR POWDERED LYE.

Here's an easy way to **prove** the absolute truth of that statement: Go to your dealer's and get a 10c can of

Merry War Powdered Lye

Mix ¼ of it thoroughly with one barrel of swill and feed from it **twice each day, night and morning.** If your hogs are on dry ration, mix ¼ can in each barrel of drinking water. You'll shortly see vast quantities of dead worms coming away from those hogs. **Seeing is believing.** You can't get away from **facts.**

Now then, as a practical farmer, do you believe that a hog can be well, thrive and put on fat—in fact, can he **live** long, if he's filled with worms? **Not much—he can't!**

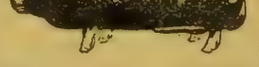
Another thing: Don't imagine that just because your hogs are beginning to fall off in weight, snoop around, droop their heads and tails, cough and refuse to eat, that they have cholera. It's very likely worms—and you can easily and quickly **prove** it in the **safe** and inexpensive way I have pointed out.

So don't lose your hogs—it's not necessary. And don't vaccinate your hogs simply because you think they have cholera. **Vaccination won't kill a single worm.** And, take my word for it, **if you rid your hogs of worms they will be in prime strength to resist hog cholera.**

This Man Tried It And Knows

A. U. PATE, Blue Jacket, Okla., writes: "I have been feeding MERRY WAR POWDERED LYE to my hogs for worms. It beats anything I ever saw." Hundreds of other practical hog raisers have written telling of similar experiences with MERRY WAR POWDERED LYE as a destroyer of hog worms. Read their letters in our free booklet.

10c a Can at all Dealers MERRY WAR POWDERED LYE is for sale at most grocers, druggists and feed dealers everywhere, 10c per can (**120 feeds**). It is convenient to buy in case lots—4 dozen cans $4.80. **Costs only 5c per hog, per month, to feed regularly**—by far the best and much the cheapest hog insurance you can buy. If your dealers can't supply you, write us, stating their names. We will see that you are supplied and also send you, **free,** a valuable booklet, "How To Get The Biggest Profits From Hog Raising." **Order direct from us in case lots (4 dozen cans $4.80) if your dealer won't supply you.**



There Are No Substitutes

Don't experiment with ordinary, old-fashioned lye. **It might prove dangerous.** MERRY WAR POWDERED LYE is the specially prepared lye that is **safe** to feed to hogs. Full directions on each can.

Which Kind Do You Want?

E. Myers Lye Co., Dept 22 St. Louis, Mo.

Chief of Market Division.

From Washington, D. C., on May 17th, it was reported that Secretary of Agriculture Houston had appointed Charles J. Brand, of Illinois, Chief of the new Division of Markets in the Department of Agriculture. This division was created by Congress and $60,000 made available for its work.

The work will be along the lines of the general extension of the co-operative method of handling, marketing and distributing farm products, and the elimination of waste, loss and unnecessary charges.

Somewhat better prices for the producer and lower costs or better products for the consumer and manufacturer are the aim of the work. Savings in selling and handling expense and reduction of loss through waste and improper business organization will be important features of the Department's activity.

"When there is born in a nation an individual capable of producing a great thought, another one is born capable of understanding and admitting it."—Joubert.

Book of Champions on page 3.

The American Swineherd.

We have been requested by our patrons and friends to arrange a club whereby we can offer them a swine raiser's paper as a premium with The National Farmer and Stock Grower, and we have succeeded in doing so. **The American Swineherd** is published monthly, and is usually a seventy-two-page, three-column paper, splendidly edited from practical standards and always interesting from the very beginning to the end. It is a satisfactory paper, and all who subscribe are very much pleased with it. We have entered into a co-operative arrangement with the publishers of **The American Swineherd,** whereby we can offer for a limited time The National Farmer and Stock Grower and **The American Swineherd,** both papers, for the price of one. Anyone who will send us a money order for fifty (50) cents in answer to this proposition will be supplied with both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screwdriver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

Special Inducements.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Holes in Highway Management.

Millions are spent every year in the keeping up of our rural highways. Of this amount a very large proportion is annually wasted because of the inadequacy of information at the disposal of the men that have the work in charge. It cannot be otherwise, seeing that a new crop of road commissioners are elected at frequent intervals, and most of these lack the scientific knowledge needed to make their work the most effective.

The writer was once in attendance on a road convention in a certain state. It was brought out in the discussions that the concerns that make a specialty of building iron and steel bridges for use in country towns were charging twice the amount they should charge and could do this because they had a combination among themselves to keep up prices. Though several firms bid on each piece of work called for, there was an understanding beforehand as to who should get the contract. It was asserted by an expert on bridge building that if the price were cut in two there would still be the regular profit in the transaction. The green highway commissioners fell an easy prey to combinations of this sort.

The weakness about our road management is that each township goes its own way making the same mistakes that have been made by innumerable other persons acting as highway commissioners, yet having no way of finding out what others have learned.

There is no doubt that the present system will remain till there is an alliance between each township and the state, by which the local authorities can have the advantage of the skilled men employed by the state. A little advice by letter is not enough—an expert needs to be on the ground. By this means the graft to various persons could be squeezed out of the contracts for road building and the public would profit thereby.

We need not only a saving of money but an increase in efficiency in the work. The public purse is not the only thing that has to be considered. The interests of the people that are using the roads must also be looked after. Many a bridge put up in the rural localities is too weak to carry the traffic that is possible over it. Many a strip of road badly constructed neutralizes the whole strip through a township, for the worst piece of road it is that determines the size of load that can be carried.

A short time ago a local merchant in a small village sent out his auto truck with a big load for a farmer some miles distant. When several miles from the village and a mile away from the farmer's house he came to a piece of road that had been newly graveled but not rolled. It was a powerful auto truck, but in trying to drag its load over that stretch of loose gravel a heavy bar of iron in the gearing broke in two and the whole load was hopelessly stalled. It meant a loss of time and money for repairs, as well as the incidental loss due to reshipping the load. This incident might be multiplied wihout number, and the truth not be violated. Bad pieces of road are expensive to the users, if for no one else.

Discing Stubble Ground.

Plowing of stubble ground is frequently put off until late in the summer, and in many cases plowing is then out of the question, unless there should be ample moisture. I have seen stubble fields so baked that they would turn up like a hard trodden roadway. Discing as soon as grain is harvested checks waste of moisture and puts the ground in good condition for later handling, and, besides, it starts weeds which will be killed later and thus helps clear up the ground. I believe it will pay to disc early and frequently all ground where crops are not growing. The best-conditioned fields I see in my travels are those which are handled in just this manner. Early last spring I saw a piece of rather low ground in Southern Illinois which made the record yield of the township of corn. That ground was disced twice before it was plowed, and, although it was quite late before it was planted, it actually led all other corn fields in that section. When small grain is harvested in June and July, start the discs into action and it will pay to keep them going until near plowing time.—L. C. Brown.

Disappointments For Consumers.

"A dispatch from Buenos Aires states that foreign capitalists, chiefly Americans engaged in trust operations, have practically cornered the beef and mutton supply of Argentina and are ready to turn to their own advantage any reduction that may be made by tariff revisers in duties on meats. These trust representatives are reported to be paying more for sound animals on the hoof than recent prices for the dressed meats sent to England, and independent packers in Argentina find themselvves in straits. If the removal of a duty were surely followed by a corresponding reduction of prices to consumers, tariff problems would be simpler. But the man with the market basket knows that no such rule can be depended on. Sometimes an article put on the free list is advanced in price by various agencies between producers and consumers, and a home industry is injured without any decline in the cost of living.

"It can be assumed that the meats of Australia will be marketed up also if American tariff schedules are foreshadowed by the final approval of the bill as it passed the House. The great rivers reaching up from Argentina into the heart of South America have long given access to a great supply of cattle cheaper than that of the United States, but of a poorer quality. In these times dressed meats can be sent far on ships with facilities for refrigeration. Cattle also are transported readily on vessels equipped for the trade. But speculative monopolists are quicker to act than is a legislative body. They calculate the probable action of lawmakers and place themselves in advance at the points of trade advantage. This country once suspended the duty on coal without the slightest resulting gain to consumers. The present tariff admits hides free, but shoes are no lower. Coffee has long been on the free list and is a great deal higher than in former years. These are facts that Congress should weigh with an open mind and with due concern for the whole people."—Editorial in the St. Louis Globe-Democrat, May 21st, 1913.

Sale of a Cattle Ranch.

From Midland, Tex., on May 17th, it was reported that a syndicate of British capitalists had just closed a deal for the purchase of the "C" Ranch, situated near there, from the estate of the late Nelson Morris, the meat packer of Chicago. The consideration was placed at $1,355,000. The ranch embraces 224,000 acres. It will be divided into farms and colonized.

Canadian Grain Crops.

According to the United States Department of Commerce, the Canadian area under wheat in 1912 was 9,758,400 acres, and the total wheat production was 199,236,000 bushels, valued at $123,522,000. Oats upon 9,216,000 acres yielded 361,733,000 bushels, valued at $116,996,000. Barley upon 1,415,200 acres yielded 44,014,000 bushels, valued at $20,405,000, and flax upon 1,677,800 acres yielded 21,681,500 bushels, valued at $19,626,000.

Australian Meat Shipments.

During the year 1911 the Australian commonwealth shipped out 2,338,299 pounds of bacon, 108,786,417 pounds of beef, 41,567,366 pounds of lamb, 87,193,188 pounds of mutton, 1,641,013 pounds of pork, 8,362,901 pounds of rabbits and hares, and 40,768,074 pounds of preserved or tinned meats.

St. Louis County Fair Dates.

The St. Louis County Fair Association has selected September 18, 19, 20 and 21 as the dates for holding their 1913 Fair. The grounds of the Little Creve Coeur Lake are to be improved. Secretary George B. Bowles has begun to prepare the catalogue.

Don't forget to get the petition signed that is prepared for the purpose in this edition.

Read about our magnificent Webster's Dictionary on page 27.

Roof That Building With Edwards STEEL Shingles

Yes, **STEEL** Shingles—the kind that never **rot, rust** nor **burn**—cost much less than **wood**—made **rust-proof** by famous "Tightcote" Process—made **leak-proof** by patent Interlocking Device—$10,000 guarantee against lightning loss—come in sheets of 100 or more shingles—easy to lay as a carpet—lay them on old roof or sheathing.

Sold direct from **factory** at factory **prices**—freight **PREPAID**—postal brings special price and latest catalog 657 by **return mail.** Give size of roof if possible.

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Save Work, Time, Money

By using our low down steel wheel wagon

Electric Handy Wagons

saves high lifting, lightens draft, don't rut roads. Spokes don't loosen—wheels don't dry out or rot. Write for free book on Wagons and Wheels.

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With Engine Platform

The Hay Press with record of 3 bales per minute. Platform permits setting any stationery engine on same truck with press. **Can furnish with or without engine.** Has friction safety clutch—automatic block placer—condenser feed. *Also complete line Horse Power and Motor Balers.*

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PROFITABLE DAIRYING.

A very elegant, illustrated, cloth-bound book of 200 pages is called **Profitable Dairying.** It is all good, satisfactory reading matter relating to the successful management of the dairy business under all circumstances, including the management of the cows and construction of the barn. We have discovered this book lately and we find that there is a better demand for it than for all other dairy books combined. For one dollar we will send

The National Farmer and Stock Grower for two years and we will send the book, **Profitable Dairying,** as a premium. Address,

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This Book Free To Farmers and Orchardists

Send for this book. It is free for the asking. It tells *how* to get rid of the insect pests—how to kill them *quick* and *why* you should ask for—*insist* on

ANSBACHER'S Pure Paris Green

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Paris Green is a positive, powerful poison. It does *most* work at *minimum* cost. It is the logical insectitude for *you* to use. Let us tell you the facts about Ansbacher's. Send for our free book today or ask your dealer.

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2629 Dearborn Street - Chicago, Ill.

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St.Louis. The announcement is hereby made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales from 1,200 to 2,500 Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale rings were originally well-bred Range Horses, fed, educated and mannered to be good work stock. The first Auction of the season will be held on

THURSDAY, JUNE 12,

And every two weeks thereafter a sale on Thursday will be held until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is sure to be good, especially for well-bred Mares and Geldings in good condition.

Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

A NEW TRADE IN STOCK HOGS.

From Tennessee and Kentucky to Iowa and Nebraska.

Quite recently it was reported that arrangements were made to vaccinate about three thousand hogs in the state of Tennessee for the purpose of rendering them immune from cholera, so that they could be transported to Iowa and Nebraska with safety to themselves and to any hogs they might come in contact with on the journey or after reaching the new pastures. Dr. George A. White, State Veterinary Officer of Tennessee, and Dr. N. C. Nelson, of the St. Louis National Stock Yards, were the experts vaccinating the swine.

Under the old dispensation, before serums were invented and hog cholera was as great a mystery as Southern cattle fever, then the most expeditious way of introducing hog cholera on the farm was to go out and purchase some stock pigs and mix them with your own. It was a good thing at that time, for we are talking of the day when good, fat, corn-fed hogs sold for $3.50 to $4.25 per 100 pounds, and the dead hogs decreasing the number to be marketed prevented the prices from going lower.

Happily to-day it is doubtful if the quantity of hogs that will be raised will at any time of their own weight and numbers, without other contributing causes, depress the markets of the country, therefore it is a good thing if stock hogs can be safely transported from state to state without danger of contagion or infection. At the same time be it known that almost any country can raise and fatten the pigs which are farrowed inside the borders thereof, and it is not to be expected that a continuous movement of stock hogs will take place. In this, however, we are willing to be mistaken, for it is in the possibilities that pigs may be shipped with the same expedition and numbers as day-old chicks, and that is, comparatively speaking, a new industry also.

SELDOM SEE

a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

will clean it off without laying the horse up. **No blister, no hair gone.** Concentrated—only a few drops required at an application. $2 per bottle delivered. Describe your case for special instructions and Book 8 K free. ABSORBINE, JR., antiseptic liniment for mankind. Reduces Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, Old Sores. Allays Pain. Price $1 and $2 a bottle at druggists or delivered. Manufactured only by **W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.**

Don't Have a Blind One

"VISIO"

A Remedy for Moon Blindness

(Opthalmia), Cataract and Conjunctivitis Shying horses all suffer from diseased eyes.

"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n. 2472 Calumet Ave., Chicago, Ill.

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Beef Cattle at St. Louis.

The National Live Stock Reporter, published daily at the St. Louis National Stock Yards, reviews the native cattle market for the last week in May as follows:

"The weightiest steers received came in on Tuesday. They averaged 1,429 pounds and the sale on them established a top for the week on car-loads of $8.45. Odd lots sold as high as $8.50. The bulk of extreme heavy weights cleared in a range of $8.35 to $8.45 at all times during the week; medium weights sold from $7.85 to $8.20, while lights went at $7.75 to $8.40. At the close of the week there was a decline of 10 to 15 cents all the way through as compared to the previous period. Kansas-fed beeves sold for $7.65 to $7.85; Colorado "sugars" at $7.80 and a string of native Mississippi steers at $8.00 per 100 pounds."

WESTERN RANGE HORSES.

A Splendid Trade Built Up by Campbell & Reid and Western Sale Stables Company at the St. Louis National Stock Yards.

As we have already been authorized to announce, the fifteenth season of range horse sales at public auction at the St. Louis National Stock Yards will commence on Thursday, June 12th, and be held thereafter on every second Thursday until Thursday, November 13th. This accounts for twelve sales, the same as last year.

The offerings at these sales range from twelve hundred to fifteen hundred head, and they are sold in lots that favor the bidding. The total offerings one season with another have ranged from 15,000 to 27,000 head, and it is not possible in advance to say what the sale average in numbers or prices will be. These are by far the most important of all the range horse sales held in the United States and are conducted with absolute fairness to all concerned

Most of the offerings come from Montana, Wyoming, Utah and Colorado. They are all gentle bred and none are of the wild, mustang or broncho order. Many are sired by large trotting stallions, but the majority of them are of draft breeding and eventually grow and are fed to be hardy, healthy draft horses and matched teams.

Naturally, the horses find their way to farms, where they are handled, mannered, fed and trained to become good work horses, and

when any of them are returned to the auction to be resold in the domestic horse auction ring they sell all the better when it is known that they have have had prairie air in their lungs as colts.

Last year a number of sucking colts sold in lots at $26 to $40 per head; yearlings at $40 to $70; and two-year-olds from $60 to $130. Matured draft geldings averaged about $110, and the average of lighter horses was about $60 per head. Some strictly common mares sold at $10 to $12, but very few sold under $20, and large numbers of pretty good mares sold at $70 to $80, and some extra fine mares on the Kentucky order sold fresh from the range at $150 to $160 per head.

These horses are usually distributed in a good many states, a majority of them going eastward. Not many remain in Missouri, although some loads are handled to good advantage there; large numbers are placed on farms in Illinois, and Indiana farmers delight to handle them. A considerable demand comes from Pennsylvania, where they handle numbers of heavy horses for the New York market, and all of the draft horse colts sold originally at St. Louis, when on the Eastern markets, outsell the average draft horse of domestic origin. Anyone wishing further information concerning these St. Louis sales should address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Oil Traction Machines.

It is several years since we announced that in working tests oil-power traction machines were making the steam-power machines take a back seat. Economy and efficiency tests did it. Nearly all large agricultural implement factories are making oil tractors, and one of the best, handiest and most economical working outfits is made by Fairbanks, Morse & Co. They build the thirty and sixty-horse power tractors, but the favorite is the fifteen to twenty-five horse power engine, that can be handled by any farmer, and he does not have to own ten thousand acres of land to bring it into use. When you write, ask for Catalogue F M 692. Address, Fairbanks, Morse & Co. at the nearest city to you—either at St. Louis, Chicago, Kansas City or Omaha.

Buying Cavalry Horses.

All horses suitable for cavalry service should be shipped to the St. Louis National Stock Yards. The demand is for a few car-loads to fill an old contract. They must be 15.1 to 15.3, with some substance.

S. Y. Burks, of Bolivar, Mo., has a fine herd of Berkshire swine, and he is also breeder of a superior strain of S. C. Brown Leghorn chickens. His advertisement appears with the other breeders.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,

P.O., NATIONAL STOCK YARDS, ILL.

Concerning Cold Storage.

The United States Department of Agriculture has issued a bulletin that ought to interest many people because it is on the much-abused and much-misrepresented cold storage. It contains facts and figures in regard to the storage of meat and eggs, clearly exploding many imaginary cases in which meats are stored for years in the interest of monopoly. For instance, fresh beef averaged in storage 2½ months; fresh mutton, 4.45 months; fresh pork less than one month; dressed poultry was kept an average of 2.42 months, and eggs 5.93 months. It appears that only 3.1 per cent. of beef production went into cold storage; 4.1 per cent. of mutton; 11.8 per cent. of pork; 9.6 per cent. of butter, and 15 per cent. of eggs. The bulletin on cold storage can be had by interested parties by writing to the Honorable Secretary of Agriculture, Washington, D. C., and asking for a copy of it.

Death to Heaves
"Guaranteed or Money Back. Coughs, Distemper, Indigestion. **NEWTON'S** 50c, $1.00 per can. Large for Heaves. At druggists' or sent postpaid.
THE NEWTON REMEDY CO., TOLEDO, OHIO

SICK HOGS

Cured and disease prevented with Snoddy's Powder. Clears hogs of worms. Makes hogs thrifty. Will send man and treat sick hogs on insurance. Treatment is simple. Any one can use it. $5 case cures 40 hogs. Book and test reports free. Agents wanted. **DR. D. C. SNODDY CO., Dept. H, NASHVILLE, TENN.**

BLACK LEG

VACCINE FREE!
SEND names and addresses of 20 cattle-raisers, we will send $1.00 box Cutter's Blackleg Pills, FREE. Low-priced, always fresh and reliable, they are used by practically all California and Western stockmen. Write for booklet and prices.
THE CUTTER LABORATORY
Berkeley, Cal. or Chicago, Ill.
Insist on Cutter's. If druggist doesn't stock, order from Laboratory.

For Canvas Covers of all sizes and weights, of best quality, and at right prices, order from Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

BUCKEYE MOWER and BINDER REPAIRS
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid)

is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other. Doesn't imitate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes and tells you how to treat them. Covers over 200 veterinary subjects. 192 pages. 69 illustrations. Write for a free copy.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

Try GORDINE WHITE LINIMENT

CURE THAT SHOULDER! HEAL THAT CUT!

Don't allow your stock to suffer. Cuts, bruises, soreness, lameness, swollen glands, etc., all cut into your profits. **Stop This Loss Now. 10 DAYS' FREE TRIAL.** Send us your name and address at once and we will ship you our regular full-sized bottle with directions and absorbent cotton. Try it ten days. If satisfied, send us One Dollar. If not, return us the empty bottle. It will cost you nothing.

GRAND CHEMICAL CO., Dept. C,
1426 So. Grand Ave.,
ST. LOUIS, MO.

At Towanda, Kas., J. C. Robinson, breeder of Percheron horses, held a sale at auction. The thirty-nine head sold averaged $388; twenty-two mares averaged $387; seventeen stallions averaged $389; and the offerings included twenty-six yearlings that averaged $360. W. S. Roff, of Thomas, Oklahoma, paid $610, the top for a female, and D. G. Shirk, of Sedgwick, Kas., paid $905 for the three-year-old grey stallion Otto.

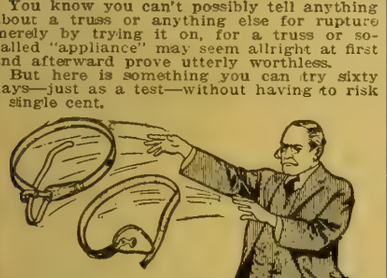
St. Louis Hog Prices.

On May 31st, at the St. Louis National Stock Yards, top-price hogs averaged 214 pounds and sold at $8,85 per 100 pounds. The bulk of the hogs sold at $8.70 to $8.75. Milton-Marshall Commission Company at the National Stock Yards, Ill., state that many loads of hogs shipped to Omaha, St. Joseph and Kansas City would net shippers more money if shipped to St. Louis.

Ruptured People—Get This On 60 Days Trial

You know you can't possibly tell anything about a truss or anything else for rupture merely by trying it on, for a truss or so-called "appliance" may seem allright at first and afterward prove utterly worthless.

But here is something you can try sixty days—just as a test—without having to risk a single cent.



Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial—the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times—including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why druggists should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—Cluthe Co., 125 E. 23rd St., New York City

RECORD PRICE FOR A DRAFT COLT

Sired by Imported Shire Stallion and Brought $625 on the St. Louis Market.

"Holland, Nugent & Maxwell Bros. Commission Company, National Stock Yards, Ill., sold the highest-priced three-year-old draft colt ever sold at the National Stock Yards. This colt was purchased by Pillsbury & Co., at Paris, Ill., and consigned to the above firm, and they sold him to J. G. Truman, of Bushnell, Ill. He weighed 2,140 pounds. He was sired by the imported Shire stallion 'Milestone Harold,' 23,495, who was imported by Trumans' Pioneer Stud Farm, Bushnell, Ill, and sold to Sunkel & Co., Redmon, Ill. This gelding will be shown at the leading State Fairs and Horse Shows the coming fall. The price was $625. Seventeen head of draft horses consigned to Holland, Nugent & Maxwell Bros. Commission Company by Halstead Bros., Tecumseh, Neb., sold for $5,012.50."—National Live Stock Reporter, May 15th, 1913.

The Best Horse and Mule Market.

Shippers of horses should remember that a quick clearance is essential to money making in shipping horses to market, and that for this reason alone the market that has a steady demand for all kinds of horses is liable to relieve the shipper of his load quickly and enable the buyer also to ship out without delay. The St. Louis market is especially an all-round market, and when accounts are made up it will be found that shipments in and out of St. Louis in time and money take the least out of the price of the horse. That is why T. H. Holland, Chief Auctioneer and Manager of the firm of Holland, Nugent & Maxwell Bros., left Kansas City and established himself at St. Louis. It is the same with mules. It matters little whether the order be for a car-load or a full train of mules, the St. Louis market can furnish them at an hour's notice. All shippers of horses or mules who wish to obtain quick and satisfactory results will find it to their advantage to be upon the mailing list of Holland, Nugent & Maxwell Bros., National Stock Yards, Ill.

The Harvester Engine.

Remember that Fairbanks, Morse & Co. manufacture an engine to be attached to the grain binder. It is ready for attachment to any standard binder frame. If you are interested, write to Fairbanks, Morse & Co. at St. Louis, Chicago, or Kansas City, and ask for Catalogue EE 692.

First-class Commission House.

The best-organized live stock market is St. Louis, and one of the best firms doing business in that market is the Milton-Marshall Live Stock Commission Company. Shippers who consign stock to this firm to be sold can be assured of obtaining the best results possible. Mr. A. J. Milton, President of the company, is an expert cattle salesman, and, assisted by his brother, L. H. Milton, make splendid sales. J. S. Jackson and J. S. Mulberry, selling hogs, are equally expert in their department, and Andrew K. Miller, Sheep Salesman, is noted for skill, ability and good judgment. It is a finely-equipped firm, doing business efficiently in the interest of their customers. All who will apply to Mr. R. E. Marshall, Secretary, P. O. Box 94, National Stock Yards, Ill., stating what they have to ship, will receive special information concerning the market prospect, coming directly from the salesmen.

MOVEMENT OF SOUTHERN CATTLE

Shipments From Florida to Oklahoma, to Kansas, and Incidentally to St. Louis.

Although the Southern cotton-raising states are supposed to have no cattle or but very few surplus cattle, yet whenever there is an apparent shortage the states of Georgia, Alabama, Louisiana and Mississippi have often filled the gap and provided stockers for the cattle raisers of other states and beef for the markets. A recent movement of no small proportions, made possible by the government dipping regulations, amounted to about 20,000 head shipped from Florida to Oklahoma and a fair proportion to Kansas. The main purchasers were the Miller Bros., of the 101 Ranch at Bliss, Okla., and Mr. McAllister, who is ranching in the vicinity of Garden City, Kas. Incidentally, a few of these cattle, not being good for stockers or for feeders, were sold at the cattle markets of Oklahoma City and St. Louis. The original point of shipment was Kissimmee,, Fla., and the entire shipping, transit and receiving arrangements were under the supervision of Mr. W. G. Harding, the General Live Stock Agent of the Mobile and Ohio Railroad.

The movement is a natural one, because the states of Oklahoma and Kansas can mature far more cattle than are raised there, and Florida has a surplus that can be spared for the purpose. During the census year in 1910 the enumeration counted in Florida 845,188 cattle in all. Of these, 117,326 were unclassified, 116,041 were known to be dairy cows, 319,181 were cows on farms and ranges not used for dairying, 70,480 were heifers born in 1900, 94,253 were calves born after January, 1910, 58,906 were yearling steers and bulls, and 63,001 were two-year-old steers and bulls.

Southern Cattle at St. Louis.

Milton-Marshall Live Stock Commission Company reported on May 31st, saying: "It looks like canner stuff will sell high all season unless we get exceptionally heavy receipts, which are not looked for." That referred to Mississippi cattle. They also said: "We sold some canners today from Grenada county, Mississippi, at $4.50 per 100 pounds; also sold some cows and heifers at $5.75 per 100 pounds, which looked like good prices; also sold some veal calves at $8.50 per 100 pounds." Quotations also included 633-pound Alabama steers at $5.25; cows at $4.75 to $6.50, and 780-pound bulls at $5.25 per 100 pounds.

Lambs at St. Louis.

On the last day of May, at St. Louis, Tennessee spring lambs, 66 pounds average, sold at $8.75 per 100 pounds. A string of clipped Western lambs, 92 pounds average, sold for $6.75 per 100 pounds. The highest price for Tennessee lambs during the week was $9.00 per 100 pounds.

At a sale of Guernsey cattle held at Waukesha, Wis., May 28th, sixty females averaged $305.85; eleven bulls averaged $184.55, and the general average for seventy-seven head was $288.50. The top price at the sale was for Glenwood Eventide, a cow with a record as a two-year-old, and bought by Fred B. Smith, of Terre Haute, Ind., for $700.

Milton, Marshall LIVE STOCK Commission Company

Shipments of Cattle, Hogs and Sheep solicited for sale upon the St. Louis Live Stock Market.

The St. Louis Market is the most active and competitive of all markets. Many shippers selling elsewhere will obtain better returns at St. Louis.

We are thoroughly equipped to obtain the very best results in the interests of our customers, and in all market matters we will be found to be leading the procession.

For market information, special letters on Native and Southern Cattle, Stock Cattle and Feeders, Hog Prospects, Stock Sheep, Fat Sheep and Lambs, write to

Milton, Marshall LIVE STOCK Commission Company

P. O. Box 94,

NATIONAL STOCK YARDS, ILL.

Please mention Nat. Farmer and Stock Grower.

Barbed-wire Bargains.

It is not often that any merchant gets a chance at barbed-wire bargains, but this year the floods caught a few train-loads under water, and, although it is just as good as new, it has to be sold as damaged goods. The advertisement of this wire is on page 6. A. J. Child & Sons, 517 North Main street, St. Louis, Mo., have 400,000 pounds to sell and will dispose of it at rock-bottom figures.

DR. LE GEAR'S ANTISEPTIC HEALING POWDER

The healing power of this famous remedy is wonderful. We have letters from all parts of the U. S. telling of fine animals that have been cured of sores, barbed wire cuts, collar and saddle galls, without leaving a blemish.

Druggists and Dealers everywhere carry a complete line of Dr. LeGear's Famous Stock and Poultry Remedies.

Write for copy of Dr. LeGear's Stock Book of 112 pages—it's free.

DR. L. D. LEGEAR MED. CO.
715 Howard St. St. Louis, Mo.

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

CHICKS AND LICE.

A Colorado Authority on the Subject.

The greatest enemy of the chick, and that which causes more loss than any other one cause, is chilling; the second enemy in importance because of amount of loss is lice; both lice and chilling are the indirect cause of bowel troubles, because both sap the vitality and life of the chick, making it impossible for the little fellow to resist the organisms of disease which are always ready to attack it.

Dusting the setting hen helps, but some lice are quite sure to escape and can later be found on the head of the chick; rub a dab of lard on top of the chick's head, getting it into the down thoroughly, and you will get there; repeat the dose in a week, and if the hen is furnished a good dusting place, the lice are not likely to give any more trouble; but whenever you see a chick that seems unhappy, eyes closed, droopy, look for lice.

The brood coops should be thoroughly sprayed before using with some coal tar preparation, sheep dip, whitewash, or a mixture of four parts coal oil and one part crude carbolic acid. It pays to be ahead, and that explains why so few of us are making anything on our poultry. We neglect these little things; because of neglect disease gets the start of us, we become discouraged because of the losses and give up and blame our luck, when all the bad luck might have been prevented by a little careful preparation.

Give the chicks a clean place; all the heat they can stand; keep them free of vermin, and you can safely count them before they are raised.—W. E. Vaplon, Poultryman, Colorado Agricultural College.

A New York Chicken Ration.

A New York poultryman has the following schedule laid out for feeding his chickens. His success makes it worth while to consider his methods:

In the morning the birds are given all they will eat of a mixture of one-half bran, one-fourth corn and one-fourth oats and wheat. This is mixed with milk or boiling water. Meat scraps and charcoal are also placed before the chickens. At noon the flock receives whole grain, consisting of two parts oats, one part buckwheat and one part wheat. At night the same whole grain is given as at noon. The birds are given pure water to drink, and, when it is to be had, milk is placed before them.

Would Not Buy "Fed-up" Chickens.

From New York City,on May 20th, the report was sent out that more than 50,000 chickens were being held unsold owing to a determined stand by the wholesale dealers in live poultry against buying overweighted "fed-up" fowl.

For a week the crates of live fowl were piling higher in the market, as the sales began to drop off. The climax came and on the 20th not a live chicken was bought. The fowl in the market represented only a small part of those cooped in the live stock cars across the river waiting to be placed on the market.

The claim advanced by the regular buyers was that the crops of the chickens were stuffed with gravel and sand; in other words, the "fill" of the chicken was out of proportion to the size. Furthermore, if there is any stuffing to be done, the wholesale dealers intend to do it themselves.

Illinois Poultry Plant.

The New York Produce Review and American Creamery, published by Urner-Barry Company, of New York City, gives us an idea of a modern plant for handling and fattening poultry, saying:

"Work on the construction of the new $25,000 plant of Frank Grampp & Co., at Princeton, Ill., has commenced. There will be two separate buildings, each 50x100 feet and two stories high. In the main building will be the offices, packing and shipping room. Back of this the cooling room, and in the rear the live room and picking room. On the second floor will be the storage and box-making rooms. Here the boxes for shipping poultry and eggs are made; from 20,000 to 50,000 boxes are carried on hand, which are made during the slack seasons.

In the summer the cooling rooms will be used for the storage of butter, cream and eggs, which, by the way, are nearly as large an item in this industry as the shipping of poultry. With this cold-storage plant Mr. Grampp states he will be in a position to manufacture ice, and that he may in the future use the plant for this purpose.

A second building immediately west of the main building, which is also to be 50x100 feet, will be used as a feed and conditioning building. In this building will be room for 25,000 birds at one time.

As the birds are brought in from the country they will be placed in pens in this building and fed for two weeks before being dressed and shipped to market. In this building will be automatic machinery for grinding and mixing the different feeds."

He Found Ten of Them.

A city woman who recently passed a few days at a farm bought some poultry from the farmer with a view to providing fresh eggs for breakfast every morning. She sent them to town by messenger, at the same time dispatching a note to her husband, telling him to look out for the consignment. Her husband, on reaching his home that night, asked if the poultry had arrived. He was informed that it had, but, explained the servant, he had carelessly left the basement door open and all the chickens had escaped. A fowl hunt was immediately organized. The next day, the husband, meeting his wife on her return, exclaimed: "A nice time I had with your poultry. I spent three hours and only found ten."

"You may consider yourself lucky, then," replied his wife, "for I bought only six."—Harper's Weekly.

"MAKING THE FARM PAY."

A New and Valuable Book Premium Offered by the Subscription Department of The National Farmer and Stock Grower.

Many of our readers have a copy of the book we used to furnish entitled "Profitable Farming and Gardening," and the book entitled "MAKING THE FARM PAY" is the same book improved. "MAKING THE FARM PAY" is a book that should be in every farm library—

1. Because it tells you how to care for and enrich your soil, giving the latest ideas in soil treatment and drainage. Without good soil you cannot have good crops.

2. Because it takes up the proper rotation of field crops for different soils; their adaptation and economic relations, and explains the culture directions of crops.

3. Because it explains fruit culture and forestry, showing how to bud, spray, graft and prune; how to kill injurious insects that affect fruit and shade trees; also insects that destroy field crops and garden products.

4. Because it tells how to make vegetable gardening and trucking pay; how hundreds of dollars can be made, by using proper methods, on only a few acres.

5. Because it tells you how to select and feed farm animals for the greatest net profits, explaining the balanced ration and how much feed and many dollars can be saved by proper feeding. The colored feeding chart, indicating the amount of digestible protein, carbohydrates, fats, ash, water and indigestible residue in principal feed stuffs, is alone worth a ten-dollar bill to a stock feeder.

6. Because it takes up the diseases of farm animals, giving the causes, symptoms and treatments of each, which will save you the loss of many dollars' worth of stock. These are explained in common terms that anyone can read and understand. The treatments are common remedies that you should have in your home.

7. Because it shows how to make and fill a silo and explains the value of silage to the average farmer. It gives many rules on measuring feed and grain and many valuable hints and helps for every farmer.

8. Because it tells how to make poultry pay and discusses the different breeds—the "sitting" and "non-sitting," the "general-purpose" and "fancy" breeds. The work tells how to caponize poultry, giving illustrations and cuts; also describes the diseases of poultry and their cure.

9. Because "MAKING THE FARM PAY" is written by the best, practical authorities, and takes up improved methods of modern agriculture in all branches of farming. It is written by men who have done what they advise others to do.

10. Because "it is the most in agriculture for the money." It is a ready-reference library in practical, scientific farming, giving you hundreds of money-saving methods and explaining the successful principles that every wide-awake farmer wishes to know—how to make his farm pay. A couple of dollars invested in practical and scientific methods will bring hundreds of dollars in scientific results.

Our Subscription Proposition.

Anyone who will send one dollar to this office will receive The National Farmer and Stock Grower for two years and can select one copy of the book "MAKING THE FARM PAY," and it will be sent as a subscription premium, by mail, prepaid, safe delivery and satisfaction guaranteed.

HERE IS A SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find one dollair to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery and satisfaction guaranteed, one copy of the book "MAKING THE FARM PAY."

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Address..... .....

Frozen Hares From Argentina.

"The Minister of Public Works of the Argentine Province of Buenos Aires has received an application from an establishment in Pergamino, which freezes hares for export, for assistance with respect to obtaining more supplies for its factory. The concern states that the principal difficulty is the lack of trappers. France is a steady market, having taken 360,000 frozen hares this season. The preserved hares have obtained awards at the exhibitions in Paris, Naples, Liege, London and Rome. Great Britain alone imports over 50,000,000 pounds of frozen rabbits annually."—United States Department of Commerce Report.

Missouri Egg-laying Contest.

The Second National Egg-laying Contest conducted at Mountain Grove, Mo., under the management of T. E. Quisenberry, Director, passed the first five and a half months on May 1st, having commenced on November 15th, 1912.

There are seventy pens, ten hens to the pen, 700 birds in all. Thus far the hens averaged fifteen more eggs each than last year in same period.

In the five and a half months the first ten pens laid from 832 to 1,117 eggs, the English pen of S. C. White Leghorns leading with 1,117, against a pen of Illinois Silver Wyandottes with a record of 948.

In the thirty days of April the best ten-pen records ranged from 218 to 240 eggs during the month, the leading pen being a Missouri pen of Buff Wyandottes.

In the five and a half months, 166 days, the best ten individual records ranged from 122 to 141 eggs, a Vermont pen of Buff Wyandottes laying 136, and a Single Comb White Leghorn of the English pen leading with 141 eggs.

Great interest is manifested in the leading pen of English White Leghorns that were bred from females with high records, also sired by males bred from high-laying hens.

In this contest there are only three pens of each breed. Twenty-four pens each laid over 200 eggs during the month of April. Out of the 700 pens, over half of them laid more than twenty eggs in thirty days, in spite of the fact that 195 hens had to be broken from broodiness.

LICE KILLER Liceoil, strongest lice killing compound made. Works like magic. Simply put a few drops in nests and hang bottle in coop. Powerful evaporating vapors go into feathers, cracks and crevices. No painting, spraying or dusting. Easy to use. Circular free. Pound bottle prepaid 50c. Money back if it fails. Agents wanted W. H. Metzger Co., No. 28, Quincy, Ill.

SHOEMAKER'S BOOK on **POULTRY**

and Almanac for 1913 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about Incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. Only 16c. C. C. SHOEMAKER, Box 945 Freeport, Ill.

Big Poultry Houses or Many Poultry Houses?

The farmer that is going into the raising of poultry on a large scale must decide on whether he will have a few big poultry houses or whether he will have many small ones. The answer to the question with him will depend on surrounding conditions, especially of the amount of pasturage possible and on the amount of help he can secure at a reasonable figure.

If labor is his principal concern, he will build big houses and few of them. If pasturage is of most importance, he will have many small houses scattered over a large territory. The latter is doubtless the desirable thing to do, if conditions permit.

When the farm is large enough so that unlimited pasturage is possible, this pasturage should be made much of and the fowls distributed in small houses at a considerable distance apart, so that the fowls may have all the herbage they can possibly eat. This is a great item when all other foods are so high in price. Also on a large area there will be an immense population of insects, which are a far greater proportion of the food of fowls in a wild state than we generally consider. Beetles and like insects are exceedingly rich in nitrogen and are really an extremely concentrated food.

The drawbacks are the greatly-increased labor in taking care of the fowls and in gathering their eggs. But if cheap labor can be obtained, this is not of so much importance. There is, however, another factor against the distribution of the small flocks in small houses over many acres, and that is the invitation it is to thieves, and the difficulty of protection, especially at night. There is also more danger from the presence of hawks, in localities where those birds of prey abound.

For reasons like these we find most of the large poultry farms maintaining a few large houses, some of them hundreds of feet long. There seem to be two general types of these, one type where the doors and windows are all on one side and the yards all on one side, and the other type where the house is so built that a passage way runs down the center and pens are on both sides of the passage way, with doors opening into narrow yards that run out a long distance from the house. This type is the logical one when pasturage is an important consideration.

The writer has at times visited many of these large buildings, but has found few of them where any provision seemed to be made for doing work to advantage. One, however, was an exception. There several large houses were connected with a central house in which the feed for the birds was prepared in immense quantities and distributed by means of trucks to all parts of the buildings. The efficiency scheme had been worked down to a point where one man could do the work of two or possibly more.

For experimental purposes the large houses are the most convenient, unless the experiments be those connected with pasturing. One of the worst features of the large poultry house is the danger of the spread of any disease that appears among the fowls.

Coming Features

By R. E. Olds, Designer

From this time on, when you buy a car, these are things to watch for.

Left-side drive—
Center control—
Oversize tires—
Set-in dash lights—
Free entrance in front—

Right-side drive has been abandoned by the leading cars. Hereafter drivers will sit close to the cars they pass.

Skimpy tires are out-of-date. So are projecting side lamps. So is a blocked front door. These features are absent in the best cars now. They'll be absent in all cars soon.

Reo Rod Control

Note that Reo the Fifth has all these new features. And our center control is a one-rod control—an exclusive Reo feature.

All the gear-shifting is done by moving this rod three inches in each of four directions. It's as simple as moving the spark lever.

There are no levers, side or center. Both brakes are operated by foot pedals. So the driver's entrance on either side is clear. He need never dismount in the street.

When you see these features you'll not want a car without them.

Other Advances

Then the Reo marks the latest practice in some other great respects:

Analyzed steel—
Vast overcapacity—
15 roller bearings—
190 drop forgings—
A $75 magneto—
Doubly-heated carburetor—

Roller bearings cost five times what common bearings cost, but they do not break. Drop forgings cost twice as much as steel castings, but they don't have flaws.

In Reo the Fifth, steel is all made to formula. The gears are tested in a 50-ton crushing machine. The springs are tested for 100,000 vibrations.

Each driving part, for big margin of safety, is tested for 45 horsepower requirements. Each engine is given five long tests—48 hours altogether.

Parts are ground over and over. Important parts are hand-fitted. Nothing is left untested.

What They Cost

These things are costly. Oversize tires cost us $60 extra. Our unusual features, all combined, add $200 per car to our cost.

But we save this for you by building only one model. That saves about 20 per cent.

And these things are essential in a car that endures. A car without them may run well for a while, but the second season repairs and troubles come.

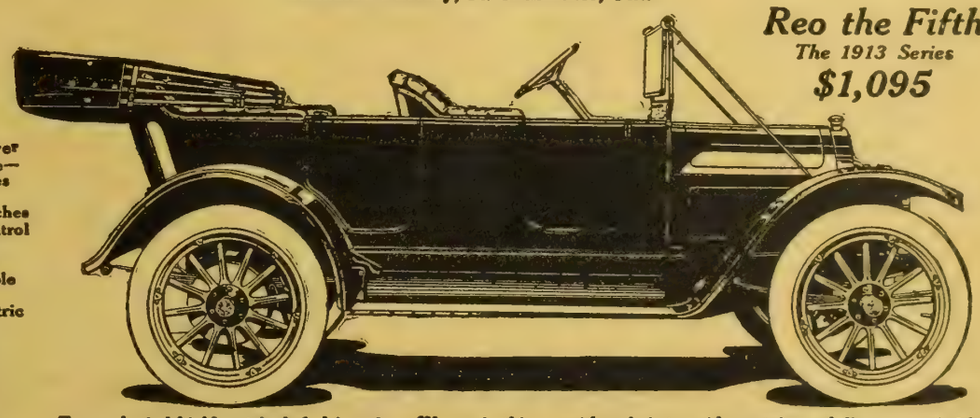
Reo the Fifth marks the best I know after 26 years of car building. I would not buy a lesser car myself, so I shall never build one.

In the years to come you'll save hundreds of dollars by having a car built like this.

Sold by 1,000 dealers. Showrooms almost everywhere. Catalog on request.

R. M. Owen & Co., General Sales Agents for Reo Motor Car Co., Lansing, Mich.
Canadian Factory, St. Catharines, Ont.

Reo the Fifth
The 1913 Series
$1,095



30-35 Horsepower
Wheel Base—112 Inches
Tires—34 x 4 Inches
Center Control
15 Roller Bearings
Demountable Rims
Three Electric Lights
190 Drop Forgings
Speed—45 Miles per Hour
Made with 5 and 2 Passenger Bodies

Top and windshield not included in price. We equip this car with mohair top, side curtains and slip cover, windshield, Prest-O-Lite gas tank for headlights, speedometer, self-starter, extra rim and brackets—all for $100 extra (list price $170). (Gray & Davis Electric Lighting and Starting System at an extra price, if wanted.) (203)

Extensive Sale of Ducks.

The extent of the duck-raising business on Long Island, New York, can be imagined when it is announced that A. Silz, a dealer in poultry and game in New York City, has contracted for, will handle and sell the entire output of the famous A. J. Hallock duck farm of Speonk, L. I., amounting to more than 600,000 pounds. Three other Long Island duck farms will also market their output through A. Silz, and the house will probably handle more than 2,000,000 pounds of Long Island ducks this season.

Bulletin on Poultry Diseases.

Farmers 'Bulletin No. 530, issued by the United States Department of Agriculture, is by Dr. D. E. Salmon, D. V. M., a former Chief of the Bureau of Animal Industry, and it is a pamphlet of thirty-six pages, which farmers can obtain by writing to the Hon. Secretary of Agriculture, Washington, D. C.

Chapters include the introduction: how to prevent disease; lice powders and their application; disinfectants and their application; cholera and cholera-like diseases; roup or contagious catarrh; diphtheria; bird pox (chicken pox); blackhead; tuberculosis; brooder pneumonia; gapes; liver disease; etc. It is well to have all this veterinary information at hand.

Good Seed Potatoes.

Farmers' Bulletin No. 533, issued by the United States Department of Agriculture, is entitled "Good Seed Potatoes and How to Produce Them." It is by Willam Stuart, Horticulturist of the Bureau of Plant Industry. It thoroughly covers the subject in sixteen pages with illustrations.

LIVE STOCK BREEDERS' CARDS.

CARPENTER'S BEST BARGAINS.

Fifty Poland-Chinas, 40 to 200 pounds; twenty-five Durocs, 100 to 150 pounds. All of the Poland-China Hogs were sired by the great Meddler and Wallbrige Boars and from some of the most noted Sows in America. Durocs sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for it and mention this paper.

THE GRANDVIEW BREEDING FARM, Marmaduke, Ark.

POLAND-CHINA PIGS.

Orders booked now for Spring Pigs. Will do to ship May. $12 and $15. Big, fine Pigs. Best of breeding. Come and see or write.

D. F. BEAUCHAMP, Meredosia, Ill.

TRUMANS' PIONEER STUD FARM,

Ameica's Largest and Oldest.

Importers of

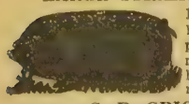
SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

LARGE STRAIN POLANDCHINAS.



I am offering nothing but Spring Pigs at present. The best that money can buy. They have a tendency to make extra large ones.

S. R. GRIGG, Proprietor, The Golden Ridge Farm, Mulberry Grove, Ill.

O. I. C. AND CHESTER WHITES.

February, March, April and May Boars and Gilts; no kin. Bred Sows, prolific, large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Eggs at half price.

RAYMOND RUEBUSH, Sciota, Ill.

SALE OF HOSLTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912,. to March 1, 1913.

250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your yants.

JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

DUROC-JERSEY SWINE.

I have some choice Fall Gilts bred for September farrow. These are sired by Our Professor and H.'s Col., and bred to a son of Col. Wonder and Belle's Professor. Am selling these at $30.00 to $40.00 for choice.

H. H. HOFMANN, R. R. 1, Belleville, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

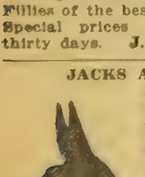
Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

SADDLERS.

Forty Saddle Stallions, Mares, Colts and Fillies of the best Denmark and Chief blood. Special prices on Stallions for the next thirty days. J. F. COOK, Lexington, Ky.

JACKS AND PERCHERONS.



We have twenty-five of the biggest and best mammoth Jacks in Kentucky and a few Percheron Stallions. We will cut the price from $100 to $300 per head on every one. We have a big stock of High-grade Percheron Mares, Hampshire Swine and big Black Pigs. Write your wants and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.

PURE-BRED REGISTERED ANGORA GOATS.

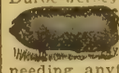
Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

TAMWORTHS FOR SALE. The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned be me were winners at Royal Show, London, England. 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

SPLENDID DUROC-JERSEY PIGS.

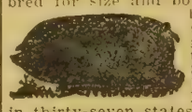
I have for sale seventy-five registered Duroc-Jersey Pigs, March farrow. Some fine Gilts bred for August and September farrow. Prices from $12.50 to $35. Good individuals, well bred. Write me if needing anything in this line.



J. E. WELLER, Faucett, Mo.

POLAND-CHINAS OF THE BEST STRAINS

bred for size and bone, with quality; wide-backed, deep-bodied, good bone, good heads; growthy Spring Pigs by the great Longfellow's Special, 61,200, at $20. Pedigree with each. Many satisfied customers in thirty-seven states. Catalogues free. We will send by parcels post, prepaid, at $1.00 for 15 of our Thompson Ringlet Barred Plymouth Rock Eggs. Cockerels in fall.



A. F. SIEFKER, Defiance, Mo.

HOGS! HOGS! FOR SALE!

Big Registered Poland-Chinas and English Berkshires that weigh and win; S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, Bolivar, Mo.

THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. **J. H. DUNLAP, Box 373, - Williamsport, Ohio.**

MILL CREEK STOCK FARM.

(The Home of the Starlights.)

THOS. H. EZELL, Proprietor.

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Send for catalog.

R. F. D. 7, - NASHVILLE, TENN. Long Distance Phone, Main 1326.

Butter Profits

You ought to get more butter profits. Jersey Cattle mean more butter profits, because they yield more butter fat at less net cost of keep than any other breed.

THE JERSEY

excels in beauty of dairy type. She is a persistent milker. Jerseys are easily acclimated. They live long and keep healthy. They mean *steady* butter profits. Write now for Jersey facts. Free for the asking.

AMERICAN JERSEY CATTLE CLUB 324 W. 23d St., New York

BLOODED STOCK NOTES.

Mr. John H. Dunlap, Box 373, Williamsport, Ohio, whose advertisement appears with other breeders' cards, is President of the American Mule-foot Hog Association. He has sixty magnificent sows on his farm that farrow twice a year, and he has ten prize-winning stock boars. All who are willing to investigate these black, silky-coated hogs can do no better than go to the fountain head for stock and information.

The advertisement of J. E. Weller, of Faucett, Buchanan county, Mo., on the Great Western Line, not far from St. Joseph, is in this issue. He is offering some pure-bred and registered Jersey swine of his own superior breeding. The Weller herd of Durocs is one of the best in the state of Missouri. His pigs are specially good, having large bone, lengthy and smooth body and of the fancy cherry red color. The stock is good enough to suit the breeder who wishes to improve his registered herd and robust enough to suit the stock farmer who intends to top the sales when he ships a loads of fat hogs to market.

Whenever considering the dairy business as a field of operations and you wish to investigate the breed you will adopt and stand by, do not fail to look over the claims and merit of Jersey cattle. For high content of butter-fat, economy of production, for many other traits that cause the dairy cow to be the greatest live stock money maker of the present day, the Jersey has a strong place in the front rank of all dairy breeds. Particulars as to what the Jersey is doing and has done can be had by addressing the American Jersey Cattle Club, 324 West 23d street, New York City. See card in breeders' column.

At Villa Nova, Pa., on May 15th, Frederick Phillips, a breeder of international reputation, sold ninety-five head of Guernsey cattle at auction, realizing the splendid average of $316.20 per head. Eight bulls sold for an average of $409.35, and eighty-seven females averaged $307.65. Two thousand dollars was the top price for a bull, Rockingham, a three-year-old son of May Rose, and the top price for a female was $1,500, paid for Imp. Polly, 8th, of the Beaulieu. Branford Farms, of Groton, Conn., bought both of the top-priced cattle and many others besides.

At Wanatah, Ind., on April 29th, Taylor & Welty held a dissolution sale of Hereford cattle. Fifty-one head sold for an average of $183; nine bulls averaged $165; and the general average for fifty-one head was $182. The highest price for a bull was $300, paid by John Terry, of Wanatah, Ind., and the highest price for a female was $505, paid by W. J. Davis, of Jackson, Miss., for the mature cow Handsome, 3d.

At Lake Fork, Ill., towards the end of April, Mr. W. H. Bryson sold fifty-nine head of Shorthorn cattle at auction at an average of $153 per head. Sixteen bulls averaged $170, and forty-three females at $147. J. H. Horn of McLean, Ill., paid $350 for the bull Golden Edgewood, and A. G. Danforth & Son, of Washington, Ill., bought Belle and female calf for $250, the top price in that class.

At Shelbyville, Ky., on May 27th, W. R. Spann & Sons held a sale of Jersey cattle at auction and realized an average of $373 for 102 head. The top price of the sale was $1,500 for Noble's Eminent Lad, a son of Noble of Oaklands, bought by Ed. C. Lasater, of Falfurias, Texas.

The National Farmer and Stock Grower does not make any attempt to solicit large-size breeders' cards. Two inches single column is enough for any breeder to use. We have live stock breeders who sell all their spare breeding stock by advertising in this paper, and the expense is not over one per cent. of the sales.

Raymond Ruebush, of Sciota, Ill., has changed his card this month in order to invite special attention to his Ohio Improved Chester White Swine. His herd is characterized by heavy bone, strong muscle, with typical ears and back and good coat of hair. They also stand well on legs and feet. Mr. Ruebush issues a descriptive circular describing his Chester swine and White Orpington fowls.

Star Brand Shoes on Sale.

A very large proportion of all hides and skins produced by farmers by raising cattle, sheep and goats enter into the making of shoes. Shoemaking used to be an exclusive Eastern industry, and money was expended unnecesarily in freight bills going and coming. Of recent years shoemaking has become a Western industry, and shoes are much better and cheaper by reason of the change, because the waste in transportation and in other ways has been recovered and put into the shoes. Roberts, Johnson & Rand Shoe Company, of St. Louis, have demonstrated that a great shoe business can be built up by them in the West and on page 5 one of the leading brands is advertised. This firm has cut out the wholesaler's profit as another economy, and sells direct to 20,000 retail merchants, who have proven by keeping a full stock on hand that "Star Brand Shoes are Better." The advertisement on page 5 is worth reading.

You can make big money farming in Arkansas

Same Latitude—Same Crops

THE soil is newer, richer and much lower in price. A splendid climate makes it possible to produce bountiful crops of nearly every variety known to man. It will pay you to investigate.

We have just published six illustrated folders on Arkansas. Send for the one that interests you.

1. Central Arkansas
2. Northeastern Arkansas
3. Southeastern Arkansas
4. Southwestern Arkansas
5. White River Country
6. Arkansas Valley

The way there is via Memphis and the

MISSOURI PACIFIC IRON MOUNTAIN

Iron Mountain Route

Splendidly equipped trains

Mr. J. N. Anderson, Immigration Agent, Iron Mountain, St. Louis

Please send me Arkansas Land Folder

*No.*_____ *Name*_____

*Address*_____

TAPE-WORM

Expelled alive in 60 minutes with HEAD or no charge. No fasting, no sickness, no pain. Medicine pleasant and perfectly harmless. Medicine sent to any part of the country. Large booklet containing valuable information FREE.

DR. M. NEY SMITH, Specialist, Office, 302 N. 12th St., - ST. LOUIS, MO.

THE TRADE IN CASINGS.

Showing What Appears to be a Small Matter Can Cut a Considerable Figure in International Trade.

We have received from the United States Department of Commerce a copy of a report dated April 26, 1913, by the American Consul General at Hamburg, in Germany, on the subject of the international trade in casings:

"Continuing a report on the above subject transmitted March 27, 1913, it is now possible to furnish a review from the Hamburg Chamber of Commerce in regard to the class of goods named.

"The year 1912 witnessed the highest quotations known for cattle casings. The advance in prices was caused principally by unusually small shipments of cattle to the American packing houses, the number of cattle killed in the United States having decreased as compared with preceding years to such an extent that the production of casings was considerably reduced. Similarly the number of cattle killed decreased in nearly all the countries of the world. The poor crop of feeding materials in 1911 had forced producers to dispose of large portions of their herds, so that during 1912 a reduced number of cattle came into the market for slaughter. In South America the number of cattle killed in 1912 increased about 190,000, as compared with 1911, but this was not sufficient to cover business in other quarters of the globe. While the importations of casings from South America increased, the importations into Germany from North America and Australia declined.

The number of hogs killed in the United States during the first half of 1912 was in excess of the number killed during the same period of 1911, but there was a decrease in the number slaughtered toward autumn and prices of swine casings were subjected to fluctuations, December quotations being equal to those of the beginning of the year.

"Early in 1912 there was a lively demand for middle-sized cattle casings. While up to October the small quantities of cattle slaughtered caused a rapid decrease in the prices for casings of a middle size, the increasing shortage of meat and the high prices paid for swine and cattle brought about a partial standstill in sausage manufactories, so that at times the consumption of casings of middle sizes ceased absolutely, the importers meeting with difficulties in selling their goods. In November the American packers lowered the prices of casings of middle size, as the consumption in the United States also had decreased and stocks had begun to accumulate.

Ring casings were in continuously good demand, but as North American prices at times rose to 1.10 marks (26.1 cents) per bundle, buyers preferred cheaper South American goods. Imports of North American ring casings decreased on account of disproportionately high prices, and the German market in the meantime formed the habit of using cheaper Australian casings.

German buyers were not in a position to pay the enormous prices of American sellers of beef butts. In the beginning of 1912 packers asked 55 marks ($13.09) per 100 pieces, and in the course of the year prices increased to about 80 marks ($19.04). In the meantime, German connsumers covered their requirements with goods from South America or Australia, for which they paid high prices, as imports from North America almost ceased. At the end of the year prices decreased.

"As before stated, shipments of South American cattle casings to Germany were larger in 1912 than in 1911 partly because of the increased number of cattle killed and also because South American packing plants are now in a position to clean all casings, rendering a larger quantity available for export. The quality of the South American casings improved and the output of the more important houses showed that care was being taken in preparing them. Good prices were obtained during the year for English casings from which the fat had been extracted. It is said that for 1913 large contracts at high prices have been closed already. Although the market for casings in Germany was good, it was difficult to sell Australian casings on account of their disproportionately high prices. The facts above stated refer principally to casings of middle size, for which prices were often asked which were not in keeping with the quality offered.

"Quotations for hog bungs packed in barrels containing 600 pieces were in general lower than in 1911, whereas for barrels containing 400, 450 and 500 pieces the same prices as in the preceding year were obtained.

"During 1912 offers for sheep casings were larger than the demand, but prices were not satisfactory. As usual, the demand for first-quality goods was excellent and the prices demanded in most cases could be paid."

Holstein Advanced Records.

Malcolm H. Gardner, Superintendent of Advanced Registry, reports that records for 443 cows were received recently and have been accepted for entry in the Holstein-Friesian Advanced Register. This herd of 443 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days **184,949**.9 pounds of milk, containing **6,673**.543 pounds of butter-fat, thus showing an average of **3**.61 per cent. fat. The average production for each animal was **417**.5 pounds milk, containing **15**.064 pounds of butter-fat, equivalent to **50**.64 pounds, or **28**.4 quarts of milk per day, and **17**.58 pounds of commercial butter per week.

Carlotta Pontiac at the College of Agriculture, University of Missouri.

Carlotta Pontiac is the name of the greatest Holstein cow in Missouri today. She is owned by the Missouri College of Agriculture. Last year she produced 22,000 pounds of milk, which contained 827 pounds of butter. She is the greatest cow owned by the college since Josephine, in milk and butter production. She is producing daily at the present time 90 pounds of milk, which is 10½ gallons. This remarkable cow will be one of the chief exhibits at the great annual County Fair given by the students of the College of Agriculture during Commencement Week.

The Dog Was Ahead.

A Maine man tells a story of a friend of his in the West who was induced by a stranger to buy what was claimed by the latter to be the best wolf dog in the country. A few days later the man took his new purchase and started out early in the morning to try him out. The dog soon picked up the scent and started off, the man following on horseback. The dog was soon out of sight, but the man could hear him bark occasionally and followed on. About noon he met another man coming from the opposite direction, and inquired if he had seen a wolf and a dog anywhere, to which the man replied that the had.

"And how were they going?" queried the man. "Was the dog nearly onto him?"

"Well," answered the other, "if I remember correctly, the dog was just a trifle ahead."—Harper's Magazine.

Goodyear Automobile Tires.

Automobile owners can profitably make a study of automobile tires. The tire wears out like the sole of a shoe and has to be replaced when the time comes. The automobile owner should investigate the tire question before the time comes to buy them, so that he decides in advance what he intends to buy. Automobile tires are now made by experts, and the best makes are well known. Probably the best showing at the present time is being made by the Goodyear Rubber Company, claiming the least cost per mile of any tire that's built. We advise our readers to send to the Goodyear Tire and Rubber Company, Akron, Ohio, and ask for a copy of the Goodyear Tire Book. It tells the whole story of the automobile tire. See page 7 of this edition.

Good Business Education.

The Gem City Business College advertised on page 25 is no ordinary establishment. It seems strange that one private institution unaided by government taxation should have given final instruction to 35,000 young men and women, and whenever necessary to do so have found their graduates good positions. But such is the record. Write to D. L. Musselman, President, Lock Box 37, Quincy, Ill., and ask for Catalogue and Year Book.

The Mule's Direction.

A man had occasion to ship a mule by rail to another county. He sent the animal to the station in the care of a darky. When the freight was put on the car the darky looked through the bars and saw that the mule was eating the tag upon which his destination was marked. The darky at once ran home.

"Massa! Massa! Dat mule, he done gone and et up de place where he's gwine to!"—Harper's Magazine.

"Two are company." "Yes, until they are made one."—Exchange.

The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal**, both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave.,St.Louis,Mo.**

I'll Stop Your LOSSES
FROM WORMS

"There is no doubt that Sal-Vet saved my entire herd of hogs. On all sides of my farm other farmers lost nearly every hog they had. I shall always aim to keep "Sal-Vet" or no hogs."
PETER V. CAREY,
Route No. 5
Fairfield,
Ill.

I'll Feed Your Stock 60 Days Before You Pay

I'll SAVE Your Sheep and Hogs

More Proof
"My sheep were sick and dying, but "Sal-Vet" stopped my losses. I was out of the preparation for about a month, and the animals again commenced to die. As soon as I began to feed the second lot of "Sal-Vet" the losses again stopped and I have not lost one since."
Silas C. Milleson,
Springfield, W. Va.

Don't let worms breed contagious diseases among your hogs this year. Don't let them kill off the young pigs and lambs—and rob you of your season's profits. You can prevent it if you will just take "a stitch in time." Now is the time when worms get in their deadly work. Now they are breeding—multiplying by the millions in the stomach and intestines and if you don't get the best of them they will surely get the best of you. I'll rid all your stock of these destructive pests. I'll prove it before you pay.

PRICES: 40 lbs., $2.25; 100 lbs., $5; 200 lbs. $9; 300 lbs. $12; 500 lbs. $21.12. No orders filled for less than 40 lbs. on this 60 day trial offer. Never sold in bulk, only in Trade-Marked Sal-Vet packages. Shipments for 60 days' trial are based on 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle as near as we can come without breaking regular size packages.

The Great Worm Destroyer — SAL-VET — The Great Live Stock Conditioner

is a wonder working medicated salt to which your hogs, sheep and other farm animals can run freely and *doctor themselves*. It requires no dosing, starving or drenching. Costs only 1-12 of a cent a day for a sheep or hog and a trifle more for larger animals.

SIDNEY R. FEIL, Pres.
THE S. R. FEIL CO.
Dept NFSG6-13 Cleveland, O.

Send No Money—Just The Coupon

Just fill out the coupon at right—tell me how many head of stock you have and I'll ship you enough "Sal-Vet" to last all of them 60 days. Yo simply pay the freight charge when it arrives and when the 60 days are up report results. If it fails to do what I claim, I'll cancel the charge—you won't owe me a penny. Send the coupon now. Address
SIDNEY R. FEIL, Pres. (121)
The S. R. Feil Co., Dept. NFSG Cleveland, O.

Send me enough Sal-Vet to last my stock 60 days. I will pay the freight charges when it arrives, report results within 60 days and will then pay for it if it does what you claim. If it does not, you are to cancel the charge.
Name
P. O.
Shipping Sta... State...
No. of Sheep... Hogs... Cattle... Horses...

That Which Remains.

"I never talk with—," remarked a friend, "without getting some good out of the conversation; something which makes me feel that my time has been profitably spent." Yet the person referred to was neither brilliant nor profound, but just a plain, common-sense individual, such as any one may become who starts out with character as the foundation.

Of how many of our associates can as much be said? Which ones among them leave us a little purer or nobler for the association? Which drop a hint here and there that will enable us to do our own work easier and more completely? Which add a bit of something that will render our lives more worthy? It may not come in the form of a preachment, or even a precept. There are the influences which are perceptible if not easily described; those which come through the utterance of a single thought. There is the humor which entertains without leaving a trace of acidity, and the best humor has in it a depth of feeling which means far more than the mere laugh. The one who can leave some permanent good while provoking a smile is the one whom we are glad to see again.

As we shun evil associates for the harm which they may bring to us, the good which remains should serve as a key to worthy friendships. We know that the face habitually serious is not necessarily the best one, and that pleasure and good works go hand in hand. The idle talk which means nothing, leaves nothing, is a very unsatisfactory product. We cannot afford to indulge in it to any great extent. There are too many ways to be useful for a single individual to be justified in wasting his time thus.

And how about the impress which we are making upon others? Some one will necessarily be thinking about it. If we are popular, there is a reason for it. This may be worthy, or the reverse, but we are having some influence upon others, or we are mere ciphers. In some path we are leaving a trail of shining light, or only the dregs of time wasted. Even the hod-carrier may teach a lesson of faithfulness to the best that he knows.

The greatest men and women were great not so much for their works alone as for their influence. We can each call to mind those who never came in contact with others without leaving some good. This was the real spirit inculcated at Bethlehem two thousand years ago, and the nearer we approach to the only perfect model ever given the more helpful may we become. Our influence, our real worth in this world hinges upon what we leave among our associates in our daily life. We may prove ourselves helpful, even though we are neither witty nor wise.

In the words of Blanche Fearing, who worked and won where many would have given up in despair:

"Let our chiefest mission be,
To make ourselves the noblest that we may;
And, second, to ennoble other men;
Because the great Christ-passion to redeem
Burns in our hearts, and life is but half lived,
Unless we feel that men have touched our robes,
And virtue has gone out from us."

—Bessie L. Putnam.

When Washing Knitted Goods.

White and dainty colored woolen articles can be washed so that they will lose none of their beauty, and they may be kept soft and clean as long as they last if they are carefully washed and dried. Much, however, of the success depends upon the drying process, as woolen articles will shrink, unless they are pulled into shape while wet and then kept stretched into perfect shape until they become dry.

White summer shawls made of soft wools can be kept a good color by shaving enough wool soap into quite hot, soft water to make a good lather and then adding a teaspoonful of ammonia. The articles must be squeezed through this suds until clean, then rinsed in water of same temperature as first water and a little soapy, but instead of ammonia a little bluing should be added. Squeeze out the water and put the articles in a clean, large platter near the stove to dry, and turn and pull the articles into shape often while drying.

In no case rub or wring knitted goods, as that stretches the stitches and spoils the shape of the article.

A crocheted shawl or scarf can be placed flat on a piece of cloth sufficiently large to cover it and basted several times around to hold it firmly in place, and then covered with another piece of cheese cloth, and this must be basted enough to hold in place, then the cloth can be pinned to a sheet on the line after washing and rinsing the article. If the first bath has been very soapy, two rinsing waters will be necessary, and all changes of water must be of the same temperature.

Very dainty colors should be washed through suds made with soap bark, as the most delicate colors can be washed in this white lather without the slightest injury. The best way to use the bark is to put a small quantity in a tub half full of cold water and stir with the hands until a good lather is made, then add hot water till the whole is moderately warm, then it is ready for use.

A nice white sweater that had turned yellow from careless washing was colored a rich, dark red with Diamond dye for wool and it looked as nice as a new garment; and a faded pink shawl was colored at the same time, but a different shade of red was produced by weakening the dye. Another sweater was colored a pretty shade of tan, and by keeping them pulled into shape while drying they did not shrink, and as there is nothing nicer for cool days in summer than a nice sweater or pretty wool shawl, it is worth while to learn how to renew them; and the all-white articles should be washed before they become very soiled, so that a very light squeezing in warm suds will get them perfectly clean.—A. M. H.

The Power of Music in the Home.

"How I have learned to love that," sighed Milly as the last strain of exquisite music died away. I looked at Milly in amazement.

"Why, I thought this was your first time at grand opera!" I exclaimed.

"So it is," replied Milly, with a laugh for my astonishment. "But, nevertheless, I have heard Schuman-Heink many times, as well as many others of the world's greatest singers. I have listened to Melba, Gadski, Farrar, Tattrazzini, Caruso, Martin, and ever so many others. I expect to hear them many more times, and that right in my own home."

"Oh, I suppose you mean a talking machine," I said.

"Call it that or a singing machine or a melody maker or a wonder box, I don't care. All that I care for is that our still, almost gloomy old home has been transformed. But this is only part of our musical feast, for father bought a player attachment for the piano that has been silent since Eileen died. Nobody in our house but she could play. But now we have the master musicians with us all of the time and it is good to hear Eileen's beloved instrument so wonderfully handled. Have you ever heard 'The Wanderer' reallly played, or 'Sweet Evening Star?' Evening after evening we hear only the best music, for we have made our selections carefully. Mother and father and the boys are quite as enthusiastic about it as I am. Why, you cannot get the boys away from the house evenings now, and they are always inviting their friends over to enjoy the music. It was only a few months that Fred talked of nothing but getting away from the farm. But we never hear a word about it now. And though we may none of us ever play or sing, we are all of us having a musical education. It was this home training that made me so determined to hear Schuman-Heink to-night. And to hear mother, father and the boys discussing the merits of our various entertainers would make you think them all musical artists. It seems to me that the one thing needed to make our country life ideal came when we were able to introduce some of the world's greatest musicians into our little home and to have them take an abiding place there."—Janet Thomas Van Osdel.

TO LOVERS OF THE BEAUTIFUL.

Picture Premiums to be Obtained by Sending Just One—Only One—Single Subscription to the Monthly Publication Entitled the

UNIVERSAL MAGAZINE

The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, current literature, poetry—a splendid publication for the money. To introduce this interesting publication to new readers this year we are offering a premium of

FIFTEEN 5x8-INCH PICTURES.

They are colored reproductions of paintings by the greatest artists; all these fifteen pictures one premium.

LIST OF PICTURE SUPPLEMENTS.

No. 1—THE RETURN. Return of the Fishing Fleet.
No. 2—THE MILL STREAM. A Land and Water Scene.
No. 3—VENETIAN TRADERS. The Galleys of Venice.
No. 4—THE ARABS. Mounted Warriors in Battle Array.
No. 5—LIFE SAVERS. A Storm on the Sea Coast.
No. 6—THE SULTANA. A Beautiful Woman in Eastern Costume.
No. 7—TRUMPS. A Game at Cards.
No. 8—COUNTRY LIFE. The Homestead and Lane.
No. 9—IN FAIR JAPAN. The Homes of the Natives.
No. 10—THE PATRIARCH. An Eastern Picture.
No. 11—THE GRAND CANAL. At Venice.
No. 12—THE FISHERMAN. On the Eastern Coast.
No. 13—IN SUNNY ITALY. Scene in Naples.
No. 14—THE GILDED CAGE. Beautiful Female Picture.
No. 15—THE ARGUMENT. Old-fashioned Picture.

All these pictures are worth mounting and framing. We desire to say that these pictures are most beautiful. We buy large numbers and we selected them as the fifteen best out of one hundred elegant works of art. The pictures are all 5x8 inches, and are on art paper, and will be mailed together in one large, strong envelope, safe delivery guaranteed.

OUR SUBSCRIPTION OFFER.

Anyone who will send us twenty-five (25) cents in coin, money order or one-cent postage stamps for one-year's subscription to the UNIVERSAL MAGAZINE can select the fifteen 5x8-inch pictures as a premium. We guarantee safe delivery and satisfaction or money refunded.

Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Regular shipments of Australian meats to the Pacific Coast will turn stock raisers into fruit growers.

National Farmer and STOCK GROWER,

Monthly Farm Paper. Useful on grain, stock, dairy, poultry, fruit and vetgetable farms. Send for Free Sample Copy, or, what is better, send fifty cents for one year's subscription, and receive as a premium **Eight Hardy, Everblooming Roses,** one-year plants, the richest colors, the best varieties. They are **Rhea Reid, The Bride, Etoile de Lyon, Bridesmaid, Champion of the World, Papa Gontier, Bessie Brown** and **Crimson Rambler.** Nowhere else in the world can they be bought for the money. Address, **HALE PUB. CO., 3550 Vista Ave., St. Louis, Mo.**

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

The most important item we can publish at the present day is our industrial policy, so far as it relates to the tariff which is now under consideration at Washington. A bill detrimental to all American interests, especially the interests of the manufacturers and farmers, has already passed the House and is now in the Senate. We therefore repeat our views on that question.

The National Farmer and Stock Grower is in favor of the United States Custom House collecting by law a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, the amount of said duties to be applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government can be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people. We are in favor of duties being levied upon all manufactured goods for the double purpose of furnishing revenue and for the protection of our manufactures, for the reason that all interests are entitled to protection, if it is accorded to anyone.

We look with seriousness at what we regard as a great and unnecessary blow to the best-producing industries of this country in the tariff bill that has just passed the House. This country has had some experience in that line. Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result.

With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year; and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty displace home productions and result in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives far better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and general discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers. The farmers who can provide for themselves will be slow to increase their products in the face of injurious legislation.

Look Out For Worms.

A little precaution right now in ridding your farm animals of the treacherous stomach and free intestinal worms may save you a good many hard-earned dollars before the end of the year.

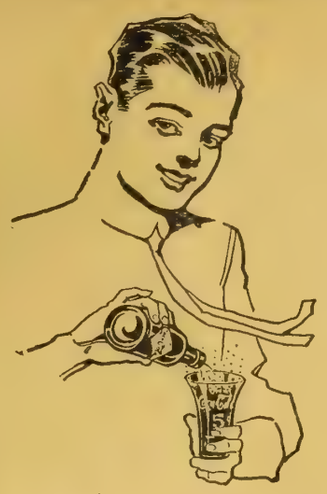
It is not only positively known that these pests kill millions of lambs and pigs every year, but they also keep stock in a thin, weak and half-starved condition, rendering them money losers instead of money makers.

But the gravest danger from these destructive pests is the weakening of the animals' constitutional and resistive powers, making them easy victims to hog cholera, swine plague, horse plague and other contagious diseases.

It is well known that the best way to fight off these plagues is to keep every animal in the healthiest condition, so it can resist the contagion, and one of the first steps is to drive out the worms. If you do this, your chances of loss will be decreased about 98 per cent.

Speaking of the different remedies recommended to destroy these worms, Mr. E. C. Evans, well-known live stock authority and Secretary of the American Hampshire Swine Record Association, says: "There is nothing within my knowledge as good or as cheap as 'Sal-Vet.'" He is supported in this claim by many agricultural colleges, and by such prominent breeders as Henry L. Wardwell, Hon. A. J. Lovejoy, President of the International Live Stock Exposition, Geo. McKerrow & Sons, Robert Blastook, Robert Evans, Roscoe Wood, C. O. Judd, C. A. Tyler, and hundreds of other leading lights in the live stock industry.

We do not hesitate to recommend "Sal-Vet" to our readers because of the good reports we have heard and because of the extremely liberal manner in which it is sold. Mr. Sidney R. Feil, President of The S. R. Feil Co., Manufacturing Chemists, Cleveland, Ohio, who make this preparation, offers in his advertisement on page 21 to send any reader of this paper a full sixty-days' supply of "Sal-Vet" without a cent of pay in advance and with the plain understanding that if it does not do what is claimed for it, no charge will be made.



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Demand the Genuine—Refuse substitutes.

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At Soda Fountains or Carbonated in Bottles.

THE COCA-COLA COMPANY, ATLANTA, GA.

NOVEL USE OF ENSILAGE CUTTER

Lumbering Concern Used Giant Model of Blizzard Ensilage Cutter For Making Kindling Wood.

A favorite stunt of agricultural implement men, when exhibiting Blizzard Ensilage Cutters at the Fairs, is feeding the machine pieces of inch board.

Quick as a flash the board is all chewed up into tiny bits, just as if it were corn stalks, and tossed high into the air (for the outlet pipe is taken off when giving this demonstration).

A lumberman from the Adirondacks, while visiting the New York State Fair, saw one of these machines reducing board to splinters, and it gave him an idea.

He got in touch with the manufacturer of the Blizzard and ordered a cutter, built on exactly the same lines as the ensilage-cutting machine, but many times bigger and heavier. You never could guess for what purpose he wanted this machine.

He had it shipped to his lumber camp in the Adirondack Mountains, and hitched to a big gasoline engine.

Then he put a gang of men to work hauling to the machine all the branches and limbs of the trees that were not large enough to use as lumber.

These branches are fed into the rollers, and like magic are chopped into small pieces suitable for kindling wood. This wood is shipped to New York City by the car-load, and sold to the poor families of the East Side far cheaper than if the chopping had been done by any other known methods.

The Jos. Dick Mfg. Co. will be glad to send you a book telling all about the Blizzard Ensilage Cutter, if you care to write them. Address, Jos. Dick Mfg. Co., 1416 Tuscarawas street, Canton, Ohio.

Watermelons From Florida.

On Monday, May 12th, the first watermelons to be received in St. Louis in 1913 arrived. They were shipped from Sanibel, Fla., to P. M. Kiely & Co., the shipment consisting of one barrel containing sixteen small melons, all about half the usual size. The melons weigh seven to ten pounds each, but sold quickly at from 50 cents to $1.00 each, most of them for restaurant display purposes. The sample of the new crop appeared about ten days earlier than ever before.

The World's Crop of Wheat.

The supply of wheat at present is keeping pace with the increasing demand. That is the conclusion of the best authorities. Last year the world's crop of wheat was 3,758,000,000 bushels, the largest crop ever grown.

DRESSMAKING PREMIUM.

A Complete Course of Instruction at Home in Ten Weeks.

The best book we have been able to find on the subject is "Dressmaking in Ten Weeks." It is by Mrs. Edith M. Carens, who is Principal of a College of Dressmaking, and is a condensed course of twenty complete lessons, and especially arranged for home study work. Each line is the result of careful preparation by an artist. There is information found here that can be obtained nowhere else.

The book instructs you on the buying of materials, the preparing of the cloth before it is cut, the designing, cutting, fitting and finishing of every kind of clothing in a woman's wardrobe. The size of the book is 5x8 inches, contains 127 pages, and has fifty illustrations.

Our Subscription Proposition.

What we wish to do is to please every girl and woman on the farm. We wish them to say to husband, to father, or brother, or to uncle: "I would like you to subscribe for The National Farmer and Stock Grower. It pleases me and will please you. The price is 50 cents a year. It is full of good articles on general farming and stock and poultry raising in all branches. And besides all that, if you do subscribe, I will receive as a commission or premium a copy of the book 'Dressmaking in Ten Weeks,' postage free and safe delivery guaranteed. I need that book, and the best way to get it is to send 50 cents for one-year's subscription to The National Farmer and Stock Grower. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE HOUSEHOLD.

A Chapter on Genuine and Bogus Linens.

We have on the market to-day three kinds of table damask—the Irish, the German and the mercerized cotton.

The Irish linens are noted for their beauty of design as well as fineness of thread with firmness and evenness of weave. The German linens have more conventional designs, as dots, squares, etc. The thread is heavier and coarser. German linens are not placed very extensively on the market, so a well-known linen firm tells us. Both Irish and German linen come in the bleached and unbleached.

The mercerized table linen is only cotton woven in damask patterns and treated with caustic alkali, the cloth being held in tension during the treatment. This produces a gloss, which, after repeated washings, is lost. This kind of table linen is hard to launder, as stains seem more firmly fixed in it than in linen. A linen table cloth becomes more beautiful after repeated laundrying, while a mercerized one looks like an old rag. Mercerized table linen cost very little less than linen.

Table linens come in 68, 72 and 96-inch widths. It is quite as cheap to buy pattern cloths as table linen by the yard. It has the advantage, too, of a border all around. They come in a great variety of sizes, from two yards square up.

The best towels for kitchen use, either as hand towels or those for drying dishes, are the linen crashes. These vary in price from 8⅓ to 35 cents a yard, according to the fineness of the weave and whether they are bleached or unbleached. There are cotton crashes on the market, which the clerk tells you are just as good and cheaper. They are not enough cheaper to pay for the trouble in laundering them. They also leave a lint on dishes. There is a special linen crash on the market for roller towels. It has an extra strong selvedge and consequently does not tear easily.

Huck makes the best toweling for bedroom use. It has a rough surface and absorbs water readily. It may be procured either in a plain or figured design. All-linen huck cannot be bought for less than 40 cents a yard.

Damask towels are beautiful in weave and design, but on account of the smooth surface do not absorb water readily. Their use is best confined to scarfs for dresses, etc.

In buying Turkish towels, fold the towel over the finger and observe the spaces between the loops of thread. A towel in which the loops are close together is the best one to buy, as it wears longer and absorbs water more easily.

All towels should be of such material and trimming that they may be boiled in laundering. This is only a necessary precaution to prevent the spread of infectious diseases.

All materials, such as toweling and table linen, are often adulterated with cotton when they are put on the market as all-linen. It behooves the housewife to know means of distinguishing between cotton and linen. The old test of moistening the finger and putting it under the cloth is not always sure. It is better to put on a drop of olive oil and dry slightly between blotters. The linen is much more transparent than the cotton.

It is a good plan to ravel out the cloth and examine the fibres. Cotton thread is made up of short fibres, which project from the surface of the thread. This gives a fuzzy appearance if you rub the thread. If you break a cotton thread you find the end is tufted, while a linen one breaks unevenly, leaving the end pointed. Linen thread is stronger than cotton, and is uneven in appearance. It is also more lustrous.

It certainly pays to buy of a reputable firm, for unless a person is a good judge of linens, one is very liable to pay for experience of bargain hunting.—Bulletin from the Colorado Agricultural College, Fort Collins, Colo.

Good Summer Remedies.

A remedy that is good for summer complaint in children or grown persons is made as follows: Pour a cup of boiling water over one heaping teaspoonful of pulverized Turkish rhubarb, and when cool add one teaspoonful essence of peppermint and the same of common baking soda, then sweeten, put in a bottle and keep in a cool place. Give one teaspoonful every hour until relieved, then lengthen time between doses. This is for a child one to two years of age. Give more for older persons.

A good remedy for poisoning by ivy and other poisonous vines and plants is rich buttermilk in which has been beaten some green tansy leaves until the milk is thoroughly tinctured and bathe the parts often until relieved.

A mixture of equal parts of quinine and lard or cream makes an excellent salve to use for the poison.

To relieve pain caused by mosquito bites, moisten a small piece of yellow soap and spread it thickly over the spot; and for ant stings use common wash bluing. Apply the liquid immediately to the fresh injury, and use turpentine for a wasp sting. For a bee sting, crush a plantain leaf and bind over the sting and it will soon drive the pain away.

Excessive perspiration in summer is often due to a poor condition of the general health, in which case an iron tonic will often give relief for this trouble, and a sponging in water softened with ammonia will usually destroy the odor. Those persons who are unfortunate enough to have their feet perspire will find by bathing them with an oak-bark solution it will tend to lessen it. Get one pound of oak bark, steep it half an hour in two quarts of boiling water, strain and bottle, and use a little of this in the water when bathing the feet.

An excellent powder to use for perspiration is made with one ounce of baking soda, one-half pound of pure borax and one drachm of sachet powder.

One of the best powders to use for prickly heat and other slight skin eruptions before they have time to develop into those distressing rashes so prevalent among children is made with plain starch pulverized and sifted with a little soda and a teaspoonful of borax added, then this can be put in a talcum-powder can ready for use.

There is nothing more useful through the summer months than a bottle of borax solution prepared by dissolving a heaping tablespoonful of the powder in a quart of hot water, then this can be kept in a bottle, and a little of this solution used in the water night and morning when bathing the face will help to keep the skin soft and white; and a saturated solution of borax and rose water is an excellent wash for freckled skin and should be used several times a day by applying with a soft cloth and allowing it to dry on the skin.—M. A. T.

Big Tin Producers.

Bolivia is the world's second largest producer of tin, the main supply coming from the Malay straits.

Burbank's Crimson Winter Rhubarb.

A PREMIUM worth a fortune. A plant that can be grown in paying quantities on any small piece of ground, also in the house cellar, Returns $1,000 profit per acre. This is a creation by the famous plant specialist, Luther Burbank, of California. Rhubarb is a universal plant, and this Burbank's Crimson Winter Rhubarb is the King of the entire species, producing stalks of medium size, twelve to eighteen inches long, and producing them in all the fifty-two weeks of the year, whereas the productive life of common sorts is twelve weeks.

Burbank's Crimson Winter Rhubarb—Improved by Wagner.

A few roots of Crimson Winter Rhubarb will supply a large family and at the same time increase roots to enlarge the crop. We have decided to use a few roots of Burbank's Crimson Winter Rhubarb in connection with the Subscription Department of The National Farmer and Stock Grower.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains many good poultry facts, etc., etc., etc.

THIS IS A DOLLAR PROPOSITION.

Send us One Dollar ($1.00) and we will credit you with two-years' subscription to The National Farmer and Stock Grower, we will send you by mail prepaid Six Roots of Burbank's Crimson Winter Rhubarb, and we will also send you a copy of J. B. Wagner's booklet, entitled "RHUBARB FOR PROFIT." This premium is in line with the policy of the publishers of The National Farmer and Stock Grower to furnish premiums that can be developed. Rhubarb is never dormant in warm climates, and in any country the roots can be planted any time the frost is out of the ground. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

TOY BOOK PREMIUMS.

Pleasure and Instruction For Children, Especially During the Holiday Season.

We are always on the lookout for something that will please the children and at the same time be of an educational advantage to them. Our beautiful toy books, the first we have ever used as a subscription premium, are delighting the hearts of the little ones, and we are greatly pleased to consider these books as one of our very best premiums. We are issuing these toy books as supplementary premiums to The National Farmer and Stock Grower. These toy books are substantial, beautifully colored and illuminated. The illustrations are astonishing in the delightful colorings. There are four sets. They are as follows:

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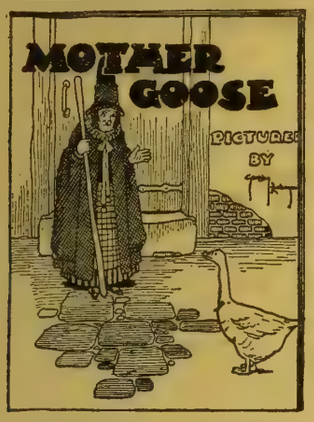
No. 101—Three Bears.
No. 102—Three Kittens.
No. 103—Ten Little Pigs.
No. 104—Noah's Ark.

Fairy Tale Series.

No. 107—Sleeping Beauty.
No. 108—Little Tom Thumb.
No. 109—Puss in Boots.
No. 110—Little Snowdrop.



Mother Goose Series.

No. 113—Mother Goose..
No. 114—Cinderella.
No. 115—Jack and the eBanstalk.
No. 118—Little Red Riding Hood.

Little Darling Series.

No. 119—A B C at the Zoo.
No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

1. Send us twenty-five (25) cents for six-months' subscription to The National Farmer and Stock Grower and you can select one set of four (4) toy books.

Order toy books by numbers. Select either four you desire. Address your orders to **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Variety in Farm Life.

The objection that farm life is narrow may have been true in the last century, but it is now true only of the individual that is narrow-minded. If he chooses to tie himself to the plow and milking stool, he will have little difficulty in succeeding. But he has no business to do this and the man who does would in all probability have a contracted horizon in any other walk of life.

To the broad-minded person farm life offers rare opportunities in many directions. No other occupation is so well adapted to infinite enlargement of ideas. Duties vary with the seasons, thereby relieving the monotony of work. There is constant room for observation and learning something new about the work. And with these should come an insight into the higher culture that is a resultant from true communion with nature.

The panorama of the seasons may be a source of perpetual delight. The quickening of the streams, the green veil which comes over the weeds in a single night, the first blue bird song, are only a few of the exquisite touches of spring. The untiring labors of the birds in caring for their nestlings, the rustle of growing corn, the maturing of the grain, are pleasing features of summer life. We are too apt to smile only when the skies are blue, forgetful of the fact that clouds sometimes enhance the value of the picture.

The farm is a favored spot for observations along practical lines. Each day brings some new idea to the thoughtful, some improved plan which will render labor easier or more fruitful. The field is equally fertile for developing the aesthetic in our nature. Beautiful things are constantly moving in cycles through life. Where, then, is the monotony of the farm, unless we treasure it in the barrenness of our hearts? The trained eye and ear, the willing hand and the sympathetic heart will see the world beautiful daily upon the farm.—Bessie L. Putnam.

The Scourge of Dishwashing.

This is one of the bugbears to the average housewife, and yet there is no escape, though there are new ways which lighten the labor. There are patent dishwashers now in the field which do the work well, sterilizing everything; yet most of them are scarcely perfected in a way to seem available to the average housewife. They take considerable water and are limited in capacity or too bulky to be convenient in the kitchen. Yet they prove to us that the real thing in compact form is a possibility near at hand.

Meantime we can save ourselves in many ways. There is the dishmop and the iron dishcloth, which save the hands from much contact. The clearing of the table counts for much in saving time. Scrape the plates clean and then finish with wiping out the gravy plate with a crust of bread for the cat or dog; or, if the left-over bread is to be made into stuffing, it will be the better for the meaty flavor imparted by the gravy. Soak all cooking utensils, putting in a little water as soon as the food is removed. If one is scorched, a little wood ashes and water boiled up in it will loosen the scorched particles and save the wear and tear of scraping them away.

Wash the glassware first, the silverware next, and then the china that is free from grease, leaving the greasy things for the last. Use hot water and a good soap or washing powder. Rinse in very hot water and drain in a rack for the purpose. Or, if you have no rack, spread a cloth on papers in the sink, take the cups out of the boiling water and invert upon it, then place the saucers, plates and other dishes on their side, leaning around the cups. After a few minutes the water will have drained off and a whisk from the cloth will finish them, saving most of the work of dishwashing and leaving them bright and free from lint.—Bessie L. Putnam.

The Automobile, Reo the Fifth.

We continue to receive the most enthusiastic letters from our patrons upon the reliability, economy and efficiency of the Reo the Fifth Automobile advertised on page 19, and particularly upon its unique smokeless oiling system. Willis Barber writes that he has just completed a run of 17,000 miles with his Reo the Fifth, in which he used but two gallons of lubricating oil. He says that it is next to impossible to get his Reo engine to smoke, and that he is astonished at the small amount of water which the Reo cooling system requires, which is another good proof of the perfect design and smooth-running qualities of its motor. This is the same model Reo which R. M. Owen drove 1,460 miles as the official pilot car in the last Glidden tour from New York to Jacksonville on less than a quart of water. For full particulars and car catalogue please write to R. M. Owen & Co., Lansing, Mich., and kindly mention this paper.

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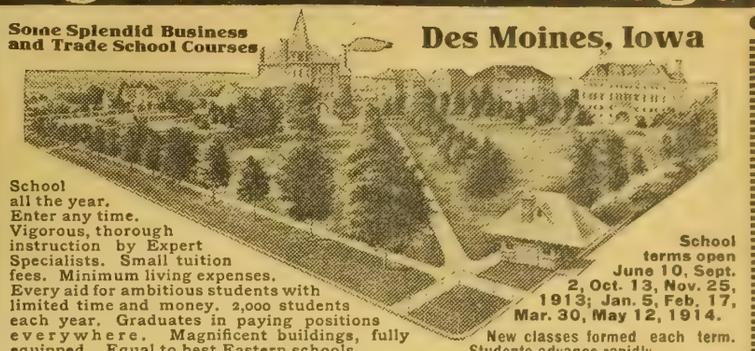

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Expenses Board, $1.75, $2.25 and $2.75 per week. Tuition in Preparatory College, Normal and Business Courses, $18.00 a quarter. Send for catalogue. State Course in which you are interested. Address

REV. GEORGE P. MAGILL, D. D., Acting President, Des Moines, Iowa

Boiled Water For Drinking Purposes.

Much of the so-called "summer complaint," which is common during the heated season of the year, is due to the use of impure drinking water. The microscopic forms of life present in the raw water of the ditches and rivers produce certain fermentations in the stomach and bowels which give rise to the characteristic diarrhoea and griping pains.

Such discomfort can be prevented almost entirely if taken before the illness occurs, by drinking boiled water exclusively during the summer months. If it is not convenient to get boiled water when away from home, the liquid diet should be confined to tea or coffee; milk may be as dangerous as water and is often more so. A tea-kettle of water boiled for five minutes and poured into a stone jar on the back porch to cool over night furnishes every household with a supply of drinking water which is perfectly safe and inexpensive.

The flat taste of boiled water to which some persons object is almost entirely removed by exposure to the free air over night. Some suitable covering for the jar, such as several thicknesses of clean cheese-cloth, should be provided, which will keep out the dust and other foreign matter, but which will not exclude air.

When the habit of boiling the drinking water has become established once, the little time which it requires will never be missed, and the freedom from sickness resulting will more than compensate for the trouble.—Walter G. Sackett, Colorado Experiment Station, Fort Collins, Colo.

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If you are not now a subscriber to the UNIVERSAL MAGAZINE you are missing one of the most delightful publications, and as a trial offer we will send the UNIVERSAL MAGAZINE for a year and one of these Thimbles for thirty cents in stamps or coin. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication. The sizes of the Thimble are 7, 8, 9 and 10; order by size. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Strawberry Ways.

It has been well said that "God might have made a better berry than the strawberry, but He never did." It comes at a time when nature's offerings fresh from the field are limited in number. It is relished by almost every person, and it is so healthful as well as refreshing that its value is ever apparent. It contains lime, soda and potash, and is especially healthful to those rheumatic or of a bilious temperament. A little of the juice added to water is a most refreshing drink on a hot day, yet so delicate in flavor that the sick may take it without injury.

While there are many ways devised for the serving of this fruit, it is doubtful if any surpass the old-fashioned dressing of sugar and cream, and the numerous variations which most closely approach the method of our grandmothers are still equally sure of royal welcome. But the combinations may sometimes fit more closely into our supplies at hand, and variety, even in the serving of strawberries, is a pleasure.

They make a delicious breakfast dish when alternated with layers of a warm cereal, as rolled oats, placed in a buttered mold and let it become cold. Then cut in slices and serve with sugar and cream.

Strawberries combine with boiled rice in a similar manner. Place the rice in cups, having it an inch thick in the bottom and around the sides. Fill the hollow with fresh strawberries or canned ones from which the juice has been drained. Cover with rice and eat with sugar and cream.

Soda biscuit with strawberries make a meal fit for the gods. To three teacupfuls of rich sour buttermilk add a teaspoonful of soda; if half a cupful of cream is available it will be an improvement. Stir into a dough stiff enough to be readily handled. Roll a little less than an inch thick, cut in rounds and bake in a quick oven. A part of this dough may be reserved for a berry shortcake. Roll two pieces a quarter of an inch thick and the size of the desired cake. Brush over the top of one with melted butter and place the other upon it. When baked they will readily separate. Then spread butter on both, cover the lower one with fresh strawberries and sugar and add the upper layer. Serve warm with cream and sugar.

Strawberry Pie.—Make a crust in the ordinary way. Fill with a thick layer of berries, sugar and sprinkle a tablespoonful of flour over the top. If the fruit has stood for an hour in sugar it will furnish its own juice; otherwise, add water, also small bits of butter. Serve with two crusts.

Strawberry Pie No. 2.—Bake a crust of rich pastry in a deep pie pan; also another just large enough to cover it on a flat surface, pricking both well to avoid blisters forming. While hot, fill the lower crust with fresh berries and sugar, and then put on the upper crust. This will furnish heat enough to shape the berries down and yet they will have the fresh taste, superior to the cooked fruit.

Strawberry Pie No. 3.—Make a rich crust and bake. Fill it with fresh berries. Cover with sugar and cream, then beat the whites of three eggs to a stiff froth with half a cup of sugar, flavor with lemon and place in the oven until slightly browned.

Strawberry Tapioca.—Soak a cupful of pearl tapioca two hours; place in a double kettle with one pint of water and a cupful of white sugar and cook until clear. Hull and wash a cupful of berries, and when the tapioca is partly cold, stir them into it, being careful not to break the berries. Pour into a mould and serve cold with cream and sugar.

Strawberry Pudding.—Break two eggs into a teacup and fill it with cream or rich milk, one cup sugar, one and one-half cups flour, one-half teaspoonful soda, and if the milk or cream is not sour, mix one teaspoonful of cream tartar with the flour. Bake in moderate oven. Serve with a sauce made from one pint of sweet milk or water. When boiling, stir in a cupful of berries, sugar to taste, a small piece of butter, and thicken to the consistency of rich cream by stirring in a spoonful of flour moistened until it will not make lumps in the sauce. Serve warm or cold.

Strawberry Charlotte. — Make a custard by beating together the yolks of two eggs, three heaping tablespoonfuls of sugar (brown preferred) and a heaping tablespoonful of flour. Mix the flour and sugar, to avoid lumps, and then add the eggs. When well beaten add a quart of milk and cook until it thickens, flavor to taste. Line a glass dish with pieces of sponge cake or any stale cake dipped in sweet cream, then add a layer of fresh strawberries with sugar, and thus alternate cake and berries until the dish is nearly full. When the custard is quite cold, pour over the whole. Beat the whites of the eggs to a stiff froth, sweeten and put over the top just before serving. Decorate with ripe berries.

Fruit Punch.—Boil one quart granulated sugar and one pint of water together for five minutes; when cool add the grated pulp of eight oranges and eight lemons with one pint of rich syrup from strawberries, fresh or canned. Let stand half an hour and strain through coarse cloth, squeezing hard to extract the juice. Add enough ice water to make two gallons. Place a six-inch piece of ice in the punch bowl, pour the liquid over, and add a teacupful of fresh or preserved berries. This is sufficient to serve seventy-five persons.—Bessie L. Putnam.

Simple Cure For Tuberculosis.

Dr. Seviers S. Warren, a member of the Medical Relief Corps of the United States Army, located at San Angelo, Tex., claims that common phenol-petroleum, or carbolated vaseline, will relieve many cases of tuberculosis, either by use hypodermically or by inoculations.

Dr. Warren has been working on this treatment for years. In San Angelo he has treated in the past year a number of patients and many of them have made remarkable recoveries.

Dr. Warren is a strictly ethical physician and wishes the whole world to know of his discovery. He has nothing to sell and does not expect to make one cent out of his discovery.

Says the new Secretary of Agriculture: "Co-operation is a word I dislike. Many co-operative enterprises are fakes. They are no more than private combinations run for personal profit."

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is a splendid monthly publication; nice, bright, cheerful, illustrated; 32 pages, three columns to page. Send for Sample Copy, or, what is better, send fifty cents, and we will send you the **Universal Magazine** for two years; we will also send one set of **Eight Hardy, Everblooming Roses,** one-year plants; the finest collection. They are **Rhea Reid, The Bride, Etoile de Lyon, Bridesmaid, Champion of the World, Papa Gontier, Bessie Brown** and **Crimson Rambler.** Nowhere else in the world can they be bought for the money. Address, **HALE PUB. CO., 3550 Vista Ave., St. Louis, Mo.**

At Chicago, May 22d, a car of 1,395-pound distillery-fed bulls sold at $7.35 per 100 pounds.

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After thirty years' experience in curing rupture, I have invented an Appliance which will absolutely hold the rupture and never slip, yet is light, cool and comfortable. It conforms to every movement of the body without chafing or hurting, and costs less than many common trusses. There are no springs or hard, lumpy pads, and yet it holds the rupture safely and firmly without pain or inconvenience. I make it to your measure, and send it to you on a **strict guarantee of satisfaction or money refunded,** and I have put my price so low that anybody, rich or poor, can buy it.

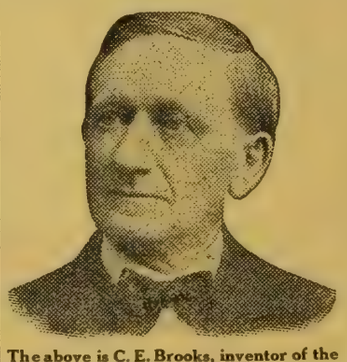
DOUBLE RUPTURE CURED.

Lecompton, Kans.,
R. F. D. No. 2, Feb. 7, 1911.

Mr. Brooks.

Dear Sir:—I drop you these few lines to say I am well pleased with your Appliance, as it has effected a permanent cure in my case. I have been ruptured eighteen years. Am now forty-two and wore a great many trusses before I got your Appliance. The ruptures disappeared after wearing the Appliance a few months. Mr. Brooks, I will do all in my power to recommend your Appliance, not only for your benefit, but to help others who suffer from rupture.

Your True Friend,
W. F. BUCHHEIM.



The above is C. E. Brooks, inventor of the Appliance, who cured himself and who has been curing others for over 30 years. If ruptured, write him today at Marshall, Mich.

"COMPLETELY CURED."

Hebron, Douglas Co., Mo.,
June 12, 1911.

C. E. Brooks.

Dear Sir:—Some time ago I purchased an Appliance from you and am now pleased to inform you I am not wearing it nor will I ever need it again, for to my great surprise, it has completely cured me. I hardly hoped to be cured at all, but the cure was effected in about seven months. Many thanks for the kind way in which you have treated me.

Yours gratefully,
S. B. LITTELL.

I have received thousands of letters like these from grateful patients the world over. This appliance gives **instant relief,** and effects permanent cures when everything else has failed. Remember, I use no salves, no harness, no lies. Fill out the attached coupon and mail today, and I will send you free my illustrated Book on Rupture and its Cure, showing my Appliance, and giving you the names of many people who have tried it and are now permanently and soundly cured. Remember, I send my appliance **on trial** to prove what I say is true. You are to be the judge. Send free coupon now.

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Some Fireless-cooker Dishes.

During the warm weather the fireless cooker is especially a boon in a kitchen, where the only facility for cooking is a wood or coal stove, though even where gasoline, gas or electricity is the cooking medium hours of labor and strain are saved by the use of the fireless cooker. On Sundays, or when a trip to town is necessary, it is especially appreciated, as the entire dinner can be put in the cooker before leaving home and it will be ready to serve upon the return. The cooker stews, roasts, fries or bakes the food, and in most cases this slow, sure process of cooking brings out richer flavors and a greater amount of nourishment than is possible in the quick cooking of food over a fire.

It is easy to learn the use of the fireless cooker. The food to be cooked must first be placed over a fire and heated to the point where it steams. In the case of a large piece of meat, the outside may be hot and steaming while the inside is still unheated. To give satisfactory results the meat must remain over the fire until, in the judgment of the cook, it is steaming throughout. The fireless cooker does its work by the retention of the heat produced over the fire, so the more heat there is put into the food before it is placed into the cooker the sooner it will be cooked. For this reason, also, all foods to be boiled should but put in full kettles of water, as this large quantity of water will retain the heat longer than a small quantity.

The following recipes may be satisfactorily tried:

Beef Pot Roast.—Select a piece of beef weighing about four pounds and a fair quantity of fat in it. Season and place this over a quick fire. Keep turning the meat until the outside is seared to a rich brown. Then add one-half cup of water, a small onion and half a dozen small carrots. Cook for ten minutes, then place in the fireless cooker for four hours. The gravy may be thickened with a tablespoonful of flour before serving. Four hours is the least time in which this quantity of meat will cook, but it may remain in the cooker much longer and the meat will be all the better.

Wax Beans.—Wash, trim and cut the wax beans, than place in a kettle of boiling water and add salt for seasoning. Cook for five minutes, then place in the fireless cooker and allow them to remain for two hours.

Fireless Cooker Baked Beans.—Cook a quart of navy beans for half an hour, then add a teaspoonful of baking soda, boil up for five minutes and pour off the water. Then add a seasoning of salt and three teaspoonfuls of prepared mustard, and lay upon the top one-half pound of salt pork cut into thin slices. Add one-half cup of water and cook on the fire for fifteen minutes, than put in the fireless cooker for four hours.

Custard.—Scald one pint of milk; beat two eggs and add to them one-half cup of sugar and a teaspoonful of vanilla or a pinch of cinnamon; add the milk. Heat this in a double boiler over the fire to the boiling point, then place in the fireless cooker for half an hour. Have at least a pint of hot water in the boiler. The custard may be cooked in cups if preferred.—Janet Thomas Van Osdel.

Canadian Live Stock.

According to the United States Department of Commerce, in 1912 there were on Canadian farms 2,336,800 horses, 2,890,100 milch cows, 4,093,600 other cattle, 2,360,600 sheep, and 2,656,400 swine.

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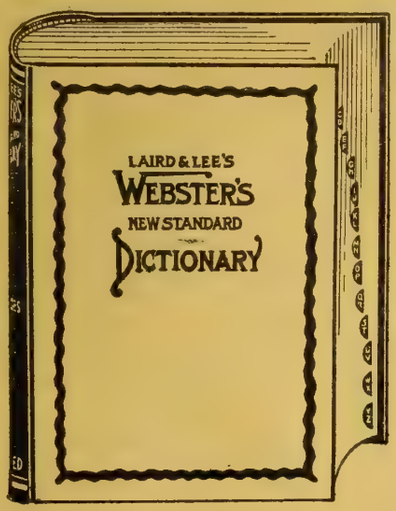

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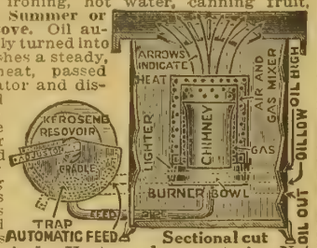

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The above patterns will be mailed to any address by the Pattern Department of this paper on receipt of 10 cents for each.

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Rabbits From Argentine.

From Washington, D. C., on May 31st came the startling news that in addition to the meat which we are expecting from Argentine, which will consist mainly of beef and mutton, there will also be a supply of hares. The only drawback to this development is, that they do not appear to be able to catch the hares fast enough.

Then comes the inevitable remark that Great Britain imports more than 50,000,000 pounds of rabbits each year. That statement is very true, but the great supply is neither from Australia or Argentine but from Belgium, and they are imported dressed from Ostend, leaving Ostend one day and appearing in the city of London the next day, and nearly all the Ostend rabbits are sold by so-called costermongers (English for hucksters) and bought by families from off the wagons. Had the Belgian hare people tried to raise meat instead of trying to sell breeding stock at fancy prices we would to-day have a meat supply of our own that would be profitable to raise and if distributed properly would be an instance of wholesome food at a low price.

Universal Salt and Pepper Shakers.

The Universal Magazine ought to be known to all our readers, for the reason that it is a nice publication that is very good company on a farm.

The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication. One thing about the Universal Magazine is, that it is not loaded down with advertisements.

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To anyone who will send us twenty-five (25) cents we will send the Universal Magazine for ten months, and we will send the pair of Universal Alumium Salt and Pepper Shakers as a premium, postage paid, safe delivery and satisfaction guaranteed.

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Know the Goods You Buy.

A penny saved is a penny gained, says the old adage, and it applies to larger amounts of money as well. One way of saving is to buy goods that are what they are represented to be, and, unless dealing with a merchant who can be depended on, take nothing unless you know it to be genuine. Do not buy mercerized cotton, expecting that you are getting linen or silk because of its gloss.

Anthony Mercer did a great thing for cotton when he discovered the process that made it possible for this material to masquerade as something more aristocratic, but it has not helped the housewife, who is so often deceived by appearances.

Until there is a law that compels the manufacturer of fabrics to state their composition, like the maker of food products must label his wares, so the consumer buys with full knowledge of what he is getting, there is need for knowledge in detecting adulterations. Time was when the manufacturer made his goods all wool, or wool filling and cotton warp, or else all cotton, and it was not hard to tell the difference after comparisons had been carefully made of the different classes; but now the wool and cotton are skillfully mixed by carding the fibres of the two together, and the process of weaving makes a uniform fabric that many mistake for all wool.

Take a thread between the thumb and finger of each hand and pull till it breaks. If all wool, the fibres will not break evenly, but will have "curly" ends. If all cotton, the thread will be smooth and will snap short. If mixed, the thread will partake of both characteristics. If a woolen thread is burned, it will sizzle and give off a disagreeable animal odor, like burning feathers, while the cotton thread or cloth burns in a quick flare with a smell more like paper or wood. If samples of cloth are put in a pint of water in which a tablespoonful of lye has been dissolved, the wool will be eaten up, as our grandmothers used to say, while the cotton is not affected. This is a hint not to use too caustic soaps on wool goods.

Linen may be made to pass for cotton by the mercerizing process, which gives gloss to the fabric, but no art that the writer knows of can impart the smell of flax, neither will the cotton have the weight of linen. Then there is another test that is conclusive: Get a sample of the goods and wet with glycerine. If linen, it will become opaque; but if cotton, it will become more translucent.

Silk, too, is frequently adulterated with mercerized cotton. This does not detract from its wearing qualities, but it spoils its appearance after a time. The same tests that are recommended for recognizing wool will serve for silk, both being classed as animal products. Silk is also adulterated with tin, which gives the fabric weight, but such silks split and do not wear at all well. A piece of tinned silk burns very slowly, owing to the presence of the metal and this is the only indication that the unprofessional can discover that will prevent disappointment and loss.

The question of color has something to do with the value of materials, as some colors fade more easily than others. The only remedy is to avoid delicate lavender, blue, pink and green in strong sunshine, for though this dye is entirely fast to washing, these light tints lose their beauty when exposed to a hot sun. Of course, they may be redyed at home with little expense, if one cares to take the necessary trouble, but it is well to bear in mind the use that one intends to put a fabric to before buying it.

One more adulteration that nearly escaped mention, namely shoddy. This is made of old wool cloth or rags, shredded into a sort of pulp, then twisted into thread for weaving. It takes the gloss of wool and is used to make cheap "wool" clothing, the warp of such cloth being very fine cotton "filled" with the shoddy wool. The shoddy can be easily detected by breaking the thread, which has little resistance, not being made of the natural fibre.

The suggestions given here have saved the writer much disappointment and loss, and they are passed on to younger women who want to make every dollar count in comfort for themselves and others, a worthy ambition, and one that will tend to make happy homes.—Cena S. Cornman.

The Real Trouble Was Mother.

The old lady from the country and her small son were driving to town when a huge motor car bore down upon them. The horse began to prance, whereupon the old lady jumped out, screaming at the top of her voice. The chauffeur stopped and offered to help.

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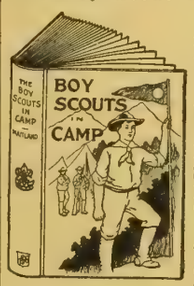

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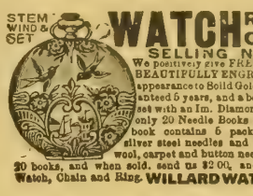
We positively give FREE a STEM WIND, STEM SET, BEAUTIFULLY ENGRAVED, Plated WATCH, equalin appearance to Solid Gold Watch. American made, guaranteed 5 years, and a beautiful Ring set with an Im. Diamond, for selling only 20 Needle Books at 10c. Each book contains 6 packs large-eyed silver steel needles and 15 darning, wool, carpet and button needles. Order 20 books, and when sold, send us $2.00, and we will positively send the Watch, Chain and Ring. WILLARD WATCH CO. Dept. 627, CHICAGO



PILES, FISTULA, BLEEDING, RECTAL, ULCER, Etc.
Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 300-page Book on Rectal Diseases.
DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

Three Indian Dolls For 30c.

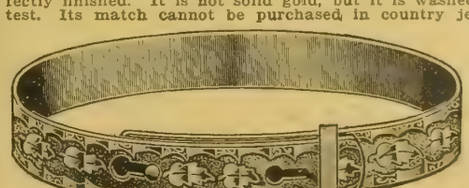
And a year's subscription to the Universal Magazine. These dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—THE PRINCESS TAMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. The Universal Magazine is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry— a splendid publication.

Send us thirty (30) cents for one-year's subscription to the Universal Magazine and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

5 YEAR GUARANTEE **98 CENTS POST PAID**
To advertise our business, make new friends and introduce our big catalogue of Elgin watches we will send this elegant watch postpaid for only 98 cents. Gent's size, high grade gold plate finish, lever escapement, stem wind and stem set, accurate time keeper, fully Guaranteed for 5 Years. Send 98 cents today and watch will be sent by return mail. Satisfaction guaranteed or money refunded. HUNTER WATCH CO., Dept. 28, CHICAGO, ILL.

The Universal Magazine Bracelet.

This is all the rage. An adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the Universal Magazine. The Universal Magazine is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the Universal Magazine for two years, and we will send one elegant Universal Magazine Bracelet, postage free, as a subscription premium. Money returned if not satisfied. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.



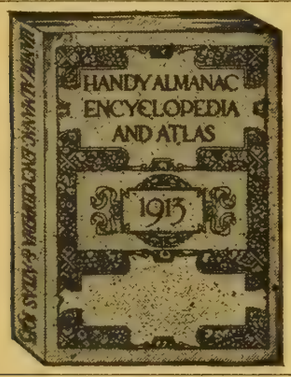
To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the Universal Magazine and we will also send one extra Bracelet for getting up the club.

HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS FOR THE YEAR 1913.

A Book of Knowledge For Home or Office—Book Mailed Promptly on Receipt of Order.

For the purpose of furnishing the subscribers of THE NATIONAL FARMER AND STOCK GROWER a splendid book of up-to-date information we have published the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS, a book of 216 pages, 6x9 inches, including a carefully-prepared index and a number of maps printed in colors.

To give an idea of some of the good things it contains we mention the subjects treated of, such as the Postal Banks—the Parcels Post Mail—new Pension Law—new Eight-hour Law—Highest Structures in the World—Olympic Records—World's Crops—Aeroplane Records—United States Flag Regulations—Arbitration Treaties—Explanation of Initiative, Referendum and Recall—the Panama Canal—the Panama Exposition—Astronomical Calculations and Eclipses For 1913—How to Foretell the Weather—Average Weather in Various States—Domestic and Foreign Postage—Weights and Measures—Interest Laws—Statute of Limitations—Tariff Law—Sherman Anti-trust Law—Length of Railways and Telegraph Lines—Length of Ocean Cables—World's Longest Bridges—



Highest Mountains—Governments of the World—Sporting World's Records—Important Dates in American History—Rules For Spelling and Punctuation—Household Hints—Cooking Time Table—First Aid to the Injured—Etc.

There is very much more in the book than we have stated, and in addition thereto there is the vote at the Presidential election.

A Subscription Proposition.

Anyone who will send us fifty (50) cents for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER can select the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS as a free premium. We will send the book postage paid, safe delivery guaranteed. Money refunded if not satisfied.

SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.: Herewith please find Fifty Cents to pay for one-year's subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the HANDY FARM ENCYCLOPEDIA AND BUSINESS ATLAS.

Name.....

Address.....

Beautiful Eyes.

"Daisy and me were just over to grandma's house, mother," said Dorothy. "Aunt May was on the porch with her friend and Aunt May was talking about us, but she couldn't see Daisy and me on account of the lilac bush at the corner of the porch. We were playing behind it, and she was telling her friend that we'd be the loveliest twins if only 'twasn't for Daisy's eyes; that they're little, squinty, blue ones, and spoil all of Daisy's looks. And now Daisy's in the summer house crying just as hard, and I can't make her stop nor come in to you."

The mother's face became serious as she listened to Dorothy. Then, taking Dorothy's hand, she said: "We will find Daisy and talk it over."

In the little arbor Daisy still lay sobbing. Close in her mother's arms she was comforted for a moment and then the mother said: "Listen, little twins. There are many things your Aunt May has yet to learn, and one of them is what beautiful eyes really are. You have heard all of us tell so much about Aunt Margaret; what a lovely woman she is, and how her friends admire her. Some people who do not understand about beautiful eyes might say that Aunt Margaret's are crossed and that they are not of a very pretty color; but those who know her best think only of the beautiful way in which she uses her eyes. She never sees ugliness where she can possibly see any beauty; she never sees evil if she can see good. When it is snowing and so many are complaining about the bad weather, Aunt Margaret will very likely exclaim: 'What beautiful white weather! Even the old truck in the back yard has on a pretty white dress!' And if it is raining you might hear her say: 'God's good rain means that we shall see the blossoms soon.' When little crippled Johnny Brinks came into her school room she made her pupils see his bright smile and learn to love it so that they forgot all about his crippled back. Her kind eyes see good in every man and woman and in every little girl and boy that she knows. They are such loving eyes that they are lovely. If my Daisy and Dorothy have such eyes, it is the best I can ask for them, and the color and size make no difference."

Now the tears had left Daisy's blue eyes and Dorothy's brown ones shone happily.

"Let's go and 'splain to Aunt May and her friend about beautiful eyes," said Dorothy, and they scampered away with sunny faces.—Janet Thomas Van Osdel.

Without a Hat.

"To wear a hat, or not to wear one," that is the question. Most girls answer it by going bare-headed—but they have to pay for their recklessness later.

"But it's good for the hair," one argues.

I admit that the hair should, like a plant, have plenty of light and air in order to grow well, but a too ardent summer sun scorches and fades the hair, and in general does it more harm than good. It is not the hair, however, which constitutes the most important reason for or against the custom.

The effect upon the head, the eyes, the expression of the face, and the complexion is much more serious. Without a hat the eyes are dazzled with the brightness of the summer glare, and the result is that the forehead becomes wrinkled and furrowed with the attempt to lower the eyebrows and protect the eyes in that way. Wrinkles appear at the corners of the eyes and folds form below in the process of squinting to keep out the excessive brightness. A permanent scowl develops and headaches are often frequent.—The Ladies' World for June.

Ladies at the University.

A new list of dormitory rules governing the co-eds who live in Willard Hall, the young women's dormitory of Northwestern University, were promulgated in May. They are as follows:

Don't study too hard. People may think you are planning to earn your own living.

Don't retire with undrawn curtains. The rubber industry flourishes in Evanston as well as in Peru.

Don't knock the food. Remember that it's your money that's paying for it.

Don't raise your voice above a whisper. People may think you were raised in a factory.

Don't chew gum on the campus. If you must chew, try the rag.

Don't swear or use bad language. Not because we object to it, but because it sounds bad.

Don't kiss each other in public. It's awful to see a woman doing a man's work.

Don't be a freak. The squirrels have enough nuts to attend to now.

The City Girl's Question.

Little Dorothy had never before visited her grandfather, who lived in the country. The chickens occupied her undivided attention for half her first day at the farm. Finally she sought her grandfather and shyly asked:

"Grandpa, do all hens eat with their noses?"

Any farmer who will read this publication through will find that it will help him in his business, the family in the household and the employes in their work.

A Pocket Book Circulation Premium.

THE NATIONAL FARMER Folding Bill Book.

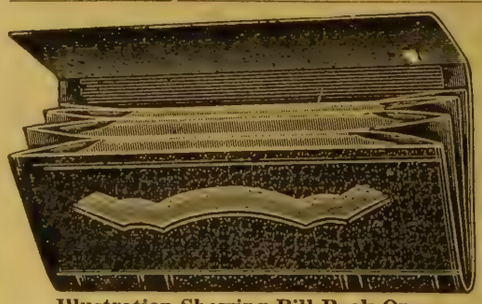


Illustration Showing Bill Book Open.

Convenient to carry Currency, Bills, Notes, Receipts, Railroad Tickets, Lodge Identification Cards, Stamps, Etc.

BEST VALUE AND MOST SERVICEABLE PREMIUM EVER OFFERED.

Every Prospective Subscriber Wants One and Needs One.

Bill Book Closed—Size, 3x8½ Inches.

National Farmer Folding Pocket Bill Book, Genuine Seal Grain Leather Cover, Very Fine Finish, Fancy Embossed, Good Quality Throughout.

Our Subscription Offer.

WE have adopted THE NATIONAL FARMER FOLDING BILL BOOK as a subscription premium with the best monthly farm paper in the United States.

The National Farmer and Stock Grower

is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

SELECTED POETRY.

THE FARMER'S IDEAL WIFE.

In a government report it is said: "The
rmer's wife is now so occupied with social
ffairs that she has lost the art of making
utter and jam and doing the work of the
rm that her grandmother did. This
sults in a great economic loss to the
ountry."

he farmer's wife, in early days, got up at
half-past two,
nd shined the plows and milked the cows
and put the prunes to stew.
he breakfast for the hands she set upon
the stroke of four,
nd then she'd bake her bread and cake
and scrub the kitchen floor.
ut nowadays the farmer's wife has time
to call her own.
Good gracious!" says the government,
"how idle she has grown!"

he farmer's wife, in times gone by, brought
up the calves and lambs,
nd sacked the oats and fed the shoats
and smoked the hickory hams,
nd when she'd cooked three great big
meals she cheerfully arose
nd with her churn sat down to earn the
money for her clothes.
ut now she often visits 'round and gossips,
like as not;
My goodness!" says the government, "how
worthless she has got!"

he farmer's wife, some years ago, was
wholly free from nerves;
welve hours a day she'd slave away at
putting up preserves.
ix children dangling at her skirts, a
seventh on her arm,
he'd gamely set herself to get the mort-
gage off the farm.
ut now she sometimes takes a rest, like
city women do.
Great heavens!" cries the government,
"what is she coming to?"

he farmer's wife departed from this vale
of toil and tears
or happier climes, in those old times, when
under thirty years.
he farmer got another mate, he somehow
always found
he ideal wife who toiled through life and
rested—underground.
ut now sometimes her years add up their
full allotted sum.
Great Scott!" exclaims the government,
"how shiftless she's become!"
-James J. Montague, in San Francisco
Examiner.

RHAPSODY ON A MISSOURI FARM.

he waking rooster greets the breaking day,
The farm expert springs lightly from his
cot,
he hired man is throwing down the hay,
And the busy housewife's battercakes are
hot.

he agile farmer, with his big oil can,
Vaults here and there among his patent
plows,
nd the pretty milkmaid with her face
of tan
Bobs in and out among the blooded cows.

he south wind turns the great windmill
around,
And water splashes in the barn-yard tub.
he breakfast bell intones its pleasant
sound,
And the hungry farm hands scramble in
for grub.

t breakfast, while the mind is fresh and
keen,
The expert reads from page four forty-
two,
oncerning corn rows and the space between.
And what a proper planting ought to do.

he biscuit plate sails blithely in and out,
The ham and eggs begin to go around,
nd the expert, eating meantime, tells about
The whims and habits of some kinds of
ground.

'ull many a field of rich and fertile loam
Is unproductive for the want of rule,
nd many a debt rests on a country home
For lack of what they have found out at
school.

he old-time farmer, with his thin corn
rows,
Calls in the sheriff and departs the scene.
he modern farmer, in his tailored clothes,
Tools up the highway in his limousine.

he listening farm hand's eyes begin to bug,
The hopeful housewife stirs around the
room,
nd the expert's words, like some magi-
cian's drug,
Invest the coffee with a rare perfume.

he happy farmer cries: "Well, boys—let's
go!"
And, like Phedippides, they dash away.
hey scurry fieldward through the morning
glow,
And the great round sun begins his
fleeting sway.
—Clark McAdams, in Post-Dispatch.

OUR PREACHER.

Our preacher is a common man;
He don't put on no airs;
Don't preach no college sermons, and'
Don't pray no college prayers.
He just talks plain an' simple like,
So folks kin understand;
Like he was talkin' to a child,
An' yet his preachin's grand.

It makes a man look up to God,
An' fills his soul with grace;
It makes him see in every cloud
The Father's smilin' face;
It falls with gentle, healin' touch,
On hearts bowed down with woe,
An' makes 'em see as plain as print
The way they orto go.

Some folks do say he don't dress right,
(Don't seem to keer for style);
Don't ever wear no long-tailed coat,
Nor high and shiny tile;
But goes 'round dressed like other folks,
And don't purtend to be
No better than the common run
Of folks like you an' me.

The rich folk in our church don't like
His plain and common ways;
His simple style o' preachin',
Nor the simple prayers he prays;
They say he has no polish,
That's he's just an ignorant clod;
But, all the same, I'd bet my boots
HE MAKES A HIT WITH GOD!
—Will Thomas Withrow.

OWNERSHIP.

Jim Bloggins bought a handsome horse—
A sorrel that could go;
He took great pride in it, of course—
His speech would fairly glow
When he was praising, in full meed,
That race horse, neat and trim;
Jim thought 'twas he that owned the steed,
But the horse was owning Jim.

Old Gotrox bought some Wall-street stock,
Which paid great dividends;
He praised it hours, by the clock,
Among his weary friends;
He could not talk of aught beside
The thick cream that he'd skim;
That he was owner was denied—
The Wall-street stock owned him.

Young Homeboy bought a bungalow
On the installment plan;
There was no doubt, as such things go,
He was a happy man;
He talked of it in the morning light
And in the evening dim;
He thought he owned the house all right,
But Homeboy's home owned him.
—Denver Republican.

PARCEL POSTLUDES.

O'er many a weary, aching mile
The parcel postman ambled,
And when he reached our domicile,
The eggs he brought were scrambled.

The hat he left for Mable, too,
Caused her poor heart to flutter;
'Twas saturated through and through,
With some one's melted butter.

And brother Bill is tearing hot;
He doesn't think it funny.
The socks and ties and shirts he got
By mail were smeared with honey.

But father's smile is soft and bland;
We all know by that token
His snake-bite cure, though contraband,
Came through the mail unbroken.
—Springfield Union.

ON THE FARM.

Now the horny-handed farmer
Calls his house a "bungalow,"
Or rechristens it a "villa,"
For the farmer isn't slow;
Turns his barn into a "garage;"
Calls his place "The Mountain View,"
Or some other rustic title
That sounds pretty good to you.

Now the farmer trims his whiskers
And puts on some fancy clothes,
And his wife, too, is resplendent
In her dresses, hats and bows.
He puts canned goods in the cellar;
Thinks it isn't any harm
If he works them through the season
As "fresh gathered from the farm."

All the rooms have been repapered,
And some fuzzy-wuzzy stuff
Has been poked into bed ticking
So's to show a little puff.
There are also new wash basins,
Some of stoneware, some of tin,
And a sign down on the gate post,
Reading: "Boarders Taken In."
—New York Press.

THE INDIGNANT FARMER.

"I'm just as mad as I can be!"
An angry farmer said;
"Those early strawberries of mine
Desire a folding bed!

"And my potatoes have declined
To ripen underground,
Unless, to keep dust from their eyes,
Smoked goggles I have found!

The cabbage-heads, among themselves,
Indulge in secret chats;
But I have overheard them, and
They vow they'll have straw hats!

"Such foolishness I cannot stand;
And now—just I feared—
Each single stalk of wheat demands
A barber for its beard!

"The squashes, too, are getting proud;
It almost makes me smile;
They want the very finest neckwear,
Of the very latest style!

"But now the very limit's reached!
I learn, with stifled groan—
Each ear of corn insists upon
A private telephone!"
—Carolyn Wells, in Harper's.

$27.00 TO $40.00 PER WEEK

NEW SELF-HEATING IRON

MAKES ITS OWN HEAT

The "New Standard"

WRITE FOR FREE SAMPLE PROPOSITION

FOR AGENTS

It takes women by storm. Quick, easy sales. Grandest aid to women ever invented. Entirely new. Sells almost on sight. Show 10 people—sell 8. Even 2 or 3 sales a day net you $27.00 to $40.00 a week. No experience required. No need to stop your regular work. Sell evenings. Go right into home and demonstrate. Everybody is interested. Women make as much money as men. Saves its cost every month. Women simply can't resist. Selling is almost as easy as giving them away. All year business. Field hardly touched. Every home a prospect. Not sold in stores. Sells on its merit. Right size—right weight—right price. Looks good. Is good. Carry it anywhere. Iron anywhere. No stove needed. Six sales a day should be easy. Double that isn't hard work. Think of the profit. Write quick for FREE SAMPLE PROPOSITION and agents selling plan.

C. BROWN MFG. CO.
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Cincinnati, Ohio

A RED HOT SELLER

VAMPIRES THREE.

Wind speaks:
I speed the sailor and whirl the mills
And make a harp of the tree;
I waft the showers that bring the flowers
To dapple each dale and lea.
But woeful the ways that in hunger I choose
To blast with my awful breath,
For I shatter and wreck and naught may
check
My terrible dance of death.

Water speaks:
I bear the vessel and turn the wheels,
And give the desert the rose;
I ripple in rills and leap down the hills
Or lie in a glassy repose.
Though I do man's best without spoil or
need,
Cooped up in river or lake,
When I surge in wrath from my wonted
path
Wild ruin I leave in my wake.

Fire speaks:
I am vassal of man and I do his will
In many a wondrous way.
If he chain me sure I am fain to endure
His mastery night and day.
But should I escape from my dungeon red,
By charring bolts and bars,
I chasten my master with hell's disaster
And flaunt my head to the stars.

All three speak:
Aye, puppets are we of the tyrant man
So long as our passions slumber;
But woe to the day that we make him our
prey—
Ah, who may our victims number!
For harpies relentless we mangle and tear
Our puny lord and his city,
Then mock at his moans and jeer at his
groans,
Devoid of mercy or pity.
—O. H. Roesner, in New York Tribune.

THE DEPARTED FRIEND.

Though he that ever kind and true
Kept stoutly step by step with you,
Your whole, long, gusty, lifetime through,
Be gone a while before—
Be now a moment gone before,
Yet doubt not; anon the seasons shall restore
Your friend to you.

He has turned a corner—still
He pushes on with right good will
Through mire and marsh, by heugh and hill,
That self-same, arduous way—
That self-same, upland, hopeful way
That you and he through many a doubtful
day
Attempted still.

He is not dead, this friend—not dead,
But in the path we mortals tread
Got some few, trifling steps ahead
And nearer to the end,
So that you, too, once past the bend,
Shall meet again, as face to face, this
friend
You fancy dead.

Push gayly on, strong heart; the while
You travel forward, mile by mile,
He loiters with a backward smile,
Till you can overtake,
And strains his eyes to search his wake,
Or, whistling, as he sees you through the
brake,
Waits on a stile.
—Robert Louis Stevenson.

INTO ARCADY.

There is no highway, broad and free,
Straignt to the goal of our pilgrim kind,
There's only a path into Arcady.
Were it a road that the crowd could see,
Even the halt might lead the blind,
There is no highway broad and free.

Somewhere, by hill and tangled lead,
Hither and thither the way is twined—
There's only a path into Arcady.
Thou who are seeking the road with me,
Cities and streets we must leave behind—
There is no highway, broad and free.

Dear heart—what shall our goldstar be?
(Close—watch close—where the footsteps
wind.)
There's only a path into Arcady.
Thousands are seeking in vain, but we—
(God be willing)—the way shall find
There is no highway, broad and free—
There's only a path into Arcady.
—Mark K. Powers, in Smart Set.

THE HIDDEN SONG.

To him who listens with a friendly ear
The tumult of our time—the grim, harsh
strains
Of traffic, cry of factions, toil's refrains
That soar from meadow, city, mountain
sheer—

Is not discordancy in wild career;
To him it is the sound that e'er obtains
Before the orchestra in tuning gains
The common key and tones are blended
clear

Some day from this great, busy land shall
rise,
When, after years, the singing pitch is
found,
The mighty song of civic brotherhood,
The hymning of a people whose emprise
Has made them one at heart, and brightly
crowned
Their earnest toil with guerdons, rich and
good!
—New York Sun.

LAME BACK and KIDNEY TROUBLE

CAN BE CURED WITHOUT A DROP OF MEDICINE

According to the words of those who say they have been cured to stay cured by using MAGNETIC SHIELDS, which do what all the medicine on earth cannot do; they ACTUALLY INSTILL NEW LIFE AND ENERGY INTO THE SYSTEM, overcoming congestion, soreness and pain.

WE PROVE IT TO YOU POSITIVELY

Not in one case or a dozen cases but in multitudes of cases where people say they have been cured of Paralysis, Rheumatism, Lung Troubles, Kidney, Liver, Stomach and Bowel Troubles, nervousness and most every other form of disease after medicine failed.

Our MAGNETIC ABDOMINAL AND KIDNEY VITALIZER for ladies and gentlemen here illustrated is only one of the many Shields we make. IT IS A WONDERFUL INVENTION, scientifically constructed and floods the system with magnetism, supplying LIFE, STRENGTH and VIGOR to the BACK, KIDNEYS, STOMACH, LIVER, BOWELS and BLADDER, giving that buoyancy, tone and renewed vitality to the system that Magnetic force alone can supply.

SENT ON TRIAL TO PROVE IT'S VALUE

Write to-day for full information and free book, "PLAIN ROAD TO HEALTH," by C. J. Thacher, M. D. Describe your case fully, we advise you free how to apply MAGNETISM for treating any form of weakness or disease.
THACHER MAGNETIC SHIELD CO., Inc., Suite 452, 110 So. Wabash Ave., Chicago, Ill.

Texas Industrial Congress.

Approximately 11,000 farmers, by entering its $10,000 prize crop contest for the largest yields, cost of production considered, of corn, cotton, Kaffir, milk and cowpeas, have agreed to study better cultural methods this year according to the instructions of the Texas Industrial Congress.

Entries in the contest closed April 1, with 10,816 contestants from 214 counties. In less than three years the number of farmers earnestly engaged in studying soil conservation, crop rotation, diversification and the best methods of increasing acreage yields under the direction of the Congress, has grown from 1,746 in 1911 to almost 11,000 in 1913, and the number of counties represented has increased from 161 to 214.

The greatest interest has been shown by the boys and girls, the chief reason for this being due to the fact that the County School Superintendents and teachers have taken a personal interest in the work. The School Superintendents of Bexar, Ellis, Tarrant, Hunt, Kaufman, Cooke, Navarro, Dallas, Jack, Collin and Denton counties have been especially active in assisting the Congress.

County Demonstration Agents, officials of the A. & M. College and the State Department of Agriculture have also been very helpful and the agricultural demonstration trains operated by the Rock Island, Texas and Pacific and the International and Great Northern Railroads have been of material assistance through the distribution of prize announcements and application blanks.

The great increase in the number of farmers who are now co-operating with the Congress entails a larger office force to properly conduct this practical school of agriculture. Thousand of questions are answered by personal letters, crop reports are prepared, read and recorded, bulletins on cultural methods at frequent intervals are sent to each contestant and numerous articles on agricultural matters are written and given publicity through the generous co-operation of the newspapers of the state.

Both press and public have united in unqualified endorsement of the work inaugurated by Col. Henry Exall, who, as President of the Congress, has directed its energies so wisely that Texas is rapidly taking rank as the foremost state in the Union in the interest manifested by its citizens in agricultural development, resulting in increased acreage yields, larger profits and more prosperous and happier homes.

Berry Growers of Southwest Missouri.

From Monette, Mo., on May 26th, it was reported that all strawberry growers and their families remained away from church, Sunday, and worked in the fields with their regular forces of pickers. The berry crop came in so suddenly after two cold days that all available pickers were pressed into service.

Five hundred cars already had been shipped from that district, bringing a total of $500,000 into the community. The shipments by June 1st reached 1,000 cars. Berries were priced at $2.25 a crate of the choicest fruit, with $1.85 for the low-grade.

What Congress Has Done.

"What has Congress done for us?"

"A heap," replied Farmer Corntossel. "For years it has provided men we sent them with a place to do their talkin' where it wouldn't disturb us folks at our regular work."—Washington Star.

The High Rate of Interest on Farm Loans.

A Petition by Farmers of the United States Asking That the Moneys Received as Deposits at Postal Savings Banks be Loaned Out to Farmers Upon Proper Security at Fair Rates of Interest.

To His Excellency, the President of the United States, and to the Senate and House of Representatives:

WE, the undersigned farmers, ranchmen, land owners and citizens of the United States, do hereby present this petition for your consideration, and represent that the rates of interest usually charged upon farm loans are uniformly too high, and that in hundreds and thousands of instances the rate is so burdensome and unreasonable as to perpetuate loans and interest charges and cause many honorable, industrious farmers to lay down their burdens and forsake agricultural pursuits. Furthermore, other loans on crops and upon collateral securities when made by individuals or banks to farmers are in many cases so exorbitant as to become unbearable. We also represent that these facts, being of common knowledge, a great movement is on foot to ameliorate these conditions and to find ways and means to give the tillers of the soil the necessary loans required for the conduct of their business, based upon security of the land or upon the joint security of co-operative associations of farmers. We believe that a short cut towards solving this entire problem is for the United States government to undertake to see that the funds are furnished under supervision in regard to the rates of interest, fees and expenses to be charged in making said loans.

The great purpose of this petition is to request that suitable and necessary laws be passed requiring that the moneys received on deposit by the Postal Savings Banks be made available for the purpose of loans to individuals upon farm land securities or upon the credit of responsible associations of farmers duly organized for the purpose of assisting each other to obtain and repay such loans.

With a Commission now appointed to investigate the farm loan associations of Europe and now at work to that end, we do not assume to specify by what methods our desires and wishes be carried out, but the point we wish to make is that as farm lands represent the best security in the world they should constitute the preferred security in loaning out the money which the government as a banker is receiving on deposit for such a purpose.

Believing it to be the policy of the United States government to build up a nation upon a foundation of farm homes for the people who cultivate the soil, and believing that the good intention of the government is being defeated by the present system which establishes and maintains high rates of interest which the majority of the farming people are unable to pay and many are unable to obtain, we therefore ask the immediate consideration of this subject that a better and more wholesome condition of affairs may be brought about by patriotic and conservative legislation.

Sign the Full Name Here.	Rural Route.	Postoffice.	State.

☞ When ten signatures have been obtained to this petition, it should be neatly cut out from the paper and sent by mail to PHILIP H. HALE, Editor, 3550 Vista Ave., St. Louis, Mo. Copies of this petition can be had by writing for them.

National FARMER

Vol. XXX. St. Louis, Mo., July, 1913. No. 1.

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A FARM SCENE NEAR LEBANON, TENN., where every horse is pure-bred and all farms have high-class horses. Just now high-class horses are raised at a profit and scrub horses are raised at a loss.

THE MAGNIFICENT BOOK OF LIVE STOCK CHAMPIONS.

Attention is invited to the advertisement of the Book of Live Stock Champions on page 16. This great book is an elegant supplement which our subscribers can select and receive as a premium, postpaid, when they send in one dollar for two-years' subscription to this paper.

15-25 H. P. Fairbanks-Morse Oil Tractor operating 36x56 Separator. The owner, Mr. E. B. Conibar, of West Brooklyn, Ill., states that he threshed 3,000 bushels of oats in nine hours.

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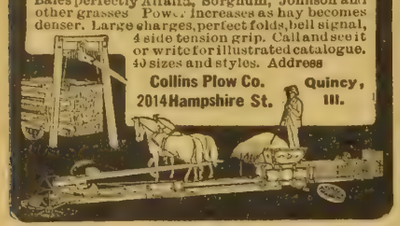

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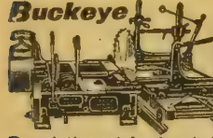

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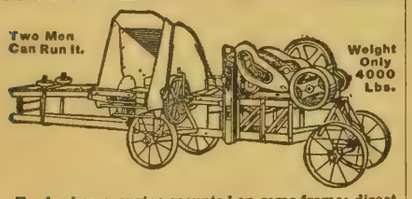

Twelve horse engine mounted on same frame; direct gear drive; no lining up to do. No belt expense. Shipped on thirty days trial. Fully guaranteed.
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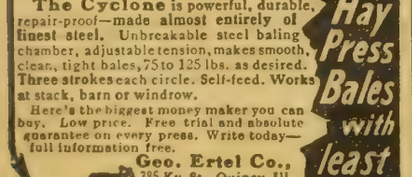

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CORN HARVESTER with Binder Attachment cuts and throws in piles on harvester or winrow. Man and horse cuts and shocks equal with a Corn Binder. Sold in every state. Price $20.00. W. H. BUXTON, of John Town, Ohio, writes: "The Harvester has proven all you claim for it; the Harvester saved me over $25.00 in labor last year's corn cutting. I cut over 500 shocks; will make 4 bushels corn to a shock." Testimonials and catalog free, showing pictures of harvester. Address,
NEW PROCESS MFG. CO., SALINA, KANSAS.

DIRECTORY FOR FARMERS.

A Directory of Business Interests For Farmers' Use.

About ten thousand business firms in the United States are engaged in occupations that have the direct purpose of manufacturing goods for farmers' use or in some way doing business in farmers' products. Many of these firms are of national character, and it will be an advantage to farmers, stockmen, fruit growers, dairymen, poultry raisers, bee keepers and others to have a directory at hand so that they will be as well informed as men who do business in the cities. We have decided to collect and publish such information of this character as we believe will serve a useful purpose and keep it up to date as a regular publication. It will therefore be published quarterly. The price for the present is fifty cents a copy, and we will be able to deliver the first volume to subscribers in the month of July. The July edition will contain about 5,000 names. The list is arranged alphabetically by name, the address follows and then the occupation, and each state list is arranged in alphabetical order, beginning with Alabama and ending with the state of Wisconsin. Anyone who will send us fifty cents for the July edition can get his money back if he is not satisfied with the book. See page 14.

The Oats Market Situation.

With a sense of satisfaction we take a look at the oats market after the close of business on June 30th, 1913. On May 31st, at St. Louis, cash oats were selling at 37½ to 38½ cents a bushel. On June 30th, a month later, we find cash oats selling at 40 and 41½ cents a bushel, a nice, clean gain of 2½ cents a bushel.

On the Chicago Board of Trade, during the same period, July oats advanced from 39 to 41 cents a bushel. In the same period the September quotation advanced from 38⅝ to 42⅜ cents a bushel. The December quotation also advanced from 39⅛ to 43⅞ cents. Considering the market operators are well informed in regard to the crop of 1913, it looks as though the trade expects a strong market.

Hay Sales at St. Louis.

A few hay sales made late in June were as follows: Sales on St. Louis Side: Part car No. 2 heavy clover-mixed at $12; one car No. 1 light do. at $14.50. Timothy—One car and part car scant No. 2 at $13; two cars No. 2 at $14; one car do. at $14.50; one car scant No. 1 at $15; one car and part car do. at $15.50; two cars No. 1 at $16; one car do. at $16.50; two cars high No. 1 at $17, to arrive. Prairie—One car No. 2 at $11; two cars high No. 1 at $13.50; one car choice at $14. Clover—New, part car (resale) at $11. Alfalfa—New, ten cars scant No. 1 at $15, to arrive; five cars do. at $15.50, do.; one car No. 1 at $16.50; five cars choice at $17. On East Side: One car part No. 1 clover at $14.50 and part scant No. 1 timothy at $15. Timothy—One car No. 2 at $14; one car scant No. 1 at $15; one do. at $15.50; three No. 1 at $16; one high do. at $17. Wheat and oats straw at $7.50 per ton.

A Sixteen-page Paper.

In the month of July we have followed the fashion of reducing the number of pages, which is the summer practice of farm publications. This we have done to enable us to rearrange our mechanical department in order to publish larger editions. We trust our readers will be indulgent with us.

MONEY FOR FARM LOANS.

Postal Savings Banks Deposits Ought to be Used For the Purpose of Making Loans to Famers on the Security of Their Lands and on Other Securities to Co-operative Associations of Farmers.

For several months The National Farmer and Stock Grower has published in its columns a petition addressed to the President and Congress for the purpose of securing to farmers the use of the deposits received by the postal savings banks, the same to be loaned by the government either direct to farmers or through the banks upon approved security at low rates of interest.

The petition is not in this paper, but we have a large number printed and will be glad to send some of them wherever a few signatures can be obtained.

We receive some of these petitions, duly signed, in every mail, but we are not receiving one-tenth the number we ought to receive. In writing for copies of the petition, address Philip H. Hale, Editor, 3550 Vista Ave., St. Louis, Mo.

For Soil Improvement.

On page 6 will be found diagrams in the form of an advertisement showing the value of commercial fertilizer as applied to crops of winter wheat. These diagrams are well supported by bulletins which will be sent to all farmers upon application to the Middle West Soil Improvement Committee, 916 Postal Telegraph Building, Chicago, Ill. The committee does not sell fertilizers but represents the fertilizer interests in careful examination of all experiments that show results. All the literature this committee sends out can be relied upon, and it is a very good thing that someone has been able to create and support such an institution.

Potash Salts.

"The employment of potash salts on potatoes stimulates the growth of the plants, and produces a more even production of good-sized tubers, their uniform size and quality enabling the grower to get better prices.

"Another advantage attributed to the use of potash salts is, that their application has been found to check the attacks of potato disease, and in a dry season the salts have a tendency to conserve moisture in the soil.

"Dr. Dyer, in reporting the results of his experiments in manuring market-garden crops, has remarked that 'potash has throughout increased the crops.' "The well-known need of potash is strikingly brought out in both the early and late varieties on those plots in which no dung has been used."—Farmers' Union Advocate of New Zealand.

Complete Silos and Lumber.

You can buy a silo, and woodwork for a house or barn, and have the car delivered at your nearest railroad. It is claimed that you get a better, stronger and more lasting silo at a saving of 40 to 60 per cent. on the cost of the average timber silo. Do not hesitate to write to Hewitt-Lea-Funck Co., 488 Union Avenue, Seattle, Washington, and enclose the coupon on page 12. There are distributing centers on all railroads, and you will be dealing with the silo builder and lumber producer direct.

At St. Louis, on June 30th, the best grades of butcher hogs sold at $8.80 to $8.87½, averaging 175 to 220 pounds. The bulk of the hogs sold at $8.75 to $8.85.

Get Your Canadian Home From the Canadian Pacific

WE will make you a long-time loan—you will have 20 years to pay for the land and repay the loan—you can move on the land at once—and your Canadian farm will *make you independent.*

20 Years to Pay
Rich Canadian land for from $11 to $30 per acre. You pay only one-twentieth down—balance in 19 equal annual payments. Long before your final payment comes due your farm will have paid for itself over and over. This advertisement is directed only to farmers or to men who will occupy or improve the land.

We Lend You $2000
for erecting your buildings, fencing, sinking well and breaking. You have twenty years in which to repay this loan. You pay only the banking interest of 6 per cent.

Advance of Live Stock on Loan Basis
The Company, in case of approved land purchaser who is in a position and has the knowledge to take care of his stock, will advance cattle sheep and hogs up to the value of $1,000 on a loan basis, so as to enable the settler to get started from the first on the right basis of mixed farming. If you do not want to wait until you can complete your own buildings and cultivate your farm, select one of our Ready-Made farms—developed by C. P. R. Agricultural Experts—with buildings complete, land cultivated and in crop, and pay for it in 20 years. We give the valuable assistance of great demonstration farms—free.

This Great Offer Based On Good Land
Ask for our handsome illustrated books on Manitoba, Saskatchewan and Alberta—mention the one you wish. Also maps. Write today.
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Little runabout, 1913, splendid condition	575
Maxwell, 5-pass., 4-cyl.	650
Cadillac, good tires, 4-cyl., 40 h.-p.	650
Krit roadster, 1913, electric lights	650
Mitchell, 5-pass., 4-cyl.	700
E. M. F., 5-pass., 4-cyl.; full equipment	700
Moon, 7-pass., fully equipped	900
Mitchell, 7-pass., 6-cyl.	1,000
Mitchell, 5-pass., 4-cyl., 1912	1,000
Speedwell, 7-pass., 4-cyl.	1,250
Mitchell roadster, 6-cyl., 2-pass.	1,300
Mitchell delivery wagon, panel body	450
Commerce delivery wagon, 4-cyl.	600
Mitchell, delivery body, 4-cyl., 30 h.-p.	650
Avery truck, 3-ton, covered stake body.	1,750

Terms:—Part cash; balance monthly notes.
WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

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Cured without surgical operation. Cures guaranteed. All protruding stopped in one or two treatments. Do not continue to suffer when you can be cured without an operation. Consultation free. Call or write, inclosing 2c. stamp for 300-page Book on Rectal Diseases.
DR. M. NEY SMITH, 302 N. 12th St., St. Louis, Mo.

More Wheat Per Acre

We cannot control the price of a bushel of wheat, because too many countries raise wheat. But we can increase the profit from an acre of wheat by reducing the cost of production per bushel. There is not much profit in 13 bushels of wheat per acre, which is the American average. There is good money in yields of 25 to 35 bushels. These can be obtained, if one prepares the land right, uses good seed and **good fertilization.**

POTASH

Good fertilization means enough fertilizer of the right kind. With a good rotation 400 to 600 pounds per acre is enough, provided a reasonably high-grade formula such as 2-8-6 or 0-10-6 is used. The low-grade 1-7-1, 2-8-2 and 0-10-2 formulas are out of date and out of balance, and the plant food in them costs too much per unit. Urge your dealer to carry high-grade formulas or if he is stocked up with low-grade stuff get him to buy some potash salts with which to bring up the *potash content* to a *high grade.* One bag of muriate of potash added to a ton of fertilizer will do it.

If you prefer real bone or basic slag in place of acid phosphate try 300 to 400 pounds per acre of a mixture of 1600 pounds of either with 400 pounds of muriate of potash. You will find that **Potash Pays.**

These high-potash mixtures produce better wheat and clover, heavy grain and stiff straw.

We sell Potash salts in any quantity from 200 pounds up. If your dealer will not get potash for you, write us for prices and for our FREE booklet on Fall Fertilizers.

GERMAN KALI WORKS, Inc., 42 Broadway, New York

Chicago, McCormick Block **New Orleans, Whitney Central Bank Bldg.** **Atlanta, Empire Bldg.**
Savannah, Bank & Trust Bldg. **San Francisco, 25 California Street.**

The National Farmer and Stock Grower.

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Sworn to and subscribed before me this 29th day of March, 1913.
(Signed) Fred A. Blake, Notary Public.
(My commission expires February 3d, 1914.)

GOOD STACKING SAVES MONEY.

Stacking Wheat in Preference to Leaving It in Shocks.

I have had a good many years of experience in growing wheat, and for the past several years I have made it a practice to stack all the grain, because I have lost considerable by leaving it in shocks, expecting the thresher to arrive soon, which was seldom the case, and in the meantime the grain became badly damaged by the weather. I have noticed also that sparrows destroy much of the grain when it is left in the shock. By stacking I am able to go right ahead fall plowing the stubble in case I desire to do so, which can not be done when the wheat is in the shock. Then, again, grain in stacks undergoes a "sweating" process, which gives it a very fine color, and in case of grain damaged by the weather it will easily raise the wheat one grade.

I believe every man who grows wheat should be able to make a good stand, whether he is accustomed to thresh out of the stack or not. While care and practice are necessary to make good stacks, any man who will take pains can soon build a stack that will turn water. I will give my experience in stacking, which may be of benefit.

I select as a site for the stack a piece of land high and dry, but not on a hillside, as in case of heavy rains the water will run under the stack, and, being unable to dry out, will cause much damage. While two stacks allow of a shorter haul with the sheaves, four stacks save time at threshing. Where four are built, it is well to set the pairs an equal distance apart to allow of setting the thresher four ways. The stacks should be six or seven feet apart; if too close, some of the sheaves must be pulled out to admit the separator, and if too far apart, it is hard on the pitchers and more grain is wasted. I take care to see that it is possible for the separator to set level, as otherwise much grain might be lost. I also have a clear place for the engine to stand, as much difficulty is often caused and damage done to the engine if the land is rough and uneven or soft.

A round stack of six to seven loads makes a fair-sized one. A somewhat larger stack than this would be desirable, but few men care to pitch to anything larger. I start the stack by building a round "stook" in the center. It is important to have this "stook" firmly placed and even. Around this I build another row of sheaves with a little less slope, then as many rows as required to give the desired size, each row having a little less slope than the preceding one. When this is done, I start at the outside, laying a row a trifle farther out than the one on the ground. I lay another row inside with the butts touching the heads of this row to fill up the center. Now lay a row on these with the butts overlaying the heads of the outside row sufficient to hold it. I again fill the center and lay another row of butts to the bands and continue in this way to the center of the stack. I now have the center much higher than the outside and consequently some slope to the sheaves. Each outside row should be built a little farther out than the one beneath. If you get too much slope and the sheaves threaten to slip, draw the butts in toward the heads of the row beneath. This will reduce the slope. If the stack is becoming low in the center, place the butts farther out; this will soon raise it. The sheaves must be drawn well together and the rows kept even. Keep the center high and do not tread on the outside row, but leave it loose and it will settle. I pack the center well so it will not settle so much as the outside. I do not top the stack off too abruptly nor yet carry the top too high. As I near the top I increase the slope of the sheaves. Care must be taken to finish the top in the center of the stack directly above the center of the foundation. If the stack is allowed to become lop-sided it will lean to that side, and the longer it stands the worse it will become. In time, if the top does not slide off, the sheaves on the side from which it leans will be forced down at the head and sprung up at the butts until they take in water like a funnel. By keeping the center high and firm, widening as the stack is built up to the drawing-in point and finishing over the center, the stack will settle from the center toward the outside, giving a better slope the longer it stands. When the last sheaf is in place on top, I take a stick about one inch thick and four feet long and run it down through the sheaf into the stack to keep the top on. The less loose stuff that goes into the stack the better.—Wm. Hardy, Rural Route 2, Tunnel Hill, Illinois.

First Argentine Beef.

At New York, on June 8th, a small shipment of Argentine frozen beef arrived. It was only a small lot and consisted of twenty-five head, and is worthy of note for the reason that it was the first shipment of South American beef ever received in this country.

William W. Brauer, the beef importer, said there is little likelihood of further importation of Argentine meat through London. The reason the present shipment was delivered at New York, he said, was the result of a speculation on the part of London dealers, who took advantage of the rock-bottom prices of the foreign meat there caused by the Beef Trust and other dealers in South American meat trying to undersell one another.

The meat was sold in New York at 12 cents a pound, 1½ cents less than the wholesale price paid for American dressed beef. The Argentine beef was subject to the existing duty of 1½ cents a pound on imports of beef.

New Zealand Meat at Seattle.

From Seattle, Washington, on June 4th, it was reported that three carloads of New Zealand frozen beef, mutton, veal and rabbits and butter arrived there that day from Vancouver, and were placed on sale, the beef being retailed at 11 cents, as against 14½ cents for American fresh beef. The meat was shipped from Auckland on the big liner "Niaga," which has refrigerating rooms. Arrangements have been made to send regular weekly consignments to Seattle, whose market is expected to take all the surplus from Vancouver.

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WEALTH IN THE SILO.

Nothing More Valuable Than Silage on Any Farm.

The agitation for silo building has been carried on for over a generation, by the actual observation of the writer. How much longer the agitation has gone on he does not know. Silo building has been rapid in spots. Here and there are localities where they will be found on every farm, while in many localities the farmers have never taken kindly to the idea.

Yet there is probably nothing that time and experience have more thoroughly demonstrated as good than the silo. It is unusual to find a first-class dairy establishment that has not one or more silos. So far as the writer knows, every producer of high-priced certified milk depends on feeding silage to produce it. Some of the best milk ever put on the market was made by H. B. Gurler, formerly of DeKalb, Ill., and he had four silos. Some of that milk was sent to the Paris Exposition in 1900 and was opened in Paris seventeen days after being bottled in DeKalb. It had nothing but ice around it, no internal doctoring, and it was sweet when opened, while milk made in Paris under normal conditions was sour before night of the day on which it was drawn. Which shows that the acid in the silage does not hasten the souring of milk; indeed, if any of that acid gets through into the milk (which it probably does not), it rather retards than helps the souring, for the souring of milk is not caused by the acid found in the silage, but by lactic acid.

Some years ago the leading milk canneries were refusing to buy milk made from silage, under the mistaken notion that the acid in the food might affect the milk; but the writer understands that now practically all of the canneries and condensaries buy milk from cows fed silage, provided that the conditions in the barns are right; that is, that no rotten silage is left around the barn to taint the air and so taint the milk.

In the great corn belt of America silage should be put up on every farm where cows are kept. It is a food of such great value that, in this day of high-priced cattle feeds, no farmer can afford not to lay in large supply of this kind of food.

Silage is a feed most valuable for cattle, but also of value to most other farm stock. Horses eat it greedily when accustomed to it, as do sheep and hogs. It furnishes a carbohydrate element that is now costly in most other feeds. Several of our Experiment Stations have made experiments in feeding silage to other animals than cows, and there is much interesting data extant. Any man that wants to study up on the subject should write to the United States Department of Agriculture for the list of the bulletins published by the different states on the topic and then send to the various stations for them. The Pennsylvania Station has just completed some extensive tests in feeding silage to horses and reports it as both economical and valuable.

But the production of milk will always remain the chief motive of its feeding, and it is just as valuable for the farmer with three or four cows as for the dairyman with a hundred cows, in proportion.

It is a pity that all owners of herds of dairy cows will not accept the testimony of so many witnesses in favor of the silo and silage. It is a source of wealth that should not be neglected.

It is not too late now to build a silo for use this fall. Common field corn can be used for filling where regular silage corn has not been planted. In fact, some heavy feeders of silage grow common dent corn for this purpose anyway, believing that a ton of silage made from common dent corn is more nutritious that a ton of silage made from regular silage corn, which contains a large amount of water. But whether one kind of corn be used or the other, the silo should be built.

A DAIRY EXPERIENCE

In Favor of Farm Buttermaking.

Whether the farm dairy shall be used for the purpose of supplying milk and cream to cities is a question that must be dtermined by individual circumstances. But there is much to be said in favor of making butter, and it is doubtless true that some of our farmers that are now selling whole milk for city consumption would do better if they were to satisfy themselves with the old-fashioned means of disposal of their product—in the form of butter.

A man that was for long years a seller of whole milk was telling the writer of his experience in changing from the selling of whole milk to the making of butter. He became dissatisfied with the treatment he was receiving from the buyers of milk, principally because they had got it into their heads that silage was a bad thing out of which to make milk. They declared that if he wished to sell milk to them he would have to leave out the silage and feed his cows on hay, grass and mill feeds. So, instead of cutting out the silage, he cut out the milk buyers.

He turned to the making of butter, and after being at it a few months declared that it was good enough for him. He found that he was getting just as much money out of his milk as he did before, and was saved a lot of trouble. The first item of saving was the long drive to the station twice a day in hot weather and once a day in cold weather. The item of time saved for him or his man was a very large one. Then there was a saving which he could not reckon exactly in the work of his horses, because of course that extra work of going to the station took energy, and that energy had to be made up in feed. Moreover, it took the time of the men and horses, and this saved time went into farm work. He found that saving this time made it possible for him to do more farm work at the right time.

He found that he could increase the number of hogs he was keeping, because he had skim milk to feed the growing pigs. It helped also in the raising of the calves. Some of the heifer calves that would have gone to the butcher were now raised and became later good cows.

But the relief from having to be on time at trains in all kinds of weather was great. Now, if it rained or snowed, the horses could remain in the barn. The churning could go on in any weather.

This man soon secured customers anxious to get his butter at the same prices they were paying for it in the stores, and sometimes they came to him for it. He found there was a great difference between selling milk at wholesale prices and butter at retail prices. If he had been more of an expert he would have produced a higher grade of butter that would have brought a few cents above the retail market price; but even ordinary butter was profitable.

If a man has good cows it will often pay him to make butter, but if the amount of butter-fat produced by his cows is small, of course it would be a losing game for him to go into the buttermaking business. And just here is where so many farmers fail in trying to dispose of their milk in that way. Poor milk sold to the milk buyers will often bring as much as a better grade of milk, but not so when it is disposed of through the buttermaking process.

If farmers will grade up their cows and weed out till they have cows that will produce large quantities of butter-fat, they can become independent of the milk buyers and dispose of their product in an easier way.

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Because your waste is greatest and quality of product poorest in mid-summer, when the milk supply is greatest.

Because time is of greatest value on the farm at this season and the time and labor saving of the good separator counts for most.

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2nd If you have a very old De Laval or an inferior separator of any kind—

Because the losses of the poor separator from incomplete skimming and the tainted product of the difficult to clean and unsanitary separator mean most when the bulk of milk is greatest.

Because of the great economy of time at this season in having a separator of ample capacity to do the work so much more quickly.

Because an improved De Laval separator is so much simpler and more easily handled and cared for than any other, and you cannot afford to waste time these busy days "fussing" with a machine that ought to have been thrown on the junk-pile long ago.

Because the De Laval separator of today is just as superior to other separators as the best of other separators to gravity setting, and every feature of De Laval superiority count for most during the hot mid-summer months.

These are all facts capable of prompt and easy demonstration, whether you have a poor separator or none at all. The new De Laval catalog, to be had for the asking, helps to make them plain. Every De Laval local agent stands eager to do so with a machine itself, with no obligation on your part to buy unless he does—and that to your own satisfaction.

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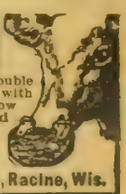

Absolutely prevents sucking—no trouble to wean calves—can eat and drink with perfect freedom. Can't hurt either cow or calf. Every farm needs several. Send your order now. Small size 25c, large size 35c, postpaid. Agents wanted. *Write for circular.*

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LUXURIANT PASTURAGE.

A Summer Necessity For Fowls—One Prime Factor in Making Money From Poultry — Nearly All Yards Should be Enlarged.

More than anyone else, the American farmer is in a position to make money out of poultry. This is because primarily he is so liberally supplied with land that he can make any provision he sees fit for the pasturing of his fowls. But the American farmer in the main has been negligent of this important fact.

Where poultry is scientifically managed we find the pasturage being made as much of as it is for other farm stock. Areas are habitually seeded down to various crops for the single purpose of giving the fowls a luxuriant pasturage, thus saving grain feed and protecting the health of the birds.

Wire netting is cheap, and most of our farm poultry yards should be enormously enlarged. When four-foot wire netting is bought by the roll it can be secured at a very low price. If bought in less than roll lengths it is quite expensive, because the dealer has the rest left on his hands and cannot tell when he will find a market for it. A roll or two will be a wise investment.

The easiest pasturage to get is green grass, and often when the fowls are confined in a very limited space there is a great deal of greensward adjoining that is not in use. Include so much of this in the poultry yard that the grass cannot be eaten down. If the ground is picked bare of grass it proves that the poultry yard is not large enough.

If inconvenient to enlarge the poultry yard, the next best thing to do is to divide it into two parts by running a fence through the middle. Then plant one side with rape seed, which will cost but 15 cents a pound, and one pound should last through the entire season. It produces a luxuriant pasture, but the fowls should not be turned in till it is at least a foot high, and the larger the better. If it is very large the fowls will eat away the soft parts of the plants, leaving the stems and midribs of the leaves. When this occurs, take the poultry out of that side and the soft parts of the plants will grow again. In the meantime, rape should have been growing in the other part of the yard.

But many of our poultry yards are under trees or in shade so great that rape does not grow well. In that case, sow oats, which will sprout well and produce a half foot of foliage under almost any condition. They will even sprout in a gloomy cellar. The seed of the oat is so large that, given moisture, it can develop a good-sized plant out of the material stored up in itself. It is used for pasturage for fowls at some of our leading Experiment Stations.

The movable poultry fence is being used here and there to give pasturage in fields and in cultivated grounds where it is not thought desirable to give the fowls free range. This necessitates the construction of small movable poultry houses, but the the result pays the effort. As soon as the clover field has been mown and the hay taken out, the adjustable fence can inclose a part of it, and there is no better pasturage, unless it be an alfalfa field. The latter must not be too closely pastured, as it will not stand as severe treatment as will the clover field.

By not taking advantage of the opportunities to give the fowls abundant pasturage we are losing much. And in the meantime we are permitting to go to waste much material that can be easily changed into eggs and flesh.

"Off Years" in the Apple Orchard.

I have always believed there was some good cause for the "off years" in the bearing apple trees and set about ascertaining the reason for a superabundance of fruit in one season and comparatively none the year folllowing.

Experiments convinced me that the abundance of fruit produced in one season so exhausted the vitality of the tree that it was unable to produce the following year, unless fertilized in proportion to the loss of vitality which it sustained, but that, if this was done, the problem of "off years" would be practically solved.

I venture to say there are thousands of orchards which never receive any attention in regard to cultivation or fertilization after they come into bearing, but are left to extract such nutrition as the feeding roots can gather from soil too often not up to the average in fertility. There is then talk of "poor quality," while the quantity is variable, and the crop altogether so unsatisfactory that in many instances the trees have been removed to make way for other crops which the grower would not think of neglecting in the matter of cultivation or fertilizing. And yet a first-class apple crop pays the producer far better, generally, than one of grain.

There is an enormous drain upon the natural fertility of soil by the heavy growth of wood, the millions of leaves and the crop of fruit with seeds. After the trees have arrived at bearing age the most important element of fertility is potash. Mature orchards should receive an annual application of 100 to 200 pounds per acre of muriate of potash. This I have found in conducting experiments upon my own trees greatly influences the character of the pulp, changing it from a tough, leathery substance to one of juicy crispness. This quality of firmness is most desirable and allows of shipment to long distances, where the fruit comes from the packages in a fresh, salable condition.

If nitrogen, which is next in importance, is needed in the apple orchard, it can best be supplied in stable manure. If, however, the trees are making a good growth, it will do more harm than good, because a new rank growth is started which may not fully ripen before severe winter weather. About 200 pounds of ground bone per acre added to the muriate of potash will supply phosphoric acid, if this is believed to be lacking in the soil. This matter of fertilizing should be attended to now during the period of growth when the feeding roots are reaching out after plant foods. Potash is a great factor in ripening new growth of wood and preparing it to withstand the cold of winter. Scatter well under the trees and work lightly into the soil; being soluble, it will easily reach the roots. I believe from experience that the feeding of fruit trees—unless affected with scale—is of more consequence than spraying, but, taking both in conjunction, there is great profit.

The prices which are obtained every winter and spring for prime American apples in the large markets should encourage the best efforts in production.—E. A. Season.

Soil Improvement Talk No. 4

Complete Fertilizers on Winter Wheat

Actual Field Tests by Experiment Stations

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51 YRS. TEST
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NO FERTILIZER AVERAGE YIELD PER ACRE 13.1 BUS.
PENNSYLVANIA AGR. EXP. STA.
30 YRS TEST
FERTILIZED AVERAGE YIELD PER ACRE 23.7 BUS.
NO FERTILIZER AVERAGE YIELD PER ACRE 13.6 BUS.
OHIO AGR. EXP STATION
18 YRS. TEST
FERTILIZED AVERAGE YIELD PER ACRE 24 BUS.
NO FERTILIZER AVERAGE YIELD PER ACRE 10.7 BUS.
INDIANA AGR. EXP. STATION
8 YRS TEST
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Unthrifty Oats.

In my travels in Central and Southern Illinois I find occasionally a good field of oats, but most fields make a very poor showing. While climatic conditions may interfere seriously with the crop, still I find other factors which have more or less influence.

Poorly-adapted varieties and poor seed-bed condition put a heavy handicap upon any crop. I believe it is a mistake to sow late varieties of oats in Southern Illinois. While these white-berry varieties are better sellers, still they must have rather favorable conditions right up to harvest time. Varieties which will mature around July 1 will be much more dependable for this region.

Better seed is needed. Whether oats are grown for market or for home feeding, it will pay to use only clean, well-graded seed. Fanning mills are far too scarce in this region. From ten to fifteen per cent. might be added to the value of the oat crop if vigorous grading of seed was done year after year.

In the northern part of Illinois farmers sow oats on their thinnest ground; but in the southern part of the state it will pay to sow oats on tolerably strong ground.—L.C.Brown.

Building Up Thin Ground.

A Butler county, Missouri, correspondent submits the following questions: "My land is very thin, as is shown by the crop yields. Wheat makes only about half a crop and corn not over thirty bushels per acre. I am not able to buy fertilizers, so would like to know what crop could be sown for manure?"

The proposition here is to plow under organic matter. This will help to a large extent. The ground probably needs phosphoric acid. I should go ahead with green crops. As soon as the wheat crop is removed I should sow cowpeas and plow them under late this fall or early next spring. If one cannot buy cowpeas, I should sow winter rye this fall and plow it under next spring. Either of these crops will help the corn crop next season. Cowpeas sown among the corn this season will help. The thing to do is to grow legumes, if possible, and plow them under until a short rotation can be established, and apply as much manure as possible.—L. C. Brown.

The Concrete Silo.

Silos are now being built in almost every farming community in Missouri. The first and most important question a farmer asks when he decides to build a silo is, "What kind shall I build?" Inquiries come by every mail to the Dairy Department of the University at Columbia about this or that kind of silo. Many farmers have been told that concrete silos are not successful and for that reason they hesitate to build them.

A silo to be successful must be air tight and strong enough to withstand the outward pressure of the silage. A silo that meets the above requirements will be successful regardless of the material with which it is constructed. A concrete silo when properly built will keep silage as good as any other kind and will last practically forever.

Concrete silos are not as expensive in many localities in Missouri as the silos commonly sold. Where the building is at hand in creek beds or in gravel pits they are being built at a very low cost. The average cost per ton capacity of thirteen concrete silos built in South Missouri, where the gravel was taken from the creek beds, was $1.60. This means that if each silo had a capacity of 100 tons the average cost would have been $160. In one county in North Missouri, where sand from a creek bed was mixed with rock broken by hand on the farm, a 100-ton silo was built complete for $250. In Macon county the sand and crushed rock for a concrete silo were shipped from Hannibal, and after hauling the material four miles in the country, a 100-ton silo was built at a total cost of $350. The above facts are taken from actual figures furnished by the farmers building the silos. They show that the concrete silo is probably on the average no more expensive than any other kind, and it is a well-known fact that they give satisfaction and are permanent.

The Dairy Department of the Missouri College of Agriculture, Columbia, Mo., furnishes free plans for the forms to be used in building concrete silos and also sends a man to start the erection of a concrete silo after the forms are built and the material is on the ground. When this is done the man building the silo is required to pay the traveling expenses of the expert. Many farmers who want to build concrete silos are asking for the plans of the forms and the services of this expert.—P. M. Brandt.

On June 30th, at the St. Louis market, the best lambs were from Tennessee and sold at $7.40 per 100 pounds, which was the top of the market.

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10% OVER-CAPACITY

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Other attempts to make tires which can't rim-cut have cost fortunes in faulty tires.

No-Rim-Cut tires, for years and years, have served hundreds of thousands well. Not one has ever rim-cut.

That is why the demand centers on them. Goodyear tires have come to outsell every other tire.

The Secret

The secret lies in six flat bands of 126 braided wires. They are vulcanized into the tire base.

That makes the tire base unstretchable. The tire can't be forced off without removing a rim flange. So we don't hook the tire to the rim.

With this hookless tire you turn your rim flanges outward—not inward as with clincher tires. Then the tire, when wholly or partly deflated, rests on a rounded edge. Rim-cutting is made impossible.

Extra Capacity

No-Rim-Cut tires have 10 per cent more air capacity than the same rated size in clinchers. And air is what carries the load.

This over-capacity, on the average, adds 25 per cent to the tire mileage.

So the tires save rim-cutting and save over-loading. They save so much that they have become the most popular tires in the world.

The Vital Bands of Wire

But our braided wire bands are considered essential to a faultless tire of this type.

Again and again other ways have been tried. And thousands of tires came back for replacement because the ways were wrong.

So the demand has come to Goodyears, in an overwhelming way. We have sold over one million automobile tires in the past 12 months alone.

No Extra Price

Now, our mammoth production has brought down the cost of this wanted type of tire.

No-rim-cut tires used to cost one-fifth more than clinchers. Little by little the cost has been cut.

Now no standard tires of any type cost less than No-Rim-Cut tires.

Think what that means—tires that can't rim-cut, over-capacity tires at no higher cost than old-types.

Don't you think that it pays to insist on them?

GOODYEAR
AKRON, OHIO
No-Rim-Cut Tires
With or Without Non-Skid Treads

Write for the Goodyear Tire Book—14th-year edition. It tells all known ways to economize on tires.

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO
Branches and Agencies in 103 Principal Cities **More Service Stations Than Any Other Tire**
We Make All Kinds of Rubber Tires, Tire Accessories and Repair Outfits
Main Canadian Office, Toronto, Ont.—Canadian Factory, Bowmanville, Ont.

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St. Louis. The announcement is made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale rings were originally well-bred Range Horses. The July Auctions will be held on

Thursday, July 10th,
Thursday, July 24th,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is good, especially for well-bred Mares and Geldings in fine condition.

Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone, or similar trouble and gets horse going sound. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.00 a bottle delivered.

Horse Book 9 K free.

ABSORBINE, JR., antiseptic liniment for mankind. Reduces Painful Swellings, Enlarged Glands, Goitre, Wens, Bruises, Varicose Veins, Varicosities, heals Old Sores. Allays Pain. Will tell you more if you write. $1 and $2 a bottle at dealers or delivered. Book "Evidence" free. Manufactured only by W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.

Our Special Offer

60 DAYS ONLY.

DELIVERED AT YOUR RAILROAD STATION.

GUARANTEED, CORRUGATED GALVANIZED

Steel Tanks.

29 TIMES STRONGER THAN THE PLAIN TANKS.

20 Barrels, $17.50
30 Barrels, 20.50
40 Barrels, 24.50

Complete With Tops. We Pay All Freight.

O. K. HARRY STEEL CO.,
2353 Papin Street, ST. LOUIS, MO.

The Universal Magazine

is a neat, bright, cheerful, illustrated monthly magazine of thirty two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the price, which is 25 cents a year. Send for free sample copy and premium list. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Cowpeas.

The acreage devoted to cowpeas is increasing from year to year as the value of this crop is better known. Not only is it valuable for feeding to all animals, but it is a great soil builder, like all legumes, and it is more modest in its demands than any of them except sweet clover. It will grow on soil where it is impossible to get a stand of clover or alfalfa and will put the land in much better condition to make a crop of anything that may be planted after.

There is no other leguminous crop that will mature in a hundred days or less from planting time, and none other that will fill in when an emergency comes, such as often must be met when the weather has been unfavorable for the main cash crops. The writer has planted cowpeas after both oats and wheat have been harvested and removed from the fields, and those planted after wheat were in the best of condition for hay, the earliest-set pods being ripe, and these were picked for seed for the following year.

The present season with the partial drouth that has prevailed in some sections will drive many farmers to plant cowpeas instead of corn, and if the peas can be threshed, they will command such a price as will make a good profit for the grower; in fact, on any but fertile land they will far surpass corn in money value if seed and hay are sold; but if possible they should be fed to stock and the manure saved so as to enrich the land, so that all staple crops can be profitably grown.

Clover and alfalfa, the twin harbingers of prosperity for the farmer, will make a stand after cowpeas when they will refuse to grow on adjoining fields. The reason is that the cowpeas have improved the mechanical condition of the soil, loosening it up so that the tiny rootlets of the young plant could feed far and near. The cowpeas have also added a large amount of nitrogen to the soil, and this nitrogen is what is needed by all young plants to make thrifty growth, so that any crop planted after cowpeas will look and do better than that planted on other land of like nature that has not had cowpeas grown on it the previous season.

It follows that cowpeas should be made a part of every regular rotation and also be planted whenever emergency cases make it advisable to grow something else than the chosen cash crop. In seasons of drouth, when corn will not be profitable, cowpeas will make good feed, whether wanted for pasture or for hay, and if the seed pods have not been all picked before cutting the hay, will make a good ration for stock without any grain feed.

Early planted cowpeas will make the most vine, especially if the season is wet, and the late cowpeas will produce the most seed. On poor soil there will be less leaf and stem than where the soil is richer, but no soil will long remain poor if persistently planted to this crop. It may be necessary to add a little commercial fertilizer to land that is nearly exhausted of plant food in order to give the crop a good start and make it strong to gather nitrogen from the air, but this is an expense that brings profit in the end.

Nitrate of soda will greatly increase the growth of vine, and thirty pounds or more to the acre may be used if accompanied with 250 pounds acid phosphate and seventy pounds sulphate of potash. These fertilizers should be broadcasted at planting time, and if the ground is well harrowed afterwards, the soil will take them up and pass them on to sustain the crop.

Late-planted peas should always be drilled, so as to admit of cultivation, for the heat of summer will dry out the soil unless the surface can be stirred and a dust mulch formed. The cultivation is needed to hasten the growth of the plants, so the crop may mature before frost, or before the ground may be needed for wheat, rye or winter oats. If commercial plant foods be applied as mentioned, faster and greater growth will result, and this will make for fertility that will increase the subsequent grain crop. At the Missouri Experiment Station wheat and cowpeas have followed each other in regular rotation for a number of years, the crop of grain being larger each year.

The practice of the Station has been to plant cowpeas as soon as wheat is harvested and remove the cowpeas in time to sow wheat again, so the ground is occupied all the year with a growing crop. How much better this is than to let the fields grow up with useless weeds after harvest, which unfortunately is the way that many farmers still do, in spite of the object lessons furnished by those who are more progressive and consequently more prosperous.—D. C. Cornman.

Utilize Waste Land.

While the prospect is good for a normal hay crop, still it will be profitable to utilize all the unoccupied land with some sort of a forage or soiling crop. These catch crops are better for home feeding than timothy hay, and, being soil improvers as well as forage producers, they assist in building up soils. Early in July will not be too late to sow cane and cowpeas together, and this combination makes a mighty good feed. Sow about one bushel of peas with thirty to forty pounds of cane. It will produce from ten to twelve tons of green feed per acre, and come in at a time when other green stuff is becoming scarce. The peas and cane together make a very palatable and almost balanced ration, and stock will eat it with great relish. If feed crops are not needed, it will pay to sow the waste places to peas or soy beans merely for the sake of green manure. Every acre of these out-of-the-way, usually waste areas should be put to work.—L. C. Brown.

A Large Beef Steer.

The largest steer ever handled by the Independent Packing Company, Thirty-ninth street and Chouteau avenue, St. Louis, Mo., was slaughtered there for John Caffarata, proprietor of a saloon and restaurant at Delmar and Hamilton avenues.

The animal weighed 2,900 pounds on foot and dressed out a little more than 2,000 pounds of beef.

The steer was raised by Caffarata on his farm in St. Louis county. It was three years old. At the market price Friday it would have brought $269 on the hoof.

A special hoisting apparatus had to be erected at the plant before the carcass could be handled. The average of cattle handled there is 1,100 pounds, and the heaviest ever before handled weighed 1,800 pounds on foot.

St. Louis butter quotations, June 30th, 1913: Current make creamery—Extra, 26c.; firsts, 24c.; seconds, 23c.; and ladle-packed, 22c.; packing stock, 20c.; all country butter should be packed in tubs or pails.

Do not fail to read about the Book of Live Stock Champions on page 16.

Buy Direct For Factory Prices

and get better engines. We sell to users **direct** for **less** than dealers pay for low-grade engines. No one can sell better engines than the famous

WITTE Engines

54 styles and sizes, 1½ to 40 H. P. Standard for 26 years. Thousands in use everywhere, winning praise, using Gasoline, Gas, Naptha, Distillate or Kerosene for fuel.

No Cranking to Start, and continuous running, (24 hours a day if needed), is a sure thing, summer or winter, of every WITTE.

60 Days Free Trial. 5-Year Guarantee.

NEW BOOK—(most understandable yet printed) with *latest reduced prices*, *FREE* by return mail.

ED. H. WITTE,
WITTE IRON WKS. CO.,
1723 Oakland Avenue,
KANSAS CITY, MO.

DR. LE GEAR'S ANTISEPTIC HEALING POWDER

The healing power of this famous remedy is wonderful. We have letters from all parts of the U. S. telling of fine animals that have been cured of sores, barbed wire cuts, collar and saddle galls, without leaving a blemish.

Druggists and Dealers everywhere carry a complete line of Dr. LeGear's Famous Stock and Poultry Remedies.

Write for copy of Dr. LeGear's Stock Book of 112 pages—it's free.

DR. L. D. LEGEAR MED. CO.
715 Howard St. St. Louis, Mo.

Best Conditioner Worm Expeller

Death to Heaves

"Guaranteed or Money Back." Coughs, Distemper, Indigestion. 50c., $1.00 per can. NEWTON'S Large for Heaves. At druggists' or sent postpaid.

THE NEWTON REMEDY CO., TOLEDO, OHIO

BLACK LEG

LOSSES SURELY PREVENTED by Cutter's Blackleg Pills. Low-priced, always fresh and reliable, they are used by over 80 per cent of California and Western stockmen, because they protect where other vaccines fail. Write for booklet and testimonials.

10-dose pkge Blackleg Pills.....$1.00
50-dose pkge. Blackleg Pills..... 4.00
Cutter's Blackleg Pill Injector.. 1.50

Pills may be used in any injector, but Cutter's is simplest, strongest and easiest to use.

Every package dated, unused pills returnable for free exchange for fresh after date on package. Do not use old vaccine, or of uncertain age (ours or any other) as it affords less protection than fresh.

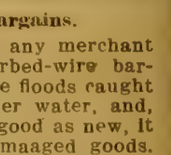
Discounts: 250 doses, 10 p.ct.; 500 doses, 20 p.ct.

Insist on Cutter's. If druggist doesn't stock, order from Laboratory, giving address plainly. We prepay charges and ship promptly. Send personal check or M. O.

THE CUTTER LABORATORY, BERKELEY, CAL. OR CHICAGO, ILL.

ABSORBINE, "The Antiseptic Liniment," promptly reduces bog spavin, thoroughpin, wind puff, bowed tendons, capped hock, shoe boil, curb, splint, big knee, fistula, etc. It is a mild and pleasant remedy to use—does not stain or leave a greasy residue. It is soothing, cooling, healing and powerfully penetrating—a true discutient and resolvent liniment, strengthening and invigorating to tired, lame muscles or tendons. Absorbine at regular dealers, price $2.00 a bottle, or sent express prepaid with full instructions. Write for free book giving detailed instructions. W. F. Young, P. D. F., 106 Temple street, Springfield, Mass.—(Advt.)

ELECTRIC Steel Wheels Save YOUR Back



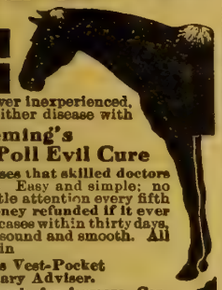
Save draft—save repairs. Don't rut roads or fields. Send today for free illustrated catalog of wheels and wagons.

Electric Wheel Co., 40 Elm St., Quincy, Ill.

Barbed-wire Bargains.

It is not often that any merchant gets a chance at barbed-wire bargains, but this year the floods caught a few train-loads under water, and, although it is just as good as new, it has to be sold as damaged goods. The advertisement of this wire is on page 5. A. J. Child & Sons, 517 North Main street, St. Louis Mo., have 400,000 pounds to sell and will dispose of it at rock-bottom figures.

Fistula and Poll Evil



Any person, however inexperienced, can readily cure either disease with

Fleming's Fistula and Poll Evil Cure

—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

Fleming's Vest-Pocket Veterinary Adviser.

Best veterinary book for farmers. Contains 192 pages and 69 illustrations. Durably bound in leatherette. Write us for a free copy.

FLEMING BROS., Chemists, 218 Union Stock Yards, Chicago, Ill.

For Spavin, Ringbone,

Splint, Curb

and all Hard or Soft Enlargements of the body or limbs, use

Blisterine

The result of 30 years experience in the largest Veterinary practice in Chicago. Sent postpaid on receipt of $1.00. Satisfaction guaranteed or money refunded without question. Write for free Veterinary advice on all Live Stock Ailments.

Chicago Veterinary Medical Co.
2459 Calumet Avenue, CHICAGO, ILL.

A Pair of Western Range Horses.

Speaking of the Western range horse sales conducted by Campbell & Reid and Western Sale Stables Company at the St. Louis National Stock Yards, Mr. A. M. Shultz, of Shipman, Ill., said as follows: "When I sold my farm not long ago I held an auction sale of live stock, personal property, etc., and at the sale I sold a heavy team of draft mares that weighed 1,600 pounds each for $452.50. I bought them at the Stock Yards in a car-load that cost me $118 per head. I did two-years' good work with them that was worth the original cost and the feed they received."

Ends The Misery Of Wearing Worthless Trusses

How 60 Days Trial Is The Only Safe Way To Buy Anything For Rupture

Here is something absolutely GUARANTEED to keep rupture from coming out—something that does away with the misery-causing leg-straps and body-springs.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial—the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times—including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why druggists should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—Cluthe Co., 125 E. 23d St., New York City

Western Range Horses.

During the month of June two sales of Western range horses were held at the St. Louis National Stock Yards by Campbell & Reid and Western Sale Stables Company. At the first sale, on the 12th, the horses sold from $33 per head for some inferior 750-pound mares to $120 for a single halter-broke draft horse. In the sale forty head sold singly and in pairs at $67.75 per head. The bunches and car-loads ranged from $33 to $112.50. The sale on June 26th had better horses, and forty-five halter-broke horses sold singly and in pairs at an average of $80.29; eighty-one head unbroken, 1,200 to 1,400 pounds, averaged $80.30. The sales included 700-pound plain mares at $29, to twenty-three head draft mares, 1,250 to 1,400 pounds, at $115; twenty-three head three to five-year-old geldings, 1,200 to 1,400 pounds, at $110. This sale also included fourteen mules, sold in pairs at an average price of $152.36 per head. Anyone sufficiently interested to become buyer or seller at these sales can obtain a complete list of all lots sold by addressing J. J. Searcy, Sale Manager, care Campbell & Reid, National Stock Yards, Ill.

Crops of the East Indies.

From London, England, on June 28th, a government report on the progress of agriculture in India said that in Bombay about 20,000 acres have been sown with improved cotton with the seed of which it is expected ultimately to plant some 2,000,000 acres. In the Madras Presidency the increase of the aea under cotton during the past two years amounted to 600,000 acres, and the present area exceeds that of any previous year. In the Punjab preparations are being made for the spread of improved varieties, and the new canal colonies about to be opened offer facilities for the production of high-grade cotton on a large scale.

The improvement of the wheat crop both in respect of quality and yielding power continues to engage the attention of the government. A collection has been made of the important sugar canes of India and a large number of new seedlings have been raised which will be experimented upon in the development of the sugar-cane industry.

Feeding Kaffir Corn.

A Southern Illinois correspondent asks if Kaffir corn is as valuable as common corn for feeding all kinds of live stock.

I do not advise Illinois stockmen to feed Kaffir corn exclusively. It lacks protein, and for this reason it should be fed with such feeds as alfalfa, clover, cowpeas, soy beans, bran or oilmeal. With the exception of poultry, I would not use Kaffir corn exclusively for feeding any kind of stock. When fed to horses or cattle with timothy or straw it is very constipating and bad effects usually result. However, Kaffir corn is grown in many regions where common corn is more or less of a failure, and if it is fed with the proper balance of such foods as clover, alfalfa, soy beans or oilmeal, it makes a fairly good ration. But my experience in feeding it alone to horses, cattle and hogs has not been satisfactory. For poultry the white Kaffir corn seems best.—L. C. Brown.

The Wheat Market Situation.

There is a dark cloud over the wheat-market situation and it consists of the government at Washington that is earning easy money legislating aganst the farming interests of the country.

Between May 31st and June 30th the cash wheat market at St. Louis has changed from an old wheat basis to a new-crop basis, and, there being a greater shrinkage on the new wheat than on the old, prices have naturally declined in consequence. No. 2 red declined from $1.03 and $1.06½ on May 31st to 89 to 91 cents a bushel on June 30th. The hard wheat changed from 93 to 94 cents a bushel to 89½ and 93 cents a bushel.

The changes in the wheat market at Chicago were in the same general direction—downward. July wheat declined from 92¼ to 89⅛ cents. The September quotation declined from 94⅛ to 93⅛ cents, and there we will leave the wheat market, low enough without the admission of foreign wheats which Congress is apparently so anxious to bring about.

Potash Easily Purchased.

We invite attention to the interesting advertisement of potash salts on page 3. In this connection we desire to say that a few years ago it was with the utmost difficulty that potash salts could be obtained unless mixed with other fertilizing material. But the officials of the German Kali Works decided that it was bad policy to withhold the potash from the farmer and sell it to the fertilizer plants for the reason that very few of the mixed fertilizers contain sufficient potash. Potash is therefore easily purchased by writing direct to the nearest office in the advertisement.

St. Louis Horse Market.

In the circular that Mr. T. H. Holland sent out after the last Monday and Tuesday horse auction in June at the National Stock Yards, after saying that good chunks and draft horses were selling well, he said in regard to cavalry horses:

"We want to buy some riding horses, 15-1 to 15-3. We can use a 15-hand horse if he has a good head and neck and good conformation, and we can also use a 16-hand horse that isn't out of proportion. We would like 100 head of this kind at once. Can use any color, excepting grays, duns or spotted ones. Want them from five to seven years old. We can use a four-year-old that is fully developed, clever and well broke. Now we don't want any of those slim weeds. Will pay all they are worth and a little premium more than they would bring for any other purpose."

Messrs. Holland, Nugent & Maxwell Bros. have delivered to the government recently about 250 horses for cavalry service, and have a contract for at least a hundred more. The way they get them is out of the horses consigned to the general market. No other market compares with St. Louis in the extent and variety of the horse offerings and in numbers also. To put up a thousand cavalry horses a month would in no wise embarrass the St. Louis market, if, without any sensational notoriety, it was known that the government would receive that number.

The Corn Market Situation.

It appears from the general trend of corn quotations that the demand will be equal to the supply, even so far as next December.

In St. Louis, on May 31st, cash corn was selling at 58¾ cents a bushel, and on June 30th the cash corn sold at 62½ and 63 cents a bushel.

In the same period, from May 31st to June 30th, the July quotation advanced from 57½ to 60¾ cents. The September quotation advanced from 58¼ to 62⅜ cents, and the December option advanced from 56⅝ to 59½ cents.

That is pretty nearly all that is known concerning the corn market and its future on June 30th, just as the market has closed.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers,
P.O., NATIONAL STOCK YARDS, ILL.

Don't Have a Blind One

"VISIO"

A Remedy for Moon Blindness

(Opthalmia), Cataract and Conjunctivits
Shying horses all suffer from diseased eyes.

"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n. 2472 Calumet Ave., Chicago, Ill.

FARM AND RANCH LANDS.

ARKANSAS LAND FREE.—500,000 acres U. S. land now open to settlement. Homeseekers' Guide Book with lists, laws, etc., 25c. Township map of state, 25c. additional. **L. E. MOORE,** Little Rock, Ark.

LOUISIANA.—Improved farms, all sizes, near railroad; high; healthy. Crop failure not known. $10.00 to $15.00 an acre. **J. A. Madden,** Hope, La.

MICHIGAN.—WE SELL OCEANA FARMS—Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

MISSISSIPPI.—Farms of 80 to 120 acres near railroad; high; healthy; no overflow. Rich; rolling; cultivated; housed; fenced; sufficient timber. Best land in Mississippi. $12 to $15 an acre. **Jarnagin & Co.,** Goodman, Miss.

MISSISSISSIPI—One improved farm 150 acres, and 80 acres good [illegible] situated in George county, Mississippi. Particulars on request. Mrs. E. B. Bullock, Box 177, Como, Miss.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. American Investment Association, 55 Palace Bldg., Minneapolis, Minn.

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND,** 2010 Adams Express Bldg., Chicago.

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

LIVE STOCK BREEDERS' CARDS.

CARPENTER'S BEST BARGAINS.

Fifty Poland-Chinas, 10 to 200 pounds; twenty-five Durocs, 100 to 150 pounds. All of the Poland-China Hogs were sired by the great Meddler and Walbrige Boars and from some of the most noted Sows in America. Durocs sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for it and mention this paper.

THE GRANDVIEW BREEDING FARM, Marmaduke, Ark.

POLAND-CHINA PIGS.

Orders booked now for Spring Pigs. Will do to ship May. $12 and $15. Big, fine Pigs. Best of breeding. Come and see or write.

D. F. BEAUCHAMP, Meredosia, Ill.

TRUMANS' PIONEER STUD FARM,

Amelca's Largest and Oldest.

Importers of

SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

LARGE STRAIN POLANDCHINAS.

I am offering nothing but Spring Pigs at present. The best that money can buy. They have a tendency to make extra large ones.

S. R. GRIGG, Proprietor, The Golden Ridge Farm, Mulberry Grove, Ill.

O. I. C. AND CHESTER WHITES.

February, March, April and May Boars and Gilts; no kin. Bred Sows, prolific, large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Eggs at half price.

RAYMOND RUEBUSH, Sciota, Ill.

SALE OF HOSLTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They nave plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.

250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your yants.

JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R. F. D. 2, Anita, Iowa.

JACKS AND PERCHERONS.

We have twenty-five of the biggest and best mammoth Jacks in Kentucky and a few Percheron Stallions. We will cut the price from $100 to $300 per head on every one. We have a big stock of High-grade Percheron Mares, Hampshire Swine and big Black Pigs. Write your wants and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.

PURE-BRED REGISTERED ANGORA GOATS.

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

LICE KILLER Liceoil, strongest lice killing compound made. Works like magic. **Simply** put a few drops in nests and hang bottle in coop. Powerful evaporating vapors go into feathers, cracks and crevices. No painting, spraying or dusting. Easy to use. Circular free. Pound bottle prepaid 50c. Money back if it fails. **Agents wanted W. H. Metzger Co., No. 28, Quincy, Ill.**

TAMWORTH SWINE.—Bred Gilts and all sizes of Pigs for sale. **L. R. GEORGE, Breckenridge, Ill.**

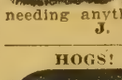
SCOTCH COLLIES FOR SALE.

A choice lot of pure-bred Collies, from three months to three years, dirt cheap for immediate delivery. **R. FLEMING, Cuba, Kansas.**

TAMWORTHS FOR SALE. The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as range hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned be me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

SPLENDID DUROC-JERSEY PIGS.

I have for sale seventy-five registered Duroc-Jersey Pigs, March farrow. Some fine Gilts bred for August and September farrow. Prices from $12.50 to $35. Good individuals, well bred. Write me if needing anything in this line.



J. E. WELLER, Faucett, Mo.

HOGS! HOGS! FOR SALE!

Big Registered Poland-Chinas and English Berkshires that weigh and win; S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, Bolivar, Mo.

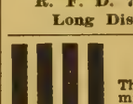
THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. **J. H. DUNLAP, Box 373, - Williamsport, Ohio.**

MILL CREEK STOCK FARM.

(The Home of the Starlights.)

THOS. H. EZELL, Proprietor.



Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Send for catalog.

R. F. D. 7, - NASHVILLE, TENN. Long Distance Phone, Main 1326.

They Keep It Up

There are some cattle that give more milk when they are fresh than a Jersey, but there isn't any breed that gives as rich milk as

The Jersey

at as small feeding cost, nor is there any breed of cattle that will *keep it up* like Jerseys will, *year in and year out.* That's why you ought to buy Jerseys to increase your herd's efficiency. Send for Jersey facts.

AMERICAN JERSEY CATTLE CLUB 324 W. 23d St., New York

Sell the Hens.

One hundred days from June 1 your hens will have completed their season's work. If the hens would stop laying gradually and evenly, one by one, you would have one hen less laying each day; in a week you would be boarding seven loafers, in two weeks fourteen, etc. In a few weeks the eggs from the flock will not pay the feed bill, and for the remainder of the season the flock will be a dead loss.

Prices now are higher than they will be 100 days from now, when plenty of young stuff will come on the market, does it not seem the part of wisdom to sell the hens as they get through business? It is not likely that hens older than one year will come back to the lay, but do you know the old ones? Or do you know the young ones that are worth keeping through several months of idleness?

Another advantage of culling now is the added house room the young stock will have, and house room on the farm is always scarce. No business can support loafers, and everything on the place not laying eggs (this includes roosters) or not putting on flesh, the young, growing stock, should go to market, week by week.—W. E. Vaplon, Colorado Agricultural College, Fort Collins, Colo.

Oats For Wet Ground.

A Randolph county, Illinois, subscriber writes: "I have a strip of ground which overflowed and was too wet to put in corn. What crop would be profitable to sow on it in June?"

If this ground can now be put in good seed-bed condition, it may be put in cane, cowpeas or soy beans. Any of these crops will have ample time to mature a good hay crop. For hay, perhaps cane or cowpeas would give you surer returns. For these catch crops it is essential that some vigorous work be put upon the seed-bed before the seed goes into the ground. These overflowed areas are frequently neglected until they are literally submerged with weeds, and the ground is hard to handle. Cane is rather delicate for two or three weeks, and cowpeas and soy beans cannot make much headway in ground full of weeds. Millet is the usual crop sown on these lands, but if one has the stock to utilize the forage, cane or cowpeas will give more profitable results. I know it is difficult sometimes to put these lands in fit seed-bed condition, but the outcome of any catch crop will depend largely upon this one thing.—L. C. Brown.

Look Out For Worms.

It is said that 90 per cent. of all the sickness among farm animals is due to stomach and intestinal worms which are generally taken into the system while the stock is on pasture. The larvae develop into worms which crawl to the top of the grass blades, where they are taken in, with the animals' food. The result is sickness and often death, especially among hogs and sheep.

In every case indigestion results, the animals lose flesh and a large share of stock profits is lost also.

There is now on the market a preparation that is guaranteed by its maker to rid all stock of worms. It is known as "Sal-Vet," manufactured by the S. R. Feil Company, Cleveland, Ohio. All you need to do is to let your stock run to it freely and they will doctor themselves. Mr. Sidney R. Feil, the President of this company, offers in his advertisement on page 13 of this paper to send you enough to feed all your stock sixty days before you pay for it and agrees to make no charge whatever if you are not satisfied with the results. You take no risk in testing "Sal-Vet" on this very liberal plan, and consequently every farmer should take advantage of it.

Mr. L. R. George, of Breckenridge, Sangamon county, Ill., is advertising Tamworth swine, which includes pigs of all ages. His postoffice is Breckenridge, and his shipping point is Roby, on the Cincinnati, Hamilton and Dayton Railroad, where all express companies receive pigs for transportation.

First-class stock sheep were being sold at $3.25 to $3.75 per 100 pounds on the St. Louis market, June 30th.

The last Elgin butter quotation in June was 26½ cents a pound.

3 Free Books

About Silage and Silo Filling

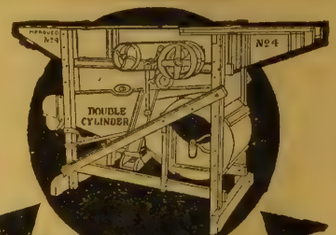
(1) "Why Silage Pays"—a valuable book for your farm library. (2) 1913 Catalog about the

BLIZZARD Ensilage Cutter

A 40-year success. Big capacity, small power. Elevates any height. Simplest, safest. Steady worker. Self-feed table. Almost runs itself. Knives adjustable while cutter is running. Guaranteed. (3) "What Users Say"—a book containing scores of letters from users of the Blizzard.

Write for these books today

The Jos. Dick Manufacturing Co. 1416 Tuscarawas St., Canton, O.



DO YOUR OWN THRESHING

of beans and peas with a guaranteed Owens Thresher. All your seed separated and cleaned from the vines and pods without splitting. Pea and bean growing is the most profitable farming if handled right.

OWENS DOUBLE CYLINDER Bean and Pea Thresher

—Made in 4 sizes—

Will pay for itself many times over in one season. Guaranteed not to split the seed and take all from the vines.

FREE BOOK

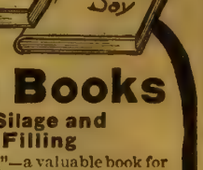
Send for our free book of valuable information about bean and pea culture. Illustrations and description of our machines. Facts and figures showing results obtained by users of our Hullers—write today.

J. L. Owens Company

Chamber of Commerce Bldg. Minneapolis, Minnesota.

Please mention Nat. Farmer and Stock Grower.

Get Latest Factory Prices On EDWARDS STEEL SHINGLES



Cheaper than wood, much easier to put on, 4 times as serviceable—can't **rust, rot, leak** nor **burn**—$10,000 Indemnity Bond against lightning loss—come in sheets of 100 shingles or more. "Dead easy" to put on—just nail them on old roof or sheathing. We use the famous Tightcote Process and patent Interlocking Device. Made by biggest sheet metal makers in the world.

Sold direct from factory, **freight prepaid.** Send postal for catalog 757 and get our surprisingly low price, **by return mail.** Give size of roof if possible.

The Edwards Mfg. Co., 707-757 Lock St., Cincinnati, O.

Largest Makers of Sheet Metal Products in the World.

The "Eli" King of Balers Horse and Steam Power

A train of followers, but no equals. Proves its superiority wherever it goes. Makes tight shapely bales, not loose bundles, works fast, avoids accidents and endures. Little draft, tremendous power. The machine that makes competitors tremble. Eli catalogue free.

18 Styles

Collins Plow Co., 2014 Hampshire St., Quincy, Ill.

BALING HAY REVOLUTIONIZED

Cost Reduced to a Minimum **10 Bales in 5 Minutes**

"WHITMAN'S STEEL" QUEEN GASOLINE KEROSINE HAY PRESS Best by Test

Sizes 14x18 or 16x18 STEEL QUEEN

We are now in position to furnish a reliable engine on our presses, built in our own plant from beginning to end. Gasoline engines for all-round farm work, and especially for our little gasoline Steel Queen Hay Press. This means Whitman's guarantee on this engine, which you did not enjoy before. Better designed, less parts, greater service.

2½ H.P to 10 H.P.

SULTAN Gasoline ENGINE

Before buying an engine of any kind write for our free Engine Book and read the facts about the most complete, efficient, self-contained power plant ever designed—the Sultan Gasoline Engine.

"STEEL QUEEN UNIT PRESS" Every User a Booster

Your Best Bet Light in weight, cheap to operate, less fuel, easier to handle on road. A revelation in Hay Press construction.

Whitman Agricultural Co. 6918 S. Broadway, St. Louis, Mo.

THE FARM EQUIPMENT.

Modern Appliances Multiply the Results of Labor and Should be in Use on Every Farm.

Our most progressive farmers are pressing forward in the equipment of their farms till we have a multitude of good farms that are furnished with all the appliances possible to make farming a success. But there are other multitudes of farms on which the old-time methods are in use as well as the old-time appliances.

There are still a good many farmers who are pumping water by hand for their stock, when a power pump would do the work at slight expense and not cost very much to purchase. There are others who have no water pipes in their barns, though the cost of bringing the water into the barns and workshops where needed would be slight. Much of the cost would be for labor that could be done by themselves.

Improvement in farm machinery has been very great in the last twenty-five years, and it pays to look into the various machines being sold with the purpose of finding out which will prove the most economical. To recommend any particular machine or appliance would be unwise, because its use must be first determined. It sometimes pays to buy a poor article rather than a good one. For instance, if a man wanted to buy a brush with which to do a single small job of painting and never expected to use the brush again, it would be foolish for him to put a large sum of money into an expensive, long-wearing brush, when he wanted to use it for but a few hours.

But generally the best machine and the best appliance are best for the farm, for use will continue indefinitely. The farmer who has a single hog to kill will be foolish to invest money in a scalding tank; but not so the farmer who is killing a large number of hogs every year.

On some of the farms we visit we find all appliances for doing such work. One man who raises a score or more of hogs and kills them for local distribution has put in a perfect arrangement for scalding the hogs, with overhead track for moving the carcasses to the cooling room. This is one way to get ahead of the packer in the big city.

The appliances for handling manure are coming in on many farms and should be on all. There are tracks and manure carriers of various makes that can be installed and enormously reduce the work of keeping the stables clean. On large farms this also reduces the number of men employed.

We are complaining at the difficulty of getting farm help, but more appliances for doing the work will reduce the number of men employed. Sometimes the number can thus be reduced one-half. Where many head of stock are kept that have to be fed in stalls, the laying of a track and the purchase of a cart to run on it will reduce appreciably the labor in the distribution of feed.

Where the roads are soft much of the year and much hauling of farm products has to be done in soft weather, the adoption of a wide-tire wheel will save the horses and help the roads, and hasten the performance of any given piece of work.

Being supplied with spraying apparatus of the most improved make will save the loss of some of our vegetable and fruit crops. Where the potato bug is present (and where isn't he?) spraying in time will mean many bushels more of potatoes when the crop is gathered.

Many of our farmers pay too little attention to the improvements in farm machinery. One of the most potent reasons for visiting the State Fairs each year should be to find out what is being done to improve the appliances and machines used on our farms.

Follow Small Grain With Cowpeas.

The great need in both Missouri and Kansas, where grain growing is followed almost exclusively, is the adaptation of systems which will keep soil up to maximum efficiency. In a great many sections clover has played out, and if lands are to be kept in good physical as well as efficient chemical condition, other crops must be found to take the place of clover.

This region has the advantage over regions farther north, because catch crops may be sown on stubble after the grain crop is taken off, and produce a full crop for plowing under the same season. The usual practice is to put corn on stubble ground. If cowpeas are sown on the stubble as soon as the small grain is harvested, it will be a most effective method of keeping the ground in fit condition. Stubble ground lying bare and idle for six months will be in mighty poor condition for the next crop.—L. C. Brown.

Britain's Imported Meat.

Messrs. Weddel & Co., of London, in their review of the frozen meat trade, indicate the following facts:

That 667,942 tons, or 37.61 per cent. of the meat consumed in the United Kingdom was imported from abroad in 1912.

That Australia furnished only 14 per cent. of the imports.

New Zealand only 18.17 per cent.

South America 64.09 per cent.

Other countries the balance, 3.74 per cent.

That 163,973 tons, or 38.3 per cent. of the South American output, were shipped from two Argentine works owned by North Americans, and that this quantity represents 24.55 per cent. of the total imports into the United Kingdom, and 9.23 per cent. of the total consumption.—Farmers' Union Advocate of New Zealand.

Australian Frozen Meat.

The Butchers' and Stock Growers' Journal, of San Francisco, Calif., June 7th, said:

"The installation of a fleet of special steamships for transportation of frozen Australian meats from Sydney to San Francisco was announced this week. In two weeks a Union steamship vessel with the initial cargo will sail from Sydney with 2,000,000 pounds of frozen beef, mutton and veal. Shipments will be increased gradually until each steamer carries to San Francisco between 5,000 and 7,000 tons.

"The entire 2,000,000-pound consignment will be handled by Levy, Schweitzer & Company, of this city, who contracted for all of the available refrigerating space in the steamships 'Aorangi,' 'Moana' and 'Tahiti.'

"The experimental shipments proved more successful than anticipated. The demand could not be supplied and the Union Ship Company consented to place special ships in commission.

"The big meat interests of the United States are preparing to supply the existing shortage with the frozen product."

WOOL MEN!

We can interest you. Do you know that St. Louis is a **Spot Cash** market? In 20 years we have handled **more separate lots** of wool, each season, than any other commission house here. Over **40 years' experience** in the business, and your shipments receive our personal attention. We guarantee **top prices, quick sales** and **prompt cash returns.** Write for our 1913 Wool Circular, giving full particulars and points in regard to the preparation of wool for market. Wool Sacks, Shipping Tags, Market Reports, etc., sent Free upon request.

Write what you have to offer. Estab. 1874.

A. J. CHILD & SONS, St. Louis, Mo.

[Please mention National Farmer and Stock Grower.]

The PERFECT CORN HARVESTER

SOLD DIRECT TO THE FARMERS

$18.00---Freight Prepaid

Send for Booklet and circulars telling all about this labor saving machine.

The Cheapest and Easiest way Possible to Cut your Corn for Shock or Silo.

Oregon, Ill., Oct. 26, 1912.

Gentlemen—After giving the Perfect Corn Harvester a thorough working test in all conditions of corn in the cornfield, we write you that it has adjustment for a great variety of conditions in cutting high, medium or low. We are very much pleased at its light draft and steadiness in following the center of the row. We consider it the very best one-horse corn cutter that the experimental station has ever had an opportunity to demonstrate, and we commend it to the corn cutting farmer.

Very truly, Samuel Ray.

LOVE MANUFACTURING COMPANY - - DEPT. 27, LINCOLN, ILL.

Tell Me How Many Head of Stock You Have

and I'll feed them 60 days before you pay. I'll show you how to make your farm animals grow faster, thrive better, put on more flesh on no more feed — make you more money.

I'll Rid Them of Worms or No Pay.

I'll Prove it to You as I have to these and Thousands of other Farmers.

"I was losing from three to five sheep per day when "Sal-Vet" arrived. Three days after I put it where the sheep could get at it, the losses stopped and I haven't lost a single sheep since."

Arthur Holloway, Mgr. Monument Sheep Co. Monument, New Mex.

"There is no doubt that "Sal-Vet" saved my entire herd of hogs. On all sides of my farm other farmers lost nearly every hog they had. I shall always aim to keep "Sal-Vet" or no hogs."

Peter V. Carey, Prop. Lone Sycamore Farm Rt. No. 6—Fairfield, Ill.

"Sal-Vet" is a wonder working medicated salt which rids farm animals of their greatest enemies—the stomach and intestinal worms. These deadly pests are the cause of 90% of all live stock diseases. They keep farm stock in a poor, weakened, money-losing condition—they mean greater liability to contract hog cholera, swine plague and other contagious diseases. "Sal-Vet" expels these parasites, sharpens the appetites, improves digestion—makes all stock grow into profit fast. Being a salt animals like and run to it freely and THEY DOCTOR THEMSELVES.

Prices: 100 lbs. $5.00; 200 lbs. $9.00; 300 lbs. $12.00; 500 lbs. $21.00. Not intended for less than 400 lbs. on this 60 day trial offer. Never sold in bulk; only in Trade-Marked Sal-Vet packages. Shipments for 60 days trial are based on 1 lb. of Sal-Vet for each sheep or hog, and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular size packages.

Send No Money—Just the Coupon

SIDNEY R. FEIL, Pres.

THE S. R. FEIL CO.

Dept NFSG7-L13 **Cleveland, O.**

All I ask you to do is to fill out the coupon—tell me how many head of stock you have and mail it to me today. I'll ship you enough "Sal-Vet" to last all your stock 60 days. You simply pay the freight charges when it arrives and at the end of 60 days report results. If "Sal-Vet" does not do what I claim, I'll cancel the charge—you won't owe me a penny. Send the coupon NOW.

Address **SIDNEY R. FEIL, Pres.** (119)

The S. R. Feil Co., Mfg. Chemists Dept. NFSG **Cleveland, O.**

Ship me enough Sal-Vet to last my stock 60 days. I will pay the freight charge when it arrives, report results within 60 days and will then pay for it if it does what you claim. If it does not, you are to cancel the charge.

Name.....

P. O.....

Shipping Sta..... State.....

No. of Sheep..... Hogs..... Cattle..... Horses.....

THE MATTER OF LITTERS.

Small Litters Due to Pampering—Breeding Stock Require More Exercise Also Necessary.

For many years there has been complaint at the smallness of the litters some sows produce. The battle between the various breeds of swine now takes that into consideration very largely. Even in the same breed there are strains of blood that give good litters and other strains that give small litters.

We find breeders of breeding stock now putting forward the fecundity of their stock as one reason why they should be purchased. Meanwhile some of the little improved hogs produce good litters.

It is claimed that the loss in fecundity in several of our breeds is due to the pampering the swine have received for generations back, and there is no reason to doubt this. High feeding and little exercise may make rapid production of pork easy, but it does affect the ability to reproduce. This is true with human beings as well as with the lower animals.

So far as breeding goes, more must be done along lines of exercise and slow growth to get firmness of muscle and sinews and a paucity of fat. Fat, while a good thing to sell at present prices, proves objectionable in breeding animals.

It is true that in this the breeder is working against two forces, and he cannot work with one force without working against the other. He says that if he does not make his breeding animals lay on fat as fast as possible, his breeding animals will not transmit that quality to their offspring, and that quality is one of the chief merits of improved breeds of swine. That is true, but if that quality is developed to a point where the sow will not produce progeny at all, what is the value of the tendency to lay on fat?

We have probably gone far enough in the direction of trying to get quick maturity. Let more be done now to get stamina and fecundity, so that where litters of five are now produced litters of ten or more may be common.

We can afford to sacrifice a few weeks in the time of reaching a certain killing weight if we can thereby secure more young animals to feed. It often makes a great difference with the profits whether a man is able to secure fifty pigs for feeding or a hundred.

In the breeders, especially, slower growth must be put up with, and the animals must be made to work harder for a living. A little more attention must be given to the swine pasture and a little less to the compounding of foods that will stimulate rapid growth in the breeders.

If a hog or pig is being fattened for the pork barrel, it is logical to push him forward as fast as possible; but the breeder must be treated in a different way.

The feeding of more roots will help, for they have in them succulence without so much of the material out of which quick fat is made. To get stamina there must be less reliance on high feeding and more on exercise. If the hogs have to do a good deal of walking to obtain their food, that will be a help.

There was one farmer that used to follow the practice of feeding one sow to his swine in one part of his pasture and the next in a distant part of the same pasture. The sows took frequent trips back and forth in search of the food that they found now and then. This may not be the best way to induce exercise, but exercise in a considerable quantity must be secured.

Buy Your Silo Now Save 40% to 60%

You can now buy, direct from our mill, a Seattle Silo of clear fir, at a price that will amaze you. We can underprice everybody because we own the lumber of which we manufacture the silo. Only one operating expense for us. Only one profit for you to pay.

Seattle Silos

are made from "Puget Sound" fir—the choicest that grows. Straight and close of grain. No knots or sap. Wear for years and years.

The doors are of a new improved swinging type and quick detachable. The door bars form a safe, strong ladder, from which the hoops can be easily tightened. A great idea!

Write today for special silo folder. Our low prices will surprise you. We can usually arrange to give you the benefit of practically carload rates on shipments of single silos. Write for special offer to one farmer in each township.

Save 40% to 60% on lumber and millwork

Stop paying hold-up prices to the local lumberman. He gets his materials fifth-handed. Four other middlemen get big profits. No wonder lumber is high and the quality low.

With us, quality is high and price is low. We own thousands of acres of choice timber in Oregon, Washington and British Columbia. We cut and log the timber. Manufacture it into choice lumber and millwork in six big mills. Only one operating expense—only one profit. Shipments made within 24 to 48 hours. Average delivery, two weeks. Send us your bill of materials for estimate. Satisfaction guaranteed. Write today for catalog and delivered prices.

MAIL THE COUPON

Hewitt-Lea-Funck Co.

488 Union Avenue Seattle, Wash.

Hewitt-Lea-Funck Co.

488 Union Ave., Seattle, Wash.

Kindly send the following, quoting prices delivered my station:

[ ] Catalog of Lumber and Millwork

[ ] Special Silo Folder

(Be sure to write plainly)

Name_____

Address _____

Business_____

I am planning to build as follows _____

OIL TRACTORS ON THE FARM.

Facts and Figures in Regard to Economy of Farm Operations Under Existing Conditions.

It is several years since we published a government bulletin, which stated that the oil tractor by economical service was pushing the steam traction engine out of business.

We have recently obtained an article by Mr. A. G. Barnet that goes into the subject deeper from a practical working standpoint, and we take such as refers to the moderate size tractors.

The farmer contemplating buying a tractor naturally thinks of what the machine will do for him. How much it will save. He knows how much time and labor it requires for the different operations on the farm using horses, but the amount the tractor will really do seems hard to estimate in view of the claims made by various manufacturers.

Take the operation of plowing, for instance. The farmer knows how much time and stock it requires to do the work. To estimate on the work with a tractor one may use the following figures, being certain always to note the exact nature of the soil and the per cent. of grade of the hills on the land.

The most accurate tests on level ground where the tractor gets a good footing show the following draft per square inch of cross section of plow. (Cross section equals width of plow times depth plowed).

In sandy soil, draft is 3 pounds per square inch of cross section of plow.

In clay soil, draft is 8 pounds per square inch of cross section of plow.

In clover sod, draft is 7 pounds per square inch of cross section of plow.

In virgin sod, draft is 15 pounds per square inch of cross section of plow.

In prairie sod, draft is 15 pounds per square inch of cross section of plow.

In gumbo, draft is 20 pounds per square inch of cross section of plow.

Taking, for example, a plow rig of five fourteen-inch bottoms and wishing to plow a depth of six inches, figure the draft for the various soils as follows: (Cross section equals 5x14x6, or 420 square inches).

3x420 equals 1,260 pounds draft in sandy soil.

8x420 equals 3,360 pounds draft in clay soil.

7x420 equals 2,940 pounds draft in clover sod.

15x420 equals 6,300 pounds draft in virgin sod.

20x420 equals 8,400 pounds draft in gumbo.

The manufacturers give the draw-bar pull of their engines. To figure the number of bottoms which can be pulled, divide the draw-bar pull by the cross section of one plow, multiplied by the draft per square inch of cross section of plow. Thus, plow, 14 inches; depth, 6 inches; sod, clover.

14x6x7 equals 588 pounds draft of one plow.

Let us say the draw-bar pull is 4,000 pounds and the land is level and has good, solid footing.

4,000 divided by 588 equals 6.8.

So we can safely estimate on at least six bottoms.

Each one per cent. of rise in grade—rise of one foot in 100 feet—adds one per cent. of the weight of the tractor and plows to the draft. A five-plow gang weighs about 3,300 pounds and the best field weight of a fifteen to twenty-five horse-power tractor is about 16,000 pounds.

Thus, using the example shown above of five fourteen-inch plows plowing to a depth of six inches, the drafts on a five per cent. grade will be as follows:

Sandy soil....1,260 plus 965 equals 2,225.
Clay soil.....3,360 plus 965 equals 4,325.
Clover sod....2,900 plus 965 equals 3,865.
Virgin sod...6,300 plus 965 equals 7,265.
Gumbo.....8,400 plus 965 equals 9,365.

Mr. A. G. Rusel, of Janesville, Wis., states: "In regard to my fifteen to twenty-five oil tractor I would say I plowed forty acres in three days and handled the plow and engine alone and pulled six fourteen-inch plows six inches deep. The third day I plowed fourteen acres in nine hours on twenty-five gallons of kerosene costing me 6¼ cents per gallon. At present I am plowing sod, pulling the six fourteen-inch plows six inches deep and have plenty of power and get the best of service."

The draw-bar pull of the machine Mr. Russel owns is 4,000 pounds, so pulling the load he speaks of is indeed a remarkable showing, regardless of how light the soil is. Using Mr. Russel's figures shows a cost of 11 cents per acre for fuel.

As tractors largely go into the hands of men who, while they have considerable mechanical ability, have neither the time nor the facilities to make extensive repairs or adjustments, and as they are located at a distance from properly equipped machine shops, it is of the very greatest importance that the machines be of the most rugged construction, so that breakages are reduced to a minimum and the least possible time be lost on account of repairs.

The following is the experience of Albert Andrews, of Crystal City, Manitoba:

"With regard to the fifteen-to-twenty-five oil tractor which I purchased, I wish to state that I have found it to be very reliable and more than strong enough to drive a twenty-five by forty-two separator with all attachments. I would especially recommend anyone desiring a tractor easy to start and simple of operation to buy this special fifteen-to-twenty-five type."

"The fuel consumption I find to be about twenty-five gallons per day."

A fifteen-to-twenty-five horse-power oil tractor operated a thirty-six by fifty-six separator for E. B. Conibar, West Brooklyn, Ill. The average day's run throughout the 1912 threshing season was about 3,000 bushels of oats in nine hours.

Two tons is a good load for two horses on a hard road. A fifteen-to-twenty-five oil tractor will pull sixteen tons; a thirty-to-sixty oil tractor about thirty-seven tons; thus simplifying the hauling of crops to market.

The big advantage of the oil tractor over the horses is the fact that the tractor is not an expense except while actually in operation. The horses, on the other hand, are a constant expense. They are piling up the same feed and stable charges on Sundays, holidays and rainy days. The oil tractor ceases to be an expense the minute the power is shut off.

Although this article is based upon operations of only one make of tractors, the economy in work applies in a certain measure to all. Anyone requiring further information may address Mr. A. G. Langworthy, care Fairbanks, Morse & Co., Wabash avenue and Eldridge Place, Chicago, Illinois.

15-25 H. P. Fairbanks-Morse Oil Tractor pulling 6 14-inch plows 6 inches deep through sod on the farm of A. G. Russel, north of Janesville, Wis.

Put Up Hay Right.

The leaves of alfalfa hay contain the greatest percentage of protein, consequently they are the most valuable part of the crop. Alfalfa cured by proper methods will not lose over ten to fifteen per cent. of its leaves, but frequently the loss amounts to forty to fifty per cent., all due to poor methods of handling and curing. The first cutting of alfalfa should be made when not more than one-fifth of the heads are in bloom. This is very important, for if the first cutting is put off too long it will not only materially reduce the total yield of the crop, but the quality will not be so good. Early cutting enables the plants to start right off making growth for the second crop, and if the cuttings are properly timed alfafa may be cut four or five times during the season.—L. C. Brown.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloh. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down, and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number. The price of each pattern is 10 cents.

For Many Purposes.

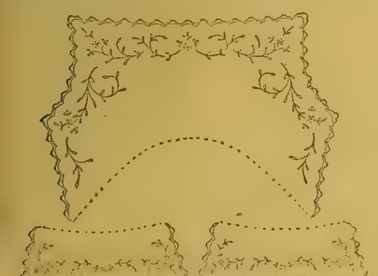
No. 746 is a design for sprays of carnation pinks, suitable for embroidering sofa cushions, table covers, bureau scarfs, etc. Two sprays of each size are given. The flowers may be worked by long and short stitch, the calyces, buds, leaves and stems in solid embroidery, or all may be simply outlined.

Design For an Infant's Cape and Cap.

No. 744.—Design for embroidering an infant's cape and cap. Especially adapted to May Manton's Pattern No. 7912.

A Bulgarian Band.

No. 745 is a design for embroidering a band in Bulgarian style. The band is two and a half inches wide; two yards are given.



For a Child's Dress.

No. 743.—Design for embroidering a child's sailor collar and cuffs.

Each embroidery pattern is 10 cents, and is well worth the money.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Ways With Potatoes.

Potato Balls.—Mix a few bread crumbs with the mashed potato left from dinner, season with pepper and salt and add enough sweet milk to work up nicely into balls. Flatten these to an inch in thickness, roll in flour and fry to a rich brown.

Browned Potatoes.—Pare and slice enough potatoes to make a pint. Put them into a buttered baking-pan and pour over an egg beaten with one-half cup of milk, season, bake for twenty minutes in a covered dish, then remove the cover and allow to brown.

Scalloped Potatoes. — Slice raw potatoes and put them into a buttered baking-dish, seasoning each layer with grated or chopped onion. salt, pepper and butter. Dredge the top layer with flour and cover with milk. Bake until brown.

Add to the roast of any kind of meat enough pared potatoes for the meal. Cover the roaster and let them cook about three-quarters of an hour, or until the meat is done. They have a rich flavor distinctively different from than when cooked in any other way.

Cheesed Potato.—Season mashed potato and press it firmly into a dish so that the layer will be about half an inch thick. It must be left until entirely cold and firmly set. Cut with a biscuit cutter and fry on one side to a rich brown. Place the cakes in a baking-pan, brown side up, brush over the top with the white of an egg and cover with grated cheese. Bake until the cheese is melted.

Creamed Potato.—Heat one pint of milk, add a little butter, salt, pepper and a heaping teaspoonful of flour rubbed smooth in cold milk or water, stir in slowly the cold sliced potato, and when the mixture is entirely heated through stir in one well-beaten egg.

Potato Croquettes.—To every quart of hot mashed potato add one tablespoonful of butter, four tablespoonfuls cream, beaten yolks of four eggs, teaspoonful onion juice, teaspoonful salt, tablespoonful chopped parsley. Stir over the fire until the mixture cleaves from the sides of the dish. Cool, shape into rolls, dip into beaten egg, roll in bread or cracker crumbs and fry brown.

Mashed Potato.—Boil until soft, mash with a wire masher, season with pepper and salt and stir in a cupful of hot milk. Keep on mashing until all is of a creamy texture and fine grain. Just before serving add a tablespoonful of butter. Having the milk hot and a thorough mashing are the secret of success.

Potato Stew.—Pare and slice one quart of potatoes. Fry two slices of pork in a kettle until brown, add one chopped onion and one tablespoonful of flour. Stir well and let them brown. Then add one quart of boiling water and the potatoes. Boil until the latter are soft, add salt, one cup of milk and a few crackers.

Saratoga Chips.—Pare and slice in very thin slices half a dozen potatoes. Let them stand at least an hour in cold water (over night is still better). Drain and wipe off the water on a clean towel and fry until brown in very hot lard. When crisp, remove into a colander to drain, sprinkle salt and pepper over them. Serve at once, or they are fine cold for the picnic lunch.

Moulded Potatoes.—Boil and mash as for the table. Wet a teacup and press as many cakes as are needed. Turn them out into a tin, rub beaten egg over each and bake until nicely browned.

Potato Fritters.—Add one or two beaten eggs to each pint of left-over mashed potatoes, beat well and drop by the spoonful into hot drippings. Fry brown on both sides.

Potato and Bacon. — Slice cold boiled potatoes and one onion together. Fry several thin slices of bacon until it is well browned, take it out and let the gravy cool, then add two tablespoonfuls of vinegar, salt and pepper to taste. Serve cold.

Brown Potato Soup.—Peel, quarter and soak in cold water for an hour one dozen potatoes. Then put with them a large onion sliced into three tablespoonfuls of good meat drippings and let them brown, stirring frequently to avoid scorching. When nicely browned add two quarts of boiling water, cover the kettle and let simmer until the potatoes are soft. Put through a colander, return to the kettle and stir in a large spoonful of flour, and spoonful of browned flour, in enough water to prevent their going in lumpy. Boil until this thickens sufficiently, then add a tablespoonful of chopped parsley, summer savory, or sweet basil, with salt and pepper to taste.

Potatoes With Green Peas.—Scrape or with a stiff brush remove the skin from enough new potatoes for a meal. Shell a part of green peas, and if they are infested with weevil, the easiest way to detect the bad peas is when the pod is first opened, before the row is broken. Place the peas in a kettle of boiling water, and when they have commenced to boil, add the potatoes. When all are done tender, drain and season with pepper and salt and cover with butter. If the peas are a bit old they will require more cooking, and a tiny bit of soda may be required to render them soft. If soup is desired, wash the pods and cook in a separate water, strain and add this to the water in which the potatoes and peas were cooked. Add butter, pepper and salt.

Warmed Potato.—Slice very thin and lay in a large biscuit tin. Season, and place bits of butter over the top, brown in the oven and serve hot.—Bessie L. Putnam.

From a Single Cherry Tree.

E. W. Terry, of Pattonville, St. Louis county, horticulturist and school teacher, will graft 2,000 shoots from a cherry tree which this year produced fruit that sold for $43.20. So far as he can learn, it is the only tree of its variety in America. It was brought from France thirty years ago and has been bearing cherries twenty-seven years.

Its fruit is larger than the ordinary cherry and contains less juice. Fruit remains on the stem many days after it ripens.

Two trees of the variety were brought fom Europe by former Judge Alexander Martin. One died. The living one never has missed a crop in ten years. The yearly amount produced has not varied three trays. The quantity taken to market a few days ago was thirty-two trays. They sold for $1.35 each.

Efforts have been made to propagate the tree, but the seeds will not sprout. They are smaller than the ordinary cherry seed. Terry has sent to France for some of the same wood on which the tree was grafted, so the same standard of fruit may be maintained. The tree resembles a large oak and the leaves look something like those of the chestnut. The yield this year is believed to be the record in point of quantity in the state.

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SELECTED POETRY.

THE DAY IS GONE.

The day is done and darkness
Falls from the wings of night,
As a feather is wafted downward
From an eagle in his flight.

I see the lights of the village
Gleam through the rain and the mist,
And a feeling of sadness comes o'er me
That my soul cannot resist.

A feeling of sadness and longing,
That is not akin to pain,
And resembles sorrow only
As the mist resembles rain.

Come, read to me some poem,
Some simple and heartfelt lay,
That shall soothe this restless feeling,
And banish the thoughts of day.

Not from the grand old masters,
Not from the bards sublime,
Whose distant footsteps echo
Through the corridors of Time.

For, like strains of martial music,
Their mighty thoughts suggest
Life's endless toil and endeavor;
And to-night I long for rest.

Read from some humbler poet,
Whose songs gushed from his heart,
As showers from the clouds of summer,
Or tears from the eyelids start.

Who, through long days of labor
And nights devoid of ease,
Still heard in his soul the music
Of wonderful melodies.

Such songs have power to quiet
The restless pulse of care,
And some like the benediction
That follows after prayer.

Then read from the treasured volume
The poem of thy choice,
And lend to the rhyme of the poet
The beauty of thy voice.

And the night shall be filled with music,
And the cares that infest the day
Shall fold their tents, like the Arabs,
And as silently steal away.
—Henry Wadsworth Longfellow.

THE LITTLE CITY FELLER.

The little city feller was as pale as he could be—
My mother had him sent out for a week, so he could see
The really, truly country, an' get lots of milk an' eggs,
An' put some fat, ma said, on his pore little arms an' legs;
An' then she told me he ain't got no good home like I got,
An' never knew his father an' his mother, like as not.

At first he sort of dumped around an' wouldn't play a thing,
An' wouldn't talk or answer me, but set there in the swing,
Until I brought my rabbits out, an' took him down to see
Old Bess an' her new spotted calf that daddy give to me.
I took him to the crick, an' say! what do you think of him?
A-goin' on eleven an' ain't never learned to swim!
An' then we drove the cows home and we helped corral the sheep,
An' he was so done up an' tired, he et, an' fell asleep
Right at the table, an' my pa he carried him to bed,
Because he wasn't bigger than a minute, daddy said;
Said we must help him get red cheeks an' muscle, like I got,
An' cut up Ned—I'd have to show him how, as like as not.

But now I guess there ain't no devilment that he can't find.
He keeps me goin' some, but I ain't very far behind.
Ma says the two of us is all a mortal can endure,
An' just another week of it would drive her crazy, sure.
He's company, an' goin' home to-day, as like as not,
Or I bet he'd get a tannin' with a hick'ry, like I got!
—National Magazine.

COUNTRY SCENES.

First crop o'clover in and second on the way,
Corn about three inches high and crackin' all the day;
Peas in pod most fit to pick and many a strawberry red
A-kissin' hands unto the cook f'um out the early bed.
Cow bells tinklin' down the glade;
The bull flies fairly swishin';
An' some folks think 'at man was made
For nothin' at all but fishin'!

Such headin' of the wheat these days a-goin' on;
Mom Honey nickle at the gate to sweeten up the dawn;
The motley cow way over there in blackberries to her knees,
And ain't the world most butterflies, and bees?
Brown jug underneath a tree
With water cool and sweet;
An' some folks thinkin' man was made
For nothin' but smoke and eat!

Few cherries that the frost has missed a-growin' mighty red,
And Mister Robin on a limb all fixed to go ahead;
Blind bottle-flies a-tryin' their best to buzz like bumblebees,
And, Lord, how many gnats is they to every critter, please!
Cool music of the little brook
That babbles through the glade;
An' some folks thinkin' all a man
Kin think uv now is shade!

Oats gettin' that silver-green they get before it's time to ripe;
Old whitewash man a-stoppin' again to light his corncob pipe;
Watermelons beginning to vine, and cantaloupes the same,
A dad-burn cathird over there tellin' everyone his name.
Talkin' harvest at the store
An' tryin' on yaller shoes;
An' some folks thinkin' a man ain't got
No right to dream an' snooze!
—The Bentztown Bard.

A MEMORY IN THE FIELDS.

Just around the corner there is music soft and sweet,
The sunbeams on a holiday go dancing down the street.
You see a path where blossoms bend to greet you on
There, when the first green shoots of tender corn
Show on the plow; when the first drift of white
Stars the black branches of the spiky thorn,
And afternoons are warm and evenings light,
The shivering daffodils do take delight,
Shaking beside the brook, and grass comes green,
And blue dog violets come, and glistening celandine.

And there the pickers come, picking for town
Those dancing daffodils; all day they pick;
Hard-featured women, weather-beaten brown,
Or swarthy-red, the color of old brick.
At noon they break their meats under the rick.
The smoke of all three farms lifts blue in air
As though man's passionate mind had never suffered there.

And sometimes as they rest an old man comes,
Shepherd or carter, to the hedgerow side,
And looks upon their gangrel tribe, and hums,
And thinks all gone to wreck since master died;
And sighs over a passionate harvest tide
There, in the quiet fields among the daffodils,
Which Death's red sickle reaped under those hills.
—John Masefield.

THE IDEAL.

I want to find a summer boarding place
Where no mosquitoes ever may be found,
Where all the eggs are fresh and there is space
For one to wander aimlessly around.

I want to find a place where not a fly
Will ever come to perch upon my plate,
Where no one will be petulant if I
Sometimes get down to breakfast rather late.
I want to find a place beside a stream
Where I, when I am so inclined, may wade;
Where there will be abundance of rich cream
And bread and pie like that which mother made.

I want to find a place that shall be free
From ragtime and unnecessary show;
Where others will have deep respect for me
And ask no questions when I come and go.

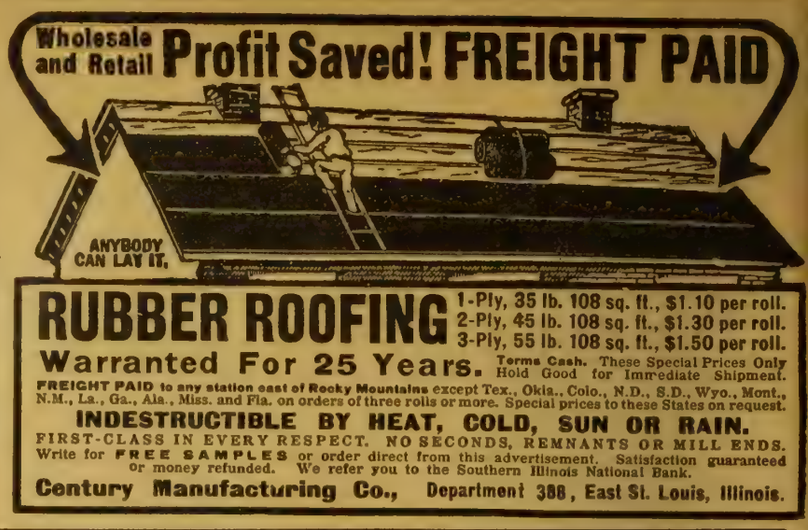
It must not be too cool and not too hot;
I think I have described the place I seek;
For what I want in such a favored spot
I'm willing to pay seven plunks a week.
—S. E. Kiser, in Chicago Record-Herald.

Working For Choice Honey.

Too many who are not professional apiarists forget that the half-way method of doing things is not profitable. They keep a few swarms of bees, letting them mostly take care of themselves, when, by giving them only a few hours of extra attention, and most of this at a time when other things were not pressing, the same bees might be induced to produce many pounds more of honey, and this in a marketable form.

The "chunk honey," which is more or less wasted in taking it off, and which may contain bee bread and other impurities, may be exchanged for the neat boxes of pound size, which are easily handled in market, and quickly placed in the hive. An up-to-date hive costs not nearly so much as the loss in honey through lack of it, and when once obtained it will last for a lifetime. The section boxes, which are sent out in the flat and easily put together, induce neat work in honey making. But to insure this, it is also wise to use the comb foundation or "starter." When this is done the bees are bound to build straight; otherwise they may start the comb crosswise and thus waste valuable space as well as get irregular comb. The section boxes cost quite a little less than a cent apiece, and the starter, which costs five cents, will easily fit out for sixteen pounds of honey.

The starter comes in four-inch strips. Cut each into four squares, and each of these again into four pieces by two diagonal lines. Fasten a piece in the top of each section box with a bit of melted beeswax. A small block of wood on which is tacked a board just half as thick as the section will regulate the placing of the starter. Slip it under the section and lay the starter on the raised piece, with the longest side of the starter next to the inside of the section. Then with a little brush or feather touch the melted wax and it is in place.—Bessie L. Putnam.



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The Goodyear Tire Book.

Automobile tires wear out, no matter how good they are. Many automobile owners wait until they are in need of new tires before they study the subject. We find that it pays to be posted in time. We advise our readers to send to the Goodyear Tire and Rubber Company, Akron, Ohio, and ask for a copy of the Goodyear Tire Book. It tells the whole story of the automobile tire. See page 7 of this edition.

No Voice in the Matter.

Severe Father—Eileen, what is the meaning of the diamond ring on your finger."

Willful Daughter—"It means, papa, that Jack has something to ask you that it will do you no good to refuse."

The Farmers' Directory of Business Interests.

A NEW PUBLICATION BY THE HALE PUBLISHING CO., OF ST. LOUIS, MO., ISSUED QUARTERLY AT 50 CENTS A COPY, OR $1.00 PER YEAR.

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THE FARMERS' DIRECTORY OF BUSINESS INTERESTS is designed to contain the name, occupation and business address of all the firms engaged in such business, that their name, address and line of goods manufactured or handled may be of value to general grain farmers, stock raisers, ranchmen, dairymen, fruit and vegetable growers, poultry keepers, and all others engaged in agricultural pursuits. Lists are arranged by states.

INDUSTRIES INCLUDED IN THE BOOK.

The list includes an alphabetical arrangement of names, addresses and occupations of individuals and firms representing the following industries: Agricultural implements; Auctioneers, live stock; Building and construction; Cattle troughs, self-feeders, etc.; Cisterns and tanks; Cotton-ginning machinery; Dairy apparatus; Electric farm appliances; Engines for farm use; Farm publications; Fertilizer manufacturers; Fruit specialists; Grain graders and elevators; Horse goods; Horse and mule dealers; Incubators and brooders; Irrigation plants and machinery; Live stock salesmen and purchasing agents; Merchants dealing in farm goods; Motor cars and trucks; Nurserymen; Packers and wholesale butchers; Poultry supplies; produce commission salesmen; public abattoirs; Roofing; Sale stables; Seed growers and dealers; Sheep dips and specialties; Stock foods and tonics; Stock yards and markets; Stump pullers; Swine breeders' goods; Vegetable and fruit packages; Vehicles and harness; Veterinary appliances; Water systems; Well-drilling tools; Windmills and motors; Wire goods and fencing; and all other industries having business connections with the farm interests of the country.

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No. 7889.—Fancy Blouse For Misses and Small Women. Fourteen, sixteen and eighteen years. With long or elbow sleeves.

No. 7887.—Fancy Blouse. 34 to 42 bust. With long or three-quarter sleeves.

No. 7834.—Tucked Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7888.—Two-piece Skirt. 22 to 32 waist. With fullness at side seams laid in plaits with overlapped edges below, with high or natural waist line.

No. 7507.—Four-piece Skirt. 22 to 32 waist. With high or natural waist line.

No. 7866.—Middy Blouse. 36 to 42 bust. To be worn over or under the skirt, made with or without applied yoke and shield that can be made low or high, with long, elbow or short sleeves.

No. 7812 A.—Blouse Coat in Balkan Style. 34 to 40 bust. With three-quarter, bell or long plain sleeves, straight or diagonal closing, peplum that can be made with square or round front edges.

No. 7873.—Semi-Princess Gown. 34 to 44 bust. With three-piece skirt in cutaway or straight outline, three-quarter or long sleeves, square or pointed collar, with or without chemisette.

No. 7860.—Girl's Dress. Ten, twelve and fourteen years. No. 437 Embroidery Design. With three-piece skirt, with set-in sleeves in elbow or full length, with collar that can be square or round at back.

No. 7829.—Girl's Dress. Four to eight years. Closing at back, with elbow or long sleeves.

No. 7786.—Box Plaited Blouse. 34 to 40 bust. With or without chemisette and under sleeves.

No. 7881.—Loose-belted Coat. 34 to 40 bust.

No. 7884.—Semi-Princess Dress For Misses and Small Women. Fourteen, sixteen and eighteen years. With three-piece skirt in cutaway or straight outline, long or short sleeves, with or without chemisette.

No. 7867.—Girl's Balkan Dress. Six to twelve years. With draped or plain belt.

No. 7878.—Child's Blouse Dress. Four to eight years. With straight plaited skirt, short or long sleeves, with or without shield.

No. 7871.—Child's One-piece Kimono. One, two and four years. With short or long sleeves, with or without seam at back.

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No. 7861.—Infant's Dress and Barrow Coat. One size.

No. 7883.—Boy's Russian Blouse Suit. Two to six years. With straight trousers, square or high neck, short or long sleeves.

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LAND OF RAINLESS WHEAT.

South African Agriculture Goes Farther Than American Dry Farming.

From London, England, on June 7th, was sent a statement as follows:

"What seems one of the most wonderful and fruitful discoveries of the world, says the Tablet, was announced and described by Mr. Macdonald in a lecture of the Royal Colonial Institute recently. A few years ago it was universally believed that in the dry belt in South Africa agriculture was tied to the water furrow. This meant a few cultivated patches islanded in a desert. In fact, tens of thousands of acres are to-day carrying crops in the dry district with no help from irrigation. We quote the lecturer's words:

"'America has grown wheat on an eight-inch rainfall. Australia has grown wheat on a five-inch rainfall, but we in South Africa have grown a rainless wheat. That is to say, that during the past season at Lichtenburg, which is in the dry zone of the Transvaal, we have grown a wheat without a single drop of rain falling upon it from seed time until harvest. This is the Durum wheat, Apulia, which we originally introduced from the dry belt of Italy. Our success has been due to the use of what we term 'moisture-saving fallows.' The great problem of South African agriculture is not the problem of fertility. It is the problem of the conservation of moisture.

"'We have now solved that problem and made possible the immediate settlement of our dry or arid lands. But the triumphs of science as applied to agriculture in South Africa are not confined to the discovery of rainless wheat. The locusts which have plagued the land for ages are to-day kept under control. The progress of the insect invaders, which from the days of the Pharaohs till yesterday was regarded as irresistible as fate, can to-day be easily checked by means of arsenical sprays.

"'The flight of every swarm of locusts is registered and telegraphed to the headquarters of the Union Department of Agriculture at Pretoria, and when the young locusts emerge the veld is ringed by poisonous grass, over which they can not pass. A short ago the government of Peru sent an expert to the Transvaal to study our methods of locust destruction, but the only locust which the entomologist could show him was to be found in the museum. The authors of such discoveries as these, the real creators of wealth, are surely the true heroes, as they are certainly the benefactors of the race—yet what is their personal reward, either in wealth or fame?"

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Buckwheat as a Catch Crop.

Buckwheat is very highly regarded by beekeepers as a plant that will furnish the materials for a good honey flow, but the general farmer would find it a crop that is as profitable as any other. This is more particularly true when for any reason a staple crop fails and the field would lie idle to bear only useless weeds.

Buckwheat has the advantage of requiring only a short season in which to mature, and if the grain is not all sold, the chickens will be very glad of a share. Just notice how they will follow hedges and fences where the wild buckwheat grows, to pick up the seed when frost has opened the "pods."

The writer can recall when nearly every family grew a patch of buckwheat to furnish enough materials for cakes for the winter breakfast instead of depending upon substitutes like "Aunt Jemima's Pancake Flour" and others not so well known, that are composed of cheaper and commoner grains than buckwheat and lack the distinctive flavor that made made the pancakes from this flour so delicious.

The present way of farming runs more to specialization, but the small farmer makes the best living and stands the best show of success if he grows a little of everything, and even growing a patch of buckwheat is not to be despised. The best profit would perhaps result if he is situated so as to grow more than he needs for home use, for when "having his hand in" it takes but little more time to raise enough to make a tidy bit of money from the sale of the surplus after paying expenses.

A few years ago, when a late spring flood drowned out the corn on a Missouri river bottom farm, the owner decided to try buckwheat as an emergency crop, and he netted twelve dollars to the acre after paying for seed and a reasonable price for all labor expended on the crop —not so bad, when he might have lost out entirely, as it was too late for corn, or, in fact, any cash crop, and he could not feed up all the forage he had planted in other fields.

Of course, his land had plenty of immediately-available plant food, which gave the crop a good start; but on poorer land good results can be obtained with commercial plant foods to give the crop the essential elements for luxuriant growth. Buckwheat does not remove as much nitrogen or potash as some of the other cereals, but it has a shorter perior of growth and so responds to fertilization in a marked manner.

A fertilizer containing four per cent. nitrogen, eight per cent. phosphoric acid and nine per cent. potash, applied at the rate of 300 pounds to the acre, will greatly add to the yield if the land is not in a good state of fertility. Sixty pounds of nitrate of soda, 150 pounds of acid phosphate and fifty pounds of sulphate of potash have been used by a farmer who makes a business of growing buckwheat for the general market, and he says that the corn crop following is always a paying one, without further fertilization.—D. C. Cornman.

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Anyone who wishes to obtain the latest and most direct information concerning concrete on the farm should write for a "Free Book on Concrete Work" and address either the Atlas Portland Cement Company, Dept 165-, 30 Broad street, New York, N. Y., or Atlas Portland Cement Company, Dept. 165, Corn Exchange Bank Building, Chicago, Ill.

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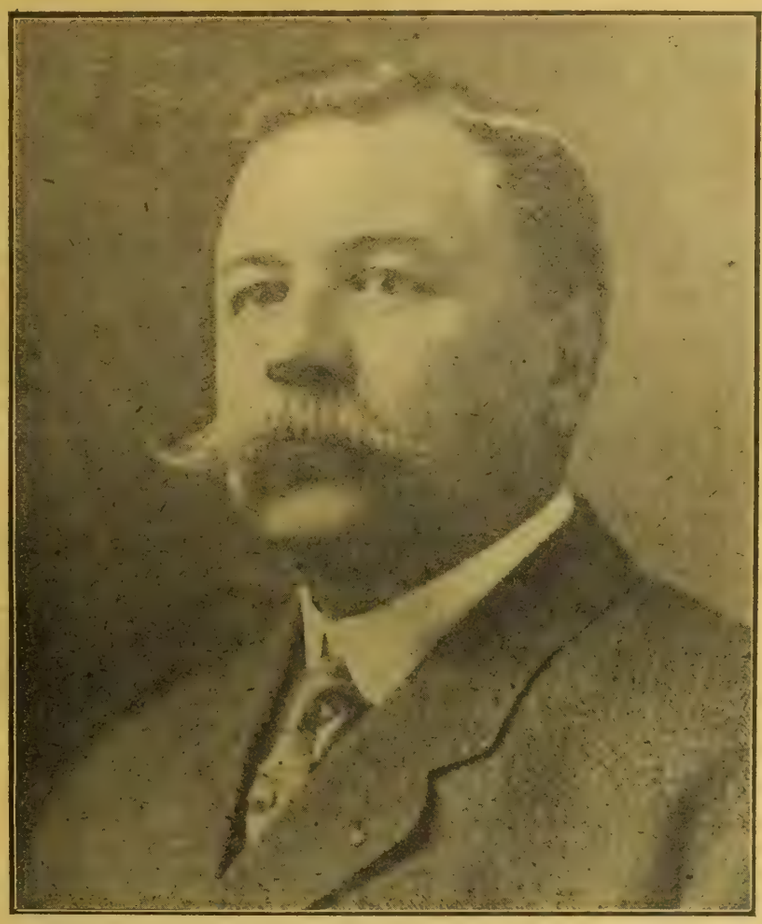

DR. ALONZO D. MELVIN, Chief of the Bureau of Animal Industry of the United States Department of Agriculture. On July 24th DR. MELVIN was directed to undertake a three-months' investigation of the meat-packing industry in the principal cattle-growing countries of South America. DR. MELVIN will look into the slaughtering, canning and general packing-house business of Argentine, Brazil, Uruguay and Paraguay. DR. MELVIN is fully competent to study these matters, for the reason that he is thoroughly posted in regard to the American packing houses. Congress is now legislating for the purpose of admitting all the South American meats into this country free of duty, and of course it will be interesting to know what to expect. He will find our good friends, the Chicago packers, nicely established in Argentine and ready to take advantage of United States legislation in favor of their Argentine properties.

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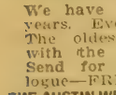
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The Peach-tree Borer.

Many wonder why their peach trees are such short-lived members of the orchard, and yet those most observing will readily detect one or several reasons why they may die young. One of the most common of insect enemies is the peach-tree borer, the presence of which may be readily detected, if we but know what to look for.

Gum may exude from the bark of the tree because of injury, as hail, or any bruises upon the trunk or branches. It is the nature of the tree to supply this gum around any scar. But if there is a trace of something like sawdust in this gum you may be fairly certain that the borer is at work. The eggs are laid on the bark of the tree near the ground, and the larvae bore down in the bark just below the surface. Their burrows are soon filled with a gummy secretion from the tree and thus the presence of the pest is readily detected. If unmolested, the full-grown larvae come to the surface and make a cocoon of borings fastened together with silk. The perfect insect may emerge any time from May to October, but the greatest numbers appear in June and early July.

But not all of the borers are confined to the roots. Examine the trunk and branches. If there is fresh gum and "sawdust," dig in with a knife and the chances are that you will not go very far into the cavity without unearthing a whitish larva nearly an inch long, if it is full grown. There is rarely more than one in a place, though there may be numerous burrows on the same branch.

One preventive is to make a mound a foot high around the roots of the tree in early summer and remove it in September. This exposes the tender larvae to the weather and they are killed. Some paint around the tree with a paint containing Paris green. But the safest way is to watch for the tell-tale gum, and, having located the pest, dig it out.—Bessie L. Putnam.

Is Sweet Clover (Melilotus) a Coming Forage Plant?

We know a great deal about the clovers, but there is no doubt that we have still more to learn. The last word has not been said on clover culture and clover use.

One of the clovers that has as yet obtained little attention in this country is sweet clover, which grows so abundantly among many of our roadsides.

A farmer tells the writer that he has had some experience in feeding this to cattle, and that they eat it greedily after they have become accustomed to it. He says he has seen his cows leave alfalfa and good blue grass and turn to a patch of sweet clover. They did not, however, always have a liking for it; but the liking seemed to grow after the animals had had frequent opportunities to eat it.

The objection to sweet clover as a food for stock has been a bitter taste very pronounced in it. This is the thing to which animals must become accustomed. But a farmer says that it is the same with human beings eating olives. Also, it is well known that domestic animals raised on the plains and fed on nothing but grass and hay will not at first eat much grain, either whole or ground. They have to become accustomed to the new feed.

If, then, it is merely a question of accustoming animals to sweet clover, we have much to hope for in the coming use of this plant.

It will doubtless prove of more value in the soiling system than in any other way. Making hay from it is not very easy, on account of the size of the stalk, especially when it grows very rank. However, it may be cut several times a season, as is the case with alfalfa.

Where sweet clover was seeded on rich land, which had been prepared for it as for any other crop, the writer saw it standing more than six feet high, and so dense that it made many tons of hay per acre.

Its great value is going to be found in the persistency with which it grows under hard conditions. While alfalfa is easily crowded out by common weeds, sweet clover crowds out the weed, but is itself in time crowded out by grass. It is a great thing to have a good forage plant that delights to grow on the hardest kind of soil and where it has at the surface a small water supply. It will often be found growing on high embankments of railroads, where the water table must surely be far below the surface, showing that this plant has the power of sending its roots far down into the moist strata of soil.

Like alfalfa and red clover, it cannot grow and thrive in an acid soil. But where the soil is permeated with lime the acid is neutralized by the lime and the sweet clover thrives. Some lime is used also in the building up of the tissues of the plant, but that is true of other plants as well. But sweet clover is such a lover of lime that where it is found growing well it is generally considered that lime abounds in the soil.

On farms where it will not grow it should grow by applying to the soil either ground lime rock, air-slaked lime, or water-slaked lime, known as hydrated lime.

Where this plant grows naturally it will be well to experiment with it, feeding to different kinds of stock and see how long it will take for the animals to develop a liking for it.

It will not stand pasturing any more than alfalfa, unless it be pastured very lightly.

Wheat Market Situation.

The dark cloud of an American Congress legislating against our wheat growers and in favor of the foreign wheat grower is depressing the market. Bread is as dear as ever, but the wheat that ought to sell at a dollar a bushel and cost to market added is selling at about 84 cents, out of which market charges and transportation must come. Farmers are raising wheat to sell very little above a cent a pound.

Wheat Market Options at Chicago.

	July.	Sept.	Dec.
May 31st	92¼	91⅞	94⅛
June 30th	89⅛	90	93⅛
July 31st	84⅛	86	89⅞

The figures we present are based upon the close of the market on the closing day of the month.

On May 31st, at St. Louis, the market closed with No. 2 soft red wheat selling at $1.03 to $1.06½ a bushel. On June 30th the sales were at 89 to 91 cents; on July 31st the sales were made at 84 to 85⅜ cents a bushel.

On May 31st, at St. Louis, No. 2 hard wheat sold at 93 to 94 cents a bushel; on June 30th the prices were 89½ to 93 cents, and on July 31st 84 to 84¼ cents. We leave the market as it was then quoted.

Corn Harvesting Simple.

Attention is invited to the card of the New Process Mfg. Co., Salina, Kas., on page 2. For several years this corn harvester has been advertised with considerable success. It is worth investigating.—(Advt.)

We Give You a Suit and Put Money in Your Pockets

Be the best-dressed man in your town at our expense. We do everything for you except spend your money. If you want your own business and a home on "Easy Street," this is your greatest opportunity. We are looking for a man who will take orders. We don't need salesmen. Regal Union Label Garments sell themselves. If you will wear a suit made to YOUR measure—
YOU ARE THE MAN WE WANT!
You can choose any suit we make and have it lined with silk and finished any way you want. Wear it in your spare time, and all of your friends will want to look as stylish and well dressed as you look. Then all you have to do is to take the orders. Every order means a big CASH profit to you, and it all comes to you free. We prepay all express charges. We back you with our enormous union tailoring shops, our advertising and our money.
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The return mail will bring you the chance of your life. We will send you our handsomely colored, beautifully illustrated book of made-to-measure, union made garments with our complete outfit, tape measure, wonderfully colored fashion plates, confidential and retail price lists, and full information how to get your own suit free and how we put money in your pockets. Write at once. (15)
REGAL TAILORING CO., 770 Regal Bldg., Chicago, Ill.

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Send Postal for New Water Supply Plan. It will bring you 100 pictures of us in actual use. Do it Now.
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Cuts Four to Seven Acres a Day
with one man and one horse. Here is what one farmer says: Overbrook, Kan., Aug. 28, 1911.
Dear Sir—My corn is not quite ready but I took the harvester into the field to see how it would work. It cuts splendid. Easy to regulate the knife, easy draft. Yours truly, THOS. H. McCLUNE.
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Studebaker "30," 4-cylinder, 5-passenger	700
Mitchell 4-cylinder, 5-passenger	750
Mitchell, 4-cylinder, 5-passenger	750
Moon 4-cylinder, 5-passenger	750
Marathon, 4-cylinder, 5-passenger	850
Moon, 4-cylinder, 7-passenger	900
White gas car, 5-passenger	900
Kline, 6-cylinder, 5-passenger	950
Mitchell, 6-cylinder, 7-passenger	1,000
Mitchell, 6-cylinder, 5-passenger	1,150
Mitchell roadster, 6-cyl., 1912 model	1,200
Dorris, 4-cylinder, 5-passenger	1,250
Speedwell, 4-cylinder, 7-passenger	1,250
Buick, 2-cylinder, delivery wagon	370
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Avery truck, 3-ton, covered stake body	1,750

Terms:—Part cash; balance monthly notes.
WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

Disking Timothy and Alfalfa.

A correspondent asks if I advise disking in manure which is spread, during the fall, on old timothy and alfalfa fields.

I do not advise disking timothy at all. It would probably ruin it. I should merely apply the manure from a spreader late this fall, leaving it to work down around the roots during the winter. Disking an old alfalfa field would stimulate growth, providing it was done at the proper time. If manure is applied to the field this fall I should not disk until the alfalfa started next spring. Disking or harrowing alfalfa is all right, and may be done with advantage after any cutting except the last one, and, as the manure would not be applied possibly until after the last cutting, it would be best to not disturb the alfalfa crowns by disking until spring. Some good farmers say better results may be had from harrowing in manure, instead of disking it.—L. C. Brown.

Sowing Timothy After Millet.

A Missouri correspondent asks these questions about timothy: "Would you advise sowing timothy this fall? How would it do to sow timothy after millet?" Timothy may be sown alone in the fall, but it is important that the ground be clean. If the millet can be taken off the ground in September, disking and harrowing would be all that are necessary to put the ground in condition for seeding the timothy. Timothy requires rather moist, rich soil, and unless the ground where the millet is growing is in good condition, I would not chance timothy on it.—L. C. Brown.

Weeds About to Take Alfalfa.

A Kentucky correspondent writes: "Last season I sowed about five acres to alfalfa, my first experience. The alfalfa came on pretty well the first season, but this year it is not thrifty and weeds are about to take it. What can I do with it?"

It is more than likely that the alfalfa was sown on rather thin ground, and possibly was not inoculated. About all one can do now is to thicken up the stand by reseeding and by vigorous use of a spring-tooth harrow keep down the weeds. Sowing alfalfa on poor ground seldom pays. It should be sown on ground which will produce average crops of wheat or oats, and, besides putting the seed-bed in good condition, inoculation and lime are nearly always essential. Many make the mistake of trying to force alfalfa to grow under unnatural conditions.—L. C. Brown.

Sowing Crimson Clover.

A Williamson county, Illinois, correspondent asks if it is too late to sow Crimson clover, and upon what character of soil it will do best.

In Southern Illinois and farther south Crimson clover should be sown during the fall—say along in September. The seed-bed should be well prepared and the seed well covered, for the young plants cannot endure much heat and the roots of the young plants are easily killed. Crimson clover thrives during the cool, moist weather of fall and early spring.

It will thrive on most any character of soil that is not too cold, but really does best on rich loams. It will do tolerably well on sandy soils, but on thin, stiff soils it will not do any better than common red clover.

I strongly urge Crimson clover for these southerly regions where common red clover does not thrive. Crimson clover will yield as much hay as common red, and the hay is of good quality.—L. C. Brown.

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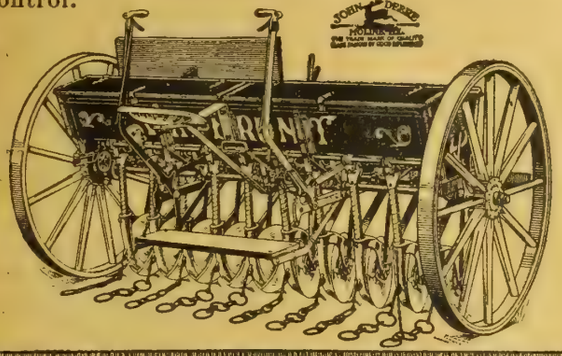

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MOLINE, ILLINOIS

GOVERNMENT WHEAT REPORT.

Issued on July 9th, But on the Basis of July 1st.

The United States Department of Agriculture issued the following estimate in regard to the wheat crop:

Winter Wheat.—Area planted, 30,938,000 acres, compared with 26,571,000 acres last year; condition, 81.6 per cent. of a normal, compared with 83.5 per cent. on June 1; 73.3 per cent. on July 1, last year, and 79.9 per cent., the ten-year average on July 1; indicated yield, 15.6 bushels per acre, compared with 15.1 bushels last year, and 15.2 bushels, the average for the last five years; estimated total production, 483,000,000 bushels, compared with 399,919,000 bushels last year; 430,656,000 bushels in 1911; 434,142,000 bushels in 1910; and 418,000,000 bushels in 1909.

Spring Wheat. — Area planted, 18,663,000 acres, compared with 19,243,000 acres last year; condition, 73.8 per cent of a normal, compared with 93.5 per cent. on June 1; 89.3 per cent. on July 1, last year, and 85.3 per cent., the ten-year average on July 1; indicated yield, 11.7 bushels per acre, compared with 17.2 bushels last year; and 13.3 bushels, the average for the last five years; estimated total production, 218,000,000 bushels, compared with 330,348,000 bushels last year; 190,682,000 bushels in 1911; 200,979,000 bushels in 1910; and 265,000,000 bushels in 1909.

All Wheat.—Area planted, 49,601,000 acres, compared with 45,814,000 acres last year. Condition, 78.6 per cent. of a normal, compared with 87.2 per cent. on June 1; 80.1 per cent. on July 1, last year, and 81.9 per cent., the ten-year average on July 1. Indicated yield, 14.1 bushels per acre, compared with 15.9 bushels last year, and 14.5 bushels, the average for the last five years. Estimated total production, 701,000,000 bushels, compared with 730,267,000 bushels last year; 621,338,000 bushels in 1911; 635,121,000 bushels in 1910; and 638,000,000 bushels in 1909.

The amount of wheat remaining on farms, July 1, is estimated at about 35,515,000 bushels, compared with 23,876,000 bushels on July 1, 1912, and 34,071,000 bushels on July 1, 1911.

Harvesting Cowpea Hay.

The habits of cowpeas should be known in order to handle them for hay to the best advantage. Some varieties make a decided upright growth, while others trail along the ground and are not suitable for hay. The New Era, Michigan Favorite and Whippoorwill are good varieties to grow for hay, because of their upright habits, which make them easily handled with the ordinary mowing machine.

Handling the crop after it is cut is not difficult, providing the peas are cut at the proper stage. Last fall, in my travels in Southern Illinois, I saw thousands of acres of cowpea hay ruined because it was cut too green. It would not cure. For early and quick handling cowpeas should be cut when the leaves begin to turn. At this stage they will cure as readily as clover hay and will be ready for stack or mow within thirty-six hours. In showery weather it is risky to mow down a large acreage and take chances. It is safer to mow what can be handled promptly. By putting it in cocks after an exposure of eight or ten hours, it will cure nicely and will not be much injured by ordinary rains. With good drying weather cowpea hay mowed in the forenoon may be put into cocks late the same day. The usual practice of raking the hay up into windrows, leaving it there to cure, is all right, providing it does not rain. But this curing process requires three or four days, and there is many a chance for a slip, during haying weather, within that time.—L. C. Brown.

Flax Crop of the United States.

Dated July 1st but issued July 9th the United States Department of Agriculture issued the following report on the flax crop of 1913:

Area planted, 2,245,000 acres, compared with 2,851,000 acres last year. Condition, 82 per cent. of a normal, compared with 88.9 per cent. last year, and 87.2 per cent., the ten-year average on July 1. Indicated yield, 8.7 bushels per acre, compared with 9.8 bushels last year, and 8.2 bushels, the average for the last five years. Estimated total production, 21,000,000 bushels, compared with 28,073,000 bushels last year; 19,370,000 bushels in 1911; 12,718,000 bushels in 1910; and 20,000,000 bushels in 1909.

The National Dairy Show for 1913 will be held at Chicago, as usual, commencing with Thursday, October 23d, and ending Saturday, November 1st, 1913.

The Spalding Deep-Tilling Machine

is doing wonderful work all around you, preparing a 12 to 16-inch deep, thoroughly pulverized and mixed seed-bed, in one operation. Such a seed-bed cannot help but increase crops. AND IT DOES.

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OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

Congress is still in session, and the bill that is to discriminate against all American industries and against the farming interests in particular, is still in the Senate; therefore we again publish the editorial views of The National Farmer and Stock Grower on that subject.

We are in favor of the United States Custom House collecting by law a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, the amount of said duties to applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government can be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people. We are in favor of duties being levied upon all manufactured goods for the double purpose of furnishing revenue and for the protection of our manufactures, for the reason that all interests are entitled to protection, if it is accorded to anyone.

We look with seriousness at what we regard as a great and unnecessary blow to the best-producing industries of this country in the tariff bill that has just passed the House. This country has had some experience in that line. Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result.

With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year; and if not collected that way will have to be collected by direct taxes upon our own productions. The admission of foreign goods free of duty displace home productions and result in higher prices to the American consumer and higher taxation also upon our own products to make up the necessary revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his suppoft in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country thrives far better without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next; but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and general discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers. The farmers who can provide for themselves will be slow to increase their products in the face of injurious legislation.

United States Tobacco Crop.

Basis of July 1st, 1913, the United States government issued the following in regard to tobacco:

Area planted, 1,144,350 acres, compared with 1,225,800 acres last year. Condition, 82.8 per cent. of a normal, compared with 87.7 per cent. last year, and 84.8 per cent., the ten-year average on July 1. Indicated yield, 809 pounds per acre, compared with 785.5 pounds last year, and 822.3 pounds, the average for the last five years. Estimated total production, 926,000,000 pounds, compared with 962,855,000 pounds last year; 905,109,000 pounds in 1911; 1,103,415,000 pounds in 1910; and 1,056,000,000 pounds in 1909.

Government Report on Rye.

Based on July 1st, the United States Department of Agriculture issued the following estimate in regard to the rye crop:

Condition, 88.6 per cent. of a normal, compared with 90.9 per cent. on June 1; 88.2 per cent. on July 1, last year, and 89.7 per cent., the ten-year average on July 1. Indicated yield, 16.1 bushels per acre, compared with 16.8 bushels last year, and 16.2 bushels, the average for the last five years.

Sowing Clover on Thin Places.

A Missouri correspondent asks if it would be any use to sow clover on the thin places on stubble where the spring seeding of clover failed to catch.

Yes, I advise sowing these areas at once. Most clover fields where spring seeding was done with grain show a good many of these burnt-out areas, and it is important that they be covered at once. The ground should be put in fit seed-bed condition, and then, if seeding is done by the middle of August, there are good chances of success.

Another correspondent, who reports that his early spring-sown clover is a failure, asks if I advise sowing clover during the fall on stubble ground.

Clover may be sown early in the fall. I should disk and harrow the ground at once and put it in good condition, and then after a good rain I should sow the seed and harrow it in well. Because of unfavorable conditions, both early in the spring and in June, large areas of clover are partial failures. These should be looked after right now.—L.C. Brown.

Clipping Clover For Seed.

A Union county, Illinois, correspondent writes: "I have some two-year-old clover which I am saving for a seed crop. I was advised to clip it two or three times, and have already clipped it twice. Had I best leave it alone now?"

If this correspondent had stated whether his clover was Medium Red or Mammoth I could have given his inquiries more definite answers. If the clover is Common Red, our correspondent has not done wisely in clipping it back twice. The usual practice is to take a hay crop early and then leave the second crop to mature seed. With Mammoth clover, if the growth is very rank, it may be advisable to clip twice. On thin ground I do not advise clipping at all. In Minnesota, where perhaps more Mammoth clover is grown than in any other section, they do not clip at all, and not unfrequently the clover yield is three to four bushels per acre.—L. C. Brown.

Government Potato Report.

On July 1st, in regard to white potatoes, the Department of Agriculture reported as follows:

Area planted, 3,685,000 acres, compared with 3,711,000 acres last year. Condition, 86.2 per cent. of a normal, compared with 88.9 per cent., the ten-year average, on July 1. Indicated yield, 93.1 bushels per acre, compared with 113.4 bushels last year, and 96.1 bushels, the average for the last five years. Estimated total production, 343,000,000 bushels, compared with 420,647,000 bushels last year; 292,737,000 bushels in 1911; 349,032,000 bushels in 1910; and 389,000,000 bushels in 1909.

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FARM MECHANICS.

Adding an Extra Month to the Farmer's Working Year—How the Gasoline Engine Does It.

[By Ed. H. Witte.]

Out on my farm the work divides itself roughly into three classes—the housework (under the direction of my wife), the yard work and the field work, under my direction. Some of the yard work runs over into the house work and the field work, and some of the field and house work run into the yard work.

The gasoline engine has as much place in the yard work, and in some of the house work, as the horses and mules have a place in the field work.

As yard work, there is what is usually called "chores," morning, noon and evening. And besides the chores there is much more or less regular work, as feed grinding, corn shelling, wood sawing, grain elevating, tool grinding, water pumping, and some shop machinery to drive for repair or building work. In some places the milking machine has come to have a regular call for machine power.

Everybody knows about the "chores" of house work—the cooking, dish washing, scrubbing, bed making, lamp tending, etc.—and the usual additional chores of separating milk and feeding and looking after the chickens. These two latter are yard work that gets over into the house work by a sort of common consent, the beginning of which no one exactly knows.

The up-to-date farm has a power house, or should have such a thing. The power house will, on the average farm, add at least an extra month of productive working time to the calendar year. It does not take much use of a four or six horse-power gasoline engine to save an hour a day for 365 days a year. That is 365 hours, which at twelve working hours a day makes thirty days, or a month. This month's time taken out of yard and house chore time and added to the productive time in the field—where neither sun nor season waits for any man—and to the woman's disenthrallment from house slavery to home making, this month's time I estimate to be worth to the average farm every year several times the cost of the farm power house and its equipment. Quite often the work done in and by the power house saves a farm hand, who for eight months in a year costs $400 to $500, and is not always satisfactory at that.

Out in the power house on my farm we make electric lights for our house, besides for the barn, stable, garage, granary, poultry houses and other buildings into which we have to go or look, now and then, at night. We also have some yard lights. All this does away with lamp trimming, cleaning and filling, besides the danger and usual mussiness of the old kerosene lamps. We have instantaneous light, day or night, and for the hot days we have electric fan service, while the daily chore of sweeping and dusting is much shortened and greatly lightened by the electric suction cleaner. The sewing machine is power driven, and so are the washing machine and wringer. All this work requires only one-day's run of the small engine a week. The storage batteries do the trick the rest of the time.

When the engine is making electricity, just to keep it decently busy we have it pump water into an under-ground, air-pressure water tank, which supplies a water service to house, barns and stock tanks that is the equal of any city service. This pressure water service operates the bath and toilet and makes lawn sprinkling and garden watering a delight instead of a drudgery. Another point of first importance to every farmer is in favor of the gasoline engine pumping into an air-pressure tank of considerable capacity. That is the matter of fire protection. Some time ago a fire broke out among the buildings of a large ranch, and when the owner with his neighbors and employees undertook to get water to fight the flames and protect surrounding buildings, it was discovered there were not enough buckets to do any good to get water from the open stock tanks to the fire. So the fire burned out its course, causing great loss. An air-pressure system, with gasoline engine, pump and some small rubber hose would have saved thousands of dollars that night, where the water system would have cost only a few hundred. Of course, it was easy for this ranch owner to go to town the next day and buy just such an outfit; "to lock the barn door after the horse had been stolen." The time is coming, however, when the insurance companies writing farm insurance will require such a water installation in order to get the most advantageous insurance rates. It is a noteworthy fact now that farmers are having to pay too high insurance rates.

The same gasoline power runs the cream separator and the churn, and I suppose one of these days it will do the milking. Our land near Kansas City is so high-priced that dairying is necessary to make it pay for owning it. If our little power house did nothing else but lighten, as it does, the women's work in the house, it would still be worth many times its cost. It has not cost in the first place what I have had to pay for a single work team, and its working capacity will not be seriously lessened any when every horse I now own will be dead from old age.

So much for the gasoline engine as a capable assistant to the mistress of the house.

For its part in the yard work, and through that to the field work the engine has much more to do.

In the way of heavy work it has the feed grinder to run as a rather regular thing. Also water to pump for stock watering, and more and more than ever for irrigation purposes. In season it has to saw wood, cut ensilage, run the grindstone (especially for grinding mower sickles), run the fanning mill, turn the shop forge fan, elevate and dump grain—small grain as well as corn—bale hay and sometimes pull stumps. It also has the corn to shell and plow and disc shares to polish and grind. In many localities the matter of wood sawing alone makes it of big profit to own a gasoline saw rig. Hundreds of owners of such rigs have written to say that their custom sawing alone in a single season of a few months in the winter had paid entirely for the saw rig, besides paying all expenses of operation. Such a saw rig can now be had for about half what used to be considered a low price. Not only is such a rig good for sawing, but for other work as well. Where the saw table can be detached and some other machine, such as an ensilage cutter, feed grinder or pump put on the same frame, the range of usefulness and earning capacity can be greatly widened. Doing these things, the gasoline engine adds to a farmer's capacity for greater accomplishment while at the same time it lessens his work. In other words, it makes his day longer, but leaves him less tired at night.

The gasoline engine is the greatest invention of all the ages for taking the hard work out of the day's duties and at the same time greatly increasing the output of the year's labor while lowering the cost of production. Far from reducing the need for horses and mules, the gasoline engine increases the need for more work animals, because for every hour and every day it releases of a farmer's time from the yard to the field just that much more will the farmer come to need more field power, either to increase his acreage under plow or to cultivate better the acres which before had to be "mined" instead of farmed.

Contrary to the belief of many, the present-day gasoline engine is a very simple machine. Much simpler, indeed, and more readily to be understood than a self-binder or a common sewing machine. The time was when in the early days the gasoline engine had to be equipped with the "hot-tube" igniters, something which now-a-days is almost unheard of. That method of ignition left a degree of uncertainty in the operation of the engine, which at times was very annoying. But all that is changed now. Over twenty years ago, when I perfected my first electric igniter, I could see where the gasoline engine, on account of its improved ignition device, would come to be the most versatile servant of the farmer. And the years since have borne out my belief. The electric igniter took away from gasoline engines their vagaries and their uncertainties, also their danger. Every man, or woman either, for that matter, who can read the language of ordinary farm speech, can now master all the operation of a gasoline engine easily, if only he or she will study for a few hours the instruction book furnished with each machine. Nothing that can be learned in such a comparatively short time is more worth knowing than to know how a gasoline engine runs, how it can be kept going and how to use its power when it is going. Every boy has to learn how to drive horses, how to handle them to avoid undue risk of disease and accident, not only to the horses but to himself. It is easier to learn how to manage a gasoline engine. I don't say this to convey the impression that it is better to know how to manage an engine than a span of horses or mules, but merely to point that the one is really easier than the other, and the up-to-date farmer needs to know both.

The farmer who to-day is getting along without a first-class, really high-grade gasoline engine is paying more to do without it than it would cost to have it. This is a proposition that courts investigation, and I believe that engine manufacturers and engine users everywhere, as well as agricultural college authorities, will be found ready, willing and capable to successfully demonstrate its soundness, just as I believe that every fair-minded farmer who is not now using such an engine will admit the truth of the same proposition after he takes the time and pains to make a worth-while investigation.

Illinois Butter Scoring.

The wide variation in creamery buttermaking is clearly shown by the June Butter-scoring Exposition at Urbana, Ill. There were seventeen entries. The scoring ranged from 86 to 95, and the average was 90.56. The analyses of the entries showed extreme variations in composition. One entry contained but 9.84 per cent. moisture, while three entries went over the legal limit of 16 per cent. The average moisture content of the seventeen entries was 14.36 per cent. The salt content varied from .56 per cent. to 3.62 per cent. There was only one entry criticised as being briny. Five entries contained less than 2 per cent. of salt, and there were four that contained over 3.5 per cent. The average salt content for the seventeen entries was 2.51 per cent. The curd content was slightly variable, the lowest curd content being .58 per cent., the highest .93 per cent., while the average for the seventeen entries was .77 per cent.

Holstein-Friesian Register.

During the period from May 2d to May 23d, 1913, records for 255 cows were accepted to entry in the Holstein-Friesian Advanced Register. This selection of 255 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days **104,512.7** pounds of milk, containing **3,730.145** pounds of butter-fat, thus showing an average of **3.57** per cent. fat. The average production for each animal was **409.9** pounds of milk, containing **14.628** pounds of butter-fat, equivalent to **58.56** pounds or **27.9** quarts of milk per day, and **17.06** pounds of commercial butter per week.

Fifty Pounds of Butter-fat a Month.

To produce fifty pounds in a month is not a big yield, as we consider production in our best dairies to-day. When produced in the regular course of a cow's yearly work and compared with the average of the herd it looks large to us, and when compared with the average yield of cows throughout the country it looks still larger to us.

It is really an honor to be in the fifty-pound class. Among those who have come to the front in the past week we note two from Langwater Farms — Langwater Dolly Bloom, 22,136, with 59.18 pounds, and Langwater Dorothy, 27,944, with 67.10 pounds, both owned by F. Lothrop Ames, North Easton, Mass. Mignonette of Maple Row, 27,265, owned by Est. H. E. Taber, Castile, N. Y., produced in May 80.22 pounds butter-fat, and in June 64.60 pounds. Capt. E. B. Cassatt, of Berwyn, Pa., has two cows that are running very close together, May Rilma, 22,761, giving 79.08 pounds butter-fat, and Nellie Eglantine, 22,759, giving 79.97 pounds butter-fat. Bessie Villanette, 32,891, in the same herd, gave 54.63 pounds butter-fat. Imp. Nellie, III., of the Baissieres, 39,644, owned by J. Henry Hammond, of Mt. Kisco, N. Y., was just comfortably over the line with 51.84 pounds. From Michigan, W. T. Barbour, of Birmingham, has two cows—Imp. Les Pelleys Jane, II., 32,038, with 55.63 pounds for May and 50.22 pounds for June; and Bess of Locust Grove, 28,886, who gave 65.50 pound in May and 59.53 pounds in June.

While other Guernsey cows are doing as well, the above are representative of those in the states mentioned and should encourage breeders generally to know just what their cows are actually producing.

Seventeen Guernsey cows were granted certificates the past week. Seven gave over 500 pounds butter-fat, and an average of 599 plus pounds for the year; and only three out of the seventeen, and they being young animals, gave less than 400 pounds. Nine of the number are owned by O. C. Barber, of Akron, Ohio, and averaged 483.39 pounds, only one giving less than 400 pounds, while one gave 636.12 pounds butter-fat as a four-and-one-half-year-old.

The largest record for the week is that of Miranda of Mapleton, 19,606, owned by F. G. Benham, of Canandaigua, N. Y. This cow has just completed her fourth yearly record and gave 16,630.70 pounds milk and 927.16 pounds butter-fat, which gives her second place among Guernsey cows for yearly work. While other Guernseys have made four-yearly records, Miranda has outdistanced them all in the total amount of milk and butter-fat.—American Guernsey Cattle Club Notes.

Gross and Net Farm Profits.

According to a statement emanating from Prof. Wm. J. Spillman, Chief of the Office of Farm Management, Department of Agriculture, the gross income of the average American farm is $980.55, and the gross expense $340.15, leaving a net income of $640.40.

Of the net income $322.18 represents the interest on the investment, and $318.22 the value of the farmer's labor for the year.

The total gross income of the 6,361,502 farms of the country in 1910 was $6,237,850,146. The total expenses were $2,163,822,647, leaving a net farm income of $4,074,027,499. The interest on investment figured at 5 per cent. comprised $2,049,572,454 of the net income and the labor income $2,024,455,045.

It requires the net profits of ten farmers to pay the salary of one Congressman.

DE LAVAL CREAM SEPARATORS
SAVE MUCH TIME AND LABOR IN SUMMER
Which means a great deal to the farmer, let alone the great increase in quantity and improvement in quality of product
The De Laval Separator Co.
New York Chicago San Francisco

Please mention Nat. Farmer and Stock Grower.

GOVERNMENT Positions are easy to get. My free booklet X 1109 tells how. Write today—NOW. EARL HOPKINS, Washington, D. C.

Thresher Belts Of High Grade All Standard Sizes of Endless B lts carried in stock, and sold at right prices. Quick service guaranteed. Weber Imp. & Auto Co., 1800 Locust St., St. Louis.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.
EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

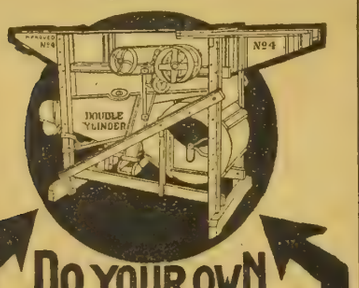
WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. SCHISLER GRAIN CO.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

The United States Barley Crop.

Issued on July 9th and based upon information collected July 1st the United States Department of Agriculture makes the following statement in regard to the barley crop:

Area planted, 7,255,000 acres, compared with 7,530,000 acres last year. Condition, 76.6 per cent. of a normal, compared with 87.1 per cent. on June 1; 88.3 per cent. on July 1, last year, and 85.4 per cent., the ten-year average on July 1. Indicated yield, 22.8 bushels per acre, compared with 29.7 bushels last year, and 24.5 bushels, the average for the last five years. Estimated total production, 165,000,000 bushels, compared with 223,824,000 bushels last year; 160,240,000 bushels in 1911; 173,832,000 bushels in 1910; and 173,000,000 bushels in 1909.



DO YOUR OWN THRESHING

of beans and peas with a guaranteed Owens Thresher. All your seed separated and cleaned from the vines and pods without splitting. Pea and bean growing is the most profitable farming if handled right.

OWENS DOUBLE CYLINDER
Bean and Pea Thresher
—Made in 4 sizes—

Will pay for itself many times over in one season. Guaranteed not to split the seed and take all from the vines.

FREE BOOK

Send for our free book of valuable information about bean and pea culture. Illustrations and description of our machines. Facts and figures showing results obtained by users of our Huilers—write today.

J. L. Owens Company
Chamber of Commerce Bldg.
Minneapolis, Minnesota.

Please mention Nat. Farmer and Stock Grower.

Government Oats Report.

Issued on July 9th from calculations based upon reports of July 1st, the United States Department of Agriculture issued the following estimate in regard to the oats crop:

Area planted, 38,341,000 acres, compared with 37,917,000 acres last year. Condition, 76.3 per cent. of a normal, compared with 87.0 per cent. on June 1; 89.2 per cent. on July 1, 1912; and 84.5 per cent., the ten-year average on July 1. Indicated yield, 26.9 bushels, compared with 37.4 bushels last year, and 29.7 bushels, the average for the last five years. Estimated total production, 1,031,000,000 bushels, compared with 1,418,337,000 bushels last year; 922,298,000 bushels in 1911; 1,186,341,000 bushels in 1910; and 1,007,000,000 bushels in 1909.

The Government Corn Report.

Issued on July 9th but calculated on basis of July 1st, the United States Department of Agriculture issued the following estimate in regard to the corn crop:

Area planted, 106,884,000 acres, compared with 107,003,000 acres last year. Condition, 86.9 per cent. of a normal, compared with 81.5 per cent. on July 1, last year, and 84.0 per cent., the ten-year average on July 1. Indicated yield, 27.8 bushels per acre, compared with 29.2 bushels last year, and 26.5 bushels, the average for the last five years. Estimated total production, 2,971,000,000 bushels, compared with 3,124,746,000 bushels last year; 2,531,488,000 bushels in 1911; 2,886,260 bushels in 1910; and 2,552,000,000 bushels in 1909.

Our Crop of Rice.

The United States Department of Agriculture issued a report on the rice crop, basis of July 1st, 1913:

Area planted, 824,100 acres, compared with 722,800 acres last year. Condition, 88.4 per cent. of a normal, compared with 86.3 per cent. last year, and 88.5 per cent., the ten-year average on July 1. Indicated yield, 33 bushels per acre, compared with 34.7 bushels last year, and 33.7 bushels, the average for the last five years. Estimated total production, 27,000,000 bushels, compared with 25,054,000 bushels last year; 22,934,000 bushels in 1911; 24,510,000 bushels in 1910; and 22,000,000 bushels in 1909.

Hay Condition, July 1, 1913.

The United States Department of Agriculture report on hay was as follows: Condition, 80.5 per cent. of a normal, compared with 87.5 per cent. on June 1; 85.2 per cent. on July 1, last year, and 82.2 per cent., the average for the last five years Indicated yield, 1.33 tons per acre, compared with 1.47 tons last year, and 1.38 tons, the average for the last five years.

Genuine Blue Grass—Poa Pratensis.

(By Chas. E. Prunty, Grain, Clover and Grass Seeds, 7, 9 and 11 South Main Street, St. Louis, Mo.)

This winter grass ripens here in Missouri about June 15th. If the seed is not harvested during the next few days it may be shed by the first shower of rain. It is gathered by using a two-horse cylinder harvester, which combs the seed off the stems. On account of the heat of the weather and the sultriness of the air during June, the few green stems which are gathered with the seed commence to ferment and would heat in twelve hours if the rough seed is not carefully spread on sheets and cured. The purifying of the seed is done later in factories with several different machines. The yield per acre of purified seed averages about fifty-six pounds. The seed of this plant, Poa Pratensis, is known locally by different names, such as Kentucky Blue Grass and Stalk Meadow Grass. The seed of the Poa Compressa, which is from Canada, and other inferior Poas are often mistaken for the Poa Pratensis seed.

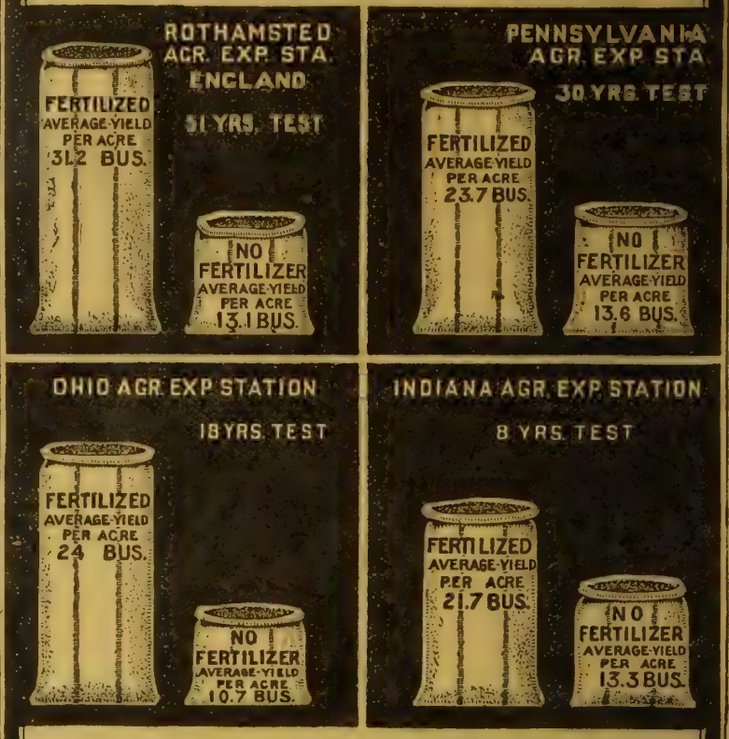
The seeds of Poa Pratensis, if scattered on the firm surface of congenial and well-drained and composted soil during the months of August and September and trodden in (rolling is not so effective) will send its roots in the course of a few years to a depth of ten feet and form a close sod, which will withstand drouth and cold weather better than some trees.

Irrigation.—Wetting a blue grass sod during warm weather, when the plant is dormant, promotes the growth of summer grass and weeds River water carries the germs of seeds in suspension. The dampness breeds worms which feed on the blue grass roots.—(Advt.)

Soil Improvement Talk No. 4

Complete Fertilizers on Winter Wheat

Actual Field Tests by Experiment Stations


ROTHAMSTED AGR. EXP. STA. ENGLAND
51 YRS. TEST
FERTILIZED AVERAGE YIELD PER ACRE 31.2 BUS.
NO FERTILIZER AVERAGE YIELD PER ACRE 13.1 BUS.
PENNSYLVANIA AGR. EXP. STA.
30 YRS. TEST
FERTILIZED AVERAGE YIELD PER ACRE 23.7 BUS.
NO FERTILIZER AVERAGE YIELD PER ACRE 13.6 BUS.
OHIO AGR. EXP. STATION
18 YRS. TEST
FERTILIZED AVERAGE YIELD PER ACRE 24 BUS.
NO FERTILIZER AVERAGE YIELD PER ACRE 10.7 BUS.
INDIANA AGR. EXP. STATION
8 YRS. TEST
FERTILIZED AVERAGE YIELD PER ACRE 21.7 BUS.
NO FERTILIZER AVERAGE YIELD PER ACRE 13.3 BUS.

WRITE FOR SPECIAL CROP BULLETINS on Corn, Oats, Wheat, Potatoes, Alfalfa and other crops; mailed free to any address upon application.

MIDDLE WEST **SOIL IMPROVEMENT** COMMITTEE
916 Postal Tel. Bldg.
of the NATIONAL FERTILIZER ASSOCIATION
CHICAGO, ILLINOIS

LIVE STOCK MARKET PRICES.

On July 31st, at St. Louis, twenty native steers, 1,388 pounds average, sold at $8.50 per 100 pounds; twenty-seven steers, 1,108 pounds, at $8.35; twenty-six steers and heifers, 687 pounds, at $7.85; fourteen steers, and heifers, 680 pounds, at $7.40; native cows sold from $4.00 to $7.25; bulls, $4.75 to $6.25; Texas steers, $5.50 to $7.60; hogs, top price, $9.40 for light hogs; bulk, $9.05 to $9.25; top lambs, 68 pounds, at $7.00; bulk, $5.25 to $6.85; mutton sheep, $4.25; stockers, $2.75 to $4.75 per 100 pounds.

PRACTICAL AND ECONOMICAL CORN HARVESTER.

It is safe to say that no farmer would willingly be without the "Perfect" Corn Harvester after seeing it in operation. This machine cuts the corn thoroughly, quickly and economically, and is so simple that a boy can operate it and a pony can pull it.

The "Perfect" Corn Harvester is the product of the Love Manufacturing Co., 1214 Citizens street, Lincoln, Ill. A postal will bring their free catalogue, describing in detail this practical time and money-saving corn cutter. (Advt.)

ST. LOUIS HAY QUOTATIONS.

August 1st, 1913: Choice old hay, $18.50; No. 1, $16.50 to $18; No. 2, $14 to $16; choice new timothy, $16.50; No. 1, $15 to $16; No. 2, $13 to $15; clover-mixed, $12 to $15; choice prairie, $15.50; No. 1, $14 to $15; No. 2, $12.50 to $14; choice alfalfa, $17; No. 1, $14 to $16.50; No. 2, $13 to $14.50; straw, $5.00 to $6.00.

"THIS IS A GOOD ONE."

Northville, Mich., March 27, 1913.
Binkley Medical Co., Nappanee, Ind.:

Gentlemen:—I enclose check for $1.00 for one more bottle of Frazier's Distemper Cure, as I did great things with the other bottle I received. I have a colt that I have had five different veterinary surgeons caring for since last November and none of them did him any good, and I also tried one bottle of S..... Distemper Remedy and I could not see any change. The first bottle of "Frazier's" used on this colt, we noticed a change for the better right away. I am sure that "Frazier's" has got it on all of them. Would not be without it again. Rush bottle right away. Respectfully, H. A. Thomas, Proprietor Thomas Tavern. (Advt.)

MISBRANDING OF ZENOLEUM.

Under insecticide act of 1910 seven cases of zenoleum shipped by the Zenner Disinfectant Company, of Detroit, Mich., were condemned by the government for being misbranded. The company made no defense, and a default was entered and the goods were destroyed. The case was before the District Court of the United States, December 10th, 1912.

FRAZIER'S DISTEMPER CURE

Coughs and Distemper

Among Colts, Mares and Stallions cured with one bottle of **FRAZIER'S DISTEMPER CURE**, or your money refunded. One dose placed in trough or feed will prevent all cases. Influenza, Pink-Eye, Catarrhal Fever, Colds and all forms of Nose and Throat Troubles cured in four to eight days. $1 bottle holds three 50c. size bottles. Send postal for free booklet on the horse. Sold by druggists or prepaid from

BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

Barb Wire FENCING $1.29 PER REEL AND UP

A Tremendous Bargain

We have just bought 5,000 Reels New Gal'v. Barbed Wire Fencing at an exceptionally low price. Made of the best Bessemer steel — Full guage and size—Well galvanized (not the painted kind)—No seconds or poor stuff; all new and first class wire.

80 Rods in Reel

2—Point Cattle 2—Point Hog
4—Point Cattle 4—Point Hog

Save 20% to 40%

In the recent flood it was under water a few days—not damaged 5%—A wonderful bargain. Take our word for it. Order a sample reel for inspection. You take no risk. Quick shipments—Don't delay.

A. J. Child & Sons Merc. Co.
Established 1874
517 N. Main Street St. Louis, Mo.

STOCKMEN AND THE TARIFF.

Official Statement by the American National Live Stock Association.

The following statement by the American National Live Stock Association was dated at Denver, Colo., July 22d:

"During April and May, 1913, this association was ably represented in Washington by a committee of stockmen from various sections of the West, who went there for the purpose of urging Congress to retain a fair and reasonable duty on live stock and meat-food products. The tariff bill, as it passed the House of Representatives, placed meat products on the free list and imposed a duty of 10 per cent. on live stock. This was thoroughly illogical, and we insisted on the same treatment for both live stock and meats, and urged that the duty be not less than 15 per cent. ad valorem. In addition to the brief filed before the Ways and Means Committee on January 21, 1913, a supplemental brief was presented to the Finance Committee on May 5, 1913. Later, on May 9, the Sub-committee of the Finance Committee handling Schedule G (live stock and meats) granted a hearing to our representatives, at which the matter of an adequate inspection of all imported live stock and meats, as well as the duty on our products, was fully presented. On the request of said Subcommittee, an amendment covering the inspection of imported meats, and providing for substantially the same inspection as prevails in this country, was prepared and submitted.

"At a still later date, namely, June 25, 1913, an additional brief was filed with the Finance Committee for this association, insisting that the tariff law should carry a countervailing duty clause, under the operation of which there would be assessed by this country, for example, on all imported live stock and meat products from Canada, a duty equal to the amount levied by Canada on similar products from this country. We contended that it would be unreasonable, and unfair to the American producers, as well as a dangerous economic policy, to open free the markets of this, the greatest meat-producing and consuming country in the world, without a corresponding opportunity to sell our surplus of meats on equal terms in the markets of countries which may sell to us. Such a countervailing duty clause would result in a duty on all live stock and meats imported from surplus countries, such as Canada, Argentine, Australia and Mexico.

Notwithstanding all our efforts, the Sub-committee of the Finance Committee recommended that both live stock and meats be placed on the free list, and the Finance Committee so reported. It now seems practically certain that no countervailing clause applying to live stock will be inserted in the tariff bill. We are, however, reasonably assured that the bill will be amended to provide for an inspection of meats and live stock, so as to prevent to entry of contagious diseases into this country. Whether such inspection at points of slaughter abroad will be as rigid as is maintained on our domestic production cannot now be foretold.

"Everything that could be done to protect our interests in the tariff has been done by the officers of this association and the stockmen who went to Washington. At a time when an import duty on live stock, meats and agricultural products might mean something to the producer, the majority of the members of Congress favor placing them on the free list. What effect this will have on prices for our live stock is most difficult to forecast. Under the present acute world shortage it may not have much, if any, effect on home prices for the immediate future. It is almost certain, however, that with meats on a free-trade basis, there will be increasing importations in this country, and should our home production enlarge (as it will under the stimulus of present prices) the effect later on will be more marked. Unquestionably the live stock and agricultural interests will be the main sufferers from the pending tariff bill."

Argentine Feeding Africa.

United States Consul Nathaniel B. Stewart at Durban, Natal, South Africa, reports to the Department of Commerce that in consequence of the South African shortage, caused by the drouth of the latter part of 1912, there were imports at Durban of 7,367 tons of corn from Argentine during the period from January to April, 1913. Of the imports, 1,480 tons (2,000 pounds per ton) were white and 5,887 tons yellow corn.

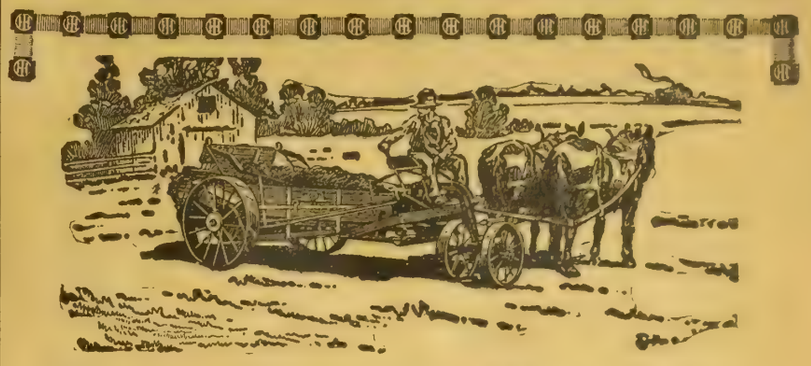
The price at which this grain was laid down in Durban is not known. The greater part of the white was reserved by the local importers for milling, only small quantities being sold at about £1 6d. ($4.99) per bag of 200 pounds. The yellow was disposed of at an average of about 16s. 6d. ($4.02). All of the Argentine crop was kiln-dried and arrived in good condition, it is said.

In addition to the imports at Durban, it is known that 7,270 tons of Argentine yellow corn were imported at Lourenco Marques in January and 4,715 tons at Beira in the early part of April. That imported at Lourenco Marques was for the Mozambique Province, while that at Beira was for Rhodesia. Reports are that the Mozambique natives would not eat the yellow corn, and that in consequence a considerable portion of the importation intended for them had to be reshipped to Europe. There was a considerable loss as a result of this, which it is reported has been borne by the Mozambique government, since it was instrumental in ordering the grain.

Pea and Bean Threshing.

The crop of peas and beans is far less than the demand for them; consequently prices are good and will continue to be good until the supply again exceeds the demand, which is not likely to happen for many years. Peas and beans are legumes and the stubble turned under enriches the land.

J. L. Owens Company, whose advertisement will be found on page 6, are manufacturers of pea and bean threshers which are made in four sizes. In furnishing instructions for harvesting peas and beans, that firm has also included a carefully-prepared article on pea and bean culture which has greater value to the farmer than any other book or pamphlet on the subject. Many an unprofitable farm has been brought into profitable production by turning under the stubble and selling the beans and the hay of the cowpeas and navy beans. Write to J. L. Owens Company, Chamber of Commerce Bldg., Minneapolis, Minn., and mention this paper, then ask for "Free Book on Pea and Bean Culture," and you will receive something worth having and studying.



Ranked at the Very Top

DAVID RANKIN was a big farmer and he knew his business. He owned the largest corn farm in the world, about 35,000 acres down in Missouri. He devoted his life to the pleasant study and practice of right farming, and he succeeded mightily, for he made $4,000,000 in the business of farming. This is what David Rankin said about the manure spreader: "It is the most efficient money-maker on the place."

It's warm praise to be ranked above all other farm machines, but it is in keeping with what all the agricultural world has been recognizing. Soils rebel when crop after crop is taken from them, without return of fertilizer. Witness the abandoned worn-out farms of New England. Return every bit of manure to the soil by the spreader method. The I H C manure spreader will save you much disagreeable, hard labor, will spread evenly, and will make one ton of manure go as far as two tons spread by hand.

I H C Manure Spreaders

are built to suit you, to do best work for the buyer in every case, to convince him that he has made the wisest purchase. Every detail in the construction has a purpose, for which it was made after thorough tests and experiment. They have the maximum of strength and endurance, and their construction bristles with advantages.

You will find all styles and sizes in the I H C spreader line. They will cover the ground with a light or heavy coat, as you choose, but always evenly, up hill or down. There are high and low machines, with steel frames, endless or reverse aprons, but always giving best possible service. Tractive power is assured by position of the rear wheels well under the box, carrying nearly three-fourths of the load, and by wide-rimmed wheels with Z-shaped lugs.

These and many other things will interest you if you look the I H C spreader line over at the local dealer's and will convince you that an I H C is the spreader for you to buy. There is one for your exact needs. Read the catalogues that the dealer has for you.

International Harvester Company of America
(Incorporated)
Chicago U S A

Fertilize as You Sow the Seed.

On page 3 will be found the advertisement of the Van Brunt Drill, which is quite attractively set forth. The intention of the advertisement is to interest you so that you will be prompt in sending for further information. If you write to the good, old, reliable John Deere Plow Company, Moline, Ill., and ask for Book 7 VB, you will receive by return mail the entire illustrated story of Van Brunt results.

FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS.

This is not a directory of farmers and shippers, but it is a directory for the use of farmers and to shippers of farm products.

It is not altogether a new publication, but it is appearing under a new name that fully explains what it really is.

Farmers and shippers have need of a directory that will contain the names and addresses of all the seed houses, of all the fruit and ornamental nurseries, of all the live stock trade, of all the produce commission firms, of all the agricultural implement manufacturers, and all other classes of people that deal with farmers and handlers of farm products.

The Hale Publishing Co. is publishing such a book. The next edition will be dated October 1st, but it will be mailed to subscribers in September. Read about it on page 16.

Many a man who seems dead to the world is only buried in thought.—Ex.

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St. Louis. The announcement is made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale rings were originally well-bred Range Horses. The next three Auctions will be held on

Thursday, August 7,

Thursday, August 21,

—and—

Thursday, Sept. 4, 1913,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is good, especially for well-bred Mares and Geldings in fine condition.

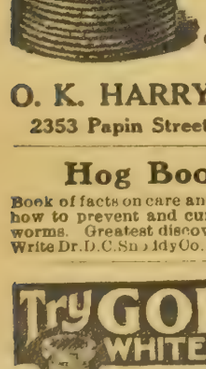
Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Our Special Offer

60 DAYS ONLY.

DELIVERED AT YOUR RAILROAD STATION.



GUARANTEED, CORRUGATED GALVANIZED

Steel Tanks.

29 TIMES STRONGER THAN THE PLAIN TANKS.

20 Barrels, $17.50
30 Barrels, 20.50
40 Barrels, 24.50

Complete With Tops. We Pay All Freight.

O. K. HARRY STEEL CO.,
2353 Papin Street, ST. LOUIS, MO.

Hog Book Free.

Book of facts on care and diseases of hogs. Tells how to prevent and cure disease, and destroy worms. Greatest discovery known. Sent free. Write Dr. D. C. Sandidy Co., Dept. H, Nashville, Tenn.

Try GORDINE WHITE LINIMENT

CURE THAT SHOULDER! HEAL THAT CUT!

Don't allow your stock to suffer. Cuts, bruises, soreness, lameness, swollen glands, etc., all cut into your profits. Stop This Loss Now.

10 DAYS' FREE TRIAL.

Send us your name and address at once and we will ship you our regular full-sized bottle with directions and absorbent cotton. Try it ten days. If satisfied, send us One Dollar. If not, return us the empty bottle. It will cost you nothing.

GRAND CHEMICAL CO., Dept. C, 1426 So. Grand Ave., ST. LOUIS, MO.

The St. Louis Mule Market.

Messrs. Holland, Nugent & Maxwell Bros., at the St. Louis National Stock Yards, reported as follows towards the end of July:

"The mule market is good for this time of year on big mules or miners, work mules or pitters; when we say pitters we mean small mine mules. Cotton mules are not wanted. Thin three-year-old small mules that have no class, that people do not want at any price at all, we would advise you to leave in the country. The mules to buy are chunks, draft mules, pitters or mine mules. They are all right, selling as good as they ever have sold this time of year." The firm referred to sell large numbers of mules on the market, therefore their views are doubly interesting.

Western Range Horses.

The auction sales of Western range horses at the St. Louis National Stock Yards continue to give satisfaction. Sales will be held August 7th, August 21st, and September 4th. At the last sale one thousand head were sold. There is an active demand and the offerings sell on their merits. For buyers there are all kinds of opportunities. For instance, at the last sale three car-loads of thin to fair mares and geldings sold one after the other at $21.50, $28.50 and $38.00, and each load sold in line with actual values; another better load of nice, growthy, two-year-old mares sold at $62.00, and a load of two to four-year-old geldings sold at $98.00 per head. Pairs of mules three and four years old sold up to $225.00. The sales are conducted by Campbell & Reid and Western Sale Stables Company, National Stock Yards, Ill.

Deep Tilling and Drouth.

If dry-farming methods were applied all over the United States the crops would surely be larger, and the foundation of dry farming is deep tillage. Deep tillage used to be done by two operations, whereas to-day it requires but one, and that one operation prepares a seed-bed that holds the moisture twelve to sixteen inches deep. On many farms the subsoil has never contributed anything towards growing the crops. To such places deep tilling is like finding a new farm. Write to Spaulding Department 88, Gale Mfg. Co., Albion, Mich., for catalogue of deep-tilling machines.

A Gain For Rumely's.

Mr. M. R. D. Owings has been elected to be Director and Vice-President of the M. Rumely Company of La Porte, Ind., in special charge of the credit and collection department of the business. Mr. Owings has been allied to the agricultural implement business all his active career, and in order to join the Rumely Company he resigned a high position in the International Harvester Company.

In his new position as Vice-President of the Rumely Company, Mr. Owings will bring to his work an accumulated experience as an organizer on a large scale, as a trained advertiser, and as a credit and collection man of long and successful experience. His training in all departments of the implement business will be of especial benefit in his new field.

Fertilizers For Wheat Growers.

The interesting advertisement of the German Kali Works on page 2 is worth reading and worth studying. As previously stated in this paper, the whole subject of fertilization is up to the farmer, who must gain some knowledge by his own experience. Write to the German Kali Works at the nearest office mentioned in the advertisement, and ask for the "Free Booklet on Fall Fertilizers." It contains facts concerning potash that they sell and other fertilizing material that they do not sell.

Oats Market Situation.

The month of July did nothing on the Chicago Board of Trade for the grower of oats. We quote the closing day of the Chicago options for three months:

Chicago Oats Options, 1913.

	July.	Sept.	Dec.
May 31st	39	38⅝	39⅛
June 30th	41	42⅜	43⅞
July 31st	39½	40¾	43

These Board of Trade quotations indicate the past, present and the future. The July quotation has expired and represents the past. The September quotation is the living present and the December quotation represents the future. Future trading in oats is just as legitimate as the trade in straw hats. Drummers are soon going out to sell straw hats for next March delivery.

Cash oats at St. Louis, May 31st, sold at 37½ cents; June 30th at 40 to 41 cents; and on July 31st at 39½ to 41¼ cents per bushel. Last July 30th, cash oats were selling at 35½ to 38 cents a bushel.

Corn Market Situation.

When you get down to market figures, all things have been considered. Figures express the market conditions backed by cash. The quotations are constructed upon actual transactions.

Corn Market Options, Chicago, 1913.

	July.	Sept.	Dec.
May 31st	57½	58¼	56⅝
June 30th	60¾	62⅜	59½
July 31st	69¼	66	63

There are the options as quoted on the dates mentioned. Our first end of the month quotation for May was at 52¼ cents. The report is written July 31st, after the close of the market.

On May 31st, St. Louis basis, cash corn sold at 58¼ cents a bushel; June 30th at 62½ to 63 cents a bushel; and on July 31st No. 2 cash corn was selling at St. Louis at 67½ cents a bushel.

Fertilizer Field Tests.

On page 6 will be found diagrams in the form of an advertisement showing the value of commercial fertilizer as applied to crops of winter wheat. These diagrams are well supported by bulletins which will be sent to all farmers upon application to the Middle West Soil Improvement Committee, 916 Postal Telegraph Building, Chicago, Ill. The committee does not sell fertilizers but represents the fertilizer interests in careful examination of all experiments that show results. All the literature this committee sends out can be relied upon. Please mention The National Farmer and Stock Grower when you write.

Barbed-wire Fencing.

The barbed wire advertised by A. J. Child & Sons, 517 North Main street, St. Louis, Mo., on page 7 was under water a few days in a flood, otherwise it is first-class, new wire. Three thousand reels have been sold and delivered without a single complaint. An opportunity to fence well and cheaply should not be neglected.

Pay No More Than Witte's Price

Before you buy an engine, get my latest reduced Factory Prices, and study my great, new, Free Book a few minutes. Be your own dealer, and make all middlemen's profits. I quote you under all other good engines. Save half the price, buying direct.

WITTE

Gasoline Gas and Oil Engines

64 styles and sizes, 1½ to 40 H. P. Standard 25 years. Recommended by thousands of users in all parts of the world. Use kerosene and all other low grade fuels, besides gasoline and gas. Cheaper power. No watching.

No Cranking to start. Electric apparatus requires no cranking. Continuous running, summer or winter, day and night, if necessary, is a sure thing of every WITTE.

New Book, with reduced prices, FREE by return mail.

60 Days Free Trial — 5 Years Guarantee

ED. H. WITTE, WITTE IRON WKS. CO. 1728 Oakland Avenue, Kansas City, Mo.

DR. LE GEAR'S ANTISEPTIC HEALING POWDER

The healing power of this famous remedy is wonderful. We have letters from all parts of the U. S. telling of fine animals that have been cured of sores, barbed wire cuts, collar and saddle galls, without leaving a blemish.

Druggists and Dealers everywhere carry a complete line of Dr. LeGear's Famous Stock and Poultry Remedies.

Write for copy of Dr. LeGear's Stock Book of 112 pages—it's free.

DR. L. D. LEGEAR MED. CO.
715 Howard St. St. Louis, Mo.

Best Conditioner Worm Expeller

Death to Heaves

"Guaranteed or Money Back." Coughs, Distemper, Indigestion. Price 50c, $1.00 per can. NEWTON'S Large for Heaves. At druggists' or sent postpaid.

THE NEWTON REMEDY CO., TOLEDO, OHIO

BLACK LEG

LOSSES SURELY PREVENTED by Cutter's Blackleg Pills. Low-priced, always fresh and reliable, they are used by over 80 per cent of California and Western stockmen, because they protect where other vaccines fail. Write for booklet and testimonials.

10-dose pkge Blackleg Pills.....$1.00
50-dose pkge. Blackleg Pills..... 4.00
Cutter's Blackleg Pill Injector.. 1.50

Pills may be used in any injector, but Cutter's is simplest, strongest and easiest to use.

Every package dated, unused pills returnable for free exchange for fresh after date on package. Do not use old vaccine, or of uncertain age (ours or any other) as it affords less protection than fresh.

Discounts: 250 doses, 10 p.ct.; 500 doses, 20 p.ct. Insist on Cutter's. If druggist doesn't stock, order from Laboratory, giving address plainly. We prepay charges and ship promptly. Send personal check or M. O.

THE CUTTER LABORATORY, BERKELEY, CAL. OR CHICAGO, ILL.

Save Work, Time, Money

By using our low down steel wheel wagon

Electric Handy Wagons

saves high lifting, lighten draft, don't rut roads. Spokes don't loosen—wheels don't dry out or rot. Write for free book on Wagons and Wheels.

Electric Wheel Co., 40 Elm Street, Quincy, Ill.

Don't Have a Blind One

"VISIO"

A Remedy for Moon Blindness

(Opthalmia), Cataract and Conjunctivits

Shying horses all suffer from diseased eyes.

"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n. 2472 Calumet Ave., Chicago, Ill.

Lightning is more frequent in Florida and Illinois than in any other state.

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if **Fleming's Lump Jaw Cure** ever fails. Our fair plan of selling, together with full information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Contains 192 pages and 69 illustrations. Write us for a free copy.

FLEMING BROS., Chemists
218 Union Stock Yards, Chicago, Ill.

ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.

Removes **Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain; Stops Spavin Lameness. Allays pain. Does not Blister, remove the hair or lay up the horse. $2.00 a bottle, delivered. Book 1 K free.**

ABSORBINE, JR., the antiseptic liniment for mankind. For **Synovitis, Strains, Gouty or Rheumatic deposits, Swollen, Painful Varicose Veins.** Will tell you more if you write. $1 and $2 per bottle at dealers or delivered. Manufactured only by **W. F. YOUNG, P. D. F., 108 Temple St., Springfield, Mass.**

SPAVAPLI

A real absorbant blister. Put on like paint. One application lasts a month—a second seldom needed. For the reduction of all hard or soft enlargements. Price, $1.00 per ounce, enough for two applications. **TAMPA VETERINARY INFIRMARY, 1113 Florida Ave., Tampa, Fla.**

At a sale of farm stock held at Warrensburg, Mo., a team of mules sold at $550, and work horses and mules to the amount of $25,000 were sold in one day.

Guaranteed Rupture Holder On 60 Days Trial

Won't Cost You A Cent If The Two Months Test Doesn't Prove All Our Claims

You can make a thorough 60 day test of this guaranteed rupture holder without having to risk a single cent. We'll make one especially for your case and let you see for yourself how it takes all the misery out of being ruptured.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial—the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times—including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why drug-stores should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—CluthCo., 125 E. 23rd St., New York City

Southern Cattle Moving.

A considerable number of cattle are being moved from Florida and Southern Georgia by ranchmen, cattle feeders and packers, and in time of need the South is doing as it has done before in making good some of the shortages that have developed elsewhere. Some men have reflected upon the quality and condition of these cattle, but the old-time cattle men know they are better than were formerly raised in Eastern Texas, better than the old-time run from Arkansas, and nearly as good as the original cattle from Southwest Missouri. The South is destined to become the breeding ground of high-grade yearlings that will equal those produced in any country, and all that is necessary is to carry out the plan of always using a pure-bred bull of one of the recognized beef breeds on the Southern farms.

Sales of Fine Horses.

On July 25th the following interesting letter was received from Truman's Pioneer Stud Farm, Bushnell, Ill.:

"We had a very pleasant visit this week from our old customers, Messrs. E. L. McClurkin & Son, of Louisa county, Iowa. These gentlemen were looking for the very best Shire and Percheron stallions that they could find, and were looking especially for greys. We sold them a dapple-grey imported Shire stallion and a dapple-grey imported Percheron stallion. Both of these horses have weighed while in our possession over 2,200 pounds each.

Another of our old customers from Louisa county, C. A. Blanchard, was on the lookout for the best young Percheron stallion that he could procure and he finally selected one of our very best colts that we were exhibiting at the Iowa State Fair. Mr. Blanchard has a stud of pure-bred Shire mares and is an old and valued customer of ours.

"To Messrs. Dan Jordan and Arthur Blackburn, of Marshall county, Iowa, we have sold a pair of imported Shire mares. We have also sold to Samuel Insull for his Hawthorne farm a yearling Percheron filly sired by Institute, which horse stands at the head of the Hawthorne Farm Percheron Stud. This filly is one of the grandest animals it has been our pleasure to see. Plenty of weight and backed up by more quality than we ever saw on a yearling Percheron filly. She has been greatly admired by a number of Percheron breeders who have seen her.

"We also sold the same gentleman the imported Percheron mare Ironis, a beautiful dark dapple-grey, weighing considerably over a ton and only recently imported. She is extraordinarily wide and deep; beautiful head and neck set on oblique shoulders; good back and strong loin; standing on the very best of feet and joints. We predict a great future for this mare and we hope to have the pleasure of seeing her in the Hawthorne Farm exhibit at the Illinois State Fair and International this year. These two grand animals will greatly strengthen the Percheron stud at the Hawthorne Farm.

(Signed) J. G. Truman, Manager."

GOOD BOOKS AND PAPERS.

CONSUMPTION OF FERTILIZERS AND CONSUMPTION OF POTASH.—We have received from the German Kali Works, McCormick Bldg., Chicago, Ill., two maps; one, showing the consumption of potash per 100 acres of cultivated land in the year 1910; and the other, showing the consumption of all fertilizers in the United States in pounds per acre of cultivated land. These maps furnish at a glance information for students of agricultural conditions. When such maps are complied each ten years and crop averages by states are compared with them the value of such records and of fertilizers will be highly appreciated. In the meantime, those who are specially interested in compiling evidence relating to crop conditions may write to the German Kali Works for a copy of each of the maps.

COTTON BELT OF THE UNITED STATES.—We have received from Dr. W. S. Myers, Director for the United States of the Chilean Nitrate of Soda Propaganda, a large colored statistical map on rollers, showing by counties in each state the cotton produced in the years 1907, 8, 9, 10 and 11, with the figures of the last year on top. The great map includes several lesser maps, one indicating the entire crop in order to show light and heavy production and the center of cotton growing in the United States; another is a weather map, and with tabulations of the entire cotton-raising statistics it is a complete representation of cotton growing. All Boards of Trade and associations of cotton growers should be sure to address Dr. Myers, 25 Madison avenue, New York, and secure a copy to be placed on the walls of their rooms for public benefit.

THE CALL OF THE LAND is by Prof. E. Benjamin Andrews, Chancellor Emeritus of the University of Nebraska. It is a finely-illustrated book of 385 pages, 5x7 inches, and the price is $1.50. Publishers, Orange Judd & Co., 315 Fourth avenue, New York. The book is rare and strikingly original. We mention subjects of a few chapters: "The Farmstead Beautiful;" Sunshine Farming; Health as a Duty; The Beef Supply; Taxation and Land; Socialism and the Farming Interests; Medicine and Morals; Etc.."

CATECHISM OF AGRICULTURE by Thomas Clark Atkeson, Professor of Animal Industry of the West Virginia University. This is a cloth-bound book of ninety-six pages, 5x7 inches. It is the real thing. Pertinent questions and definite answers. It covers the entire field of agriculture. Read it and refer to it; it will post you; it will refresh you. It is the most satisfying book we have read on agriculture in twenty years. Anyone who will send 50 cents to Orange Judd Co., 315 Fourth avenue, New York City, N. Y., will receive it by mail. Anyone who will send $1.00 to pay for two-years' subscription to The National Farmer and Stock Grower can select a copy of this book, "A Catechism of Agriculture," as a premium, and we will send it postpaid. Address, Hale Publishing Co., 3550 Vista Ave., St. Louis Mo.

SOUTHERN CATTLE AT ST. LOUIS.

Sales reported July 31st included from the state of Mississippi nineteen yearlings, 350 pounds, at $5.00; thirteen cows, 646 pounds, at $4.10; twenty-six cows, 582 pounds, at $3.90; fifty-one cows, 714 pounds, at $4.75; six cows, 725 pounds, at $5.00; five cows, 948 pounds, at $5.50; five steers, 764 pounds, at $5.25 per 100 pounds. From Alabama, twelve mixed, 610 pounds, at $4.50; nineteen mixed, 534 pounds, at $4.25; seventeen bulls, 800 pounds, at $4.50 per 100 pounds. From Louisiana, fifty-six steers, 612 pounds, at $4.60; twenty-eight steers, 623 pounds, at $4.60; and twenty-three cows, 611 pounds, at $4.00 per 100 pounds.

St. Louis Horse Market.

Holland, Nugent & Maxwell Bros. Commission Company, National Stock Yards, Ill., reported as follows, July 30th: "There is a good market for a few full-made driving horses, a splendid demand for good horses five to eight years old, work horses, low to the ground and sound, weighing from 1,200 pounds up. The kind of horses selling best are Eastern chunks and draft horses that are ready to go right into the harness and do a day's work, 15.3 to 16 hands; full-made driving horses are all right. They are buying some cavalry horses; they must be fat, smooth and sound; full ages, five to seven years; no splints; in fact, no blemishes; and if they are good we can get you from $140 to $150 for them." Holland, Nugent & Maxwell Bros. hold auctions Monday and Tuesday of each week. The postoffice address is National Stock Yards, Ill.

European Protection.

"Prices of agricultural products in Continental Europe are higher than they are in the United States, and that this is due to ample home markets protected in all instances from competition with American products by distance and transportation charges, and in many instances by tariff laws and the excellent and attractive condition farm products are put into for market."—From Report of Texas Farm Life Commission in Europe.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS, EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.

Address,

Holland, Nugent & Maxwell Brothers,

P.O., NATIONAL STOCK YARDS, ILL.

FULL LINE OF **Belting** AND LUBRICATING **Oils**

Ask for very low prices and our Free SUPPLY BOOK. **Weber Imp. & Auto Co., 1900 Locust st., St. Louis.**

FARM AND RANCH LANDS.

ALABAMA.—FOR SALE FOR DIVISION. Alabama plantation, near Columbus, Miss., 1,500 acres, within one mile of railroad town. A considerable portion of this land lies in the valley of the Tombigbee river, richest land in the world, except the valley of the Nile. Fine farming or stock proposition; stock keep fat in winter on pasture. Colonial residence; eight tenant houses occupied by good laborers; stables; new woven-wire fences; three artesian wells of pure water; mild, healthful climate; and neighbors best sort of hospitable Southern people. Will sell for $17.00 per acre; easy terms; or will cut up and sell in smaller tracts. Will also sell 300 head cattle and hogs, work stock and farm implements. For further information address **E. B. Trahern,** Clarksville, Tenn., who has an undivided interest in above lands.

ARKANSAS.—160-acre fruit, small grain and stock farm; 130 acres in cultivation; good four-room dwelling; large, new barn; fine water; in heart of fruit belt; level as floor; no rocks. Deal with owner and save commission. Price, $10,000.00; half cash, balance five years. **J. N. Greene,** R. F. D. No. 1, Summers, Arkansas.

ARKANSAS FARMS.—Write for Homeseekers' Guide, with large list of bargains in choice farms. Wonderful opportunities. **L. E. Moore,** Searcy, Ark.

MISSISSIPPI.—One improved farm, 150 acres, and 80 acres good cut-over land, situated in George county, Mississippi. Particulars on request. **Mrs. E. B. Blalock,** Box 177, Como, Miss.

MISSOURI.—Improved farm of 40 acres on phone line. New land and a bargain at $700. **W. H. Spencer,** Bakersfield, Mo.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association,** 55 Palace Bldg., Minneapolis, Minn.

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND,** 7910 Adams Express Bldg., Chicago.

WANTED to hear from owner who has good farm for sale. Send description and price. **NORTHWESTERN BUSINESS AGENCY,** Minneapolis, Minn.

FARM LABOR DEPARTMENT.

WANTED.—An energetic man and wife on 150-acre farm, to take charge either on shares or salary. Farm is one of the best equipped in the state. Land has produced good results and is located in the healthiest spot in Missouri. **T. A. Conrad,** Arcadia, Mo.

MISSOURI NATIONAL CONTEST.

Egg Laying at Mountain Grove, Mo. —Individual and Pen Records.

Report of First Seven and a Half Months—Seventy Pens, Ten Hens to Pen—700 Birds in All.

Reported by Mr. T. E. Quisenberry, Director, Manager of Contest: At least three American hens and three British hens are in a close race to be the first to reach the 200-egg mark in the first eight months of the National Egg-laying Contest at Mountain Grove, Mo. An American hen only has ten eggs to lay in fifteen days to make a record of 200 eggs in eight months. All these hens have made a better record so far than Lady Showyou had made at this time last year. The leading pen record thus far this year is about 200 eggs ahead of the leading pen record at this time last year. The English pen of S. C. White Leghorns is 259 eggs in the lead of its nearest competitor. Two of the hens in this pen did not lay an egg in June, and if this continues some of the other pens may yet easily overtake them.

June was a scorcher in Missouri. Several deaths were reported in different sections of the state as a result of the heat. It was, of course, also hard on the hens. We had 133 broody contest hens in brooding coops at one time this month. Thirty-eight were put up one day and twenty-five on another, and such a large per cent. being broody at once cut down our egg yield for June. Other contests, which had nearly 50 per cent. of their pens composed of Leghorns, had less broody hens, of course, and made a little higher average for June than we did. Our total yield for June was 10,411 eggs, and the grand total to date is 70,386 eggs. The Leghorns in the North American Contest at Storrs, Conn., had made about the same average up to June 1st as had the Leghorns in the Missouri Contest. The larger breeds in Missouri had made a little higher averages than the same breeds in Connecticut, as a rule. At the present time the records are very nearly the same, on the average.

The twelve highest pen records to July 1st, being the record of ten hens or pullets for the previous seven months and a half, are as follows:

Pen Records, Seven and a Half Months.

	Eggs.
S. C. White Leghorns, England.	1,529
Silver Wyandottes, Iowa	1,270
Black Langshans, Missouri	1,248
White Wyandottes, Arkansas	1,222
Buff Wyandottes, Vermont	1,212
Barred Rocks, Illinois	1,192
Black Minorcas, Iowa	1,190
Buff Wyandottes, Missouri	1,192
S. C. White Leghorns, California.	1,185
Silver Wyandottes, Illinois	1,182
Black Minorcas, Missouri	1,177
S. C. Brown Leghorns, Missouri.	1,180

A thing which is worthy of our consideration is the fact that the pen of Black Minorcas from Iowa is a pen which was entered in the last year's contest and made a very poor record. The owner was not discouraged and entered the same hens again this year. More than half of them are two-year-old hens and they were among the leading pens last month and tied a pen of Anconas from Missouri for the silver cup for June, each hen laying 212 eggs. A pen of White Leghorns from California also went into the ranks of the first twelve pens and others moved up the list, as will be seen by comparing last month's report and this. The hens and pens which continue to lay a reasonable number of eggs during the hot weather are going to be the hens and pens which win.

Pen Records For June.

The twelve highest pen records for June are as follows:

	Eggs.
Anconas, Missouri	212
Black Minorcas, Iowa	212
R. C. White Leghorns, Missouri	210
Black Minorcas, New York	199
S. C. Buff Leghorns, Missouri	184
S. C. White Leghorns, California.	196
S. C. White Leghorns, England	191
Buff Wyandottes, Missouri	184
Black Minorcas, Missouri	181
White Wyandottes, Arkansas	178
Anconas, Oregon	178
S.C. White Leghorns, Pennsylvania.	176

Individual Records, Seven a Half Months.

The twelve highest individual records made thus far are as follows:

	Eggs.
Buff Wyandotte, Vermont	190
S. C. White Leghorn, England	187
Buff Wyandotte, Missouri	184
S. C. White Leghorn, England	179
S. C. White Leghorn, England	178
S. C. White Leghorn, England	175
Black Langshan, Missouri	171
S. C. White Leghorn, England	167
Buff Wyandotte, Missouri	165
R. C. White Leghorn, Missouri	165
Ancona, Missouri	164
Ancona, Missouri	162

Entries Coming in For the Third Contest.

About two-thirds of the pens for the Third Annual Contest, which begins December 1st, have already been entered. This promises to be the greatest laying contest ever held in this or any other country. We have the promise of pens from the United States, Canada, England and Australia. Our rules are liberal, the premiums large, the entry fee small, and the contest will be held under the auspices of a state institution, the Missouri State Poultry Experiment Station. No breeder's name need appear on the pen or in the reports unless he wants it to appear. The best breeders in Missouri and America should have a pen trapnested and have their stock pedigreed. You will have to hurry, as we can only accommodate sixty pens. We will also try out ducks again in the next contest.

The Feeding Test.

The pen which has feed of all kinds before it where the hens can help themselves dropped from first place last month to sixth place this month. They made a good record all during the winter and spring and surpassed all other pens. This would indicate that hens may do well where fed this way in winter, but it is not a good method of feeding hens in hot weather. The pen which gets nothing but corn, wheat and ground oats and nothing to drink but buttermilk has now passed to first place.

Pen No. 67 Fed by Automatic Feeders.

This pen gets exactly the same feed and treatment that our regular contest pens receive. The only difference is, that the grain is fed night and morning by hand to the pens in the contest, and this pen in the feeding test supply themselves with grain by working it out of an automatic feeder and exerciser. This pen is in second place, and this would indicate that this is not a bad method. The Connecticut Contest uses these same feeders exclusively in their contest and no grain is hand-fed. This method may prove to be a great labor-saver.

The United States Apple Crop.

From report of United States Department of Agriculture, July 1st, 1913: Condition, 59.4 per cent. of a normal, compared with 67.1 per cent. on June 1; 67.9 per cent. on July 1, last year, and 59.1 per cent., the average for the last ten years.

GENERAL STOCK NOTES.

The Farmers' and Shippers' Directory of Business Interests advertised in this edition is filling a long-felt want. The July edition was sold quickly and a new edition will soon be ready.

The state of Missouri has 33,200 automobiles, having gained 10,000 in one year.

It is reported by the Butchers' and Stock Growers' Journal of San Francisco that the Australian meat recently imported and sold there was from five to eight-year-old steers. That reminds us of the good old days in Texas when nobody sold steers under four years old.

LICE KILLER Licecil, strongest lice killing compound made. Works like magic. Simply put a few drops in nests and hang bottle in coop. Powerful evaporating vapors go into feathers, cracks and crevices. No painting, spraying or dusting. Easy to use. Circular free. Pound bottle prepaid 50c. Money back if it fails. Agents wanted W. H. Metzger Co., No. 28, Quincy, Ill.

LIVE STOCK BREEDERS' CARDS.

CARPENTER'S BEST BARGAINS.

Fifty Poland-Chinas, 40 to 200 pounds; twenty-five Duroes, 100 to 150 pounds. All of the Poland-China Hogs were sired by the great Meddler and Walbridge Boars and from some of the most noted Sows in America. Duroes sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for them and mention this paper.

THE GRANDVIEW BREEDING FARM, Marmaduke, Ark.

POLAND-CHINA SPRING PIGS.

Big, smooth, fine Spring Pigs for sale. They have the size, shape and finish. Prices, $15 to $25. Come and see them or write.

D. F. BEAUCHAMP, Meredosia, Ill.

TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,
J.G.TRUMAN, Manager, Bushnell, Ill.

LARGE STRAIN POLAND-CHINAS.

I am offering nothing but Spring Pigs at present. The best that money can buy. They have a tendency to make extra large ones.

S. R. GRIGG, Proprietor,
The Golden Ridge Farm, Mulberry Grove, Ill.

O. I. C. AND CHESTER WHITES.

February, March, April and May Boars and Gilts; no kin. Bred Sows, prolific, large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Eggs at half price.

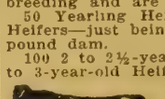
RAYMOND RUEBUSH, Sciota, Ill.

SALE OF HOLSTEIN CATTLE.
Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.



250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your wants.

JAMES DORSEY, Dept. F & S. G., Gilberts, Kane County, Illinois.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

JACKS AND PERCHERONS.

We have twenty-five of the biggest and best mammoth Jacks in Kentucky and a few Percheron Stallions. We will cut the price from $100 to $300 per head on every one. We have a big stock of High-grade Percheron Mares, Hampshire Swine and big Black Pigs. Write your wants and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.

TAMWORTH SWINE.—Bred Gilts and all sizes of Pigs for sale. L. R. GEORGE, Breckenridge, Ill.

SCOTCH COLLIES FOR SALE.

A choice lot of pure-bred Collies, from three months to three years, dirt cheap for immediate delivery. R. FLEMING, Cuba, Kansas.

TAMWORTHS FOR SALE.—The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. CHAS. FORD, Mortonsville, Woodford County, Kentucky.

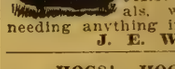
PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

SPLENDID DUROC-JERSEY PIGS.

I have for sale seventy-five registered Duroc-Jersey Pigs, March farrow. Some fine



Gilts bred for August and September farrow. Prices from $12.50 to $35. Good individuals, well bred. Write me if needing anything in this line.

J. E. WELLER, Faucett, Mo.

HOGS! HOGS! FOR SALE!

Big Registered Poland Chinas and English Berkshires that weigh and win; S. C. Brown Leghorn Chickens that lay. See or write.

S. Y. BURKS, Bolivar, Mo.

THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. J. H. DUNLAP, Box 373, - Williamsport, Ohio.

MILL CREEK STOCK FARM,
(The Home of the Starlights.)
THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Send for catalog.

R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

Butter Profits

You ought to get more butter profits. Jersey Cattle mean more butter profits, because they yield more butter fat at less net cost of keep than any other breed.

THE JERSEY

excels in beauty of dairy type. She is a persistent milker. Jerseys are easily acclimated. They live long and keep healthy. They mean *steady* butter profits. Write now for Jersey facts. Free for the asking.

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Wood Shingles Won't DO!

In this **20th Century AGE OF STEEL**, wood shingles are fast disappearing. They cost too much; they rot out too quickly; too much trouble to put on; too apt to catch fire. That's why 100,000 men have come to put these beautiful **Edwards STEEL** Shingles on their buildings.

Edwards Steel Shingles **never** burn nor rot. Come in big clusters of 100 or more, which makes them ten times as easy to put on as **wood** shingles. Each Edwards **STEEL** Shingle is dipped in **molten zinc AFTER** it is cut. No raw or exposed edges. No chance for rust ever to get a foothold. And the patented Edwards Interlocking Device, which allows for expansion and contraction, gives **PERMANENTLY water-tight** joints.

Edwards STEEL Shingles

Get Prices As to prices, these **STEEL** Shingles are far below wood. For we sell direct from factory to user and pay the freight ourselves. Just get our latest Steel Shingle Books and Prepaid Factory Prices. Then **compare**. Then see if you can afford common wood shingles when you can buy genuine Edwards **STEEL** Shingles at these prices. Give dimensions of your roof if possible, so we can quote price on entire job. Send postal today and our Catalog 857 and Prices will reach you by return mail.

The Edwards Manufacturing Company
807-857 Lock Street, Cincinnati, Ohio
Largest Makers of Sheet Metal Products in the World.

Take the Children Into Partnership.

No plan has been discovered to interest the boys and girls on the farm which equals that of taking them into a limited partnership in some feature of the farm's activity. Encourage the boy early to study papers, have him send for bulletins which are furnished free by the Agricultural Colleges and the United States Department of Agriculture. Give him a piece of ground to cultivate for himself, let him feel the joy of possession and achievement and it will turn dull tasks into play.

Let him raise certain animals to be all his own. Many a boy has met with his first disappointment when he finds that his calf has become his father's cow. The boy will enter the experiment, and the opportunity should not be denied him by the father who "knows that the experiment won't work." It will be worth all it costs in the education of the boy.

Let the girl have flowers, a garden plot, an interest in the poultry and a berry patch, so that she may earn money for her personal use. It will make her happy, enthusiastic, more contented and far less liable to leave home to seek her future in a city office or store. She will be sweeter and better as a girl, a lovelier type of woman for a wife and for motherhood.

Don't wait until you are dead before giving your children an interest in what you have.—Colorado Agricultural College.

The Five-dollar Bird on the Farm.

It takes a pretty good-sized or a very well-bred turkey to bring five dollars on the farm, and a part of this price must be deducted for food and care. But when we come to talk about a bird worth this amount which raises itself—or rather raises its own brood—and henceforth earns its own living unless it be during the very severest winter weather, this sounds almost like fairy talk. And yet scientists and observing farmers have proved many times that the story is no myth, and that the quail on the farm is worth five dollars, or very much more than on toast, both as a weed seed and as an insect exterminator.

According to statistics, we lose a billion dollars a year through insect ravages, and from $16,000,000 to $18,000,000 annually through the various weeds. In other words, we might as well afford to lose our rice crop and two-thirds of our corn annually as to suffer these mammoth leaks. And still we perpetually fight with insecticides and various other means, checking but never gaining on the pests.

The quail has the advantage of preying upon many pests which the majority of other birds will not touch. The rose-breasted grosbeak joins with it in feasting upon the Colorado potato beetle, which has no charms for the most of our winged friends. And Mrs. Nice, of Clark University, who has been a close observer of the quail, declares that a captive quail ate 101 potato beetles at a single meal. Florence Merriam is authority for the statement that seventy-five of these beetles were found in a single stomach. And since the quail's food is quickly digested and renewed several times a day, the value of a single pair and their progeny near a potato patch is apparent. They discount Paris green or the small boy with the pail and stick many times over.

The protection of quails in the South might help materially in solving the problem of the boll weevil, while wire worms, cucumber and squash bugs, cutworms, grasshoppers, chinchbugs, mosquitoes and many caterpillars are numbered among its victims. Dr. Judd estimates that the quail of Virginia and North Carolina alone consume during the three months from June 1st to the last of August 340 tons of insects. They will do as well for us if we but protect them and strengthen their numbers. Mrs. Nice estimates that two old birds with a family of ten youngsters will put an end to almost 791,000 insects.

As a weed destroyer its services are also most useful. Its daily ration numbers 600 burdock seeds and thousands of the smaller seeds, as pigeon grass and lamb's quarters, are consumed in a day. Mrs. Nice states that after the insect season is over and the season of weeds is at hand, this same covey will destroy nearly sixty million weed seeds.

The quail is easily the most prolific of all game birds, Capt. Bendire estimating the number of eggs in a clutch to run from twelve to eighteen. The second clutch is usually smaller, averaging only twelve. But even at this rate of increase, the farmer who starts in with a single pair of quails, protecting them absolutely from the sportsman, will have at the end of the year at least a couple of dozen of these efficient workers, and in two or three years his farm may be well stocked with birds at almost no outlay but very great gain to himself.—Bessie L. Putnam.

The Fire Hangbird's Nest.

On a bright May day a jubilant shout from the Babcock twins brought their mother to the window.

"It's a bird building a nest in the apple tree right under the bedroom window, mamma!" cried Bob.

"Such a beautiful bird, too," said Beth. "It's bright yellow with tips of black on its wings. Oh, and there's another! Look, two of them building the nest!"

Mrs. Babcock came out on the porch and sat down to watch the birds. "It's a pair of orioles," she said. "That is, most people call them orioles, though they are not really orioles, but starlings. At home we called them fire hangbirds —'fire,' because of their brilliant golden color, and 'hangbird,' because they build a hanging nest."

See! That one has got some horse hairs, and there comes the other one with some thread. Fire hangbird is a good name for them, I think," said Bob.

All that afternoon the children watched the birds at their work as they carried strings, hair and tiny bits of moss. They even helped out the birds by placing bits of string on nearby bushes and after they had scampered away and all was quiet the birds flew down and gathered up the strings. For several days the nest grew, and when finished it was about six inches long, beautifully woven, with a soft lining of moss, leaves and feathers. The children could look into the nest from the upstairs bedroom window.

The birds went to housekeeping in their cozy little hanging house, and every day Bob and Beth bade them good morning. Then one day Beth made a discovery. She was so happy that she slid down the banister so that she might the more quickly carry the news to her mother and Bob.

"Oh, the tiniest egg you ever saw is in the nest!" she cried. "Come up and see it."

Bob discovered a second egg a couple of days later and then Beth discovered the third.

The children so longed to see tiny birdlings hatch out of the eggs that they almost wished to stay at home instead of going to grandfather's farm for the summer. But the day came when the house was to be closed and the children took a last peep at the little mother bird sitting so contentedly on her eggs while the father bird was out hunting worms.

It was late summer when the family returned and the first thing Beth and Bob did was to run upstairs to see the birds.

A long sob from Beth and a howl from Bob brought Mrs. Babcock to the scene on a run. It was indeed a sad sight that met her eyes. The three tiny eggs remained in the nest unbroken but yellowed from exposure. Hanging over the nest was the mother bird, and the condition of the body showed that she had been dead for some time. Around her tongue was wrapped a piece of twine, one end of which had floated loose from the nest, probably in a high wind, and had wrapped around her tongue, pulling her from the nest and keeping her suspended in the air while she died of starvation. What had become of the father bird could not be known, but probably, unable to understand the tragedy, he had flown away and chosen another mate. —Janet Thomas Van Osdel.

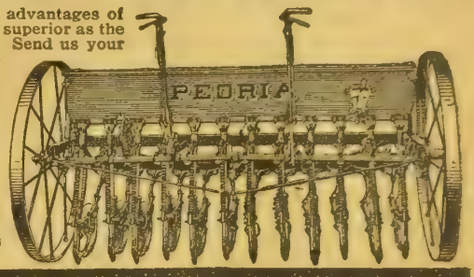
The Only Drill That Sows Grain in Any Kind of Soil—at a Proper, Even Depth

Think what it would mean to you to have *every* seed count and to have *every* stalk come up *evenly* and at the *same time*. You can easily accomplish this—with The New Peoria Drill equipped with our famous Disc Shoe Furrow Opener.

It combines every advantage of the single disc for cutting trash and penetrating hard ground, with every advantage of the shoe for forming a furrow and depositing the seed. The Disc Shoe Furrow Opener is the *only* one that sows every seed at an *exact, even depth*, in a *packed furrow*. No seed touches the disc and no dirt falls back into the furrow until *after* the seed is deposited. No practical, progressive farmer can fail to see the many money-making and money-saving advantages of this wonderful Disc Shoe Furrow Opener—found *only* on

The New Peoria Drill

There are also many other advantages of this drill, each one just as superior as the Disc Shoe Furrow Opener. Send us your name and address on a postal now for catalogue and all details of construction. Let us prove to you that it will pay you to discard even a new drill in order to buy and use the New Peoria. Will you spend a penny for a postal *now* to get all the facts? Address,



Peoria Drill & Seeder Co.

2430 North Perry St., Peoria, Illinois

Bookkeeping For the Farm.

The fact that many of the larger farms of the country, such as the Hawthorne Farm at Barrington, Ill., the Hyde Seed Farm at McFall, Mo., the Henly Ranch at Henly, Mo., and others, are now employing special bookkeepers, is causing a larger number of farmers' sons and daughters than ever to seek business college training. Not that these boys and girls expect to secure salaried positions on farms "away from home," but because farmers generally are beginning to recognize the great value of farm bookkeeping and farm accounting. Many good positions are held by graduates of the Gem City Business College. Address, Lock Box 37, Quincy, Ill. Write for their catalogue.

Mr. D. F. Beauchamp, of Meredosia, Ill., breeder of pedigreed Poland-China swine, has changed his advertisement so as to mention the price of spring pigs of his own breeding that he has for sale.

GORDINE WHITE LINIMENT.

A Testimonial.—St. Louis, Mo., May 26, 1913. Grand Chemical Co.: "Gentlemen:—You may be pleased to know that we have used your liniment on most of our horses and the results have been wonderful. We have found it unexcelled for cuts and bruises, galls, soreness, etc. Since using Gordine we have not had our horses laid up this summer with galls or sore shoulders, while last summer we averaged about five horses out of work every day from their ailments. 'Gordine for us.' Very Truly Yours, (Signed) LOUIS FREUND, Branch American Bakery." Gordine White Liniment is advertised in this paper on page 5. (Adv't.)

THE BOOK OF LIVE STOCK CHAMPIONS.

Edition of 1912—True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

This is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in the Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, mother of champions or winner in the prize ring.

The Book of Live Stock Champions is receiving the highest praise from the live stock breeders' associations and from officials of the Department of Agriculture. It is being adopted as a text book at high schools and colleges. Active, up-to-date stockmen, having an interest in their business and a desire to do their share towards live stock improvement are subscribing for the Book of Live Stock Champions themselves and recommending others to do so.

Issued as a Souvenir Supplement.

The Book of Live Stock Champions is published as a Souvenir Supplement to The National Farmer and Stock Grower, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

Special inducements to paid-in-advance subscribers, to old friends and patrons. We offer the first ten thousand copies of this edition at One Dollar per copy, including a two-year subscription to The National Farmer and Stock Grower. The first ten thousand copies are handsomely printed on coated paper and elegantly bound in blue cloth, with gilt title. This is an extraordinary offer.

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Halo Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery guaranteed, one copy of the Book of Live Stock Champions, cloth-bound edition of 1912.

Name.....

Address.....

Footpaths Along Country Roads.

He who travels much along country roads has a number of things very emphatically impressed on him. One of these is that the builders and maintainers of country roads generally have in mind only the wagons that are to pass and make no provision for the persons that go a-foot.

In the city, or even the smallest village, it is not so. There we have the sidewalk, of cement or wood or of some other material; and the person going a-foot has an easy time in getting about. But on the country road the foot passenger often has a very difficult time in getting over any mile of it. He picks his way over hard ruts or through deep dust if it is dry and deep mud if it is wet. Often the road overseer has had broken stone distributed for a mile or so and left rolled, depending on wagons and time to reduce it to a condition that will make it easy to get over.

But happy is the walker when occasionally he strikes a piece of road where the side has a smooth and well-worn path. It is better still if the path runs on the road right-of-way between the ditch and the fence, for then he does not have to dodge either teams or automobiles or perhaps have to take very much of their dust

Now, why should not such footpaths be provided for along every country road? Why should not the road overseers take into consideration the school children and school teachers and others that need to pass on foot along these roads? It would be an easy matter to block out a foot path, which, when once made, would remain forever and require no repair. The feet of the passers would keep it hard and easy to use.

It would require some work. Here and there a low place would have to be filled up. Bushes and trees would have to be taken out of the way in other places. Occasionally a stream or open drain would have to be spanned by some kind of a rustic bridge. The ground might need to be packed down some on some soils to start the feet to following the path.

It would mean shortening of the distance between farms and the bringing nearer of the school and the church. It would mean pleasure every time a foot journey had to be made, in the place of the labor that now attends it.

The straighter the path the better, and the fewer ups and downs the better. How wide it shall be can be determined by the feet of those that use it. A two-foot hand roller should be useful in marking out the way. The grass can be allowed to grow on it, for where feet pass often the grass grows thin and small and provides a comfortable cushion for the weary feet.

Such a path will prove to be a permanent improvement on every highway. It has not been created on any road the writer knows about; but the reason seems to be that the matter has not been considered. Roads were made first when they had to be, and were built only so far and so good as they had to be, and we have stopped looking beyond necessity. It is now time to consider the matter of comfort as well as the matter of necessity in the construction of our great country highways.

Diarrhoea in Babies.

One reason that babies are troubled more with diarrhoea in hot weather than in cold is because there is more danger of nipples, bottles and milk becoming sour than even the most careful mother suspects. The nipples, bottles and all milk containers must be kept scrupulously clean, scrubbed with hot water and soap every day, rinsed, scalded and then kept in an antiseptic water (made by adding a pinch of borax or of bicarbonate of soda to the water) for several hours.

If the baby does contract diarrhoea give him a dose of castor oil. The diarrhoea is a certain indication that there is poison in the baby's system which nature is trying to eject, and the dose of oil will help to remove the poison. Stop giving the baby milk, which in this condition of the stomach and bowels will but add to the fermentation and prolong the diarrhoea. Instead give barley water or flour gruel until the bowels begin to be regular, then add milk gradually to the gruel until the baby is in condition to be restored to his normal diet.

During this illness the baby will probably crave water, which should be given to him freely. He should be bathed frequently and kept in the fresh air as much as possible.—Janet Thomas Van Osdel.

Troublesome Perspiration.

The skin is one of the great excretory organs of the body, and it exudes a great deal of waste matter. Much of this (about two pints daily) is the insensible or invisible perspiration. It is only when the perspiration far exceeds this amount that it becomes bothersome as to quantity. Excessive perspiration is usually due to overexertion or to a great quantity of tea, coffee, water or liquid in any form that is taken into the body. The more liquid that is drunk the more freely will the subject perspire. Abstaining from drinking liquids in any quantity will largely check the unusual flow of perspiration. A daily bath in cool or cold water will also help.

It is the odorous perspiration that causes annoyance. The cause of this is usually constipation or some irregular condition of the stomach or bowels. A physic, perhaps repeated several times, followed by a careful, simple diet, may correct this evil. Daily baths should be taken and a little borax added to the bathing water. Frequent changes of the underwear should also be made. Some persons afflicted with odorous perspiration strive to hide it under abundant applications of scented talcum powder. But a clean, healthy body has a sweet fragrance of its own and needs no artificial scents.

A perspiration that reddens the clothing under the arm bothers some people. This reddish coloring indicates that the hair in the pit of the arm is afflicted with a microbe. A thorough washing under the arms morning and evening with a generous quantity of soap and water will correct this.—Janet Thomas Van Osdel.

POTASH PAYS

Profit in Wheat

Wheat is profitable if the yield is good. A good yield is insured by using the right fertilizer.

No crop gives better profits for a small fertilizer expenditure provided intelligence is used in buying, and a fertilizer is used that is suited to the soil. Almost any fertilizer will increase the wheat crop, but why not get the one that will give the best profit? This is the kind in which the phosphate is balanced with

POTASH

Insist on 6 to 8 per cent. of Potash in wheat fertilizer. Some of the best growers use 10 per cent. If you have trouble in getting such brands buy Potash and add it yourself. We will sell it to you in any amount from 1 bag (200 lbs.) up. Write us for prices, naming amount needed, and for free book on *"Fall Fertilizers."* It will save money for you.

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Same Latitude—Same Crops

THE soil is newer, richer and much lower in price. A splendid climate makes it possible to produce bountiful crops of nearly every variety known to man. It will pay you to investigate.

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The Independence of the Farmer.

The farmer has for centuries in this country been looked upon as an independent man. It is common to hear people say: "The only independent life is that of the farmer." Of course, when they said that they meant the farmer that owned the farm and not the laborer working for him.

But of late years the independence of the farmer has been placed in jeopardy by labor conditions and perhaps somewhat by the market conditions. It is a complaint now often heard that it is impossible to get adequate help.

Most of us know men who have gone out of some phase of farming simply because of the impossibility of getting enough labor all the time required. Three farmers the writer could name have given up producing milk for market because milkers could not be obtained.

So in a measure the farmers have become very dependent, as a class. If they shall become more so will depend on how they work out the present situation.

One farmer says that he has worked it out in the favor of independence. He has eliminated those kinds of work that require large numbers of workers for short times and has settled down to the kind of farm activity that requires a small amount of labor continuously. In addition he has put in machinery for about every conceivable purpose.

This meant for him a considerable outlay for machines, but each machine is so carefully looked after that it will practically last a lifetime, and it is astonishing how many things can be done with machinery when one sets out to find all the machines.

Thus there are many farm operations that can be done with a farm power of some kind, whether the force comes from gasoline, steam, the wind or from some other source. The beauty about it is, that this force can in some cases be stored up in barrels or tanks, and is not dependent on human wills. The farmer's son can with these machines do more than several hired men without the aid machines. Also the farm boy is more interested in operating a machine than he is in giving his own labor to do the same kind of work unhelped by a machine. The boy that dreads the sawing and splitting of ten cords of wood a year finds it a pleasant task when he merely operates the machine that saws and splits by sawing the same wood.

Many farmers have enormously reduced the amount of work that had to be done by hand. There was the watering tank to which the cows in winter had to be driven twice every day. Now a power machine pumps the water directly into the barn and the work is done by pulling a lever and opening a faucet. Previously the boy had to bring all the water on a certain farm home, and it had to be from the spring house at the foot of the hill. Now two pipes run from that spring house—one into the house, where there is a hand pump that delivers the water as wanted. The other pipe goes into the barn and up into a big tank, where a supply is accumulated that will last for days.

Through machinery and mechanical forces the farmer can regain the independence he thought he had lost. Developments and inventions continue to be made that are very greatly affecting this phase of farm life.

Tuberous Begonias.

Few tuberous plants are worthy of more attention; few are such entire strangers. And yet a well-grown tuberous begonia is always certain to attract more than passing admiration. Those familiar only with the fibrous-rooted varieties can scarcely realize that the immense blossoms, rivaling those of the gloxinia in size and brilliancy of color, belong to the begonia family.

The leaves have the delicately-cut outline characteristic of the family, and, though of plain green, the reflections shown by the light render the plant attractive, even when not in bloom. The buds are as handsome as flowers from the time when they are half grown, and the fully expanded flowers, the double ones of which have been likened to the camelia in form and substance, remain in perfect condition for many days. The colors of both single and double varieties are shown in pure white, yellow, orange, pink, salmon and all modifications of red, from a light coral to a most flaming scarlet or intense crimson, and as these colors are repeated in the fringed varieties, one cannot fail to be pleased. For a shaded porch, conservatory or a shaded spot in the yard that is protected from wind, no summer bloomer is more desirable.

Since it is almost impossible to tell which is the top of the tuber, yet since the plant has a strong objection to being placed in an inverted position, it is well to soak the tubers a few days in damp moss until the leaves start. Then plant shallow in rich loam and sand, and water sparingly until growth has commenced. If too moist or too dry there is a tendency to drop the leaves, but if drainage is good this matter is easily regulated. A five-inch pot is the proper size for a single bulb, though a pleasing effect is obtained by using larger pots and planting three tubers in each.

In autumn the tops gradually die to the ground. The plant should be gradually allowed to become dry, and when the tubers are ripe they may be packed away in paper bags or in dry sand in a frost-proof place until the spring planting—a most convenient way to dispose of them, if window space is limited. This gives both room and pots for the winter bloomers.—Bessie L. Putnam.

Baby's Kiss.

It is natural for the lover of little folks to want a kiss from them. But if your child declines such familiarity from strangers to it, rejoice rather than strive to overcome the timidity. Plainly excuse its shy nature instead of apologizing for and trying to overcome it.

Baby is right, though for a reason which it cannot realize. The little one who is free to go to all, and to be caressed in turn by each of the loving and well-meaning cousins and aunts, has really a hard time. The bouncing and shaking and general stirring too often given would quite distress an adult, while the startling sensations that are aroused, the wonder what is coming next, prove no advantage to the nervous system.

Worst of all, there is the danger from disease. Even a common cold is now known to be infectious—not to mention tuberculosis and the host of other dire maladies which may be insipient in the system. The child so confiding as to submit to promiscuous hugging and kissing is not only to be pitied, but it is the rightful subject of anxiety on the part of the parent. These intimacies belong to the immediate family, and no one has a right to attempt their transfer beyond the home circle.—Bessie L. Putnam.

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Cistern Filters Do Not Remove Germs.

Cisterns that are properly constructed and receive rain water from roofs generally afford water of good sanitary quality, but if water of doubtful quality is stored in cisterns the supply is of course not safe for domestic use. Filters used in connection with cisterns are of value in making the water clear, but are generally of no value in removing disease germs. Many cisterns are divided into two parts by a brick wall, the water being admitted into one compartment and drawn from the other. In such cisterns the water passes through the brick and in that way is improved in clearness and color, but not generally in sanitary quality.—United States Geological Survey.

Stepping Lightly.

If the two-year-old refuses to step lightly to avoid waking baby, teach him to mimic the cat, which walks on its tiptoes. Tell him the story of how the cat slips along in the dark after a mouse, stepping so softly that it makes no noise.

Mamma wants everyone to walk just as Kitty does when baby is asleep, so that the noise will not waken it. And this is a very good habit to practice at all times. No one likes to hear stamping of feet, even if they are not asleep. Loud steps and heavy ones are not pleasant to anyone.

If you have a chance to show the little one a real live bear, call attention to its gait. Let him see how much more graceful the cat walks than the bear, which sets its foot down flat and goes ambling along. It would never get near enough to a mouse to catch it. And we certainly never want to get into the habit of walking so awkwardly. And so when we practice stepping lightly to avoid waking baby we are really learning to walk in a manner that people will not dread to hear us coming.—Bessie L. Putnam.

Book of Champions on page 12.

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No. 7793.—Sport or Mannish Shirt. 34 to 40 bust. With rolled-over or straight cuffs, straight or pointed yoke on back.

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The above patterns will be mailed to any address by the Pattern Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Economical Summer Hints.

If you wish to take care of your umbrella after coming in out of the rain, let it down and stand it on the handle, that it may drain in that position. The water will thus drip from the edges of the frame and the cover dry uniformly. A silk umbrella is much injured by being left open to dry.

If you have a lawn or percale dress that is faded nearly white, you can make it perfectly white by putting five-cents' worth of oxalic acid in a bucket of water and then putting the garment in the solution and letting it remain until the color is all out. It should not remain in the solution too long, and as soon as the color is out, rinse thoroughly and hang out to dry.

If one will carefully darn the toes and heels of thin lisle and silk stockings with silk thread of the same color before wearing them they will wear much longer. The stitches must be taken only up and down in parallel rows, not across. Stockings will last twice as long if they are laundered frequently than if allowed to dry when moist with perspiration, as this rots the threads of any fabric.

If you find that lace insertion in waists or dresses is beginning to pull or break, whip footing under it and darn the broken place. It will never be noticed that the insertion is double, and it will wear much longer.

Summer waists will last longer, because they will not have to be washed so often, if they are well cared for when they are removed from the body, and so with thin summer dresses. The waist should be hung especially over the back of a chair until thoroughly dried, then it should be folded smoothly lengthwise and laid away carefully. No thin dress should hang, as it will soon become stringy and limp. All should be folded when put away, and the manner in which this is done lies the secret of their continuing to look new.

You can make a cheap and excellent powder to use in the shoes with four parts of boric powder, one part of salicylic acid and about five parts of pulverized starch, and this must be well mixed and sifted. A little of this powder sprinkled in the inside of the sole of each shoe every morning will help to absorb the moisture and will make the shoes feel much easier on the feet, and this is especially useful if the feet perspire freely or if one must take long walks.

There is nothing more useful during the summer than a bottle of boric solution kept ready for use. A little of this boric solution applied after the bath with a piece of soft linen will help to prevent perspiration and destroy the odor, and a weak boric solution used on young children in the same way after their bath will prevent chafing, heat and all skin eruptions.—Aline.

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Be sure to state number of white keys on your piano or organ, also post office and express office. Address Easy Method Music Company, 343 Clarkson Bldg., Chicago, Ill.

SELECTED POETRY.

THE RENTED FARM.

To-day I wandered o'er the farm
Near which my early lot was cast,
And viewed the changes with alarm,
Changes that made the happy past
Seem far remote and fading fast.

The fields, where record wheat once grew,
Are foul with briars and goldenrod,
Sumac and ivy. There a few
Lean cattle bite the scanty sod—
Where corn once ripened, thistles nod.

Fences are falling, and the sad
Old barn which once was filled with sheaves,
Where I have played, a little lad,
Shows sagging roof with moss-grown eaves—
Its driveway choked with weeds and leaves.

The boys have grown, and left the place;
The father sleeps, now, on the hill;
And not one dear, familiar face
Of all I knew is left there still;
A tenant robs the soil at will.

The simple, quiet country life
Our fathers loved no longer seems
To please our young whose minds are rife
With thoughts of vast commercial schemes,
Where sudden wealth absorbs their dreams.

Thus do they leave the land to be
Half-tilled by those whose only care
Is present gain—resigned to see
Their birthright useless, brown and bare,
Results confront us everywhere.

Better to base one's hopes upon
The sure foundation of the soil;
Content to hold, when youth is gone,
An humble recompense for toil,
Than scheme and fret for power and spoil.
—John E. Dolson, in New York Times.

OUT ON THE FARM.

Out upon the farm it's lovely just about this time o' year;
Lambs and calves are gettin' frisky, birds beginning to appear;
Dawn along the stream the willows have a sort of golden glow,
And the hens are cacklin' loudly and the roosters proudly crow;
Little colts with tails all curly hoist their hind legs in the air,
And the farmer gets up early to begin his duties there.

Out upon the farm it's splendid just about this time in spring,
When the winter's gloom is ended and there's cheer in everything;
Larks and robins busy singin', blackbirds chirpin' in the trees,
And a cheerful promise whispered out of every passin' breeze;
Squirrels scootin' on the fences, fields all gettin' green once more;
Every day the world commences to look finer than before.

Out upon the farm it's lovely just along about this time;
There are new nests in the hedges, and the wheat is lookin' prime;
All the streams are gladly gurglin' where the pebbly shallows are;
At the gate a pig is tryin' to break through a lower bar;
Round the gables swallows dartin', stubbles turnin' dry and brown,
But the work out there is startin', and I guess I'll stay in town.
—Chicago Record-Herald.

PSALM OF THE HELPERS.

He that turneth from the road to rescue another
Turneth toward his goal;
He shall arrive in due time by the foot-path of mercy,
God will be his guide.

He that taketh up the burden of the fainting
Lighteneth his own load;
The Almighty will put His arms underneath him.
He shall lean upon the Lord.

He that speaketh comforting words to mourners
Healeth his own heart;
In his time of grief they will return to remembrance,
God will use them for balm.

He that careth for the sick and wounded
Watcheth not alone;
There are three in the darkness together,
And the third is the Lord.
—Henry Van Dyke.

MERELY A WOMAN.

Because she loved him she did not care
How others worried and strove and schemed:
To her the weather was always fair
And sweet were the peaceful dreams she dreamed.

Because she loved him her look was glad
And the fates were good and the world was bright,
And she wondered, seeing those who were sad,
Why their cheeks were wan and their lips were white.

Because she loved him she did not sigh
For rights that her eager sisters sought;
She was willing to let the days drift by,
He always first in her dearest thought.

Because she loved him she could not see
The cunning snares that he slyly set,
And, at last, deserted and dying, she,
Being merely a woman, loved him yet.
—Chicago Record-Herald.

LIFE.

Life is too brief
Between the budding and the falling leaf,
Between the seed time and the golden sheaf,
For hate and spite.
We have no time for malice and for greed;
Therefore, with love make beautiful the deed;
Fast speeds the night.

Life is too swift
Between the blossom and the white snow's drift,
Between the silence and the lark's uplift,
For bitter words.
In kindness and in gentleness our speech
Must carry the messages of hope, and reach
The sweetest chords.

Life is too great
Between the infant's and the man's estate,
Between the clashing of earth's strife and fate
For petty things.
Lo! we shall yet who creep with cumbered feet
Walk glorious over heaven's golden street,
Or soar on wings!
—Margaret E. Sangster.

"BRIDGE OF SIGHS."

One more Unfortunate,
Weary of breath,
Rashly importunate
Gone to her death!

Take her up tenderly,
Lift her with care;
Fashion'd so slenderly,
Young and so fair.

Look at her garments
Clinging like cerements;
Whilst the wave constantly
Drips from her clothing;
Take her up instantly,
Loving, not loathing.

Touch her not scornfully,
Think of her mournfully,
Gently and humanly;
Not of the stains of her,
All that remains of her
Now is pure womanly.

Make no deep scrutiny
Into her mutiny
Rash and undutiful;
Past all dishonor,
Death has left on her
Only the beautiful.

Where the lamps quiver
So far in the river,
With many a light
From window to casement,
From garret to basement,
She stood, with amazement,
Houseless by night.

The bleak wind of March
Made her tremble and shiver;
But not the dark arch,
Or the black flowing river;
Mad from life's history,
Glad to death's mystery,
Swift to be hurl'd—
Anywhere, anywhere,
Out of the world!

In she plunged boldly,
No matter how coldly
The rough river ran—
Over the brink of it,
Picture it—think of it,
Dissolute Man!
Lave in it, drink of it
Then, if you can!

Still, for all slips of hers,
One of Eve's family—
Wipe those poor lips of hers
Oozing so clammily.
Loop up her tresses
Escaped from the comb,
Her fair auburn tresses;
Whilst wonderment guesses
Where was her home?

Who was her father?
Who was her mother?
Had she a sister?
Had she a brother?
Or was there a dearer one
Still, and a nearer one
Yet, than all other?

Alas! for the rarity
Of Christian charity
Under the sun!
Oh! it was pitiful!
Near a whole city full,
Home she had none.

Sisterly, brotherly,
Fatherly, motherly,
Feelings had changed;
Love, by harsh evidence,
Thrown from its eminence;
Even God's providence
Seeming estranged.

Take her up tenderly;
Lift her with care;
Fashion'd so slenderly,
Young, and so fair!
Ere her limbs frigidly
Stiffen too rigidly,
Decently—kindly—
Smooth and compress them;
And her eyes, close them,
Staring so blindly!

Dreadfully staring
Through muddy impurity,
As when with the daring
Last look of despairing
Fixed on futurity.

Perishing gloomily,
Spurred by contumely,
Cold inhumanity,
Burning insanity,
Into her rest—
Cross her hands humbly,
As if praying dumbly,
Over her breast!
Owning her weakness,
Her evil behavior,
And leaving, with meekness,
Her sins to her Savior!
—Thomas Hood.

THE AUTO ON THE FARM.

The auto on the farm arose
Before the dawn, at four,
It milked the cows and washed the clothes
And finished every chore.

Then forth it went into the field
Just at the break of day;
It reaped and threshed the golden yield
And hauled it all away.

It plowed the field that afternoon,
And when the job was through
It hummed a pleasant little tune
And churned the butter, too.

And pumped the water for the stock
And ground a crib of corn,
And hauled the baby 'round the block
To still its cries forlorn.

Thus ran the busy hours away
By many a labor blest,
And yet, when fell the twilight gray,
That auto had no rest.

For while the farmer, peaceful eyed,
Read by the Tungsten's glow,
The patient auto stood outside
And ran the dynamo.
—Exchange.

MR. LUCK AND MR. WU'K.

I was settin' by mah winder,
W'en O, mah laws a massy!
Young Mistah Luck went strollin' by
A-lookin' pert an' sassy.
He cyurls wuz slick, he teef wuz w'ite,
He laf at me, above him;
Look lak he wuzn't ary one
But des arbleedge ter love him.

Den bimeby, Mistah Wu'k go by,
Des lak he in a hurry,
An' he ain't waste no looks on me,
But dat ain't mek me worry!
Case 'pears lak Mistah Wu'k an' me
We ain't a-gwine ter hit it;
We ain't no mo' an' 'gin ter play,
Befo' he hab ter quit it.

Nex' time I see young Mistah Luck,
He settin' in de guttah;
While Mistah Wu'k went whizzin' by,
A-ridin' in he autah.
An' I ain't tek no notice ob
Dat gent, wid cyuris ambros'al;
I hatter run 'phone Mistah Wu'k,
Dat I done 'cept his 'posal.
—The Independent.

THE ONLY WAY.

What stuff folks fill the papers with!
Why, now, they even say
One can't engage a good, plain cook,
And get that cook to stay.

I've had her now these thirty years,
My stewer, broiler, baker;
A first-class cook, and just as plain
As smallpox scars can make her.

Yes, thirty years have now elapsed
Since I this helper took;
I married her in '83,
My priceless, good, plain cook.
—New York Times.

DAISY FLY KILLER placed anywhere, attracts and kills all flies. Neat, clean, ornamental, convenient, cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Sold by dealers, or 6 sent prepaid for $1. HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

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Century Barn Paint, Red, Gray or Green, gallon cans, only 65c per gallon.
Freight Paid on orders of 6 gallons or more to any station east of the Rocky Mountains, except N. & S. Dak., Colo., N. Mex., Tex., Okla., Miss., Ala., La., Ga. and Fla. Delivered Free to these states for 5c more per gallon.
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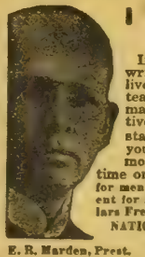

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The last Elgin butter quotation in July was at 26 cents a pound, against 26 cents a year ago, and 25 cents two years ago.

The Farmers' and Shippers' Directory of Business Interests.

A New Publication by the Hale Publishing Co., of St. Louis, Mo.—Corrected, Enlarged and Issued Frequently—Price Only 50 Cents a Copy—A Useful Book That Farmers and Shippers Never Had Before.

Next Edition, Dated October 1st, Will Be Issued and Mailed in September—Corrections and Additions Are Now Being Made and Orders Solicited.

The FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS is designed to contain the name, occupation and business address of all the firms engaged in such business, that their names, address and line of goods manufactured or handled may be of value to general grain farmers, stock raisers, ranchmen, dairymen, fruit and vegetable growers, poultry and bee-keepers, and all others engaged in agricultural pursuits or in handling farm products. The book is arranged by states and all the names and addresses are in alphabetical order.

INDUSTRIES INCLUDED IN THE BOOK.

The list includes an alphabetical arrangement of names, addresses and occupations of individuals and firms representing the following industries:

Agricultural Books and Charts—Agricultural Implements—Arms and Ammunition—Auctioneers, Live Stock—Bee-keepers' Supplies—Building and Construction—Cattle Troughs, Self-feeders—Cisterns and Tanks—Colonization Companies—Commission Agents, Cotton and Wool—Commission Agents, Dressed Meats—Commission Agents, Cattle, Hogs and Sheep—Commission Agents, Hay, Grain and Seed—Commission Salesmen, Butter, Cheese, Eggs, Poultry and Produce—Commission Agents, Horse and Mule—Co-operative Associations—Cotton-ginning Machinery—Creamery and Dairy Distributers—Dairy Apparatus—Dynamite and Blasting Powders—Electric Farm Appliances—Engines For Farms—Experts, Farm Specialties—Farm Chemicals and Sprays—Farm Books and Papers—Farm Tools and Hardware—Fencing, Farm and Ranch—Fertilizer Manufacturers—Fruit Specialists—Grain Elevators and Graders—Harness and Saddles—Horse Goods—Horse and Mule Dealers—Incubators and Brooders—Irrigation Plants and Machinery—Live Stock Dealers—Merchants, Farm Goods—Motor Cars and Trucks—Nurserymen and Florists—Packers, Abattoirs and Wholesale Butchers—Paints and Varnish—Poultry Supplies—Printers, Fruit and Package Labels—Purchasing Agents, Cattle, Hogs and Sheep—Road Machines—Roofing—Sale Stables—Seed Growers and Dealers—Sheep Dip and Specialties—Stock Foods and Tonics—Stock Yards and Markets—Stump Pullers—Swine Breeders' Goods—Tractors, Farm—Trade Publications—Vegetable and Fruit Packages—Vehicles and Harness—Veterinary Appliances—Water Engines and Powers—Water Systems—Well-drilling Tools—Windmills and Engines—and all other interests having business connections with the farm interests of the country. If your business is entitled to entry, send in your business card or letterhead.

The October edition will contain 5,000 such names and addresses. Send 50 cents for a copy of the October number. It is worth the money and more, and will be mailed in September.

Special Note.—We will furnish our monthly NATIONAL FARMER AND STOCK GROWER for two years and one copy of the FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS for one dollar.

THE HALE PUBLISHING CO., 3550 Vista Ave., ST. LOUIS, MO.

National FARMER

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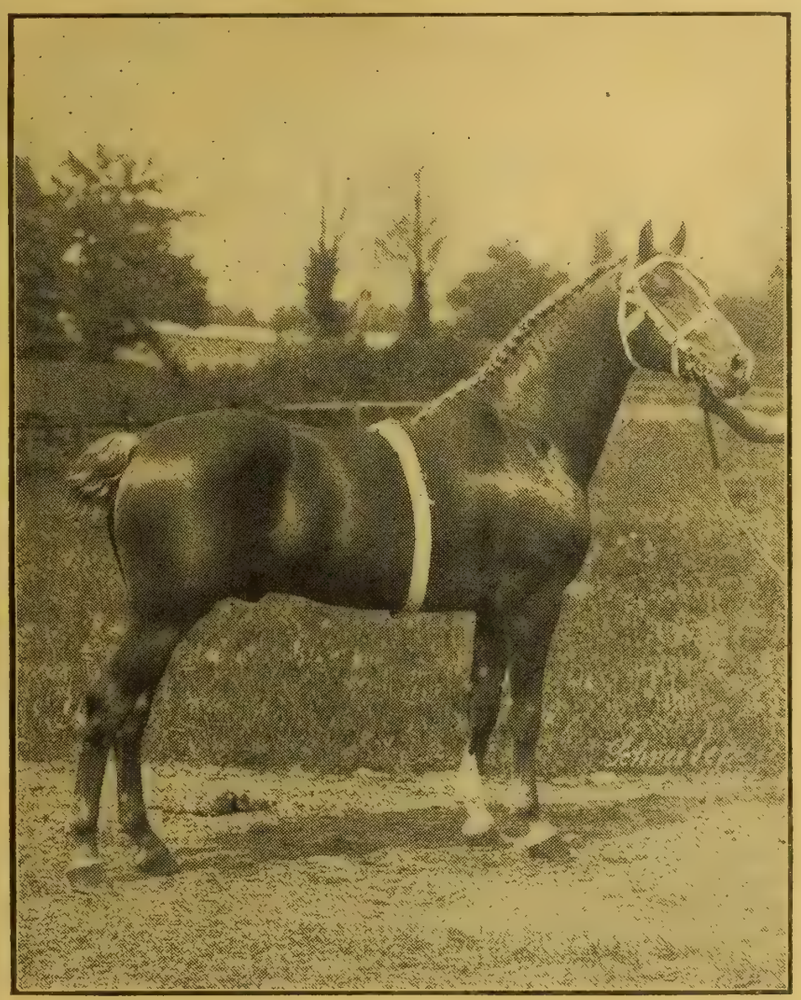

TIGER LILLIE—HACKNEY STALLION. At a contest held at Empire City Park, New York, in August, this Hackney stallion was awarded the blue ribbon as the best sire of cavalry horses. TIGER LILLIE was exhibited by Reginald C. Vanderbilt, who has exhibited him with great success. In the year 1905, at the Philadelphia Horse Show, he won the first prize for best American-foaled Hackney stallion from imported sire and dam, and the picture was then obtained. It appears on page 225 of the Book of Live Stock Champions advertised on page 31 of this paper. We especially invite attention to the Book of Live Stock Champions. In it there are 750 pictures of equal value to that of TIGER LILLIE, consisting of the most illustrious animal champions shown in the last ten years.

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50 Cents a Year. Published Monthly by The Hale Publishing Co. 5 Cents a Copy.

and Stock GROWER

ST. LOUIS AS A COTTON MARKET.

An Important Center For the Sale of an Immense Number of Bales Direct From Fields of Production to Points of Manufacture and Export.

A Market With a Record For Quick and Satisfactory Sales at Fair Prices—Economical Conditions For Holding Cotton When It Must Be Held.

(By Philip H. Hale, Editor National Farmer and Stock Grower, St. Louis, Mo.)

The St. Louis market is not located in the midst of cotton fields and therefore has not the roadway blockaded with wagon-loads of cotton, but it is nevertheless a first-class cotton market, and when the advantages are stated it appears that as a distributing point for cotton it has no superior. A first-class market is one where no sacrifices have to be made by the shipper and where usually he is sure of getting the benefit of active competition and the most economical service in charges and freight rates. Upon such basis St. Louis stands high as a cotton market.

Receipts of Record.

Within recent years the St. Louis market has received and distributed as many as 989,959 bales of cotton in one year. In the year 1912 the receipts were less, being 668,579 bales, including through shipments, which indicate that St. Louis is on the line of distribution, even though the movement originated in other cities. The record of the freight movement indicates that without the sale of a single bale in St. Louis nearly a million bales would pass through the St. Louis gateway on the natural line of traffic from the gin to the factory and indicating St. Louis to be a natural meeting place for buyer and seller.

Where the Cotton Comes From.

The St. Louis market receives more cotton from Arkansas than from any other state. St. Louis being naturally the principal market of the Missouri crop, receives the bulk of it. Northern Mississippi is the next to ship cotton to St. Louis, followed by Oklahoma, Louisiana, Alabama, Kentucky, Tennessee and Texas. In the states from which the St. Louis market draws supplies, and equally available from the standpoint of location as the bales received and shipped through St. Louis, are about 6,000,000 bales of cotton which in a business way are tributary to St. Louis, because from the aforesaid territory the cotton can be shipped to St. Louis, assembled and compressed here and be distributed and delivered at destinations at less cost for freight and carrying charges than if shipped to any other center.

Competitive Selling.

In some of the circulars that we have read as issued by the cotton trade we find reference to shipments divided between St. Louis and other market centers in the belief that nearly equal net results would be obtained by the shipper, and yet in the transactions the net results to the shipper would range from a fraction to $2.00 a bale in favor of the shipments to St. Louis. In active trading in the height of the season St. Louis is usually slightly higher than Memphis, also slightly above New Orleans prices, and even then cotton bought at St. Louis is not high to the buyer, because it is nearer to factory centers.

It is safe to assert that in all cotton-producing territory in which freight rates are no higher to St. Louis than to other centers, St. Louis is the market to ship to, because the demand here is practically unlimited. The trade is unanimous in the statement that no matter how much the receipts of cotton are increased, the buying forces on mill and export account are ample and can be increased rapidly in proportion to the larger number of bales arriving.

A Few of the Buyers.

We are shown that the St. Louis market is well provided with permanent buyers. Although summer is the dullest period of the year, the St. Louis Cotton Exchange is filled with buyers. As members of the Exchange, we find Edward Baker, of Baker, Paton & Co., buyers and shippers to Liverpool and to other seaports; Mr. R. C. Bienenstock, of Bienenstock & Son, is also buyer and shipper on domestic and foreign account; also in the list of foreign and domestic buyers is the enterprising firm of Duncan, Joy & Co., of New York and St. Louis; Lesser-Goldman Cotton Company, buyers and shippers all over the world, are represented on the floor of the Exchange by Harry Lesser and J. D. Goldman; Mr. T. J. McLemore is buyer for the Home Cotton Mills, a local institution; Mr. John Monteith, of Little Rock, Ark., is a buying competitor on the Exchange; Mr. C. G. Mulligan is buying cotton and cotton linters for St. Louis manufacturing concerns, and is an important operator on the market; Mr. E. R. O'Donnell is buyer and dealer in cotton and a large trader in linters; Mr. R. F. Phillips is an active buyer and shipper and Vice-President of the Cotton Exchange; Mr. Geo. S. Tiffany and Dexter Tiffany, Jr., constitute a buying and shipping firm operating in Missouri and Oklahoma—they also do business at Malden, Mo., and at Newport, Ark.; Mr. A. Wiest is a buyer and shipper; and Mr. C. F. Woolfenden, of the firm of A. A. Paton & Co., St. Louis, Mo., and Dallas, Tex., is another of the important operators doing an immense business. Most of these people are always here, and in season the St. Louis market attracts many buyers who are only here from October until March.

The Views of the Secretary.

In several visits to the St. Louis Cotton Exchange we derived much information from Mr. P. H. Partridge, the able Secretary. He said: "St. Louis as a market for cotton has many advantages. Outside of a few freight discriminations that we have up before the Interstate Commerce Commission and hope to adjust, we have the entire advantage of location. Most of the Northern and Eastern mill buyers would rather locate in St. Louis than wander around looking for local bargains. For the purpose of legitimate loans on cotton the market is supplied with unlimited money. There is ample warehouse room and compress capacity. Shippers who wish to learn something about prompt service, absolute integrity and the highest order of skill and ability should ship to St. Louis, where the demand is always equal to every bale that can be brought to the city and sampled."

Railroad Members.

The transportation companies are very much interested in the expansion of the cotton trade of St. Louis and a number of the commercial agents and traffic officials are members of the Cotton Exchange, including Mr. C. Bourne, Jr., of the Lackawanna Lines; J. P. Brazil, of the Traders' Dispatch; R. L. DePew, of the M. & O.; K. B. Hannigan, of the Southern Railway; Geo. L. Kaeshoeffer, of the Wabash Railway; F. J. Lawler, of the Frisco; E. J. McConnell, of the International Mercantile Marine; L. M. Megginson, of the New York Central Line; F. D. Powell, Agent of the Western Maryland Railway; W. M. Porteous, Agent Canadian Pacific Railway; W. R. Stover and H. T. Young, Commercial Agents of the Erie Dispatch. All these active railroad men are allied to the St. Louis Cotton Exchange, because they consider St. Louis as being capable of handling a very much larger share of the cotton productions of the United States.

Unlimited Finance.

Speaking most conservatively of the St. Louis cotton market, although cotton eats up an awful lot of money, it is safe to assert that for the legitimate purpose of financing the cotton-growing, ginning and mercantile interests, for the purpose of carrying cotton through inactive periods and conditions, the St. Louis trade is in possession of unlimited capital. A bale of cotton can be held a year for fifty cents' cost of storage, and it only requires a tenth of a cent a pound to pay that charge. Insurance and interest are practically the same as elsewhere, and, all things considered, St. Louis is a splendid market for cotton interests to ship to.

For the Good of St. Louis.

Allied to the cotton trade, because they are interested in the welfare of St. Louis, are merchants and bankers. Of these are mentioned Walker Hill, President of the Mechanics' American National Bank, and E. M. Hubbard, of the Boatmen's Bank. Chas. Huttig, the late President of the Third National Bank, was a member until he died. Forrest Ferguson, of Ferguson-McKinney Dry Goods Co.; Elias Michael, of Rice-Stix & Co.; J. R. Curlie, of the Carleton Dry Goods Co.; and L. E. Anderson, Banker and Broker, are all members and supporters of the St. Louis cotton trade and to be

More Rye

Rye serves the double purpose of a cover crop or a grain crop. In either case it pays to use the right kind of fertilizer on it—the kind that contains enough Potash to balance the phosphate. The mixtures we have told you to use on wheat are suitable for rye, but the

POTASH

may be even higher, since rye uses more Potash than wheat.

Use from 200 to 400 pounds per acre of a fertilizer containing 6 to 8 per cent. of potash.

If your dealer does not carry potash salts, write us for prices stating amount wanted, and ask for free book on *"Fall Fertilizers."* It will show you how to save money and increase profits in your fertilizer purchases. **Potash Pays.**

GERMAN KALI WORKS, Inc.
42 Broadway, New York

McCormick Block, Chicago — Empire Bldg., Atlanta
Whitney Central Bank Bldg., New Orleans
Bank & Trust Bldg., Savannah — 25 California St., San Francisco

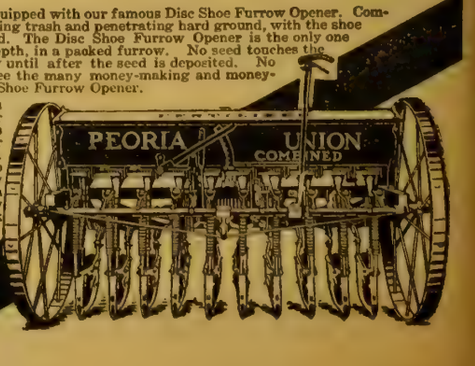
Fertilize Intelligently —Drill Grain Perfectly

Here is the tool for fast economical fertilizing. Wastes nothing. This drill is equipped with the Disc Shoe, our special improved Double Run Grain Feed and Improved Star Fertilizer Feed. With this drill and without an additional part 70 different gradually increased quantities of Fertilizer can be sown.

Peoria Union Combined Drill

The Peoria makes every seed count. Equipped with our famous Disc Shoe Furrow Opener. Combines advantages of the single disc for cutting trash and penetrating hard ground, with the shoe for forming furrow and depositing the seed. The Disc Shoe Furrow Opener is the only one that sows every seed at an exact, even depth, in a packed furrow. No seed touches the disc and no dirt falls back into the furrow until after the seed is deposited. No practical, progressive farmer can fail to see the many money-making and money-saving advantages of this wonderful Disc Shoe Furrow Opener.

There are also many other advantages in Peoria Drills, each one just as superior as the Disc Shoe Furrow Opener. Send us your name and address on a postal now for catalogue and all details of construction. Let us prove to you that it will pay you to discard your present method, even a new drill, in order to buy and use the Peoria Union Combined. Will you spend a penny for a postal now to get all the facts? Ask for prices on the size drill you want.



Peoria Drill and Seeder Co.
2430 North Perry Street
Peoria, Illinois

relied upon in extending the influence of the market.

The Commission Interest.

In our study of the St. Louis cotton market we had the pleasure of meeting Mr. J. H. Allen, head of the Allen-West Commission Company. Mr. Allen established himself in the commission business for the sale of cotton at Mobile, Ala., forty-eight years ago, afterwards conducting business at New Orleans and St. Louis. What Mr. Allen best thinks of the St. Louis market is shown by his acts that speak louder than words. His headquarters are at St. Louis, and their only branch is a feeder of the St. Louis market at Little Rock, Ark. For the Allen-West Commission Company to show samples of ten thousand bales on their office tables is a part of their ordinary business. Mr. E. P. Horner, of the Allen-West Company, is one of the most active members of the trade.

The Senter Commission Company.

Strictly in the commission business we find the Senter Commission Company. This is a firm that has handled cotton in the interest of the shipper these many years. Although claiming to be conservative, none are more enterprising in assisting the non-speculative elements of the business. The Senter Commission Company is represented in the Cotton Exchange by C. P. Senter and W. B. Keeble, and by them many good sales are made.

Napoleon Hill Commission Company.

This is another first-class commission house, well and favorably known throughout the cotton trade, also strictly on commission basis and opposed to artificial speculations. Mr. T. E. Upshaw, of this firm, is President of the Cotton Exchange. Mr. R. W. Upshaw is the Secretary and Treasurer of this firm. They state that the St. Louis market cannot be overstocked, for the reason that cotton can be sold and shipped faster than it can be assembled. It is especially an independent market, on which cotton sells on its grade and merits.

A Notable Sale.

While investigating the cotton market during the dullest season, several sales of 300 to 1,000 bales were made. One notable sale of a train-load of cotton, valued at $100,000, was made July 21st. It was purchased at the St. Louis Cotton Exchange by Adam Wiest for R. F. Phillips & Co. The sale was made by the Senter Commission Company. The cargo was started on its way to the New England mills via the fast freight (Red) line. The shipment contained 1,178 bales. The bulk was mainly middling cotton. This grade was then quoted at 12 5-16 cents a pound. Allen-West Commission Company sold one lot of 3,500 bales in the active season.

Summary of Conditions.

As a market representing the nearest cut from producer to consumer there are within reach not less than five million bales of cotton, which it is to the interest of the producing elements to ship to St. Louis. The market is well equipped financially to carry the business; has unsurpassed railroad facilities, in and out; has compress power and storage capacity beyond possible requirements, and buying demands far in excess of usual cotton arrivals and shipments.

The Best Apple Display.

At Cleveland, Ohio, August 7th, the Department of Agriculture of Ontario, Canada, was awarded the President's cup for the best display at the Apple Show conducted in connection with the International Apple Shippers' Association. The next convention will be held in Boston. The advertising campaign to be conducted by the association to educate people to eat more apples was explained to the delegates by U. Grant Border. The revenue for the campaign is to be gained through the sales of stamps to the shippers.

THE GOOD-ROADS MOVEMENT.

Missouri Has Set a Magnificent Example That Will Cause a National Movement of Lasting Value

The Good-roads Movement that resulted in a state-wide road-working demonstration headed by the Governor had a number of theatrical features, but it has awakened the people to the good-roads movement in all the states as nothing else could have done.

The two-days' work actually done amounted to the usual two-day road-tax work accomplished in any state, and that means very little in the shape of permanent improvement. The five dollars that the editor of The National Farmer and Stock Grower paid to the state road fund during the month of July, if properly used in the scientific construction of roads, will be worth five days of such work as he could have done by handling a shovel as his share of the two-day movement.

We are proud of the example set by the Governor and the other salaried public officials, but we desire to have credit for the five dollars of subscription money that was taken from the treasury of The National Farmer and Stock Grower and diverted from the expense money of the office to the good roads fund.

Road building is as much a science as house building, and it must be conducted upon a substantial foundation in a businesslike manner. The enthusiasm is not misplaced. We are in favor of good roads. It is the best investment a state can make, provided that every dollar collected can buy a dollar's worth of work on the road. In the meantime, the example of the state of Missouri in the earnestness with which the road problem has been handled is worth many millions to the people of the United States.

Insuring the Small Fruit Supply.

The present season has been a very disappointing one to many raisers of small fruit. The rains in March and April were fairly good in some localities, but fell off or were wanting in May. When the small fruit was ready to pick it had dried up or shrunk to such a degree that it brought a very small price.

The strawberries this season have been a great disappointment to many of the growers that depended on their extensive fields for a good revenue. Due to insufficient rain, the strawberries arriving in the markets of our great Western cities were seedy and hard. They would keep well enough, but the buyers were not willing to give much for them. The objections stated by the consuming buyers were quickly transmitted to the commission men, who were thus made willing to let go the fruit they handled at a very low price. The remittances to the producers were therefore very small for two reasons—one, because the crop was short; and the other, because what berries there were did not bring a good price.

The key to the whole situation lay in the one word "water." In the humid sections of the country people are so wedded to the idea that rainfall is sufficient that they do not take measures to insure a water supply as they do in an arid region.

Yet it is immeasurably easier to provide irrigation in a humid climate than in a dry climate. The supply of water is greater and more certain and the amount required to be delivered artificially is very much less than it is in an arid section. But in spite of these facts we see season after season pass when the consumers have largely to go without small fruits and the producers to go without the revenues that a fruit crop would give them.

In some of the other countries of the world, where rainfall is good, there is much irrigation as a crop insurance. For the same reason we should at least give the small fruit crop that kind of an insurance. The small fruit crop is mentioned because it generally occupies but a small area, and the smaller the area the easier it is to provide water for it.

The writer has in mind a few strawberry fields that are irrigated. Two of these are at different Experiment Stations, both in humid states. He has seen these fields red with fine berries when non-irrigated strawberry fields had on them but few half-dried berries. Yet the irrigating had cost little. In one case it was done by a windmill, and in another it was done more easily, the field lying lower than an adjoining lake from which the land had been reclaimed.

But some small fruit needs irrigating or watering every season. The writer has in mind a blackberry patch on a slope that has always borne a good crop, but has never failed to dry up just before picking time. It was a mistake to plant a blackberry patch in such a location, as the slope of the ground makes the water run off too easily, and water, if applied, would run off rather than sink in.

Where Could We Store It?

Mr. Ives has a mind that delights in facts. One evening he laid down the paper, was silent for a moment, and then said:

"That's odd."

"What is it?" inquired his wife.

"Why, here is a man who says that it would take twelve million years to pump the sea dry at the rate of a thousand gallons a second."

Mrs. Ives sat thinking the matter over. Finally she said:

"Why, Henry, where would they put all the water?"—Lippincott's.

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Fall Style Book
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This is important—send today for the "NATIONAL" Style Book—don't put it off. It offers many bargains like these:

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MAIL THIS COUPON NOW!
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Are you interested in seeing the new Tailor-Made Suits for Fall? And do you wish us also to send you, together with your "NATIONAL" Money-Saving Style Book, the Special Booklet of "NATIONAL" Made-to-Measure Tailored Suits?.....
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OHIO ELECTRIC WORKS, Cleveland, O.

4 BUGGY WHEELS FREIGHT PAID STEEL TIRES **$8.75**
With Rubber Tires, $18.45. Your Wheels Rebushed, $10.30. I make wheels ¾ to 4 in. tread. Tops, $6.50. Shafts, $2.10; Repair Wheels, $5.95; Axles $2.25; Wagon Umbrella free. Buy direct. Ask for Catalog 67
SPLIT HICKORY WHEEL CO., 567 F St., Cincinnati, Ohio.

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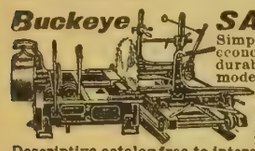

Simple in construction, economical in power, durable in every part and moderate in price. Guaranteed the Most Up-to-Date Saw Mill on the Market. ALSO, Engines & Boilers for Saw Mill work.
Descriptive catalog free to interested parties. Write Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

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Ertel's Cyclone—3-Stroke Self-Feed Hay Press Bales with least labor

WILL BALE 20 TONS OR MORE A DAY AT COST OF ONLY 40c A TON.
Make big money baling for your neighbors after yours is done.
The Cyclone is powerful, durable, repair-proof—made almost entirely of finest steel. Unbreakable steel baling chamber, adjustable tension, makes smooth, clean, tight bales, 75 to 125 lbs. as desired. Three strokes each circle. Self-feed. Works at stack, barn or windrow.
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Geo. Ertel Co., 385 Ky. St., Quincy, Ill.

Rebuilt & Second Hand Engines

TRACTION AND PORTABLE.

10 h.p. Springfield, direct flue	$ 200
12 h.p. Jumbo, No. 1501, direct flue	250
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14 h.p. Minneapolis, No.1029, return flue	575
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16 h.p. Star, direct flue	750
16 h.p. Double Star, No.6972, direct flue	1,000
16 h.p. Buffalo-Pitts, return flue	575
16 h.p. Heilman, No. 1207, direct flue	375
16 h.p. A.W.Stevens, No.1881, direct flue	250
16 h.p. Minneapolis, direct flue	950
16 h.p. Avery, No. 1117, return flue	600
162h.p. RussellCom., No.11244, direct flue	600
16 h.p. Peerless, No. 2089, direct flue	325
16 h.p. Russell, No. 9761, direct flue	700
18 h.p. Minneapolis, No.1170, return flue	700
18 h.p. Nichols & Shepard, return F. B.	575
18 h.p. Kelly, direct flue	1,000
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18 h.p. Geiser, No. 11915, direct flue	1,250
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20 h.p. Gaar-Scott, No. 8200, return flue	700
20 h.p. MinneapolisNo.4583, direct flue	1,250
20 h.p. Rumely, No. 3844, direct flue	900
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22 h.p. Advance, No. 3400, direct flue	823
22 h.p. Minneapolis, No.1566, return flue	975
22 h.p. Avery, No. 3953, direct flue	1,750

Terms:—A reasonable cash payment; balance to suit.
WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

ZENOLEUM DESTROYED.

Under insecticide act of 1910 seven cases of zenoleum shipped by the Zenner Disinfectant Company, of Detroit, Mich., were condemned by the government for being misbranded. The company made no defense, and a default was entered and the goods were destroyed. The case was before the District Court of the United States, December 10th, 1912.

CORN HARVESTER with Binder attachment cuts and throws in piles on harvester or winrow. Man and horse cuts and shocks equal with a Corn Binder. Sold in every state. Price $20.00. W. H. BUXTON, of Johnstown, Ohio, writes: "The Harvester has proven all you claim for it; the Harvester saved me over $25.00 in labor last year's corn cutting. I cut over 500 shocks; will make 4 bushels corn to a shock." Testimonials and catalog free, showing pictures of harvester. Address,
NEW PROCESS MFG. CO., SALINA, KANSAS.

ST. LOUIS MARKET FOR OATS.

Very Near Steady Prices With Those Quoted at the Close of the Month Previous.

The market for oats has for three months shown but little change in values at the close of each month. In regard to cash oats at St. Louis, the prices on June 30th were 40 to 41 cents a bushel; on July 31st, 39 to 41¼ cents; and on August 30th the sales were made at 41 to 41½ cents.

At Chicago, on the market for future delivery, in July 31st the September option was quoted at 11 cents, and on August 30th the price was the same.

At Chicago, on July 31st, the December oats quotation was 43⅛ cents, and on August 30th the price was 43⅞ cents.

There now remains to be considered the option for May, 1914, delivery, which on July 31st was quoted at 45¾ cents, and on August 30th the closing figure was 41 cents a bushel. Oats in market are not selling high, but last year on August 30th cash oats sold at 32 cents a bushel.

In regard to St. Louis as a market for oats it is well to remark that although far behind Chicago in receipts, St. Louis is in advance of Minneapolis, Duluth, Omaha, Kansas City, Milwaukee, Cleveland, Cincinnati and Indianapolis. Receipts last year at St. Louis were 21,529,690 bushels.

St. Louis as a Fruit Market.

With about a million population within ten miles of the St. Louis Court House there is naturally a large consumption of fruit, and then there is the wholesale market, which is engaged in receiving, storing and reshipping to other markets.

In order to enable our readers to form an idea of current values at wholesale on arrival we quote the market on the last day of August, as follows: Apples (quote by the barrel)—Small and poor (all varieties) at $1.00 to $1.50; Welthy at $1.50 to $2.25; Domino and Rambo at $1.25 to $1.75; Shackleford at $1.50 to $2.00; real fancy do., $2.10 to $2.25; Jonathan at $1.75 to $3.00; Maidenblush at $1.50 to $2.25 for small and poor colored to $2.50 and $2.75 for medium, and $3.25 for fancy; Wolf River at $2.00 to $3.00. Bushel baskets and boxes at 40 cents to $1.00. Bulk Michigan Duchess selling at $2.00 to $2.25 per barrel measure, delivered. Sales: Rail receipts—One-half car bulk Michigan Duchess at $2.25 per barrel measure, delivered; twenty-seven barrels Michigan sweet at $1.75 to $2.00; fifteen barrels Northern Spy at $1.40; ten barrels Shackleford at $2.15. River receipts: Sixteen barrels Jonathan at $1.75; ten barrels Jonathan at $2.05; ten barrels Shackleford at $1.65; fifteen barrels Shackleford at $2.00; eighty barrels Shackleford at $2.11; sixty-six barrels Shackleford at $2.25, delivered; six barrels slack Ladyblush at $1.75.

Crab Apples.—Nearby at $1.00 to $1.50 per barrel; choice Northern at $2.50 to $3.00 per barrel—lot Michigan bushel baskets Siberian sold at $1.25.

Peaches.—Heavy receipts of home-grown by wagons and nearby shipments also large. Home-grown half-bushel baskets sold at 15 to 20 cents for common to fair, up to 35 and 40 cents for choice to fancy Elbertas, and bushel boxes at 25 to 50 cents.

Pears.—Alabama hampers Keifer and sand pears slow sale at 50 to 60 cents. Michigan Clapp's Favorite at $3.50 per barrel, delivered, for choice; lot of sixteen barrels culls sold at $2.00; and Michigan Bose at $3.00 per barrel. Illinois Duchess at $2.25 per barrel, and do. Seckel at $1.25 per bushel basket; and home-grown do. at 35 and 40 cents per half-bushel basket.

Plums.—New York bushel baskets Lombards lower and slow at 75 cents; and German prunes at $1.00 to $1.25, delivered; Michigan bushel baskets German prunes at $1.25, delivered; Damsons in large offering, but steady at 35 to 50 cents per chip basket and two cents per pound by weight—sale five barrels and ten baskets at two cents; home-grown red varieties at 30 to 35 cents per half-bushel basket.

Grapes.—Home-grown plentiful and slow at 20 to 25 cents for jelly to 40 cents for table stock per chip basket.

Watermelons.—Missouri melons dull and lower to sell—not wanted, seemingly, by even the cheapest trade. Car lots Missouri melons on track at from $40 to $80. Sales: One car Iowa melons at $220, track; one load, 25-pound do. at 75 cents per 100 pounds, delivered; one load do. at 70 cents, delivered; and two loads do. at 65 cents, delivered; only sales of Missouri melons reported were two cars at $60 and one car at $65, on track.

Cantaloupes.—Market weak and lower on average offerings of Western melons, under excessive offerings. Sales: Two cars Colorado Rocky Fords at $1.25, delivered, for standards and 60 cents for Osage flats; one car do., delivered, at $1.00 to $1.25 for standards and 50 cents for flats; one car do. (some soft), at $1.00 for standards; 75 cents for Jumbo; and 35 cents for flats; clean-up of car do. at 90 cents and $1.00 for standard and 50 to 75 cents for pony; part car New Mexican standard at $1.25, delivered; half car do. flat white at 50 cents, delivered; and half car Colorado Pink Meat flats at 60 cents, delivered; Poag baskets sold at 25 cents; home-grown sold at 35 to 50 cents per bushel, loose.

Sorghum For Silage.

A correspondent asks how it would do to put up sorghum with corn for silage.

This takes a first-rate combination, and it is better if the corn and sorghum be planted separately, in alternate rows. This is quite important, as the sorghum will not mature at the same time as the corn. If our correspondent has his two crops planted in different fields, I should wait until the sorghum was in the right stage and then mix the two when filling the silo. The best time to cut the sorghum is when the seed begins to harden. Some claim that this combination does not keep well. I find if the sorghum and corn are cut at the proper stage they not only keep well, but make a very palatable feed.

Government Corn Grades.

The farmer will understand more about the market view of corn when he reads over the requirements of grades one to six, as proposed by the United States Department of Agriculture. It will be news to farmers to read about the difference there can be in the matter of moisture, which ranges from 14 per cent. in No. 1 to 23 per cent. in No. 6. Our readers will find the statement in another column regarding grades of corn to be very interesting.

Silo Owners REMEMBER that proper cutting and filling are as important as the Silo itself.
The Diok Blizzard Ensilage Cutter, with very large capacity, works steadily, takes whatever is fed to it without a hitch, and outlasts any machine of its kind. It is the most profitable machine to buy and is fully guaranteed.
Free Catalog, with full information, on request.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.

Running Water in House and Barn at even temperature Winter or Summer at Small Cost.
Send Postal for New Water Supply Plan. It will bring you 100 pictures of it in actual use. Do it Now
Aermotor Co., 1144 S. Campbell Av., Chicago
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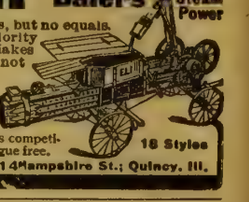
ELECTRIC Steel Wheels Save YOUR Back

Save draft—save repairs.
Don't rut roads or fields. Send today for free illustrated catalog of wheels and wagons.
Electric Wheel Co., 40 Elm St., Quincy, Ill.

The "Eli" King of Horse and Steam Balers



A train of followers, but no equals. Proves its superiority wherever it goes. Makes tight shapely bales, not loose bundles, works fast, avoids accidents and endures. Little draft, tremendous power.
The machine that makes competitors tremble. Eli catalogue free.
18 Styles
Collins Plow Co., 2014 Hampshire St., Quincy, Ill.

BARGAINS IN USED AUTOMOBILES

Repainted and Ready For Delivery.

Hupmobile roadster	$ 400
Overland roadster, new tires	450
Black Crow, 4-cyl., 5-pass	450
Mitchell, 4-cyl., 5-pass	600
R. C. H., 1913, 5-passenger	700
Mitchell, 2-pass., 4-cyl	700
Moon, 4-cyl., 5-pass	750
Mitchell, 4-cyl., 5-pass	750
White gas car, 5-pass	900
Mitchell, 6-cyl., 7-pass	1,000
Kline, 6-cyl., 5-pass	1,150
Speedwell, 4-cyl., 7-pass	1,250
Buick delivery wagon, 2-cyl	370
Mitchell delivery wagon, 4-cyl	650

Terms:—Part cash; balance monthly notes.
WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

DUNLAP'S MULE-FOOT HOGS.

Mr. John H. Dunlap, Williamsport, Ohio, owner of the Ohio Blue Ribbon Herd, was not affected by the recent disastrous flood in Ohio which caused so much loss of life and property. He reports a big demand for mule-foot hogs. While this breed has not been before the public as long as the other breeds, it has been in existence for centuries, and is very prepotent as well as being able to resist disease. Mr. Dunlap reports tests made in many different states with stock from his herd, in which the mule-foot lived and the other hogs were lost. Mr. Dunlap has always been able to sell all the good mule-foots he can raise. He now has over sixty brood sows on his farms that farrow twice a year. These sows were selected on account of their size, hardiness and because they have farrowed and raised large litters. Many of the spring pigs are now weaned and are being shipped nearly every day all over the land to form new herds. There are ten big prize-winning herd boars in the Ohio Blue Ribbon Herd, and anyone wanting to make a start with this great breed which Mr. Dunlap has so successfully brought to the notice of the swine breeders of the country can do so without getting inbred stock. No other breeder in the land has made such a record at the State Fairs as has Mr. Dunlap, who has won nearly every prize he has ever competed for in the show ring. Just now Mr. Dunlap has over 350 Mule-foots of all ages to select from.—(Advt.)

Latest Crop Estimates.

Relative to crops, latest reports (September 1st) indicate a yield of 14,000,000 bales of cotton; 2,500,000,000 bushels of corn; 1,104,000,000 bushels of oats; 744,000,000 bushels of wheat; 36,000,000 bushels of rye; 339,000,000 bushels of potatoes; 900,000,000 pounds of tobacco; 20,000,000 bushels of flaxseed; 64,000,000 tons of hay; and 27,000,000 bushels of rice; all of an estimated value of $4,755,000,000.

Drill grain perfectly. Read the advertisement of the Peoria Drill and Seeder Company on page 3.

BREEDING ARMY REMOUNTS.

The Progress in Producing Cavalry Horses Upon the Government Plan.

The Bureau of Animal Industry has received reports from its officers in charge of the breeding of army remounts in co-operation with the War Department, which show that the government's plan is very popular with the owners of mares. At the close of business on August 16th, 1913, forty-one stallions were in service. These stallions have covered 1,452 mares during the season, an average of slightly over thirty-five mares per stallion. Twenty-seven of the stallions were five years old or over, and covered 1,097 mares, an average of a little over 40; ten were four-year-olds and covered 292 mares, an average of better than 29 per head; four were three-year-olds and covered 53 mares, an average of more than 13.

The number of mares covered in Vermont and New Hampshire was 241, an average of over 34 for seven stallions, including three four-year-olds and one three-year-old; 583 mares were bred in Virginia, an average of over 31 for eighteen stallions, including four four-year-olds and three three-year-olds; 208 mares were bred in West Virginia, an average of 52 for four stallions, including one four-year-old; 376 mares were bred in Kentucky, an average of better than 37 for ten stallions, including one four-year-old; in Tennessee a mature stallion and a four-year-old covered 22 mares each.

The number of mares covered by mature stallions of different breeds were as follows: Three Morgans averaged 45 mares; ten Thoroughbreds averaged 38 mares; eight Standard-breds averaged 40 mares; and six saddle stallions averaged 42 mares. All ages by breeds are as follows: Seven Morgans (including three four-year-olds and one three-year-old) averaged 34 mares; fifteen Thoroughbreds (including three four-year-olds and two three-year-olds) averaged 32 mares; ten Standard-breds (including two four-year-olds) averaged 32 mares, and nine saddle stallions (including two four-year-olds and one three-year-old) averaged 37 mares.

In placing these stallions, care was taken to select communities in which there was a scarcity of good stallions. Therefore, the mares bred during the past season are, to a great extent, mares which would probably not have been bred in the absence of government encouragement.

The number of mares bred in 1913 will be increased somewhat. In New England, breeding continues until October 1, and in Virginia the fall season is commonly used. Both conditions will operate to the advantage of the remount breeding work.

The Department is not able to draw any deductions as to the advantage of one breed above another. Local preferences were considered in placing stallions and no breeds placed in a community which were not wanted. Regardless of breed or locality, however, the desire of farmers to breed their horses to good-sized stallions is noticeable. In almost every case where stallions have had a comparatively good season it is because they were somewhat undersized.

Congress has provided for the continuation of the remount breeding work during the current fiscal year but no considerable extension will be possible and no new breeding districts will be organized at present.

Overgrazed Stock Ranges Can Come Back.

The improved condition of the national forest range after regulated grazing is pointed to by experts of the Department of Agriculture as a demonstration that areas which have been severely damaged through overstocking by sheep and cattle can be brought back to their former carrying power through a system of sufficiently intelligent use.

When the government took charge of the live stock ranges within the national forests some of them were so badly overgrazed and otherwise injured from reckless handling of the stock that their grazing value appeared to have been almost entirely destroyed. Many of these ranges, however, have been restored and made as valuable as ever. On several of the forests results have more than justified the expectations and the range is in better condition than it ever was.

An example of this improvement is cited in the Nebo National Forest, Utah. In 1903, when that forest was created, the ranges within the forest boundaries were found to be badly overgrazed and trampled because there was a lack of any control or supervision over the areas. One of the ranges was at that time estimated to be capable of carrying only 3,000 head of cattle. Now, through conservative management and judicious distribution of the cattle over the ranges and improvements in water conditions, the carrying capacity of the range has been increased until in the present grazing season nearly 8,000 head of cattle are using this particular area and forest officers feel that a few hundred head more can be safely grazed there without injury.

St. Louis Hog Prices.

To follow the article published on page 4 we quote the hog market report from the National Live Stock Reporter of August 30th, as follows:

"A load of nice light-weight hogs that weighed 158 pounds sold at $9.05 per 100 pounds, which was the top, and they were the only hogs in the West to sell above $9.00, as that was the top in Chicago, and none of the up-river markets were able to get anywhere near that price. The top in Kansas City was $8.50, or 55 cents under the local top. The local bulk was far higher than the bulk on any of the other markets.

"Hogs with quality of light to medium weight sold at $8.85 and upwards, and most of them went to the shippers and city butchers, while the packers paid $8.40 to $8.80 for fair to good mixed and heavy hogs, and $7.65 to $8.00 for the rough throw-out packers. It was a very dull market for all hogs that only the packers would purchase, as they were very bearish and hammered the market hard.

"Pigs that were good sold at $8.25 to $8.60; medium grades went at $7.50 to $8.10; fair at $7.00 to $7.50; and common, little, no-account ones at $5.00 to $6.75—all quotations being at the price stated per 100 pounds."

Dairy Special on the "M. & O."

Farmers and dairymen along the Mobile and Ohio Railroad in Southern Illinois are interested in the announcement of the officers of that road that a special dairy instruction car will be operated, beginning September 1. The object is to improve and develop the dairy industry in the Mobile and Ohio territory. The car will be equipped with a model farm dairy, together with charts, and a corps of expert dairymen will give lectures at each stop.

The itinerary will include thirty-three points in Missouri, Kentucky, Tennessee and Illinois, and one day will be devoted to lectures in each town where a stop is made.

Please study the advertisement of the Peoria Drill and Seeder Company, 2430 North Perry street, Peoria, Ill.

Look Out

For Worms This Month

Look Out

Mr. Feil Is a Registered Pharmaciat Under Ohio State Laws.

Read These Letters

I'll Stop Your Worm Losses I'll Prove It Before You Pay

Don't let worms breed **contagious diseases** among your hogs this year. Don't let them kill off the young pigs and rob you of your season's profits. You can **prevent it** if you will just take "a stitch in time." **Now** is the time when worms begin to get in their **deadly** work. **Now** they are breeding, multiplying by the millions in the stomach and intestines, and if you don't get the best of them, they will surely get the best of you. Let me show you how. I'll get rid of stomach and free intestinal worms in your hogs, sheep, horses and cattle and prove it to your satisfaction (not mine) before you pay me a cent. I'll do it with

Beware of Imitations — **SAL-VET** — **Look at the Name Carefully**

The Great Worm Destroyer and Conditioner

I've done it for thousands and in addition they write me they never had stock thrive better, look better and bring them such profitable returns. Here is my offer to you.

Send No Money—Just the Coupon

Simply fill in the coupon, tell me how many head of hogs, sheep, horses and cattle you have. I will then ship you enough Sal-Vet to last them 60 days. You pay the small freight charge when it arrives—put it where all your stock can get free access to it—**and they will doctor themselves.** They eat it as they do salt—just as they need it, and at the end of the 60 days if you don't feel **satisfied,** write me and I'll cancel the charge. I take your word as final—I let you act as judge of its merit—I put everything up to you. How can you risk loss—how can you let your stock drag along when they should be thriving, growing into profit when such a fair, open offer like this is put at your disposal? You have all to gain—nothing to risk. Fill out and mail the coupon **now.** Don't put it off—lest you forget. Read the letters above.

Sidney R. Feil, Pres.—*The S. R. FEIL CO.*—Dept. NF&SG Cleveland, Ohio

Prices: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12

60-day trial shipments based on 1-lb. of "Sal-Vet" for each hog or sheep, and 4-lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

(37) No orders filled for less than 40 lbs. on 60 day trial offer.

I have been in the hog business for 30 years and have tried every known remedy for hogs, but have never found anything equal to your Sal-Vet. It certainly does the work and is easy to feed. I feed it to little pigs, boars, pregnant sows and find it O. K. I will never be without Sal-Vet.

C. F. MARSHALL & SON,
Per G. F. M. Monroe, Ia.

"I had a lot of sick hogs and I lost five of them. I began feeding them Sal-Vet, my losses stopped and the hogs soon got into a fine, healthy condition.

V. P. UNDERWOOD,
R. D. No. 1, Roachdale, Ind.

While I cannot say positively Sal-Vet kept my hogs from having Cholera, I had no such sickness while my neighbors almost without exception lost hogs from Cholera. I certainly have great faith in Sal-Vet and it is all and more than you claim for it.

J. C. CONOVER,
Chrisman, Ill.

I used your Sal-Vet regularly while feeding a bunch of fattening hogs and can say it is just the article. It made my hogs double their weight in 50 days. It is a great conditioner and worm destroyer—E. E. SHULL, LaCynge.

Sal-Vet always comes in original "Trade-Mark" Packages. Never sold loose in bulk or by the pound. Look for the "Sal-Vet" trade-mark.

Sidney R. Feil, Pres. The S. R. Feil Co., Cleveland, O.
Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days and at that time pay for it, if it does what you claim. If it does not, you are to cancel the charge.

Name ..... P. O. .....
Shipping Sta. ..... State .....
Hogs ..... Sheep .....
Cattle ..... Horses .....
NF&SG 2-13

LIMITATIONS OF DRAINAGE.

Don't Change the Water Table on Old Trees—Shallow Roots Resist No Drouth.

Recently a farmer said to the writer: "Every acre of this farm is tiled." As the farm was a very big one and had on it much high land, it impressed the writer as being over-drained in spots. The remark of the owner represented the tendency to go to extremes.

Much good has been done by drainage, but some harm has also been done. Without doubt, the good far outweighs the bad, but it is not necessary to have any bad effects. There are certainly places on some farms that should not be drained at all.

An old apple orchard, if still bearing profitable crops, should not be drained, unless the "fall" is so slight that the water drawn off will will be small. The change in the water level under the trees will probably do injury.

A mature forest should not be drained, for its trees have accustomed themselves to a certain condition of moisture and cannot live without the usual water supply. If the ground has been and is wet, the trees, if of kinds that require fairly dry land, will be found to have formed there near the surface of the ground. A sudden lowering of the water table will leave the roots high and dry, and the trees will perish in the first protracted drouth.

The writer was riding on the train past extensive corn fields. It was a dry time in late summer. A passenger said to him: "Look at that corn on the level and near the brook! It is all dried up, while all the corn on higher ground is still green!" The reason was that during the early part of the season the corn on the low land had formed its roots near the surface of the ground to avoid the water immediately below it. It was so shallow-rooted that when the stream shrank with the coming of the protracted dry spell, the roots were in ground so dry that moisture could not be supplied sufficient to keep the corn alive.

Vineyards that have been established on undrained ground should not be drained, if they are doing well under the conditions as they are. This is particularly the case in localities where the winter is cold. In drained soil the frost strikes deeper than in undrained soil, especially during the first few years of drainage when the soil above the drains is very loose. Deep and hard freezing often kills the roots of grapevines.

The above truths have been brought out by the drainage work in many towns and cities where extensive drainage operations have been carried on for the laying of sewers, paving of streets and other like work. The loss of old trees has been very great.

But with young orchards and on land where there are only young trees growing, drainage operations can be carried on to advantage. The few roots being formed will follow the lowering water table and get good instead of harm. The deeper the roots strike the better, for the depth protects them from freezing in the winter and from drying out in the summer drouths.

Tire Prices Down

Now the Costliest Tires—No-Rim-Cut Tires Cost You No More Than Others

Goodyear No-Rim-Cut tires used to cost one-fifth more than other standard tires. The reasons are told below.

These tires, despite that extra cost, came to outsell any other. As our output grew the cost came down.

Now you pay no more for No-Rim-Cut tires than for any other standard tire. Yet notice what you get.

Rim-Cutting Ended

You save in these tires all the ruin of rim-cutting. And that's an enormous item.

We had public accountants lately gather statistics. They examined thousands of ruined clincher tires—the old-type hooked-base tires. And they found that 31.8 per cent had been discarded for rim-cutting only.

That's almost one in three.

No-Rim-Cut tires, made by a costly method which we control, end that loss completely. That we guarantee.

Save Blow-Outs

We give these tires the "On-Air Cure." That is, they are final-vulcanized on air bags shaped like inner tubes.

That's to save wrinkling the fabric.

All other tires are vulcanized on iron cores alone. The fabric often buckles. And that buckled fabric leads to countless blow-outs.

This "On-Air Cure," which we alone employ, adds to our tire cost $1,500 per day.

Save Loose Treads

We use another costly method to prevent tread separation. The rights to it cost us $50,000.

Millions of dollars have been lost to tire users through the loosening of the treads. No other tire in the world employs the effective method we use to combat it.

Yet No Extra Price

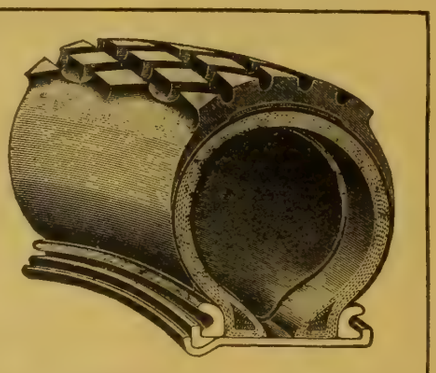
You get all these savings in No-Rim-Cut tires. All these features used by no one else. Yet no other standard tire today costs less than No-Rim-Cut tires.

The reasons are mammoth output, new factories, new equipment. In one item alone—in overhead cost—we have saved 24 per cent.

Another reason is that we keep our profits within 8½ per cent.

Judge for yourself if tires lacking these features are worth the Goodyear price.

Our dealers are everywhere.



GOODYEAR
AKRON, OHIO

No-Rim-Cut Tires

With or Without Non-Skid Treads

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Branches and Agencies in 103 Principal Cities **More Service Stations Than Any Other Tire**

We Make All Kinds of Rubber Tires, Tire Accessories and Repair Outfits

Main Canadian Office, Toronto, Ont. — Canadian Factory, Bowmanville, Ont.

Capture 751 Live Foxes.

From Edmonton, Alta, Canada, on August 3d, it was reported that seven hundred and fifty-one live foxes, valued at more than $600,000, have been trapped or dug out of their nests in the fur district north of Edmonton, since the beginning of the season. The highest price paid for a pair of black foxes is $20,000. The animals were bought by C. J. Fleming, of St. John, N. B., from a half-breed Indian trapper at Lac la Biche. T. J. McMann, of Edmonton, recently sold fifty-one fox whelps, all colors, for $26,000, to James A. Kane, of Brooklyn, N. Y., who has fox farms in New York and Pennsylvania. The exportation of live foxes has become so active in Northern Alberta that Benjamin Lawton, Chief Game Guardian, has been requested by the provincial government to recommend a closed season, the same as there is for other fur-bearing animals.

A Record Texas Train-load.

From Austin, Tex., on August 3d it was reported that a great freight train had moved from the Panhandle of Texas. This train consisted of ninety-eight loaded freight cars, and, what was the more remarkable, ninety-five of these cars were loaded with cantaloupes, there being a total of 1,277,060 melons in the train-load. Of the remaining three cars, one was loaded with wool, one with cattle and the other with merchandise. This long train was pulled by one engine from Dalhart, Tex., to Liberal, Kas., 111 miles, in five hours, including stops and delays. The track is almost straight and nearly level the entire distance.

MOST OUT OF FERTILIZERS.

How to Get It is to Manure Each Field When It is in an Arable Condition.

Recently the writer was walking over the farm of a very successful stockman, when the latter said: "Look at this field of grass that has been top-dressed for years; see what a remarkable growth of grass. You know, some of those Experiment Station men were out here and told me I ought to put all my manure into the cultivated crops to get the most out of it; but I showed them this field, and they hadn't a word to say."

But the Experiment Station men were right and this farmer was wrong. Top-dressing a field gives good results, but a large part of the manure is wasted, for all that. Only under rare conditions would the manure be washed into the soil before the sun and the rain can get at it. On some farms liquid manure is saved, and where that kind is available it is the right kind to apply as a top dressing, as it gets at once below the surface, out of the reach of wind and sun.

One of the things that science is teaching us is, that the nitrogen in the manure is constantly escaping in the form of a gas. The smell of ammonia in fermenting manure is but one of the means we have of determining this. When the manure is spread out on the land and allowed to lie for months in the summer it is continually sending out this same gas, but in such small quantities at any one time that it is not appreciated; but in the total it amounts to a big figure.

The nitrogen is the most volatile element in the manure, and on many soils it is the most important element. Therefore its loss is a serious matter. Suppose, for instance, that the field being top-dressed has a good supply of potash and of phosphorus, and that the application of the top dressing is for the purpose of adding nitrogen to the soil. The manure is spread on the field and allowed to dry and bake for months before good rains come. When the residue is washed into the soil it consists mostly of the things the soil does not need, for the other element—the important nitrogen—has gone up into the air.

If manure is to be spread and left on the fields, it should be in winter, when the rays of the sun are weakest and the temperature is so low that evaporation is at a minimum. Then the rains and the melting snows may carry much more of the nitrogen into the soil.

The rotation of crops is the friend of manure conservation, for by it is made possible the manuring of each field when it is in an arable condition. Then the manure may be spread out by the help of a manure spreader and plowed under, cultivated under, or even harrowed under, if it is sufficiently fine.

One thing should be kept in mind, and that is, that the manure should be gotten under the surface of the soil at the earliest possible moment. It can rot just as fast in the soil as above it.

Poultry manure especially loses ammonia or nitrogen very fast, and more than most kinds needs to be placed in the ground soon after it is made.

Commercial fertilizers as well as barn-yard manure need to be worked into the soil, for some of their constituents will not dissolve when on the surface of the ground. Some of these manurial elements are only set free when, in the soil, they come into contact with acids produced by decaying vegetation.

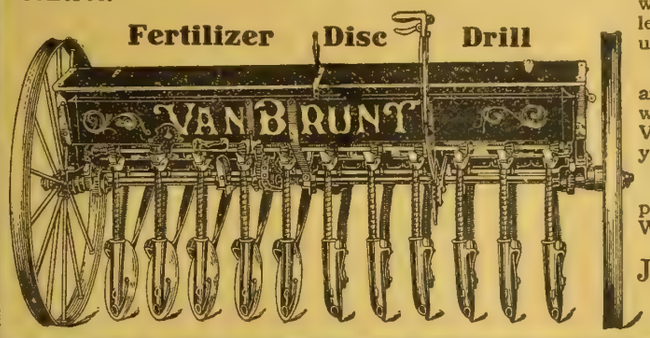
VAN BRUNT RESULTS

Fertilize as You Plant the Seed

Investigate Van Brunt Drill thoroughly before buying any drill. It has money-making features which you will surely appreciate.

It is different than others you have known, with (1) closed Forward Delivery Disc Boot, (2) Adjustable Gate Feeds, (3) Special Fertilizer Force Feed, all grain and fertilizer distributed at uniform depth with quantities under absolute control.

Fertilizer Disc Drill



What to Look Out For

Even Seeding—The Van Brunt adjustable gate feed guarantees an even flow of any kind of seed without bunching or damaging a single kernel.

Correct Planting—Disc openers will not choke or clog in any ground that can be seeded. Seed falls into the furrow when it is wide open; it beats the dirt.

Light Draft—These drills are light weight, but strong. Trussed hoppers, full length axles and wheel bearings extending under frame, make the light-draft drill.

Durability—Disc bearings are guaranteed for the life of the drill. Any that wear out, are replaced free. All parts of Van Brunt Drills show the result of fifty years experience in drill making.

Our new free drill book tells the complete story of Van Brunt superiority. Write and ask for book, No. 7 VB

JOHN DEERE PLOW CO.
MOLINE, ILLINOIS

Agriculture in Country Schools.

The teaching of agriculture must come in all schools, in city and country, but in the country it must come because it is one of the prime necessities.

There is a complaint that the teachers of country schools are generally girls who are from the city and know little or nothing of farm life.

That is, indeed, an obstacle to the right teaching of agriculture, but it is not one that cannot be overcome. In fact, it is being overcome now in some of the agricultural country schools, or country schools in which a great deal of interest is taken in agricultural instruction.

The easiest way to overcome this obstacle is to have the school under the supervision of an agricultural expert, who visits it once in a while and lays out the course in text-book agriculture. This is for the purpose of teaching some of the fundamental principles, such as the necessity for certain kinds of plant food to be present in all soils and the names of these necessary elements. Then the expert comes around once in a while to teach corn judging or some other important practice in farm work. Such experts are not generally, as yet, paid by the schools, but they will be in time. Most of them have given their work freely to the cause of education.

In some counties, Superintendents of Schools or their assistants are such experts. There is one county in which the County Superintendent and his assistants have made much of agricultural instruction and have accomplished a great deal in practical instruction in agriculture. The children have had their gardens, which have been carried on according to scientific principles.

Of course, here and there is found a country school big enough to have a well-paid man as teacher, who has himself had experience in farming and who also made a study of scientific agriculture. Such a man is in the mind of the writer. This teacher has a large school, which he led in agricultural work till the school had a state-wide reputation. In fact, the reputation gained resulted in the school losing the teacher, for he was elected County Superintendent, very largely on the strength of the splendid work he had done in teaching practical agriculture in his little country school.

Here and there women teachers in country schools have taken up the study of agriculture and introduced it into their school work. The most successful of these have been women brought up on farms. Remaining in the same schools, living in their own farm homes, which were on farms renewed by the magic of scientific agriculture, they have themselves become real experts in farming and understand the business thoroughly. These women are the hope of the one-room or two-room country schools. Well is it for the districts schools if the people of the districts where they are teaching appreciate their work enough to increase their salaries to a point where they can afford to stay. These are the teachers most to be sought for.

But the best hope comes in the way of the consolidated school which can afford to hire an agricultural expert as a teacher of agriculture and superintendent of agricultural operations carried on by the students

Not Enough Alfalfa.

There is not one acre of alfalfa in the United States where there ought to be a hundred. The first alfalfa movement of any importance was conducted by Coburn, of Kansas; the second by The National Farmer and Stock Grower. When alfalfa was just beginning to be known we sold Coburn's Book of Alfalfa, a sample pound of pure alfalfa seed and a subscription to The National Farmer and Stock Grower. We thus started alfalfa experiments on many thousand farms.

Grain of European Russia.

A cablegram dated July 23, 1913, from the International Institute of Agriculture, Rome, Italy, which has been received by the United States Department of Agriculture, gives the following estimates for European Russian production of spring wheat, 511,101,000 bushels; all barley, 530,287,000 bushels; all oats, 1,029,623,000 bushels. The estimated production, compared with last year, is, for all wheat, 26.5 per cent. more; for all barley, 16.3 per cent. more; and for all oats, 5.8 per cent. more.

Cupid as a Menace.

"Spooning couples out driving behind old Dobbin are becoming a menace to motor travel. Drivers of cars report that the country roads are unsafe, particularly on moonlight nights."—Clyde Times.

Three thousand men are at work on the grounds of the Panama-Pacific Exposition.

DRY, HOT WEATHER

has no horrors for the Spalding Deep Tilling Machine user. The 12 to 16 inches deep, well pulverized and mixed seed-bed *absorbs* all moisture falling on it and *stores* it for the crop to use when needed.

Men *in your neighborhood* know and use Spalding Deep Tillers on *your kind of land.* See what they say. Write us.

Spalding Department 88
Gale Manufacturing Company, Albion, Mich.

The National Farmer and Stock Grower.

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St. Louis a Grain-market Center.

Considerable increase in the grain-market transactions of St. Louis of recent years is on record. The principal increase, however, is in wheat, there being a nice increase of thirteen million bushels in 1913 over the previous year. A casual examination of the figures representing actual sales at all markets indicates that many more shippers of grain will find it to their advantage to send their grain to this market. The selling territory of St. Louis as a grain market is large and populous and extends southeast and northeast to the seaboard, in addition to the requirements of a great milling center.

The St. Louis Cotton Market.

An article on pages 2 and 3 relates to the St. Louis cotton market, and in addition to it we can say that St. Louis capital and St. Louis operators are handling large consignments of cotton that reach the final factory destination without coming to St. Louis. At the same time it is well to observe that the location of the center of United States cotton production is in Mississippi and is distinctly tributary to St.Louis as a market and distributing center. St. Louis receipts of cotton could be increased a million bales a year to the advantage of the shippers of the cotton.

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

We Are Strenuously Opposed to the Admission Free of Duty of Any Foreign Farm Products While Duties Remain on Any Foreign Goods.

Congress is still in session legislating on tariff matters against every interest the farmer has. We therefore consider the most important item we can publish at the present day to be our industrial policy, so far as it relates to the tariff. A bill detrimental to all American interests, especially the interests of farmers, has already passed the House and is now in the Senate. We therefore repeat our views on that question.

The National Farmer and Stock Grower is in favor of the United States Custom House collecting by law a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, the amount of said duties to be applied to the support of the national government.

By the tariff poliffcy that we advocate fully one-half the money required for the support of the national government can be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people. We are in favor of duties being levied upon all manufactured goods for the double purpose of furnishing revenue and for the protection of our manufactures, for the reason that all interests are entitled to protection, if it is accorded to anyone.

We look with seriousness at what we regard as a great and unnecessary blow to the best-producing industries of this country in the tariff bill that has passed the House. This country has had some experience in that line. Taking the duty off hides has been entirely in the interest of foreign countries and to the detriment of our own people; admitting coffee duty free enabled the formation of a South American combination that has raised the price three for one, and every time foreign goods are placed on the free list there is the same result.

With moderate import duties received by the United States on various products as now collected the total that is covered into the United States treasury is over three hundreds of millions of dollars a year; and if not collected that way will have to be collected by direct taxes upon our own productions. The foreign goods admitted free of duty displace home productions and result in higher prices to the American consumer and higher taxation also upon our own products to make up the lost revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he supports. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm production should pay a duty at the front door as the goods are admitted, in compensation for the taxes we have to pay on our own. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country is far better off without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next, but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and general discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers. The farmers who can provide for themselves will be slow to increase their products in the face of injurious legislation that as it now stands is worse than the bogus proposition which the Canadians turned down.

The Beef Supply.

The beef supply is a little short and prices are tolerably high upon the market, but the principal cause for high-priced beef as it is placed upon the dinner table in restaurant, hotel or family is not due so much to the price received by the farmer as it is to the extravagtnt margins collected on each step of the way from the stock yard sale by way of the wholesaler, retailer, the hotel or restaurant keeper.

It is a common thing now to charge $1.50 to $1.75 for steaks that formerly were on the bill of fare at 60 to 75 cents, with considerable deterioration on the steak. Although it is notorious that mutton is cheap (it requires good sheep to sell at 4½ cents a pound on foot) mutton is sold just as high as beef, with the single, solitary exception of a restaurant in Chicago that is often frequented by sheep raisers, and there they would not stand for it.

On the basis that meat is selling at retail to consumers, prime native cattle, 1,400 pounds average and fat, ought to be selling at 15 cents a pound at Chicago or St. Louis; yearlings at 10 to 12 cents a pound; and mutton sheep ought to be selling at 8 to 10 cents a pound. More cattle have been marketed this year than last, and there is nothing but the desires of interested parties to justify the continuous claptrap about the famine in beef.

Kansas City, where cattle have been driven in by drouth, has only received a fair increase over last year, and the drouth-driven cattle are being shipped out again to Missouri, Indiana, Illinois, Ohio and other states, to be fed and fattened for sale next winter and spring.

If cattle, sheep and hogs are to sell any higher in the cities, there is a great, big advance coming to the stock farmer who is not getting his share of the money.

On September 1st, Chicago, St. Louis and Kansas City received a combined total of 60,000 head of cattle, and the highest price was $8.70 per 100 pounds. First-class hogs sold at $8.50, and good sheep at $4.00 per 100 pounds. These are not famine prices.

MONEY FOR FARM LOANS.

Postal Savings Banks Deposits Ought to be Used For the Purpose of Making Loans to Farmers on the Security of Their Lands and on Other Securities to Co-operative Associations of Farmers.

For several months The National Farmer and Stock Grower has published in its columns a petition addressed to the President and Congress for the purpose of securing to farmers the use of the deposits received by the postal savings banks, the same to be loaned by the government either direct to farmers or through the banks upon approved security at low rates of interest.

The petition is not in this paper, but we have a large number printed and will be glad to send some of them wherever a few signatures can be obtained.

We receive some of these petitions, duly signed, in every mail, but we are not receiving one-tenth the number we ought to receive. In writing for copies of the petition, address Philip H. Hale, Editor, 3550 Vista Ave., St. Louis, Mo.

Missouri Stock-judging Contest.

The annal live stock judging contest, held at the Missouri State Fair, will commence Monday morning, September 29th, at eight o'clock.

The Missouri State Fair offers fifteen cash prizes, amounting to $1,75, and a $50 Short Course Scholarship at the Missouri Agricultural College for proficiency in judging horses and mules, beef cattle, dairy cattle, swine and sheep. Any Missouri farmer's son under twenty-five years of age, who has never engaged in a stock-judging contest of interstate or international nature during any previous year, is eligible. Application for entry should be made at once to Secretary John T. Stinson, Sedalia, Mo. Entries close September 17th. (Signed) H. O. Allison, Superintendent Stock-judging Contest.

AGENTS WANTED.

YOUNG MAN, would you accept and wear a fine tailor made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use $5 a day for a little spare time? Perhaps we can offer you a steady job? Write at once and get beautiful samples, styles and this wonderful offer. Banner Tailoring Co., Dept. 499, Chicago.

FARM AND RANCH LANDS.

ALABAMA.—Fertile prairie land near railroad town. Good for all kinds of farming, and finest of stock countries. Buy from owner and save commission. State number acres wanted. **D. Vaughan,** Catherine, Ala.

ARKANSAS FARMS.—Write for Homeseekers' Guide and large list of bargains. **L. E. Moore,** Searcy, Ark.

MISSOURI.—Improved farm of 40 acres on phone line. New land and a bargain at $700. **W. H. Spencer,** Bakersfield, Mo.

TEXAS.—Wanted, one thousand (1,000) white families to settle in Harrison county. Fine lands cheap. Plenty rainfall, timber, railroads, rural routes, churches and schools. For information, write **Young Men's Business Club,** Marshall, Texas.

TEXAS.—320 acres improved black land. Farm near Georgetown, in Williamson county. Part pasture. **F. L. Loggins,** 119½ East 6th Street, Austin, Texas.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Bldg., Chicago.**

FARM LABOR DEPARTMENT.

WANTED.—An energetic man and wife on 150-acre farm, to take charge either on shares or salary. Farm is one of the best equipped in the state. Land has produced good results and is located in the heathiest spot in Missouri. **T. A. Conrad,** Arcadia, Mo.

Three Indian Dolls For 30c.

And a year's subscription to the Universal Magazine. These dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—THE PRINCESS TAMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. The Universal Magazine is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry— a splendid publication.

Send us thirty (30) cents for one-year's subscription to the Universal Magazine and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

WHEAT HARVESTS.

A World's Crop and the Amount That is Harvested in Each Month of the Year.

"How much of the world's wheat crop is harvested each month of the year?" was asked recently of the Bureau of Statistics of the Department of Agriculture.

To answer this question estimates have been made based upon the average production in recent years and the usual progress of harvesting operations in the various countries of the world. These showed the following percentages: January, 5 per cent.; February, 1 per cent.; March, 3 per cent.; April, 7 per cent.; May, 4 per cent.; June, 15 per cent.; July, 34 per cent.; August, 26 per cent.; September, 2 per cent.; October and November combined, less than 1 per cent.; and December, 3 per cent.

In the United States, about 19 per cent. of the crop is harvested in June, 46 per cent. in July, and 35 per cent. in August.

From these estimates it would appear that almost no wheat is harvested in October and November, and that the world harvest season really begins in December, when operations start in Australia and South America, enlarge in January, and are practically finished in February. Operations begin in February in India, and increase in activity through March to April. In April operations begin in such countries as Persia, Asia Minor and Mexico. The falling off in May is due to the nearness to completion of the Indian harvest, and the season's crossing the Mediterranean from North Africa to Southern Europe, where harvest does not become active until June. In June, July and August about 75 per cent. of the crop is harvested. The season progresses steadily northward during these months. By September harvest operations are nearly completed. Scotland, Northern Russia, Siberia and Canada do a little harvesting in August. Practically no harvesting is done in October.

If the world wheat crop be regarded as about 3,600,000,000 bushels, the estimates above would indicate that about 108,000,000 bushels are harvested in December, 180,000,000 in January, 36,000,000 in February, 108,000,000 in March, 252,000,000 in April, 144,000,000 in May, 540,000,000 in June, 1,224,000,000 in July, 936,000,000 in August; 72,000,000 in September. Of course, the percentages and quantities will shift slightly from year to year, as the seasons are early or late and as production in a particular latitude is large or small. The above estimate, however, may be regarded as fairly typical.

ST. LOUIS AS A HAY MARKET.

Average Receipts a Quarter of a Million Tons a Year—A First-class Distributing Center.

In the year 1912 St. Louis received, consumed and distributed a total of 246,443 tons of hay, and it would not be at all surprising if St. Louis was recognized as the greatest and best distributing center for hay in the country. Hay is bulky and naturally ought to seek a near market, but St. Louis receives hay from a wider territory than most large markets. St. Louis has received 298,246 tons of hay in one year, which is more than Chicago received last year and only a few tons less that Kansas City.

The railroads usually bringing the larger quantities of hay to St. Louis market in the order named are: C., B. & Q.; Wabash; C. & A.; Mo. Pacific; Frisco; M., K. & T., and the Big Four.

In order to give a fair idea of prices paid in St. Louis we hereby include the sales which took place on the last day of the month of August, 1913. Sales on the St. Louis Side: Clover-mixed—One car No. 2 heavy mixed at $14; one car No. 2 at $15; one car No. 2 at $15.50; three cars and part car No. 1 at $16; one car No. 1 at $16.50; four cars good No. 1 light mixed at $17; one car choice do. at $17.50. Timothy—One car threshed at $13; one car do. at $14; part car scant No. 2 at $14.50; part car No. 2 at $15; one car No. 2 at $16; three cars do. at $16.50; two cars scant No. 1 at $17; three cars No. 1 at $18; four cars do. at $18.50; one car high No. 1 at $19. Prairie—One car poor (Arkansas) at $11; one car weedy at $12.50; one car No. 1 (Arkansas) at $13; two cars scant No. 2 at $13; part car No. 2 at $14; three cars No. 2 at $14.50; part car No. 2 at $15; one car choice at $17.50. Clover—One car No. 1 at $16. Alfalfa—One car No. 2 at $15; one car No. 1 at $17.50. On the East Side: Timothy—One car old No. 1 at $19. Clover—One car No. 1 at $16.

Be Sure You Get What You Pay For

There's more fraud in shoes than in almost any other article you wear.

Nearly 90% of all shoes retailed for less than $4.00 have paper, composition, or other substitutes for leather in the heels, soles, and counters.

These substitutes are hidden where you can't see them. You can't detect the adulteration until you wear the shoes and find them unsatisfactory.

You may have an old pair of shoes with run-down heels, counters broken down, or the outer sole ripped off. Cut them up and you will probably find them "adulterated".

The only reason why any manufacturer uses substitutes for leather is that they are cheaper than leather. They mean larger profits for him because you pay leather prices for the shoes.

Nothing can take the place of good leather for making comfortable and serviceable shoes. You want leather shoes. Be sure you get what you pay for.

★ ★

To be on the safe side always ask for and insist upon having "Star Brand" shoes with our name on the sole and our star on the heel.

"Star Brand" is the largest selling brand of shoes in the world—over seven million people wear them.

We have built up this vast business—23 big factories employing 10,000 people—in only fifteen years, simply by making "Star Brand" shoes of good honest leather.

If "Star Brand" shoes were not better than other shoes, we could not have grown from a small start to a business of over $15,000,000 a year, outstripping all other shoe makers in this short time.

We make more shoes than any other shoemaker. Our cost per pair is less. It costs us less to sell them. We give you more for your money than you can get in any other shoe.

★ ★

The "Patriot", our fine dress shoe for men, is made in 50 different styles at $4.50 to $5.00. As good a shoe in other brands would cost you $1.00 more.

The "Society", our beautiful dress shoe for women, is made in many styles and sold at $3.50 to $4.00. It is better than many other shoes sold at $5.00.

The "Stronger-Than-The-Law", our heavy work shoe, is the strongest and longest wearing shoe made. Its value has never been equalled. Made for men, women and children.

The "Soft and Good", a fine welt work shoe for men—soft as a glove. A long wearing, medium weight shoe at $3.50 to $4.00. This shoe has no competitors.

"Tess and Ted" school shoes are made in many styles for girls and boys. They cannot be duplicated for good looks and long wear.

Bear in mind that there are several different forms of stars used in trade-marks. The genuine "Star Brand" shoe has our name on the sole and our star on the heel.

Made in 750 different styles, sold by 20,000 good merchants. Don't just go into any store, but look up the "Star Brand" dealer. Get a pair and learn why

"Star Brand Shoes Are Better"

The "Our Family" shoe is made of fine box calf and gun metal leathers. Several styles, all sizes for every member of the family.

Last year 646,448 people bought this famous shoe. The two styles here illustrated will show the honest leather construction of the "Our Family" and all other "Star Brand" shoes.

Every "Star Brand" merchant has one of these shoes cut up to prove its honest construction. Go and see it.

The "Our Family" sells at prices ranging from $1.35 for the children up to $3.50 for men. It is a good looking, medium weight shoe—for every day or Sunday.

★ ★

All the above are "Star Brand" shoes with our name on the sole and our star on the heel. Every pair is made of good leather. We do not use substitutes for leather.

During the last six months Pure Shoe Bills have been introduced into Congress and several states, requiring that when substitutes for leather are used the fact must be stamped on the sole.

Many manufacturers and a few merchants are bitterly fighting these bills. From the start we have freely and openly endorsed these bills. We believe in this legislation because it gives you a square deal.

Our business has been built up on honest leather construction. We believe that this is one reason why we have grown so rapidly. If substitutes for leather were better than leather there would be lots of other shoe makers larger than we are.

★ ★

Ask YOUR dealer if he is in favor of a Pure Shoe law. Every "Star Brand" merchant believes in this great movement for pure leather shoes just as we do, because it insures that the wearer gets what he pays for.

The Oldfield Pure Shoe Bill now pending in Congress should be enacted into a law. The victory should be made complete, because it is a good law. Write your Senator and Congressman and urge them to vote for it.

Very soon you will buy your Fall and Winter shoes. Be sure you get the genuine "Star Brand" shoes.

On every heel

ROBERTS, JOHNSON & RAND
MANUFACTURERS Branch of International Shoe Co. ST. LOUIS

Deep Tilling and Drouth.

If dry-farming methods were applied all over the United States the crops would surely be larger, and the foundation of dry farming is deep tillage. Deep tillage used to be done by two operations, whereas to-day it requires but one, and that one operation prepares a seed-bed that holds the moisture twelve to sixteen inches deep. On many farms the subsoil has never contributed anything towards growing the crops. To such places deep tilling is like finding a new farm. Write to Spaulding Department 88, Gale Mfg. Co., Albion, Mich., for catalogue of deep-tilling machines.

Pay No More Than Witte's Price

Get my latest **Reduced Factory Prices**, and my great **new Free Book** before you buy any engine. **Be your own dealer**, and make all middlemen's profits. I quote you **direct, under** all other good engines and save you half the usual prices.

WITTE Engines

GASOLINE, GAS, AND KEROSENE

54 styles and sizes, 1½ to 40 H.P. Standard for 27 years. Recommended by users in all parts of the world. Use kerosene and other low grade fuels, besides gasoline and gas. Cheaper power. No watching. **No Cranking to Start.** Electric apparatus insures easy starting. Continuous running, summer or winter, day and night, if necessary.

New Book FREE by Return Mail.

ED. H. WITTE, WITTE IRON WORKS CO., 1728 Oakland Avenue, Kansas City, Mo.

60 Days Free Trial

5 Year Guaranty

THE MILK CLARIFIER.

A New Invention Now on Sale to Suit Milk Producers and Dairy Farmers.

It is only recently that the De Laval Cream Separator Company has placed on the market a milk clarifier in sufficient number of sizes to be used to advantage in the largest milk-distributing plant or in the smallest dairy. The De Laval Milk Clarifiers are for use in dairies where the whole milk is sold without separating the cream. The action of the clarifier is directly opposite that of the separator; the butter-fat is not separated by the clarifying process; there is no interference with the cream line; the milk may be run and clarified at any temperature. The larger milk distributers to the number of a thousand have already put in these clarifiers and first-class country dairy farms are also adopting it as the best, quickest and most economical means of putting a perfectly pure and cleanly milk product on the market. Our readers should also read an article in this paper on the absolute necessity for cleanliness in milk production and then write to the De Laval Cream Separator Company, 165 Broadway, New York, and ask for a catalogue of the farm sizes of milk clarifiers recommended by The National Farmer and Stock Grower.

Cost of Making a Pound of Butter.

"From an investigation of the annual report for 1912 of seventeen creameries operating in Wisconsin, Michigan and Minnesota we find that the average cost of making a pound of butter is 2.07 cents. In the same way we find that the average cost in in all the creameries in a single county in Michigan in 1911 was 2.11 cents. This includes fifteen creameries. The greatest variation was from 3.5 cents in a small creamery to 1.1 cents in a creamery making over 500,000 pounds of butter a year. The cost includes salaries, supplies and all operating expenses of the creamery. It does not include dividends, new machinery, or what is ordinarily included in the sinking fund.

"The size of the creamery has a great deal to do with the cost per pound of butter. Putting the two groups together we find that in five creameries making less than 100,000 pounds per year the cost was 2.7 cents; in ten making between 100,000 pounds and 200,000 pounds the cost was 1.99 cents; and in fifteen, making over 200,000 pounds, the cost was 1.28 cents. The type of creamery does not seem to influence the cost yearly.

"The creameries were all of the co-operative kind, and would represent average management. From these figures the approximate operating expenses of the creamery can be obtained. They should throw light on the price the dairyman should receive for butter-fat."—G. A. Gilbert, Colorado Agricultural College, Fort Collins, Colo.

The Making of the Dairy Cow.

"The best forecast of the future dairy cow is the number of pounds of feed received from weaning time until two years of age. The ration between the productive capacity of the cow and the care given her during the growing period is quite constant. Constitution and capacity can only be gotten by supplying the necessary building requirements. Large, strong cows are the results of care while heifers. The dairyman must be both a breeder and feeder. Improper feeding defeats the very object sought by breeding. The dairy cow is a highly-specialized animal, and, like all specialized animals, there is a tendency toward reversion, this tendency increasing with the more highly developed and improved animal. Scant feeding causes as rapid reversion toward the unimproved type as does careless breeding.

"The animal must adapt itself to its surroundings,, and reversion is no more than adaptation; so if the food supply is not sufficient the greatest development, which means the greatest efficiency, is not possible."—W. A. Barr, United States Division of Dairying, Colorado Agricultural College.

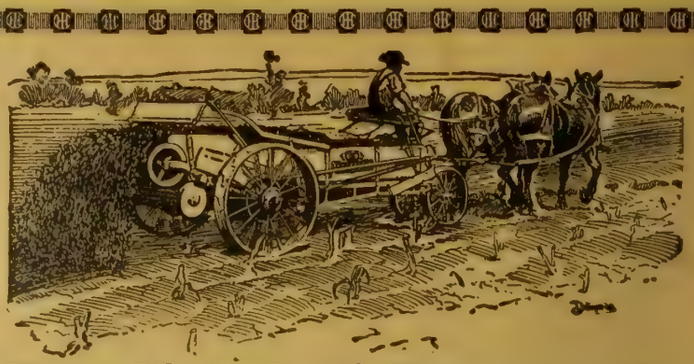
SEPARATOR CREAM.

Selling Whole Milk and Only Selling Cream—A Woman With a Few Cows.

Statistics state that 60 per cent. of the milk as it arrives in the cities from the farms is below standard in quality. This is a leakage large enough to attract attention, and it certainly should find its remedy. This is due in part to improperly-constructed and kept stables, and to carelessness of milkers. But more than any other single defect will doubtless prove that of caring for the milk.

The hand cream separator solves this difficulty more quickly and effectually than any other plan. Do you lack ice, the comparatively small amount of cream may be kept cool easily. It is sent to the factory in the light wagon instead of being compelled to rattle along slowly in the heavy milk wagon. Instead of sending whole milk to the city, send the cream to the factory.

It is uniform in quality, and the man who buys cream of you is certain to get about the same grade from day to day, no matter whether it is warm or cool. There need be no apology that there is little more milk with it "because the cream does not rise so quickly on warm nights." The cream gauge fixes this mechanically. It may be thick or thin, as the requirement of the market dictates or permits. It is bound to be rich, for all of the fat in the milk is withdrawn. And it must be free from all foreign particles, as those who have strained and separated milk well know. In fact, having once washed the various parts of a separator and seen the refuse which is removed in the process, one cannot but have a very decided preference for separated milk, from the sanitary point of view. It is no wonder that the butter has a better flavor, as it certainly has, or that the velvety-separated cream, sweet and rich, is in greater demand by all who have given it a trial. A small farmer with a few cows can often find a better market for cream alone than for the whole milk.—Bessie L. Putnam.



Best-Hated of Farm Tasks

ON the spreaderless farm the thought of the great heaps of manure piling up constantly in barn yards, stables, and stalls, is a gloomy one. Those piles mean much disagreeable and hard work. Three times every bit must be handled. It must all be loaded onto high wagons. It must be raked off in piles in the fields. Then every forkful must be shaken apart and spread.

Compare that old-fashioned method with the spreader way. You pitch the manure into the spreader box, only waist high, drive out and —the machine does all the rest.

And, far more important, if you buy an I H C spreader one ton of manure will go as far as two tons spread by hand, with the same good effect on the soil, and it will all be spread evenly.

I H C Manure Spreaders

are farm necessities. The man who uses one will get the price of it back in increased crops before its newness has worn off.

I H C spreaders are constructed according to plans in which every detail, every feature, is made to count. They are built to do best work under all circumstances, and to stand every strain for years. They are made in all styles and sizes, for small farms and large, low and high machines, frames of braced and trussed steel. Uphill or down, or on the level, the apron drive assures even spreading, and the covering of corners is assured by rear axle differentials. In all styles the rear axle is placed so that it carries near three-fourths of the load. This, with the wide-rimmed wheels with Z-shaped lugs, makes for plenty of tractive power. Winding of the beater is prevented by large diameter and the beater teeth are long, strong and chisel pointed.

A thorough examination of the I H C spreader line, at the store of the local dealer who sells them, will interest you. Have him show you all these points and many more. Study the catalogues you can get from him, or, write the

International Harvester Company of America
(Incorporated)
Chicago U S A

New Market at St. Louis.

Near Grand avenue and Olive street, St. Louis, Mo., there is to be established a central market for the sale of farmers' products, principally vegetables, fruits and poultry, from farm wagons. About 400 farmers and gardeners have agreed to occupy stalls, which will cost $35 to $50 per year. It is expected that the market house will cost $450,000 and be ready for occupancy by January 1st, 1914. The movement is under the auspices of the St. Louis County Farm and Market Bureau.

The Cost of Bad Roads.

A farmer in Sullivan county, Tennessee, a few miles from Bristol, had 100 bushels of Irish potatoes which he intended to market during the winter of 1907-08. Owing to bad roads he was unable to haul the potatoes at all, and they rotted in the cellar. Nevertheless, the price of potatoes at Bristol went as high as $1.40 per bushel in the meantime. A Bristol merchant stated that during the winter as many as ten car-loads of farm produce, including wheat, potatoes and other supplies, were daily shipped in to feed not only Bristol, but the adjacent territory. This statement is by authority of the United States Department of Agriculture.

Moisture in Export Butter.

From our Australian exchanges we find statements in regard to the moisture content of butter. During the past seven years 13,193 samples were analyzed. The average moisture content was 13.84. Only 2.55 per cent. were over 16 per cent. moisture. The report states: "There was a great deal of controversy as to the maximum moisture that should be allowed in butter. While the maximum allowed was 16 per cent., the average moisture was 13.44 per cent. for 1907-08; 13.97 per cent. in 1909-10; and 13.82 per cent. in 1910-11. In 1911-12 the average was 13.91 per cent., although the maximum permitted had been reduced to 15 per cent."

Book of Champions on page 31.

The Fence That STANDS Tight and Trim The Whole Year Round

—and Why (15)

Every farmer knows that a fence which will stay tight and trim through summer and winter must be built to give and take. It must be made of tough, springy wire, and in such a way that in contracting and expanding it will take up as much as it gives out.

There are several reasons why

"Square Deal" Fence

Stays Tight and Trim the Year 'Round

FIRST: Note that the strand wires are wavy. This gives the fence *elasticity*—its give and take—*keeps it tight* summer and winter.

SECOND: The Stay Wires are *one-piece* from the top wire to bottom one, forming the backbone of the fence, which stiffen and support it, absolutely preventing sagging and bagging.

THIRD: Note the *SQUARE DEAL LOCK* which double-grips the wires so tightly they cannot possibly slip. It is one of the most important parts of a wire fence.

We use the toughest, strongest wire—draw it, anneal it, galvanize it in our own mills; then weave it into Square Deal Fence. We know how it is made—the kind of material that's in it—stand back of it with our Square Deal Guarantee, which insures every purchaser a Square Deal and perfect satisfaction.

FREE—Write for Catalog, Prices and Ropp's Lightning Calculator

We want you to know more about this "honor built" fence. Our catalog tells the story. If you will write for a copy we will send you FREE, a regular 50c copy of Ropp's New Lightning Calculator, the greatest money, time and labor-saving work for farmers and others, ever used in the business world.

THE KEYSTONE STEEL AND WIRE CO. 5515 Industrial Street PEORIA, ILLINOIS

KEEPING MILK SWEET.

Nothing Better Than Absolute Cleanliness—A Paris Exposition Incident—Reflections on the Subject.

The time that milk can be kept sweet regulates to a large extent its value for the whole milk trade and partly regulates its value for the cream trade. Sour cream, however, can be utilized in many cases where sour milk cannot be utilized. All kinds of preservatives have been tried on milk, some of them harmful and some of them not. Cold and heat have both been extensively employed. But up to the present time nothing has been found to equal absolute cleanliness, and the inventors will make progress faster by working along this line than any other. If ways can be found to draw the milk from the cow so that the milk will be perfectly free from dirt and microbes of all kinds, a great step will have been made in advance. Many trials have been made to show the effect of this perfect cleanliness.

During the World's Fair held in Paris in 1900, the people in attendance found that it was difficult to get milk that was sweet. Milk produced outside of the city and brought in the same day was sour by night. This does not speak well for the cleanliness of the Parisian dairies. In the middle of the summer, in the hottest weather, good milk was served to many people, and they were astonished to learn that the milk had been drawn from cows seventeen days before in Illinois, and that it had come four thousand miles in an ice chest; that it had not been pasteurized, and that it had in it no chemical preservative.

The only reason for the milk being sweet was a combination of circumstances under which it had been drawn and kept. The cows that gave it were healthy, vigorous cows, and had been fed on good silage and ground grain. Their udders had been washed before the men began to milk, and the floors of the stable had been made clean with water from a hose, so that no dust was floating in the air before the milk was drawn. No hay was in the stable when the cows were being milked, for that might have cast off particles of dust. In fact, no dust was in the stable anywhere, either in a corner or on the rafters overhead. A sunbeam streaming through an aperture would have shown almost no dust floating in the air. The men that milked the cows had on clean duck suits, and they had just washed their hands, so that no particles of dust could come from their hands as they pressed the teats of the cows. The pails into which they milked were partly covered with a metal top, and the rest of the aperture was covered by two pieces of muslin, between which was some absorbent cotton. The first milk from the teats was thrown away, so that the bacteria in the orifice of the teats would not get into the milk that was to be sent abroad. Then the streams of clean milk fell from clean teats under the pressure of clean hands into a clean pail, protected as completely as it was possible to protect anything. This milk was put without straining into receptacles that had been sterilized and was then sealed hermetically. It was not till eighteen days after that acidity began to develop in the milk.

A great many trials have made, first and last, to ascertain how long perfectly pure milk would keep. A Belgian experimenter has recently produced milk that kept sweet for twenty days at a temperature near 60, and he had in it no preservative. Other European experimenters have drawn milk under conditions and kept it under a low temperature in which it kept sweet for thirty days.

It is extremely difficult to obtain milk in such a condition that some bacteria will not get in from the air. Possibly, if cows kept on the high Alps in winter were milked out of doors the conditions would be favorable for securing milk without germs, as snow and ice covering the whole country should deprive the air of even the few germs that float in that high atmosphere in summer. It would be interesting to know how long milk with not a single germ in it would keep.

RENOVATING OLD FURNITURE.

An Article Worth Reading For Those Who Have More Time Than Money.

It takes some courage to undertake work that properly belongs to a "professional," no matter in what line it may be be: but nothing venture nothing gain, was my thought when we decided that several misfits should be made to conform to our color scheme in furniture.

When golden oak was in fashion, we bought several pieces, some of which in spite of the lapse of years were as good as new, being substantial and well made of beautifully-marked grain and the wood was not marred at all, the finish alone being the worse for wear and the color also objectionable.

The first step was to remove what remained of the varnish or other coating and get down to the bare wood. This was done with a paint remover bought at a paint store. The directions said to use a broad-bladed putty-knife to scrape off the finish after brushing the remover well over the surface, but we found that we could do much more effective work with a rag, discarding it as soon as it became sticky from the paint or varnish adhering.

The first article made new was a large, old-fashioned sideboard, and its plain surface was a delight to work on. Except for some turned uprights that supported a mirror, and for grooved columns at the front of the ends, there were nothing but plain surfaces. To make the grooves clean without marring or scratching the surface, we used orange sticks, such as are used for cleaning the finger nails, and they worked as a charm.

Further directions on the can said when the finish was all removed to use benzine to wash the whole surface to be redecorated. We used gasoline instead, which is cheaper and does the work. The next thing was to set the proper stain to match our other furniture. Consulting the color card, we found that antique oak was what we wanted, and we put on two coats before we got the desired shade and followed this when dry with a finish that lacked the objectionable gloss of varnish. This, too, is a proprietary article that is handled by all paint dealers.

We got new knobs and the other trimmings and we have a beautiful, serviceable addition to our dining room at a cost of five dollars in money and a little work at odd times, when the time did not have a cash value. Before undertaking this renovating we had a call from a firm doing such work, the solicitor estimating the value of complete renovation at fifteen dollars, and this was what set us to thinking that as we had more time than money we might try our own hand at it.

A roll-top desk and a library table were the next we tried our hands on and they are like new. Both these were golden oak like the sideboard; so we went through the same process as described. We had three rockers and an arm chair that the finish had been literally cooked on by use in very hot weather, and as these were the color we desired, they did not need any stain when the outside finish was taken off, and all they needed was the finishing coat like we gave the other pieces.

When we clean house we will have some nice "new" furniture that has cost very little in comparison with what a dealer would ask for something as good, and we have the satisfaction of putting new life into what was an eyesore. There are few homes that do not have discarded furniture that would be far handsomer than new, unless the new is expensive, if some pains were taken to repair the ravages of time, and the greatest outlay is labor.

I neglected to say that a bruise in the table was repaired by laying a wet cloth—a piece of felt—on the place and putting the edge of a hot flatiron on the felt. This brought out the dent. Another help in smoothing the surface and taking off rough places was sandpaper No. 1. This is fine and does not cut the wood, but makes it as smooth as glass.—Cora S. Cornman.

DE LAVAL CREAM SEPARATORS

Make Fall and Winter Dairying More Profitable

THERE are special advantages in using a good cream separator during the fall and winter months.

The milk from cows long in lactation is hardest to cream,—and likewise hardest to separate with an inferior separator.

Moreover, cream and butter prices are highest, so that the waste of gravity setting or a poor separator counts for most.

Then there's the sweet, warm skim-milk for stock feeding, alone worth the cost of a separator in cold weather.

There is surely no reason to delay the purchase of a separator or to continue the use of an inferior one. A De Laval machine will save its cost by spring, and may be bought on such liberal terms if desired as to actually pay for itself meanwhile.

See your local De Laval agent.

THE DE LAVAL SEPARATOR CO.
NEW YORK
CHICAGO
SAN FRANCISCO
SEATTLE
MONTREAL
WINNIPEG

The National Dairy Show.

The National Dairy Show at Chicago will be open October 23d and will close on November 1st.

ALFALFA.

SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.
EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. SCHISLER GRAIN CO.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

ST. LOUIS AS A WHEAT MARKET.

More Activity in Trade and Larger Receipts Than in Former Yers.

On August 30th, cash wheat, No. 2 red, was selling at 89 to 92½ cents a bushel on the St. Louis market, against 83¾ to 85 cents on July 31st.

On August 30th, at St. Louis, cash wheat, No. 2 hard, was selling at 85½ to 90 cents a bushel, against 83¼ to 90 cents on July 31st.

The figures we have given are for cash transactions for grain delivered on track, and represent sales as near direct from the producer to the consumer as can be done under the present market system.

Leaving the St. Louis cash market for the so-called speculative market, we will go to Chicago, and find that prices are very little changed.

The September Chicago wheat option was quoted at 90 cents a bushel on June 30th; was reduced to 86 cents by July 31st, and at the close of the market, August 30th, the September wheat option was quoted at 85⅞ cents. The September option has thirty days to run before deliveries are made.

The December wheat option is the next following September in the quotations. On June 30th the quotation was 93⅛ cents; on July 31st the quotation was 89⅞ cents; and on August 30th the closing quotation for wheat was 89⅝ cents.

Thus we are shown the prospects of the Chicago wheat market up to December 31st, 1913, as the trade understands it.

A jump from the December quotation to another quotation that matures on the last day of May, 1914, is a very long jump, but those who buy and sell grain are used to it. Intelligent consideration of the May option requires some light upon the next year's crop outlook, but that is not safe ground to speculate upon at present, yet trading in wheat for May delivery is in the regular order of business, just as much as it is in fashion now for a merchant to order straw hats for spring delivery

On July 31st, at Chicago, the May, 1914, wheat option was quoted at 95⅛ cents, and on August 30th, on the close of the day, the quotation stood at 94½ cents. Thus we see that wheat is cheap and out of the prices quoted freight and market charges have to be deducted.

Wheat receipts in St. Louis in August, 1913, amounted to 4,353,633 bushels, compared to 5,455,290 bushels the previous month, 8,288,393 bushels in August, 1912, and 1,752,318 bushels in 1911. Total since July 1st, 1913, reported at 9,808,923 bushels, compared to 12,373,254 bushels same time last year; local elevator stocks now 2,697,116 bushels, compared to 2,596,371 bushels a year ago.

The Warmest August.

The month just passed was the warmest August since 1900, and one of the warmest on record in and around St. Louis.

There were twenty-two days with a maximum temperature of 90 degrees or above and five days with a maximum of 100 degrees or above. On twenty days the minimum for each twenty-four-hour period was 70 degrees or above.

The highest temperature during the month was 102 degrees, on the 6th. The absolute maximum recorded for August is 106 degrees, to which point the mercury climbed August 12, 1881. The maximum for August last year was 96 degrees.

The lowest temperature during the month was 61 degrees, on the 23d, and the absolute minimum for August in St. Louis is 45 degrees, the record established August 30, 1863. The minimum for August, last year, was 55 degrees.

The mean maximum temperature for the month was 93.6 degrees. The mean maximum temperature last year was only 85.7 degrees. The mean temperature for the entire month was 82.9 degrees, while last year it was 76.8 degrees.

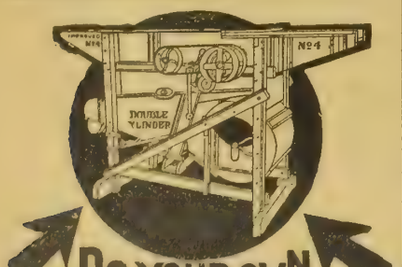
The total precipitation for the month was 1.65 inches, while the normal rainfall for the month for the last forty years has been 2.66 inches.

There were eighteen clear days, ten partly cloudy and three cloudy.

Alsike Clover For Hay.

A Tennessee correspondent says he has never been very successful in growing red clover, and asks if alsike would do better, and if it makes good hay.

Unfortunately, clover blight is fatal to clover in some regions in Tennessee, and other clovers and grasses must be used for both hay and pasture. Alsike clover is hardy and it makes good feed. It will grow in some situations where common red will not grow. I advise this correspondent to make a litmus test to ascertain whether his ground is acid or not. Then I should not sow clover alone. A good combination for either meadow or pasture is four pounds alsike, five pounds orchard grass and five pounds red top. Alfalfa is doing well in some sections of Tennessee, and, where clover is a failure, it is worth trying.



DO YOUR OWN THRESHING

of beans and peas with a guaranteed Owens Thresher. All your seed separated and cleaned from the vines and pods without splitting. Pea and bean growing is the most profitable farming if handled right.

OWENS DOUBLE CYLINDER
Bean and Pea Thresher
—Made in 4 sizes—

Will pay for itself many times over in one season. Guaranteed not to split the seed and take all from the vines.

FREE BOOK

Send for our free book of valuable information about bean and pea culture. Illustrations and description of our machines. Facts and figures showing results obtained by users of our Hullers—write today.

J. L. Owens Company
Chamber of Commerce Bldg.
Minneapolis, Minnesota.

Big Arkansas Farm Sold.

Judge Robert M. Foster, of St. Louis, has sold to B. L. Willey, of Pine Bluff, Mo., the Gilliland plantation near Altheimer at a consideration of $75,000. The place comprises 2,587 acres, 1,800 of which are in cultivation.

First Missouri Cotton In.

The Senter Commission Company received the first bale of new cotton produced in Missouri this year on August 29th. It was shipped by G. B. Garrett, of Caruthersville, and grades a full style of middling. The bale was sold to George S. Tiffany & Co. for 15 cents a pound. This is at a premium of two cents a pound.

MASTERS OF THE WORLD.

"Simple words, short maxims, homely truths, old sayings, are the masters of the world. Great reformations, great revolutions in society, great eras in human progress and improvement and reform start from good words, right words, sound words, spoken in the fitting time and finding their way to human hearts easily as the birds find their homes."—D. March.

... GREATEST ...

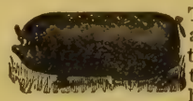
Subscription Proposition.

Co-operative Clubbing Arrangement.

Four Great Papers . . For One Year . . . . . For Only One Dollar.

FOUR STERLING, UP-TO-DATE SPECIAL FARM PAPERS.

THE NATIONAL FARMER AND STOCK GROWER—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.



THE AMERICAN SWINEHERD—issued monthly—a leader in its class. The hog paper, the pig paper, the brood-sow paper and strictly first-class in teaching how to top the market by producing top hogs.

THE SHEPHERDS' JOURNAL is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

THE RELIABLE POULTRY JOURNAL—the largest, best and most elegant poultry journal issued in the United States. Great on breeding points, and splendid articles on raising, feeding and shipping poultry. THE RELIABLE POULTRY JOURNAL is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of Poultry Husbandry and retain the peculiar quality of being good instructors. You gain something every time you read THE RELIABLE POULTRY JOURNAL.

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Horse Owners Take No Chances

When they use **FRAZIER'S DISTEMPER CURE.** We guarantee the first bottle sold to give satisfaction in all cases of Distemper, Influenza, Pink-Eye, Epizootic, Coughs and Colds. $1 size bottle holds three 50c. size bottles. (Just two ounces more than any $1 size distemper cure on the market). Send for free horse booklet. Sold by all druggists and harness houses, or prepaid from

BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.

ST. LOUIS AS A CORN MARKET.

The Drouth Reports Were the Cause of Advancing Prices Five to Six Cents a Bushel in One Month and Ten to Eleven Cents in Two Months.

The farmer who has to buy corn is unfortunate because corn has advanced in price in consequence of the drouth; but in a state like Missouri, speaking generally, the reduced production is offset by the the advance in price.

On June 30th, at St. Louis, cash trading only considered, the price was 63 cents; and on July 31st the price was advanced to 67⅛ cents; and on August 30th the price had advanced to 74¾ cents, a clear gain of 11 cents and a fraction a bushel. That is the record which can only be considered in a general way, because each farmer has his own conditions to face.

In the so-called Chicago speculative market we will show four-months' quotations on three living options:

	Sept. 1913.	Dec.	May, 1914.
May 31	58¼	56⅝	....
June 30	62¾	59½	....
July 31	66	63	65
August 30	72¾	68⅝	70½

In our opinion, the Board of Trade operators, speaking by actions, can give us a better idea of crop conditions than any other agency. They consider all reports and verify them; they are in touch with the trade. Some of them do not take their thoughts off the market, even while they are sleeping, consequently the quotation as given, representing the concentrated opinion at the time quoted, can be regarded with almost as much respect as the final score in a base ball game, for when an option is closed it is not unlike a ball game that has been played.

In considering what St. Louis amounts to as a market for cash corn, many people will be surprised to learn, with Chicago the only exception, St. Louis is the greatest market of them all.

Peoria, Kansas City, Toledo, Detroit, Milwaukee, Cincinnati, Indianapolis and Omaha are all behind St. Louis; in fact, last year St. Louis received as much corn as Kansas City, Cincinnati and Toledo combined. St. Louis is nearer the center of the corn belt than either Omaha, Des Moines or Kansas City, having Ohio, Indiana and Illinois on the east, and Iowa, Missouri, Kansas and Iowa on the west.

St. Louis Cash Grain.

The following are St. Louis prices for cash grain on August 30th, 1913:

Wheat.—No. 2 red wheat, 89 to 92½c.; No. 3 red, 89½c.; No. 4 red, 87c.; No. 2 hard, 85½ to 90c.; No. 3 hard, 84½ to 88c.

Corn.—No. 2 corn, 74½ to 74¾c.; No. 3 corn, 73¾ to 74c.; No. 2 yellow, 74½ to 74¾c.; No. 3 yellow, 74c.; No. 4 yellow, 73c.; No. 2 white, 75c.; No. 3 white, 74 to 74½c.; No. 4 white, 73c.

Oats.—No. 2 oats, 41 to 41½c.; No. 3 oats, 40½c.; No. 4 oats, 39½c.; No. 2 white, 41¾ to 42c.; standard, 41 to 41¾c.; No. 3 white, 41 to 41½c.; No. 2 rye, 70c.

The Cowpea-hay Crop.

Probably a larger acreage of cowpeas will be cut for hay this season than any previous year since we began growing the crop. The crop is valuable and stands next to alfalfa in feeding value, but unfortunately it is rather difficult to handle. Of all legumes, cowpeas, because of the large, coarse stems, are difficult to cure, and most careful methods must be employed to get the crop up in good condition.

Cut the crop when the first pods begin to turn and when the leaves begin to turn yellow. Let the crop lay in the swath a little longer than you would a heavy crop of clover, but be sure to rake up into windrows before the leaves become dry and brittle. The leaves are the most valuable part of the plant for hay, and the object, as with clover, should be to get the crop cured without shattering the leaves. Don't leave the crop in windrows more than twenty-four hours, for right here is where so much cowpea hay is spoiled. If it is heavy and watery, it it better to put the crop in cocks and leave it in this shape for a week or ten days to cure. Some use the side-delivery rake and some use tedders in handling their cowpea hay. The objection to these things is, they shatter leaves with every handling, and the thing to do is to get the crop cured with as little handling as possible. Sometimes the growth is so rank that the crop will not cure readily in the windrows. It is then best to leave it in the swath longer and not depend so much upon the curing in windrow or cock.

Cowpea hay will not turn water any better than clover, so stacks should be covered with slough hay. or, better still, store the cowpea hay in sheds with rain-proof roof.

Crimson Clover in Southern Illinois.

A Monroe county, Illinois, correspondent asks these questions: "Is it now the right time to sow crimson clover in this section? Would it be all right to sow it in corn? Will it make hay?"

Crimson clover should be sown now as soon as possible. Two or three weeks earlier would have been much better. It is not very hardy, however with favorable conditions it will live through the winter in Southern Illinois. One of the essentials is, that it must become pretty well established in the fall. If it survives the winter it will produce a hay crop, but the corn stalks would be a detriment. If hay was the main object, I would not seed it in corn. Crimson clover is rather uncertain in any part of Illinois, and except for cover crop and for plowing under it is not used to any great extent.

Pea and Bean Threshing.

The crop of peas and beans is far less than the demand for them; consequently prices are good and will continue to be good until the supply again exceeds the demand, which is not likely to happen for many years. Peas and beans are legumes and the stubble turned under enriches the land.

J. L. Owens Company, whose advertisement will be found on page 12, are manufacturers of pea and bean threshers which are made in four sizes. In furnishing instructions for harvesting peas and beans, that firm has also included a carefully-prepared article on pea and bean culture which has greater value to the farmer than any other book or pamphlet on the subject. Many an unprofitable farm has been brought into profitable production by raising beans or peas and turning under the stubble and selling the beans and the hay of the cowpeas and navy beans. Write to J. L. Owens Company, Chamber of Commerce Building, Minneapolis, Minn., and mention this paper, then ask for "Free Book on Pea and Bean Culture," and you will receive something worth having and studying.

Write quick and save 40% to 60% on your Fall Building

S ved $327
"The barn is a dandy and we feel greatly indebted to you. The same quality of lumber here would cost nearly one half mor ."
J. D. Johnson,
Spring Creek Ranch,
Fallon, Mont.
June 17, '13.

Saved $200 to $300
"My carpenter thinks my car of lumber the best that ever came into Marion. I saved $200 to $300."
Abraham Duerksen,
Marion Junction,
So. Dakota.
May 21, '13.

Saved over $200
"You saved me over $200. I would advise the farmers to buy their lumber from the Hewitt-Lea-Funck Co.
S. B. Dillenburg,
Pierz, Minn.
June 17, '13.

If you are going to build this fall, don't fail to send your bill of materials to Hewitt-Lea-Funck for prices. You can save 40% to 60% and get better lumber and millwork for your money.

Buy direct from our six mills

We control thousands of acres of choice timber in Pacific Coast States—all the cutting, logging and manufacturing of lumber and millwork takes place under one continuous operation, under one overhead expense, effecting a tremendous saving—and you get the benefit.

Five middlemen—wholesaler, jobber, commission man, salesman and dealer—get fat profits when you buy of your local dealer. No wonder lumber prices are high. By selling you direct we save you 40% to 60% and give you *better material.*

Quick delivery—satisfaction guaranteed

We make shipments within 24 to 48 hours after order is received. Shipments reach destination within an average of two weeks. Write today for price list. Better still send your list of materials for guaranteed prices, freight prepaid. Money back unless satisfied. Mail coupon today.

Silos at 40% to 60% saving

Seattle Silos of one-piece clear fir staves and patented swinging doors are the best value on the market.

Hewitt-Lea-Funck Co.,
488 Union Ave. Seattle, Wash.

Hewitt-Lea-Funck Co., 488 Union Ave., Seattle, Wash.
Send following, quoting prices, delivered my station.
Be sure to write plainly.
☐ Catalog lumber and millwork ☐ Special Silo folder
Name_____ Business_____
Address_____
I am planning to build as follows:_____

[Please mention National Farmer and Stock Grower.]

Plowing Under Soy Beans.

A correspondent states he has in a large acreage of soy beans, intended for forage, but he now has plenty of hay and is thinking about turning under the entire crop of soy beans. He also asks for relative root and top value of soy beans, as compared with clover.

If this ground needs more organic matter, I advise turning under the crop of soy beans, providing it can be done early enough. I am a stickler for feeding all this character of crops, whenever one has the stock, and return the manure to the fields. But where one is short on live stock, and long on feed, then feed the ground with the abundant growth.

In regard to the value of the tops and roots of soy beans, as compared with clover, I presume our correspondent refers to the fertilizing value. Soy beans and cowpeas have a much shorter period of root growth than clover, and for this reason the roots do not contain as much nitrogen. Possibly 10 to 11 per cent. of nitrogen would be contained in the roots of soy beans, at maturity, while clover roots would contain from 25 to 30 per cent. A ton of dry clover contains about 40 pounds of nitrogen, while a ton of soybean hay, or tops, would contain around 50 pounds of nitrogen. These facts show the great value of soy beans as a quick nitrogen gatherer. and particularly are they valuable in soils and under conditions where clover cannot be depended upon.

Toberman, Mackey & Co.
Receivers and Shippers of
HAY AND GRAIN.
"FASTEST GROWING COMMISSION HOUSE IN AMERICA."
ST. LOUIS, MO. : KANSAS CITY, MO.

GREENHOUSE MATERIAL.
HOTBED SASH, PECKY AND ALL KINDS OF CYPRESS.
Thomsen Planing Mill Co.,
1701 South Vandeventer Ave.,
SAINT LOUIS, - - MISSOURI.
Write For Catalogue.

Increase in Buffalo.

The buffalo herd on the Wichita National Forest, Oklahoma, now numbers forty-eight, ten calves having been born this year. When the buffalo were introduced on the Wichita in 1907 there were fifteen head. Had the buffalo been cattle, the total would have been over a hundred at the present time.

Read about the National Fall Style Book on page 3.

Don't confuse this with ordinary "make-shift" roofings. We guarantee it 15 years and inside each roll furnish modern ideas for laying it artistically and permanently.

Certain-teed

Rolls Roofing Shingles

You can't tell how long a roofing will wear by looking at it—so for your own protection, accept no substitutes—be sure that the *Certain-teed* Quality Label is on each roll. Sold by dealers everywhere at a *reasonable* price.

General Roofing Mfg. Co.
E. St. Louis, Ill. York Pa.
Marseilles, Ill.

THE AYRSHIRE BREED.

A Profitable Cow as a Milk Producer.

In the attempt to verify the claim that the Ayrshire was a profitable dairy cow, we sent to each breeder whose herd was in the Advanced Registry test, a request to keep as careful a record of all food given each cow in the test as possible, on blanks furnished for that purpose.

A good many kept an account of the food consumed, but did not give the cost, and some gave the kinds, the amount and the cost, locally. On account of the difference in cost of food in different localities and the difference in the price of the dairy product in different localities, allowance must be made in estimating the relative profit from the different herds located in widely different sections of the country.

Mr. F. N. Dow, Portland, Me., reports an average of 4,226 quarts of milk, costing .0261 cent per quart. Mr. Dow does not state the price he receives for his milk, but as he is near Portland, it seems fair to value his milk at 5 cents per quart, wholesale, which would give him an average profit of $99.71.

Mr. Geo. H. Dunsmore, Swanton, Vt., reports an average of 4,040 quarts per cow, costing .0166 cent, per quart, which would probably sell at 4 cents per quart, making an average profit of $94.54 per cow.

Highland Farm, Bryn Mawr, Pa., reports an average of 4,490 quarts per cow, costing .0289 cent per quart, which at wholesale would sell at 5 cents per quart, making a profit of $94.74 per cow. As the milk from Highland Farm is sold as certified milk, it brings 10 cents a quart wholesale and 15 cents retail.

The Missouri Agricultural College reports an average of 3,660 quarts per cow at a cost of .0189 cent, which if sold at 5 cents would yield an average profit of $114.01 per cow.

In none of these reports is any charge made for care of cattle or any credit given for calves sold.

From the above reports it would look as though the Ayrshire was a profitable cow as a milk producer.—C. M. Winslow, Secretary, Brandon, Vermont.

Hog Brains For Medicinal Purposes.

According to an article in a Danish newspaper, a stock company has been formed at the city of Kolding, Denmark, which will buy from the Danish hog abattoirs all the brains from hogs they can produce. From these brains the company will manufacture "Lecithin" and "Collestrin" for export to Germany and Switzerland, where they are used in the manufacture of certain medical preparations. It is considered that about 800 pounds per day may be produced. The brains are paid for at about three cents per pound (presumably Dutch cents, making the three cents equal to one and two-fifths cents United States currency), and on an average it takes four brains to make one pound of the above-mentioned products. Lecithin is a fatty substance, while Collestrin is a dry powder, something like naphthaline.

ST. LOUIS AS A HOG MARKET.

Alive With Active Competition and Growing as Fast as Hogs Can Be Supplied.

It has often been said, with evidence to prove it, that the St. Louis market has more elements of competition than all other markets combined. St. Louis is certainly responsive in the matter of competition, and one great reason for it is that the supplies consist of all weights of hogs, from the smallest merchantable pigs to the heaviest hogs which are used in the packing trade.

In some of the Western markets the hogs are so uniform in weight that buyers are barred if they cannot use the hogs that are represented by the bulk of the arrivals. In St. Louis, buyers of all weights and all kinds are able to fill their orders without difficulty.

Twenty years ago, before Morris, Swift or Armour slaughtered hogs at St. Louis, the market was kept active by the butcher trade of St. Louis and by the shipping orders from New York, Buffalo, Cleveland, Indianapolis and other Eastern markets, and now that there are sufficient packing houses at the yards to absorb the entire receipts there is the double competition that causes the struggle to buy that is the active principle of a great market.

In a market it often happens that the packing-house buyers prefer hogs as heavy as they can get them. Indeed, formerly a packing drove of hogs was expected to average 275 to 300 pounds. The butchers preferred lighter hogs for the fresh-meat trade, and that placed the 200 to 250-pound hogs at the top of the market class. New York and interior markets were looking for hogs 175 to 200 pounds, and other markets, notably Baltimore, bought hogs averaging 100 to 140 pounds. Recently, however, with packers also in the fresh-pork trade, there is no telling to what extent they will buy the lighter weights. The mixed loads of hogs forming so large a proportion of St. Louis receipts afford great opportunities in filling orders which come from the great consuming districts east of us, and, combined with the butcher and packing demand, will always afford to hog raisers sufficient demands for all the hogs that can be concentrated at the St. Louis market.

In this paper every month we make a record of St. Louis hog prices, so that comparisons can be made month by month and year by year.

Butter in Storage.

The best authorities on dairy produce are agreed that the supply of butter in storage is very much larger than it was last year.

In a recent issue of the Elgin Dairy Report there appears the statement that the four markets of Boston, New York, Chicago and Philadelphia had a total of 903,200 packages in store on August 1st, 1911; that on August 1st, 1912, the total was 932,700 packages; and that on August 1st of the present year the total was 1,207,600 packages. Although all markets show an increase in the amount of butter in store, the increase in Chicago alone is 200,000 packages.

New York also has received butter liberally, the July arrivals amounting to 322,734 packages, a record on that market by an increase of 8,174 packages over the receipts of any previous month.

People of the cities are still complaining of the high cost of living, but the wholesale price of the best creamery butter was quoted at 26½ cents, against 25 cents at the same time last year.

Filling the Silo.

Corn is ready to be cut for silage when the grain is in the dent and glazed, but can still be broken with the thumb nail. At this stage, under normal conditions, the two or three bottom leaves will be turning brown and the shuck will be turning yellow at the end. There is greater danger of putting up silage too dry rather than too moist. In a stave silo the staves should be tightened up to exclude the air and generally loosened a little after the silage swells the staves. The inside wall of a concrete silo should be washed with a thin mixture of cement and water every two or three years. This fills the pores and keeps the air from the silage.

It will take at least six teams to keep the average silage cutter busy. Corn should not be cut down too far ahead or it will dry out too much. Two men should work in the silo distributing the silage with forks. Where a silage distributer is used one man is sufficient. They should keep the silage higher at the walls than in the center and should continually tramp the silage next to the walls. The tramping is especially to keep out the air. When possible, allow the machine to start two or three days and refill to make use of all the capacity. Finish filling the silo by running in a load of grass or weeds. This will rot and seal the top and prevent having to throw out the same amount of spoiled silage.

The silage should feel wet after it is cut in the silo. If the corn is very mature when cut and is therefore too dry, add water. A small stream may be run into the blower from a barrel or tank. It is especially important that the silage be well tramped. The blower should be run a few minutes every morning in order to clear the atmosphere before anyone enters the silo.

The above instructions cover the important points in filling a silo.—Dairy Department, University of Missouri, Columbia, Mo.

Panama-Pacific Exposition.

The Panama-Pacific Exposition is doing fast work, and, like the canal, may probaly be open ahead of time.

Don't Be Disheartened By Hog Losses Prevent Future Losses With MERRY WAR POWDERED LYE

lyers,
resident,
. Myers
ye Company

I know just how you farmers and hog raisers feel when you see a nice big bunch of fat hogs taken down sick, refusing to eat, getting thin and scrawny and slinking off into fence corners to lie down, stretch out and die. It's hard luck. It means the loss of hundreds—perhaps thousands of dollars to any one of you.

Now I want to tell you that there's no need for you to be discouraged—no need for you to repeat that disheartening experience **—no need for you to lose another hog on account of Cholera or Worms.** Just do what thousands of other practical farmers are doing every day—mix a little MERRY WAR POWDERED LYE with your hogs' rations (directions on every can) **and feed regularly twice each day.**

Fat, Healthy, Worm-Free Hogs

will be the result. It will put and keep your hogs on their feed—destroy every ill effect of hog worms—keep your hogs so healthy, strong and vigorous that, **even should cholera break out in your neighborhood, they'll be so conditioned as to resist it.** Thousands have **proved by experience** that MERRY WAR POWDERED LYE **is a safe preventive of hog cholera.**

Read This Convincing Proof

J. E. VAWTER, Beverly, Kans.—"25 hogs lost 1 mile east; 60 hogs lost 2 miles north; 20 hogs lost 2½ miles south of me, but I used MERRY WAR POWDERED LYE and escaped loss."

MRS. T. AKINS, Hoxie, Ark.—"MERRY WAR POWDERED LYE is all the Lye that we use. Before we began using it we had a lot of hogs with Cholera. We used it and it cured our hogs."

10c A Can At All Dealers

MERRY WAR POWDERED LYE is for sale at most grocers, druggists and feed dealers everywhere, 10c per can **(120 feeds).** It is convenient to buy in case lots—4 dozen cans $4.80. **Costs only 5c per hog, per month, to feed regularly**—by far the best and much the cheapest hog insurance you can buy. If your dealers can't supply you, write us, stating their names. We will see that you are supplied, and also send you, **free,** a valuable booklet "How To Get The Biggest Profits From Hog Raising." **Order direct from us in case lots (4 dozen cans $4.80) if your dealers won't supply you.**

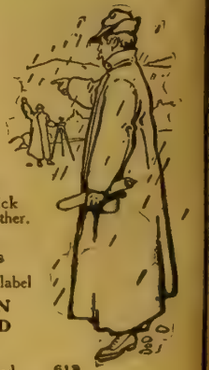
There Are No Substitutes

Don't experiment with ordinary, old-fashioned lye. **It might prove dangerous.** MERRY WAR POWDERED LYE is the specially prepared lye that is **safe** to feed to hogs. Full directions on each can.

"There Are No Substitutes"

E. Myers Lye Co., Dept. 22 St. Louis, Mo.

You're really dry in a Fish Brand Reflex Slicker



Not a dressy "near" water-proof, but a roomy, comfort-giving service coat that will protect you through thick and thin in the wettest weather.

$3.00 at your dealer's

We print plainly on every label

SATISFACTION GUARANTEED

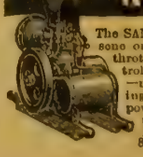
and we mean it

TOWER'S FISH BRAND — Identified always by this mark — *Catalog free*

613

A. J. Tower Co.
BOSTON
Tower Canadian Limited, Toronto

Kerosene Engine



The SANDOW Stationary Engine runs on kerosene or gasoline. Starts without cranking—throttle governed—hopper cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—15-day money-back trial. Sizes, 2 to 20 H. P. Send postal for free catalog.

Detroit Motor Car Supply Co.
86 Canton Ave., Detroit, Mich.

Overland

Price comes down; value goes up!

Electric head, side and tail lights
Storage battery and Ammeter
35 horsepower motor

114-Inch wheelbase
Timken bearings
33 x 4 Q. D. Tires
Cowl dash
Splitdorf magneto

$950

f. o. b. Toledo

Brewster green body with a light green striping, nickel and aluminum trimmings
Mohair top and boot
Clear vision windshield

Stewart speedometer
Electric horn
Flush U doors with disappearing Hinges
Turkish upholstery

With Gray & Davis Electric Starter and Generator—$1075

HERE is the car of the hour!

The 1914 Overland is ready for immediate delivery.

Again we lower the price. Again we increase the value.

This new car is larger, more speedy and powerful, more finely equipped and more elegantly finished, but in spite of this enormous value increase the price has been materially decreased.

The motor has been enlarged to 35 horsepower and will develop 50 miles an hour with ease.

The wheelbase has been lengthened to 114 inches—which is the average wheelbase of $1500 cars.

The 1914 Overland tires are larger; the tonneau is longer and roomier; the equipment is better—including such big and costly additional features as electric lights; the body is handsomer, being finished in beautiful rich dark Brewster green, with heavy nickel and aluminum trimmings.

The 1914 Overland is the most magnificent and graceful popular priced car that has ever been made.

In fact, in every single and individual respect here is a much greater, bigger and better car at a reduced price.

This is only another demonstration of how big production will cut costs. For, instead of building 40,000 cars as in 1913, this year we will build 50,000 cars. This is the world's largest production on this type of car.

One big western dealer is begging our sales department for an allotment of 7,000 cars. Think of this! A single allotment greater than the individual outputs of over 50% of all the automobile factories in existence.

Other dealers and distributors in the big eastern aud western agricultural districts want several thousand cars apiece. Such is the initial demand for the newest Overland.

As we have told you in the past, the combined buying power of thousands lowers the cost for each individual. This year 50,000 will be bought. Therefore we can make a greater reduction than ever. Overland quantity production saves money for you—and lots of it. This year it is saving far more than ever before, because in addition to increased production we are building but one chassis.

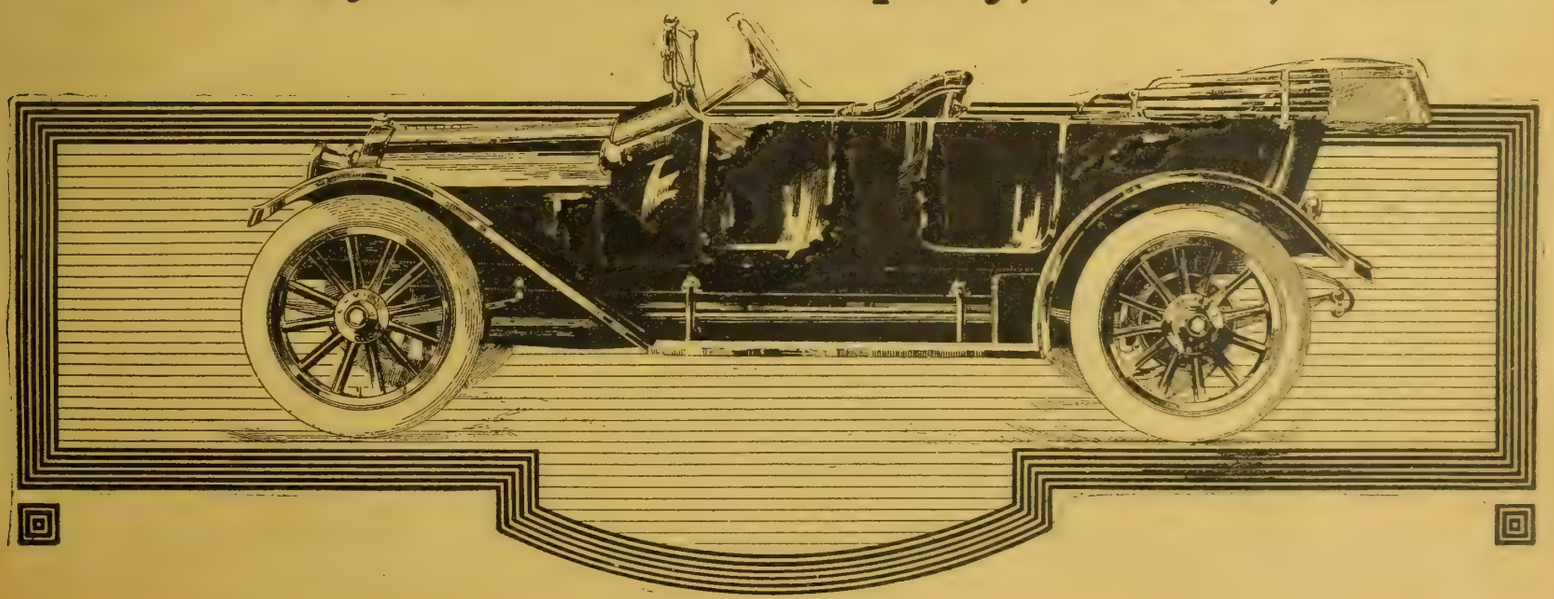
We urge you to see this new model at once. Feel what a difference the increased wheelbase makes in riding comfort; see the car's changed appearance; examine the beautiful new finish; inspect the many little refinements about the motor—making it resemble the motors in the big $3,000 and $4,000 cars. Examine the tonneau. Enjoy the increased lounging space and the Turkish upholstery.

Look up the nearest Overland dealer. Have a demonstration. Make the demonstration thorough; test the car's remarkable fuel economy. If you want an early delivery do not delay. Act today.

Write us direct for handsomely illustrated 1914 literature—gratis.

Please Address Dept. 89

The Willys-Overland Company, Toledo, Ohio



WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St.Louis. The announcement is made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales Horses will be offered in suitable lots and sold at aution for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale ring were originally well-bred Range Horses. The next three Auctions will be held on

Thursday, September 18,
Thursday, October 2,
—and—
Thursday, Oct. 16, 1913,

And every two weeks thereafter until the close of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is good, especially for well-bred Mares and Geldings in fine condition.

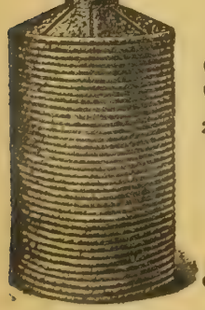
Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

J. S. CALDWELL,
—Dealer in—
HORSES,
Coach, Driving, Heavy Draught.
MULES,
—and—
GENERAL BUSINESS HORSES.
1321-23-25 North Broadway, St. Louis, Mo.

Our Special Offer

60 DAYS ONLY.

DELIVERED AT YOUR RAILROAD STATION.



GUARANTEED, CORRUGATED GALVANIZED

Steel Tanks.

29 TIMES STRONGER THAN THE PLAIN TANKS.

20 Barrels, $17.50
30 Barrels, 20.50
40 Barrels, 24.50

Complete With Tops. We Pay All Freight.

O. K. HARRY STEEL CO.,
2353 Papin Street, ST. LOUIS, MO.

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis

Sale of Thoroughbred Horses.

Forty-five stallions and mares from the famous Castleton stud of the late James R. Keene went under the hammer at Madison Square Garden in one of the most successful horse sales ever held in New York. The total sales amounted to $247,200, of which Price McKinney, of Cincinnati, paid $111,200. Colin, at $30,000, purchased by Mr. McKinney; Peter Pan for $38,000, purchased by James Rowe; and Colt, purchased by A. B. Hancock for $20,000, were the features of the sale. Other sales follow:

Stallions.—Voter, John Stanford, $14,000; Disguise, Price McKinney, $5,300; Sweet, C. M. Moore, $17,500; Delhi, Price McKinney, $2,500; Ultimus, Price McKinney, $11,500; Hippodrome, Price McKinney, $2,000.

Mares.—Cap and Bells, Price McKinney, $6,100; Royal Rose, Gifford Cochran, $2,100; Home Rule, Price McKinney, $3,600; Pink Domino, Price McKinney, $7,100; Noonday, Price McKinney, $7,000; Pastorella, E. R. Bradley, $2,000; Gingham, Price McKinney, $6,600; Dominoes, Price McKinney, $3,400; Dreaming, Price McKinney, $2,700.

Cavalry Horses.

The car-load receipts of horses at the St. Louis National Stock Yards include a good proportion of horses suitable for cavalry service. Holland, Nugent & Maxwell Bros. have the contract, and there is a delivery every week or so. The contract is for the purpose of replacing the worn-out and condemned horses of the cavalry service. Cavalry horses are required to be 15.1 to 15.3 hands, with good heads and necks and sound, with the appearance and gaits that suit the service. Thin horses are rejected. All who have mixed loads to ship to St. Louis will find it to their advantage to include some horses that will satisfy government requirements. Address, Holland, Nugent & Maxwell Bros., National Stock Yards, Ill.

Top Sale of Cattle.

At the St. Louis National Stock Yards, August 12th, the Milton-Marshall Live Stock Commission Company sold one load of 1,509-pound steers, shipped by J. W. Swetnam, of Randolph county, Missouri, for $8.75 per 100 pounds, which was the top of the market for that day.

A Feeder-cattle Contest.

Each car-load of cattle feeders from yearlings to any older age arriving at the St. Louis National Stock Yards from September 1st to 26th, inclusive, will be examined and judged by Prof. W. J. Kennedy, of Iowa, with a view to his awarding a number of prizes that have been donated for the feeder show. Our understanding is that the cattle will be judged on arrival and will be offered for sale, sold and delivered as usual without delay. The first prize in each class is $100; the second, $65; and the third, $35. There is a sweepstakes prize of $100. There are classes for cattle from Missouri, Illinois, Kansas, Colorado, Oklahoma, Texas and Arkansas. The purpose of the show is to attract attention to the increasing importance of the St. Louis National Stock Yards as a stock cattle and feeder market. All a shipper has to do to enter the contest is to ship the stock as usual and instruct the salesman to enter the car-load in the contest. All awards will be announced on October 6th.

Potash Easily Purchased.

We invite attention to the interesting advertisement of potash salts on page 2. In this connection we desire to say that a few years ago it was with the utmost difficulty that potash salts could be obtained unless mixed with other fertilizing material. But the officials of the German Kali Works decided that it was bad policy to withhold the potash from the farmer and sell it to the fertilizer plants for the reason that very few of the mixed fertilizers contain sufficient potash. Potash is therefore easily purchased by writing direct to the nearest office in the advertisement.

1913 GREATEST ILLINOIS FAIR

Will Be Held at Springfield, Ill., October 3 to 11—Will Eclipse Former Fairs.

The time is fast approaching for the meeting of the Illinois State Fair of 1913.

The prospects for this, the greatest of all annual Expositions, to eclipse all its former efforts are very promising.

It is with pardonable pride that the Illinois State Board of Agriculture presents these to the public inspection, and invites every citizen of this state and all other states to the Fair of 1913.

There is no class of people who cannot attend it with profit to themselves.

It is the greatest laboratory for the observation and study of the best of its kind in every department of agriculture and all kindred interests that is to be found in this or any other country.

The labor-saving devices of the world will be there; representatives, well schooled in their mechanism and uses, will be there, ready to give you any information you may desire.

It is a great post-graduate school for the rapid absorption of useful knowledge for the already well-educated farmer, as well as primary school for those who have not had the advantage of scientific agricultural education.

Here you may see the finished products from the hands of experts, not only in the products of the soil, in the cereals, the grasses and the tubers, and the cultural plants and flowers, but in the culinary and apiary departments and in the textile department, where housewife as well as maiden may revel with pleasure and profit.

One of the greatest exhibitions of the horses, cattle, sheep and swine, as well as poultry, will be there.

Every labor-saving device that has cheapened the production of the necessities of life and raised the calling of the agriculturist from a position of drudgery and hard labor to that of independence and dignity, will be there.

And it is our desire that every citizen may have the benefit of the object lessons to be learned in this great Exposition. It is well worthy of the labor, time and expense. The State Board of Agriculture urges upon all our people to come and learn.—J. T. Montgomery, President.

Horse and Mule Receipts.

So far this year at the St. Louis National Stock Yards, 90,658 horses and mules were received and the shipments amounted to 86,312 head. August arrivals were 9,215 head and shipments 7,383 head. Horse quotations were as follows: Heavy draft, extra, $240 to $275; heavy draft, good to choice, $175 to $225; Eastern chunks, extra quality, $160 to $200; Eastern chunks, plain, $100 to $135; Southern horses, extra quality, $125 to $150; Southern horses, plain, $50 to $75; choice drivers, with speed, $175 to $275; saddlers, $150 to $250; plugs, $15 to $35.

DR. LeGEAR'S ANTISEPTIC HEALING POWDER

The healing power of this famous remedy is wonderful. We have letters from all parts of the U. S. telling of fine animals that have been cured of sores, barbed wire cuts, collar and saddle galls, without leaving a blemish.

Druggists and Dealers everywhere carry a complete line of Dr. LeGear's Famous Stock and Poultry Remedies.

Write for copy of Dr. LeGear's Stock Book of 112 pages—it's free.

DR. L. D. LeGEAR MED. CO.
715 Howard St. St. Louis, Mo.

Best Conditioner Worm Expeller

Death to Heaves
"Guaranteed or Money Back."
Coughs, Distemper, Indigestion.
50c, $1.00 per can.
NEWTON'S Large for Heaves.
At druggists' or sent postpaid.
THE NEWTON REMEDY CO., TOLEDO, OHIO

BLACK LEG

LOSSES SURELY PREVENTED by Cutter's Blackleg Pills. Low-priced, always fresh and reliable, they are used by over 80 per cent of California and Western stockmen, because they protect where other vaccines fail. Write for booklet and testimonials.

10-dose pkge Blackleg Pills.....$1.00
50-dose pkge. Blackleg Pills..... 4.00
Cutter's Blackleg Pill Injector.. 1.50

Pills may be used in any injector, but Cutter's is simplest, strongest and easiest to use.

Every package dated, unused pills returnable for free exchange for fresh after date on package. Do not use old vaccine, or of uncertain age (ours or any other) as it affords less protection than fresh.

Discounts: 250 doses, 10 p.ct.; 500 doses, 20 p.ct.

Insist on Cutter's. If druggist doesn't stock, order from Laboratory, giving address plainly. We prepay charges and ship promptly. Send personal check or M. O.

THE CUTTER LABORATORY, BERKELEY, CAL. OR CHICAGO, ILL.

Save Work, Time, Money

By using our low down steel wheel wagon

Electric Handy Wagons

saves high lifting, lighten draft, don't rut roads. Spokes don't loosen—wheels don't dry out or rot. Write for free book on Wagons and Wheels.

Electric Wheel Co., 40 Elm Street, Quincy, Ill.

Don't Have a Blind One

"VISIO"

A Remedy for Moon Blindness

(Opthalmia), Cataract and Conjunctivits

Shying horses all suffer from diseased eyes.

"VISIO" will convince any horse owner that it is the best remedy for defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our money back GUARANTEE.

$2.00 per bottle, postpaid on receipt of price.

VISIO Remedy Ass'n. 2472 Calumet Ave., Chicago, Ill.

Atlas Portland Cement.

Anyone who has cement construction on his mind will gain much information by writing the Atlas Portland Cement Company, Dept. 165, at 30 Broad street, New York City, and ask for a free copy of the Farm Book on Concrete Work.

GOVERNMENT Positions are easy to get. My free booklet X 1109 tells how. Write today—NOW. EARL HOPKINS, Washington, D. C.

Thresher Belts Of High Grade
All Standard Sizes of Endless Belts carried in stock, and sold at right prices. Quick service guaranteed.
Weber Imp. & Auto Co., 1900 Locust St., St. Louis.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Not used on splint, curb or soft bunches. Write for

Fleming's Vest-Pocket Veterinary Adviser

Best book on blemishes, and we send it free. Read it before you treat any kind of lameness in horses. 192 pages, 69 illustrations, durably bound in leatherette.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

Will reduce **Inflamed, Strained, Swollen Tendons, Ligaments, Muscles or Bruises.** Stops the **lameness** and **pain** from a **Splint, Side Bone** or **Bone Spavin.** No blister, no hair gone. Horse can be used. $2 a bottle delivered. Describe your case for special instructions and **Book 2 K Free.**

ABSORBINE, JR., the antiseptic liniment for mankind. Reduces **Strained, Torn Ligaments, Enlarged Glands, Veins or Muscles, Heals Cuts, Sores, Ulcers. Allays pain.** Price $1.00 a bottle at dealers or delivered. Book "Evidence" free. W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.

SPAVAPLI A real absorbant blister. Put on like paint. One application lasts a month—a second seldom needed. For the reduction of all hard or soft enlargements. Price, $1.00 per ounce, enough for two applications. TAMPA VETERINARY INFIRMARY, 1113 Florida Ave., Tampa, Fla.

THE INTERNATIONAL SHOW.

The Greatest Live Stock Exposition on Earth—Premium List Ready.

The classification list of the International Live Stock Exposition to be held November 29th to December 6th, 1913, is already issued and available by writing to Mr. B. H. Heide, Secretary, Union Stock Yards, Chicago, Ill.

The premium list contains particulars of all the usual awards, and we are pleased to find that additional awards are numerous This is especially true of class for draft horses in harness and classes covering ponies. In draft horses alone the additional money represented is $1,950. Futurity classes for Clydesdales, Percherons, Shires and Belgians will arouse great interest in American-bred yearling stallions and mares. Every stockman who may possibly become an exhibitor should write at once for the premium list.

WESTERN RANGE HORSES

Sold at the St. Louis National Stock Yards, August 21st, 1913.

The sales of the Western range horses by Campbell & Reid and Western Sale Stables Company continue with unvarying success. The sale on September 4th is over; there will be a sale on Thursday, September 18, another on Thursday, October 2, and still another on Thursday, October 16. In order to show our readers how these horses sell we publish a complete list of those sold on August 21st, as follows: Eleven head mares, three to five-year-olds, 1,150 to 1,300 pounds. $97.50; thirteen head mares, three to five-year-olds, 1,050 to 1,200 pounds, $84; twenty-seven head, eleven mares, yearlings and two-year-olds, $60; seven head mixed, yearlings and two-year-olds, $24.50; fourteen head mares, three to six-year-olds, 1,200 to 1,300 pounds, $95; four head mares, three to five-year-olds, 1,050 to 1,250 pounds, $82.50; eight head mares, two to six-year-olds, 1,000 to 1,100 pounds, $60; five head mules, three-year-olds, $75; twenty-four head mares, three to six-year-olds, 1,000 to 1,100 pounds, $62.50; seven head mixed, three to six-year-olds, 900 to 1,000 pounds. $45; ten head, eight mares, yearlings, $32.50; twelve head mixed, two and three-year-olds, $41; four head mixed, $66: twenty-five head mixed, three to five-year-olds, 1,000 to 1,100 pounds, $70; twenty-two head mares, three to five-year-olds, 950 to 1,050 pounds, $55; thirteen geldings, three and four-year-olds, $50; twenty-five head, sixteen mares, three to five-year-olds, 900 to 1,000 pounds, $55; twenty-three head, eighteen mares, three to six-year-olds, 850 to 1,000 pounds, $43; twenty-four head, seventeen mares, pounds, three to five-year-olds, 850 to 1,000 pounds, $37.50; nine head mixed, two and three-year-olds, $27: eighteen head mixed, yearlings, $30: twenty-two mixed, yearlings, $25: eight head mares, three to five-year-olds, 900 to 1,000 pounds, $43; twelve head mares and five colts, $35; thirteen head colts. $13; twenty-six head mares, three to five-year-olds, 1,000 to 1,100 pounds, $73; four head mixed, $44; eight head mixed, three to five-year-olds, 900 to 1,000 pounds, $37; three head mixed, $24.50; eighteen head mixed, four and five-year-olds, 1,050 to 1,200 pounds, $80; twelve head mixed, $55; nine head mixed, $49.50; eight head mixed, yearlings. $35.50; four head mares, smooth mouth, 1,000 to 1,100 pounds, $50; three head mares and three colts, $65; four head mules, $86; four head mules, yearlings, $42.50; twelve head mixed, $51.50; eleven head mixed, 900 to 1,000 pounds, $40; eight head mixed, two and three-year-olds, $35; fourteen head, ten mares, 900 to 1,000 pounds, $38; thirteen head mixed, two and three-year-olds, 850 to 1,000 pounds, $35; nine head mixed, two-year-olds, $38; sixty-eight head unbroke, sold singly and in pairs, average price $53.73; sixty-two head, halter-broke, sold singly and in pairs, average price, $46.81. Anyone desiring further information should address J. J. Searcy, Sale Manager, National Stock Yards, Ill.

Feeding Steers Bring $7.60.

The National Live Stock Reporter of August 29th said: "Two loads of good-quality steers were taken back into the country to be fed. They were shipped here by D. L. Stuart, of Phelps county, Missouri, and sold to Pat Cahill, of Fayette county, Illinois, who intends to feed them and market them here later on. The steers were of the mixed variety but mostly 'red.' There were fifty in the bunch and they averaged 1,139 pounds when weighed here. This is the highest price realized for feeding steers on the market since the week of June 28th."

VEGETABLES AT ST. LOUIS.

Wholesale Prices on the First Day of September, 1913.

The following list represents prices paid on the wholesale market for vegetables at St. Louis:

Potatoes (quote by the bushel).—Wisconsin white stock at 75c., delivered for small to 85c. for good-sized; and do. Early Ohio at 60 to 70c.; Minnesota Red River sold at 75c. on track.

Onions.—Choice Iowa sacked Red Globe at $1.60 on track to $1.75, delivered, per 100 pounds; North Misosuri sacked Red at 50c. per bushel for small to 80 and 85c. for large; sacked white onions at 2½c. per pound, delivered.

Spanish Onions.—At $1.35 per crate.

Butter Beans.—Home-grown at $2.25 to $2.50 per three-gallon tray or peck basket.

Beets.—Home-grown at 25 to 35c. per dozen bunches and at 50c. per bushel box loose.

Cabbage.—Half car bulk Iowa at $25 per ton, delivered; half car trimmed do. at $30, delivered; one car bulk Wisconsin and one car bulk Colorado at $40, delivered; half car bulk Indiana at $35 to $38, delivered: twenty-five and fourteen crates Chicago at $1.75 per crate,delivered, one car heated Indiana at $15 per ton, delivered; home-grown sold at $1.60 to $1.80 per 100 pounds loose.

Carrots.—Sacked New York at $1.00 per 100-pound sack, delivered; Chicago 75-pound sacks sold at $1.00 also—twenty-five and twenty sacks at that; home-grown sell at 15 to 25c. per dozen bunches.

Cauliflower.—New York (Buffalo crates), at 50c. to $1.50.

Celery.—Michigan fancy bunched at 40c., delivered, for xxx, and 35c. for xx; Colorado Golden Heart (five to eight dozen) in jobbing way at $2.75 to $3.00 per crate, delivered—off stock less; Kalamazoo small at 5 to 12½c. per dozen; Michigan in barrels (iced) at 17½c. per dozen, and square boxes (two to two and a half dozen) at 25 to 50c.

Cucumbers.—Sales: Half car Michigan bushel baskets at 65c., delivered; car New York bushel baskets at 85c. to $1.00, delivered; car do. at 90c., delivered; and car New York Dill pickles at $1.25, delivered; home-grown green sold at 60c. per bushel loose; culls at 25c., and yellow mustard at 40 to 50c.

Eggplant.—Home-grown at 20 to 40c. per bushel loose

Garlic.—New Orleans and Kenner strings at 15 to 25c.

Green Corn.—Home-grown at 8 to 17c.

Gumbo.—Home-grown at 15 to 25c. per peck basket.

Lettuce.—New York (South Lima) hampers sold at 50c. to $1.50; Buffalo crates at $1.25; latter in mixed cars at $1.00; home-grown sold at 20 to 45c. per bushel box.

Parsley.—Home-grown at 15 to 25c. per dozen bunches.

Peppers.—Home-grown at 30 to 50c. per bushel loose.

Spinach.—Home-grown at 25 to 30c. per bushel loose.

Squash.—Home-grown summer at 75 to 85c. per box.

String Beans.—Car Baltimore (300 hampers) sold at $1.80 to $1.85, delivered; New York bushel baskets (in mixed cars) at 65c. to $1.25 for wax and $2.00 for green; Chicago at $1.25 per box.; few boxes home-grown at $1.75 to $2.00 per bushel loose.

Sweet Potatoes.—Virginia (Eastern shore) selling at $3.10 to $3.25 per barrel, delivered; Alabama long hampers white at $1.00, delivered; home-grown Bermuda at 50 to 60c. per half-bushel basket and $1.50 per bushel loose; and Red Nansemond at 75 to 80c. per half-bushel basket: Tennessee red and white at 40 to 50c. for melon baskets and $1.25 for hampers.

Tomatoes.—Car Ohio (Toledo) bushel baskets sold at 65c., delivered; car Eastern crates (green and overripe) at 40c., delivered; half car Iowa flat crates at 40c., delivered; and half car Iowa bushel baskets at 40c., delivered; home-grown ripes sold at 50 to 90c. per bushel loose.

Turnips.—Home-grown at 25 to to 30c. per dozen bunches and 75c. to $1.00 per bushel box loose.

Sauerkraut.—City make in jobbing way, delivered: Kegs, 80c.; half barrels, $2.50; barrels, $4.50; and casks, $7.50.

The first Elgin dairy butter quotation in September was 30 cents.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS

Horse Auctions Every Monday and Tuesday.

Horse and Mule consignments are solicited for sale by the most competent firm on the Best Market in the United States. Every consignment given personal attention. Keep in touch with us. Let us sell your Horses and Mules on commission. We have the two best days of the week and the cream of the buyers of the East and South always attend our sales.

HORSE DEPT.—Nugent Bros., Maxwell Bros.
MULE DEPT.—Ed. Conway, Lan Morris.
AUCTIONEERS—Tim Holland, Ike Howard.

Write for market information.
Address,

Holland, Nugent & Maxwell Brothers.

P.O., NATIONAL STOCK YARDS, ILL.

Law Should Stop Sale of Leg-Strap and Spring Trusses

Wrong To Buy Anything For Rupture Without Getting 60 Days Trial

Depending on leg-strap or spring trusses—like shown below—is little less than slow suicide. They are almost sure to shorten your life. It's next to impossible to make them hold without hurting. They are simply a curse to wear.

Away With Leg-Strap and Spring Trusses

So far as we know, our guaranteed rupture holder is the only thing of any kind for rupture that you can get on 60 days trial—the only thing we know of good enough to stand such a long and thorough test. It's the famous Cluthe Automatic Massaging Truss—made on an absolutely new principle—has 18 patented features. Self-adjusting. Does away with the misery of wearing belts, leg-straps and springs. Guaranteed to hold at all times—including when you are working, taking a bath, etc. Has cured in case after case that seemed hopeless.

Write for Free Book of Advice—Cloth-bound, 104 pages. Explains the dangers of operation. Shows just what's wrong with elastic and spring trusses, and why drug-stores should no more be allowed to fit trusses than to perform operations. Exposes the humbugs—shows how old-fashioned worthless trusses are sold under false and misleading names. Tells all about the care and attention we give you. Endorsements from over 5000 people, including physicians. Write to-day—find out how you can prove every word we say by making a 60 day test without risking a penny.

Box 776—Cluthe Co., 125 E. 23d St., New York City

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

MISSOURI NATIONAL CONTEST.

Egg Laying at Mountain Grove, Mo. —Breed Averages—Individual and Pen Records.

Report of First Eight and a Half Months—Seventy Pens, Ten Hens to Pen—700 Birds in All.

Five Hens Pass the 200-egg Mark in Eight and a Half Months—Two Hens Ahead of Lady Showyou—Record of Last Year.

Mountain Grove, Mo., August 23d. —While five hens have passed the 200-egg mark in eight and a half months and two of them have thus far surpassed the record of Lady Showyou for last year, the extreme heat for the entire month has been telling on the hens, causing them to molt earlier than usual and cutting the egg yield. The thermometer registered as high as 105 degrees in the afternoon of one day, a time of day when it usually begins to get cooler. In some other styles of houses it registered as high as 109 and 110 degrees. You can imagine how a hen must suffer when confined in a trap nest on a day like this, even if kept there only long enough to lay. This continued extremely hot weather is unusual for this section. Hens suffer as much from hot weather in summer as from cold weather in winter.

The total number of eggs laid for the eight and a half months amounts to 80,073 eggs. This makes an average of 118 eggs for each hen, good, bad and indifferent. The yield for the month was 9,687 eggs. The average for each breed up to date is as follows:

Breed Averages to Date.

	Eggs each.
30 Langshan hens	132
30 Minorca hens average	124
30 Ancona hens average	122
120 Leghorn hens average	119
120 Wyandotte hens average	117
60 Rhode Island hens average	111
90 Orpington hens average	110
120 Plymouth Rock hens average	106

There is nothing startling about these records, but is is a very good record. It is not the sensational which is looked for in this contest. It's the facts; let the records be what they may. If the hens did no better and did not lay another egg, the lowest average hen has already laid 26 eggs more in eight and a half months than the average Missouri farm hen lays in twelve months.

The silver cup for the best record for July was won by Mrs. Daisy Rose, of Bois d'Arc, Mo., on her pen of Anconas with 210 eggs. The Rose Comb White Leghorns, Pen 10, were only one egg behind them. The remarkable thing about the records for the last few months is the manner in which a pen of Black Minorca hens is laying. Half or more of the hens are about three years old and they have gradually crawled up to fourth place. Buff Wyandottes also went to third place this month. One pen of Buff Wyandottes from Missouri is the third pen in the contest; another pen of Buff Wyandottes from Vermont contains the leading hen, and the third pen of Buff Wyandottes from Missouri contains the third highest individual in the contest. Only seven hens laid in the English pen of Single Comb White Leghorns and one died, but still they made a small gain over the other pens.

The ten highest pen records for eight and a half months are as follows:

Highest Pen Averages, Eight and One-half Months.

Pen.	Eggs.
2—Single Comb White Leghorns, England	1,686
19—Silver Wyandottes, Iowa	1,418
26—Buff Wyandottes, Missouri	1,387
11—Black Minorcas, Iowa	1,386
1—Anconas, Missouri	1,385
20—White Wyandottes, Arkansas	1,376
57—Black Langshans, Missouri	1,369
30—Buff Wyandottes, Vermont	1,368
9—Single Comb Brown Leghorns, Missouri	1,351
49—Black Langshans, Missouri	1,319

Individual Bird Records.

The ten leading hens to August 1st are as follows:

	Eggs.
Buff Wyandotte, Vermont	216
Single Comb White Leghorn, England	206
Buff Wyandotte, Missouri	205
Single Comb White Leghorn, England	204
Single Comb White Leghorn, England	201
Single Comb White Leghorn, England	190
Black Langshan, Missouri	190
Ancona, Missouri	189
Ancona, Missouri	188
Rose Comb White Leghorn, Missouri	188

Highest Pens For July.

The ten highest pens for July were as follows:

	Eggs.
Anconas, Missouri	210
Rose Comb White Leghorns, Missouri	209
Black Minorcas, New York	203
Black Minorcas, Iowa	196
Buff Wyandottes, Missouri	195
Black Minorcas, Missouri	182
Single Comb Buff Leghorns, Missouri	176
Single Comb Brown Leghorns, Missouri	171
Single Comb White Leghorns, California	170
Single Comb White Leghorns, England	157

Three months and a half yet remain of this contest, which is approaching a most interesting stage.

"Capons Are Profitable."

Under the above title we have received from Mr. T. E. Quisenberry, Mountain Grove, Mo., Circular No. 3 of the Missouri State Poultry Experiment Station. It is only a four-page leaflet, but there are nine illustrations, and the operation of caponizing is fully illustrated and explained. It shows the cockerel just ripe for caponizing; the proper method of fastening; the incision properly made; the method of removing the testicles; a stand sometimes used by professional operators; the operation performed by a child; a typical capon; the capon as a foster mother and a double picture of capons ready dressed for market. The way to get a copy of this Circular No. 3 is to mention this paper and write to Mr. Quisenberry for it. It shows how to develop a two-and-a-half-dollar bird from a twenty-five-cent cockerel.

Weight of Growing Ducks.

"Some years ago A. J. Hallock, of Long Island, one of the most extensive duck growers in the country, kept record of the growth in weight of ducklings from shell to market. He found the following averages: Half out the shell, 2¾ ounces; all out of the shell, 2¼ ounces; one week old, 3 ounces; two weeks old, 5½ ounces; three weeks old, 7½ ounces; four weeks old, 1 pound, 3 ounces; five weeks old, 2 pounds, 6 ounces; six weeks old, 3 pounds, 12 ounces; seven weeks old, 4 pounds, 12 ounces; eight weeks old, 6 pounds, 2 ounces; nine weeks old, 7 pounds, 4 ounces; ten weeks old, 8 pounds; eleven weeks old, 9 pounds 3 ounces."—New York Produce Review and American Creamery.

St. Louis County Fair.

A bigger and better programme than usual is offered by the management of the St. Louis County Fair in Creve Coeur Lake Park, September 18-21, the closing date being Sunday. Among the special features will be a convention Saturday of market gardeners and farmers, to be addressed by speakers from the State University and others.

The annual picnic of old settlers will be held Friday, with prizes for the oldest man and the oldest woman attending, a feature that attracts the attention of all the county's pioneers each year.

A contract has been closed with W. T. Miller, of Belleville, for the appearance of the Wild West Show, in which the performers rope steers, ride outlaw broncos and perform other frontier feats.

The speed ring has $250 purses for trotters and pacers, and purses for running horses Friday, Saturday and Sunday. Each day there will be a running race for mules.

Secretary George B. Bowles has received a large number of entries and requests to reserve accommodations for blooded live stock.

Horse Sale in Iowa.

Two farmers stopped to talk crops and the price of potatoes.

"Say, Jim," finally remarked one of the agriculturists, "are ye in the market for a good hoss?"

"Wouldn't mind buying a hoss if it suited me, Jake," responded Jim. "What kind of a hoss is it?"

"It's that little roan mare of mine," answered Jake. "Guess you've seen her, hain't ye?"

"Think I hev," reflectively returned Jim. "Yes, I know her, all right."

"Mighty good little hoss," declared Jake, with a hopeful glance at Jim. "An' she's yours cheap fer a cash deal."

"It's jes' dis way, Jake," said Jim, picking up his lines and preparing to start. "I'd like to have her, all right, an' I'd buy her this mornin', only I hate to bust a dollar."

Too Many Associations.

Peter Radford, of the Texas Farmers' Union, says there are too many agricultural associations, and that duplication is demoralizing.

Get Your Canadian Home From the Canadian Pacific

WE will make you a long-time loan—you will have 20 years to pay for the land and repay the loan—you can move on the land at once—and your Canadian farm will *make you independent.*

20 Years to Pay

Rich Canadian land for from $11 to $30 per acre. You pay only one-twentieth down—balance in 19 equal annual payments. Long before your final payment comes due your farm will have paid for itself over and over. This advertisement is directed only to farmers or to men who will occupy or improve the land.

We Lend You $2000

for erecting your buildings, fencing, sinking well and breaking. You have twenty years in which to repay this loan. You pay only the banking interest of 6 per cent.

Advance of Live Stock on Loan Basis

The Company, in case of approved land purchaser who is in a position and has the knowledge to take care of his stock, will advance cattle sheep and hogs up to the value of $1,000 on a loan basis, so as to enable the settler to get started from the first on the right basis of mixed farming. If you do not want to wait until you can complete your own buildings and cultivate your farm, select one of our Ready-Made farms—developed by C. P. R. Agricultural Experts—with buildings complete, land cultivated and in crop, and pay for it in 20 years. We give the valuable assistance of great demonstration farms—free.

This Great Offer Based On Good Land

Ask for our handsome illustrated books on Manitoba, Saskatchewan and Alberta—mention the one you wish. Also maps. Write today.

C. M. THORNTON, *Colonization Agent*

Canadian Pacific Railway
Colonization Department
112 W. Adams St., Chicago

FOR SALE—Town-lots in all growing towns—Ask for information concerning openings.

Use KEROSENE Engine Free!

Amazing "DETROIT" Kerosene Engine, 15 days' FREE Trial, proves *kerosene* cheapest fuel. If satisfied, pay lowest price ever given; if not, pay nothing. No waste, no evaporation, no explosion. Two pints of coal oil do work of 3 pints gasoline. Send for FREE Catalogue. Don't buy an engine till you investigate this grand offer. Write!

DETROIT ENGINE WORKS
383 Bellevue Ave., Detroit, Mich.

BOWSHER

(Sold with or without elevator.)
Crush ear corn (*with or without shucks*) and **Grind** *all kinds of small grain,* and *head kaffir.* **Have Conical Shape Grinders.** *Different from all others.*

LIGHTEST RUNNING

(Our circular tells why.)
HANDY TO OPERATE
10 sizes: 2 to 25 h. p. Capacity 6 to 200 Bushels.
We Also Make Sweep Grinders
FREE Booklet on "Value of Feeds and Manures."
N.L.P. Bowsher Co. South Bend, Ind.

FEED MILLS

MEN WANTED IN AUTO BUSINESS

Big demand for trained men. Earn from $75.00 to $150.00 per month. Learn all about automobiles in six weeks by

THE "SWEENEY SYSTEM"

of practical experience. In our machine shop, garrage and on the road you learn by actual experience, how to repair, drive, demonstrate and sell automobiles, trucks, tractors, etc.

FREE—Write today for catalog and certificate, entitling you to free $50 course in running traction engines—we own three tractors. Only auto school in the world teaching tractioneering. Send name today for free course and catalog.

SWEENEY AUTO SCHOOL,
1130 E. 15th Street, Kansas City, Mo.

The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal**, both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ST. LOUIS AS A WOOL MARKET.

A Splendid Receiving and Distributing Center, Where an Average of Twenty-five Millions of Pounds Are Bought and Sold on the Market Each Year.

The largest total of wool received and shipped at St. Louis was 30,865,410 pounds received and 39,819,200 pounds shipped in one year. The average St. Louis wool business for twenty-five years is about twenty-five million pounds.

The receipts are largest in May, June and July, but wool arrives freely from the middle of April until late in August. The outward shipments of wool are more evenly distributed through the year, although July and August appear to be the months of liberal shipments.

To indicate where the wool comes from it is well to state that in the year 1912 the Wabash Western Railway brought in 9,442,360 pounds; the Chicago, Burlington and Quincy Railway, (West), 5,598,940 pounds; the Missouri Pacific Railway, 2,991,580 pounds; the St. Louis and San Francisco Railway, 2,071,430 pounds; the Chicago and Alton Railway (Missouri Division), 1,080,650 pounds; and seventeen other railroads brought in quantities ranging from a few thousand to six hundred thousand pounds.

To indicate the direction of the outward wool shipments, will state that the largest quantities of wool were hauled by the Wabash Eastern Railway, the Southern Railway (East Line), and by the Louisville, Henderson and St. Louis Railway. The Toledo, St. Louis and Western and the Louisville and Nashville Railways each hauled over a million pounds.

Briefly stated, the St. Louis wool market receives very many comparatively small lots of fine, bright wools from within a three-hundred-mile circle and larger units of Western and Southwestern wools from beyond that distance, and, after it is sold locally very much as it is received, it is sent as directly into consumption by the shortest commercial routes.

St. Louis is a quick market, and wool receivers have formed a good custom of selling on the market promptly on arrival. The buyers are kept moving all the time and kept bidding also, for the reason that prompt sales discourage dilatory movements.

By advantage of central location St. Louis is capable of being made the greatest wool market on earth. For the largest quantities of wool it is the most economical receiving and distributing center, but the wool growers have Congress on their hands, and sometimes they ship their wool to market and follow the wool with a shipment of sheep that puts them out of business. Sometime in the future, when the population will be out of proportion to the wool grown in this and all other countries, the ranch country will be absorbed by farming and sheep will again be profitable to be raised—then will St. Louis be in the center of the wool trade, for the reason that it is the center of the country in which sheep raising can be most satisfactorily conducted.

FOR ADVANCED DAIRYMEN.

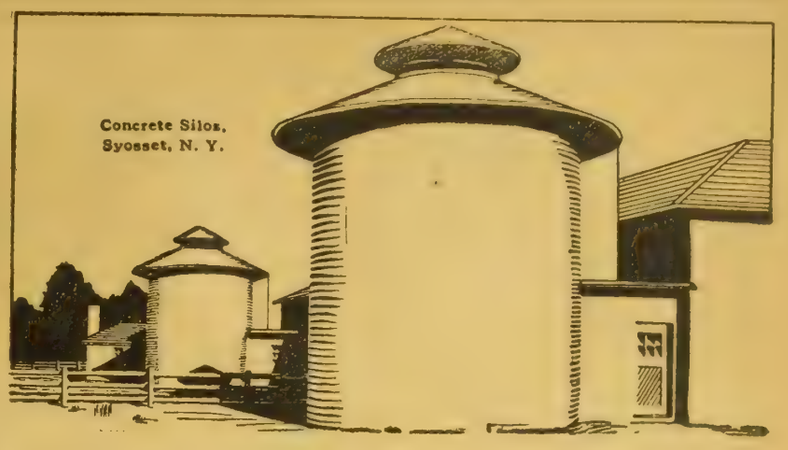
Department of Agriculture Advises That Milk Be Pasteurized at Low Temperatures.

In order to determine the best way of pasteurizing milk so as to kill the disease germs and yet not give the milk a cooked flavor or lessen its nutritive value, the Department of Agriculture, through its Dairy Division, has been conducting a series of experiments, treating milk at different temperatures and for different lengths of time. According to the report on these experiments in Bulletin 166 of the Bureau of Animal Industry, when milk is pasteurized at 145 degrees Fahrenheit for thirty minutes the chemical changes are so slight that it is unlikely that the protein (muscle-building element) or the phosphates of lime and magnesia are rendered less digestible than they are in raw milk.

Moreover, from a bacteriological standpoint, pasteurizing at low temperatures is found to be more satisfactory than pasteurizing at high temperatures. According to Bulletins 126 and 161, where low temperatures are used, the majority of bacteria that survive are lactic-acid organisms, which play an important part in the normal souring of milk. When milk is efficiently pasteurized at high temperatures, the bacteria which survive are largely of the putrefactive kinds, and milk so treated, if kept for any length of time, has a tendency to rot instead of sour. From the standpoint of economy, the technologist of the Dairy Division finds that pasteurizing at low temperatures calls for less heat. It is found that it takes about 23½ per cent. less heat to raise milk to the temperature of 145 degrees Fahrenheit than to a temperature of 165 degrees Fahrenheit. A similar gain is a saving of the ice needed, because it will require 23½ per cent. more refrigeration to cool milk to the shipping point when it is pasteurized at the higher temperature. The Department, therefore, recommends that "when market milk is pasteurized it should be heated to about 145 degrees Fahrenheit and held at that temperature for thirty minutes."

Dried Cantaloupes From California.

On August 14th, from Los Angeles, Calif., it was reported that with the perfection of experiments in progress California will give to the world another luscious dried fruit—the dried cantaloupe. They will turn into profit some of the millions of small cantaloupes left in the fields every year. Cantaloupe growers say the dried variety has a much finer flavor than the fresh fruit.



How would you like a silo

cut smoothly from solid rock? A concrete silo is better than that. Water, acid, air, fire and vermin proof, it keeps silage perfectly, and we can *prove* it.

In a concrete silo, you've got to be sure of your cement. The engineers of the great Mississippi Dam at Keokuk, Ia., are buying 700,000 barrels of Atlas for the work after careful tests of all brands. You can't make such elaborate tests, but *you* can get just the same cement they do. Every handful of Atlas is identical with every other handful. Always absolutely uniform—the same high quality last year—this year—next year. Use Atlas and *be sure* of your cement.

Have you our FREE 168 page Farm Book on concrete work? Write us for it now.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT CO., Dept 165–30 Broad St., N.Y.
Chicago – Philadelphia

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day

ATLAS PORTLAND CEMENT

Dry-farming Congress.

The International Dry-farming Congress meets at Tulsa, Okla., from October 22d to November 1st, inclusive. There is also announced a grand display of soil products, and more than a thousand prizes to be awarded.

Fate of Unsprayed Orchards.

John Bland, Secretary of the Missouri State Board of Horticulture, says that unsprayed orchards show heavy losses from codling moth during July and August.

Won the Silver Cup.

At the Missouri National Egg-laying Contest the silver cup for the best record for July was won by Mrs. Daisy Rose, of Bois d' Arc, Mo., on her pen of Anconas with 210 eggs. A pen of Rose Comb White Leghorns was only one egg behind them.

Eradicating the Tick.

That the eradication of the cattle tick has increased the value of cattle $7.00 per head in certain counties of Mississippi is the report of one of the inspectors of the Bureau of Animal Industry, United States Department of Agriculture. The cost to the people for this eradication in twenty-one counties was not more than $100,000. In return they have received during the past year $2,148,839 in increased valuation of their cattle, and this increase will be permanent so long as the counties are free from ticks. The cost of tick eradication was only 50 cents per head.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

You can make big money farming in Arkansas

Same Latitude—Same Crops

THE soil is newer, richer and much lower in price. A splendid climate makes it possible to produce bountiful crops of nearly every variety known to man. It will pay you to investigate.

We have just published six illustrated folders on Arkansas. Send for the one that interests you.

1. Central Arkansas
2. Northeastern Arkansas
3. Southeastern Arkansas
4. Southwestern Arkansas
5. White River Country
6. Arkansas Valley

The way there is via Memphis and the

MISSOURI PACIFIC IRON MOUNTAIN

Iron Mountain Route

Splendidly equipped trains

Mr. J. N. Anderson, Immigration Agent, Iron Mountain, St. Louis

Please send me Arkansas Land Folder No.———— Name———— Address————

FARMERS AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS.

This is not a directory of farmers and shippers, but it is a directory for the use of farmers and to all shippers of farm products.

It is not altogether a new publication, but it is appearing under a new name that fully explains what it really is.

Farmers and shippers have need of a directory that will contain the names and addresses of all the seed houses, of all the fruit and ornamental nurseries, of all the live stock trade, of all the produce commission firms, of all the agricultural implement manufacturers, and all other classes of people that deal with farmers and handlers of farm products.

The Hale Publishing Co. is publishing such a book. The next edition will be dated October 1st, but it will be mailed to subscribers in September. Read about it on page 27.

HACKNEY AS SIRE OF ARMY HORSES.

Award of Blue Ribbon to Reginald C. Vanderbilt's Tiger Lillie Discussion Among Horsemen.

"Award of the blue ribbon to Reginald C. Vanderbilt's Hackney stallion, Tiger Lillie, in competition with thoroughbred runners and French coachers as the best sire of army horses caused a lot of discussion among horsemen at Empire City Park. In England and America this particular function was for many years regarded as belonging exclusively to the race horse, but of late the merits of other breeds have been vigorously asserted, and the United States government is now experimenting with trotters, Morgans and saddle-bred sires as well as runners in breeding army horses.

"The Hackney is not included in the list because his is a foreign breed.

"The competition at Empire City Park was not confined to sires of cavalry horses, but was for sires of army horses generally. Curiously enough, not a trotting-bred stallion was shown. For combined substance, agility, stamina and docility the trotter is unsurpassed, if not unequaled, in the opinion of such horsemen as F. M. Ware, the late Charles L. Railey and S. T. Harbison.

"Mr. Ware, who was one of the judges at Empire City Park, believes the trotter is the best and the runner the poorest of all horses for this purpose. He says the modern thoroughbred, evolved by two hundred years of racing, is too tall, light, nervous and delicate to stand the rough work of campaigning in war time. Mr. Ware nevertheless voted for the thoroughbred stallion Uncas Chief at Empire City Park, his two associates selecting the Hackney stallion."

Note.—The foregoing from the New York Herald relates to Tiger Lillie, the stallion whose picture is on our front page.—Ed.

The Manure Spreader.

The advertisement of the I. H. C. Company on page 10 reminds us us that in the beginning manure spreaders were the most difficult to introduce, and now they are credited with being one of the best-paying implements, if not the very best mechanical help on the farm. Every agricultural college in the United States favors the spreader as far more economical and valuable than hand work, even on the smallest farms.

Star Brand Shoes on Sale.

A very large proportion of hides and skins produced by farmers by raising cattle, sheep and goats enter into the making of shoes. Shoemaking used to be an exclusive Eastern industry, and money was expended unnecessarily in freight bills going and coming. Of recent years shoemaking has become a Western industry, and shoes are much better and cheaper by reason of the change, because the waste in transportation and in other ways has been recovered and put into the shoes. Roberts, Johnson & Rand Shoe Company, of St. Louis, have demonstrated that a great shoe business can be built up by them in the West, and on page 9 one of the leading brands is advertised. This firm has cut out the wholesaler's profit as another economy, and sells direct to 20,000 retail merchants, who have proven by handling them that "Star Brand Shoes Are Better." The advertisement on page 9 is worth reading.

The Shire Draft Breed.

Truman's Pioneer Stud Farm, of Bushnell, Ill., report as follows on September 1st:

"It is with pleasure we are able to record that at the Iowa State Fair last week, in the great Futurity Shire Show, the dams of the first-prize colt and the first and second-prize fillies, besides several others in the classes, were imported by us and were purchased by their owners in our regular annual Shire mare sales, and could our Mr. J. H. Truman have been present to have seen his two cups awarded to Messrs. Sizer's colt "Tatton Eldorado" and Frank Huston's filly "Pinecrest Primrose" I am sure he would have been more than pleased, as they are certainly two grand specimens of the Shire breed.

"As usual, we won champion on Shire stallions and mares, together with a number of other first, second and third prizes, and also won first and second on geldings; first for pair of geldings, and our gelding 'Teddy Roosevelt,' recently purchased from Edwin Hobson, was pronounced by Judge Ogilvie the champion gelding of the show. Here is another example of the superiority of the Shire horse in producing the best geldings, as these two colts are three years old and weigh around 2,050 pounds each.

"We are showing at the Minnesota State Fair this week and expect to make an exclusively Shire exhibit at the Indiana State Fair the week following."

LIVE STOCK BREEDERS' CARDS.

CARPENTER'S BEST BARGAINS.

Fifty Poland-Chinas, 40 to 200 pounds; twenty-five Durocs, 100 to 150 pounds. All of the Poland-China Hogs were sired by the great Meddler and Walbridge Boars and from some of the most noted Sows in America. Durocs sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for them and mention this paper.

THE GRANDVIEW BREEDING FARM, Marmaduke, Ark.

POLAND-CHINA SPRING PIGS.

Big, smooth, fine Spring Pigs for sale. They have the size, shape and finish. Prices, $15 to $25. Come and see them or write.

D. F. BEAUCHAMP, Meredosia, Ill.

POLAND CHINAS

Pork Machines of a National Reputation. You win, if the last word is from **J.P.Vissering, Box 1,Alton, Ill.**

TRUMANS' PIONEER STUD FARM,

Ameica's Largest and Oldest.

Importers of

SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,

J.G.TRUMAN, Manager, Bushnell, Ill.

O. I. C. AND CHESTER WHITES.

February, March, April and May Boars and Gilts; no kin. Bred Sows, prolific, large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Chickens for sale.

RAYMOND RUEBUSH, Sciota, Ill.

SALE OF HOLSTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.

250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order, from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your wants.

JAMES DORSEY, Dept. F & S. G., Gilberts, Kane County, Illinois.

POLAND-CHINAS OF THE BEST STRAINS

Size with quality. Some early spring farrow. Some younger ones by the great Longfellow's Special, 64,200. Some head herders and extra choice Gilts priced to sell at once to make room for the fall litters. They are healthy and thrifty. Catalogue free.

A. F. SIEFKER, Defiance, Mo.

BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

JACKS AND PERCHERONS.

We have twenty-five of the biggest and best mammoth Jacks in Kentucky and a few Percheron Stallions. We will cut the price from $100 to $300 per head on every one. We have a big stock of High-grade Percheron Mares, Hampshire Swine and big Black Pigs. Write your wants and visit the Cloverdale Farm.

H. T. BROWN & CO., Lexington, Ky.

TAMWORTH SWINE.—Bred Gilts and all sizes of Pigs for sale. **L. R. GEORGE, Breckenridge, Ill.**

SCOTCH COLLIES FOR SALE.

A choice lot of pure-bred Collies, from three months to three years, dirt cheap for immediate delivery. **R. FLEMING, Cuba, Kansas.**

TAMWORTHS FOR SALE.—The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

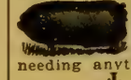
PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

SPLENDID DUROC-JERSEY PIGS.

I have for sale seventy-five registered Duroc-Jersey Pigs, March farrow. Some fine Gilts bred for August and September farrow. Prices from $12.50 to $35. Good individuals, well bred. Write me if needing anything in this line.



J. E. WELLER, Faucett, Mo.

HOGS! HOGS! FOR SALE!

Big Registered Poland-Chinas and English Berkshires that weigh and win; S. C. Brown Leghorn Chickens that lay. See or write

S. Y. BURKS, Bolivar, Mo.

THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. **J. H. DUNLAP, Box 373, - Williamsport, Ohio.**

MILL CREEK STOCK FARM,

(The Home of the Starlights.)

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks.) A written guarantee. Send for catalog.

R. F. D. 7, - NASHVILLE, TENN.

Long Distance Phone, Main 1326.

Buy Jerseys

Dollar for dollar invested, the Jersey will earn back the amount paid for her quicker than other breeds because her product brings a higher price per quart or per pound. For the home she is unsurpassed, and her low cost of keep makes her most desirable. Write now for Jersey facts. No charge.

AMERICAN JERSEY CATTLE CLUB

324 W. 23d St., New York

NEW CORN GRADES.

Formulated by the United States Department of Agriculture, But Not Yet in Force and Effect.

Under authority from Congress contained in the agricultural appropriation act, which authorizes the Secretary of Agriculture to fix definite grades for grain, the United States Department of Agriculture, through its office of grain standardization of the Bureau of Plant Industry, has completed the necessary investigations to justify the fixing of definite grades for commercial corn. On the basis of these investigations the following tentative grades for corn have been formulated. With the view to having the public fully informed regarding the grades before they are finally adopted, their publication has been authorized by the Secretary. Prior to the final fixing of these grades by the Department a formal hearing will be held in Washington, the date to be announced later.

Commercial Corn Grades.

No. 1 corn is allowed a maximum of 14 per cent. moisture; not over 2 per cent. of damaged corn (exclusive of heat-damaged or mahogany corn); not contain over 1 per cent. of foreign matter (dirt, cob, finely-broken corn, other grains, etc.) and not over 2 per cent. of badly-broken or cracked corn that does not include finely-broken.

No. 2 corn is allowed 15.5 per cent. of moisture; 4 per cent. of damaged corn; 1 per cent. foreign matter; and 3 per cent. of badly-broken.

No. 3 corn is permitted 17.5 per cent. moisture; 6 per cent. damaged corn; 2 per cent. foreign matter; and 4 per cent. badly-broken corn.

No. 4 corn is permitted a maximum of 19.5 per cent. moisture; 8 per cent. of damaged corn; 3 per cent. of foreign material; and 4 per cent. of badly-broken corn.

No. 5 corn is permitted a maximum of 21.5 per cent. of moisture; 10 per cent. damaged; 3 per cent. foreign material; and 5 per cent. badly-broken.

No. 6 corn is permitted to contain a maximum of 23 per cent. moisture; 15 per cent. damaged corn; 5 per cent. foreign material; and 7 per cent. badly-broken.

General Rules and Sample Grade.

Corn in grades No. 1 to 5 must be sweet.

White corn, all grades, shall be at least 98 per cent. white.

Yellow corn, all grades, shall be at least 95 per cent. yellow.

Mixed corn, all grades, shall include corn of various colors not coming within the limits for color, as provided for under white or yellow corn.

In addition to the limits indicated, No. 6 corn may be musty, sour, and may also include corn of inferior quality, such as immature and badly blistered.

All corn that does not meet the requirements of either of the six numerical grades by reason of an excessive percentage of moisture, damaged kernels, foreign matter or badly-broken corn, or corn that is hot, heat-damaged, fire-burnt, infested with live weevil, or otherwise of distinctive low quality, shall be classed as sample grade.

In No. 6 and sample grade, reasons for so grading shall be stated on the inspector's ticket or certificate.

Finely-broken corn shall include all broken particles of corn that will pass through an 8x8-mesh wire sieve, the diameter of the wire to be twenty-five thousandths of an inch.

Badly-broken or "cracked" corn shall include all broken pieces of kernels that will pass through a 4x4-mesh wire sieve, the diameter of the wire to be thirty-six thousandths of an inch, except that the finely-broken corn, as provided for under Rule 6, shall not be considered as badly-broken or "cracked" corn.

It is understood that the damaged corn, the foreign material, including cob, dirt, finely-broken corn, other grains, etc., and the badly-broken or "cracked" corn, as provided for under the various grades, shall be such as occur naturally in corn when handled under good commercial conditions.

Moisture percentages, as provided for in these grade specifications, shall conform to results obtained by the standard method and tester as described in Circular 72, Bureau of Plant Industry, United States Department of Agriculture.

Fertilize as You Sow the Seed.

On page 7 will be found the advertisement of the VanBrunt Drill, which is quite attractively set forth. The intention of the advertisement is to interest you so that you will be prompt in sending for further information. If you write to the good, old, reliable John Deere Plow Company, Moline, Ill., and ask for Book 7 VB, you will receive by return mail the entire illustrated story of Van Brunt results.

A STOCK CONDITIONER.

A Liberal Offer to Farmers Who Are Stock Raisers.

Within a few weeks shoats and young porkers will be taken off pasture and yarded for fattening. If no attention has been given to the worm problem while animals have been filling up on green forage, it would be well for every breeder to take some precaution before putting this young stock on high feed. Worms are gathered freely while stock are on pasture and a change of feed should be preceded by a thorough and systematic effort to condition the herd so as to get the full benefit of the change from green stuff to corn.

Worms in the stomach or intestines can quickly be expelled by feeding Sal-Vet. Such is the opinion of leading authorities who have fed this well-known vermifuge and stock conditioner. In fact, there are thousands of breeders and farmers who would not try to raise stock without it, now that they know its value. The very liberal terms on which any farmer can try Sal-Vet should encourage all who have stock to give it a trial. Hogs, cattle, sheep and horses all need it. For a few pennies a day stock can be kept free from worms and many of the losses that would otherwise occur are prevented.

Animals are allowed to run to Sal-Vet in yard or feeding pens, so no time is lost in dosing or doping animals separately, as some are accustomed to doing. The idea, of course, is to reduce chances of loss by giving all animals access to it, and as Sal-Vet is relished by all stock, they take it freely and condition themselves. We believe every farmer and stockman will find it to his advantage to accept the Sal-Vet offer, which appears on page 5 of this issue.

The manufacturer, Mr Sidney R. Feil, President of the Sal-Vet Company, Cleveland, Ohio, states in his advertisement that he will send enough Sal-Vet to feed any number of stock sixty days before he asks a penny of pay, and that if results are not satisfactory he will cancel the charge. This is a fair and liberal offer and will no doubt secure the attention of hundreds of stock owners who have never had an opportunity of trying this valuable conditioner and worm destroyer. We can heartily recommend Mr. Feil's plan to all our readers. See page 5.—(Advt.)

Goodyear Automobile Tires.

Automobiles wear out tires, that have to be replaced very much as a horse has to be shod. The automobile owner should investigate the tire question before the time comes to buy them, so that he decides in advance what he intends to buy. Automobile tires are now made by experts, and the best makes are well known. Probably the best showing at the present time is being made by the Goodyear Rubber Company, claiming the least cost per mile of any tire that's built. We advise our readers to send to the Goodyear Tire and Rubber Company, Akron, Ohio, and ask for a copy of the Goodyear Tire Book. It tells the whole story of the automobile tire. See page 6 of this edition.

Complete Silos and Lumber.

You can buy a silo, and woodwork for a house or barn, and have the car delivered at your nearest railroad. It is claimed that you get a better, stronger and more lasting silo at a saving of 40 to 60 per cent. on the cost of the average timber silo. Do not hesitate to write to Hewitt-Lea-Funck Co., 499 Union Avenue, Seattle, Washington, and enclose the coupon on page 13. There are distributing centers on all railroads, and you will be dealing with the silo builder and lumber producer direct.

Dittmann (St. Louis) Shoes.

Attention is invited to the card of the Dittmann Shoe Company on page 32. This is one of the great firms that have made St. Louis famous as the largest boot and shoe center in the United States, and the Dittmann Shoes are all sold in retail stores direct from the manufacturer, so that you can find the storekeeper in your home town and have the benefit of the full stock of Dittmann Shoes and sizes. You therefore support your home community in the first place and the industries of the nearest city that buys many million dollars' worth of farm products a year in the second place. The Dittmann Shoe Company has an honorable record of making shoes, and their card in this paper on page 32 is interesting and instructive.

GOOD BOOKS AND PAPERS.

FARM MANURES by Prof. Chas. E. Thorne, Director of the Ohio Agricultural Experiment Station. This work is by a recognized authority. Chapters are devoted to "The Origin of the Soil; the Composition of the Plant; the Feeding of the Plant; the Composition of Manure; the Production of Manure; the Value of Manure; the Waste of Manure, the Preservation of Manure; the Reinforcement of Manure; Methods of Applying Manure; Where to Use Manure; Green Manures; Planning the Farm Management For Fertility Maintenance." The book is illustrated; 242 pages, 5x7 inches; bound in cloth. Price, $1.50. Published by Orange Judd Co., 315 Fourth Ave, New York, N. Y.

AMERICAN JERSEY CATTLE CLUB.—Procedings of the annual meeting held May 7, 1913, are issued. This booklet covers the entire transactions for the advancement of the Jersey breed of cattle during the past year, publication of herd register, prizes offered, books published. Number of native bulls registered in the year ending March 31, 1913, 8,074 head; imported, 29; native-bred cows, 17,233; imported, 390; total, 25,726; increase over previous year, 1,392.

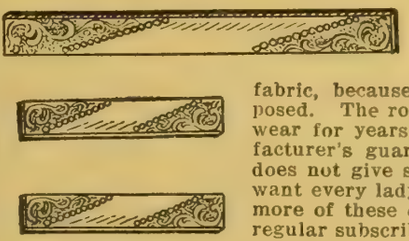
THE GRANGER MOVEMENT.—The first adequate history of the Granger Movement, center about the Order of the Patrons of Husbandry, or the Grange, is to be published September 3d, under the title "The Granger Movement." The author, Dr. Solon J. Buck, of the University of Illinois, presents in a work of particular present-day interest a comprehensive study of this nation-wide organization among farmers for protection and co-operation. The political aspects of the Granger Movement, as well as its connection with the beginnings of railroad regulation and with the co-operative movement in America, are treated at length. The book is published by the Harvard University Press, Cambridge, Mass.

SCIENTIFIC FEEDING OF FARM ANIMALS.—This book is issued by The MacMillan Company, 66 Fifth Avenue, New York City, and the price is $1 75, net. The book is a German work by Professor O. Kellner and translated by Professor William Goodwin, head of the chemical department of the most important English agricultural college. The value of this work can be appreciated from the fact that it has been translated in seven languages. It is a work of four hundred and four pages and it is most thorough in all departments, finishing up with the feeding tables and a comprehensive index. Not everyone will be interested in this work, but all advanced farmers ought to be. It is a standard work of unusual merit.

Rolled Gold Plate Waist Pins

Given as a Free Premium With the Charming Monthly Publication, the UNIVERSAL MAGAZINE.

This beautiful Pin Set, as illustrated, consists of a large Pin (2¼ inches long) and two smaller Collar or Cuff Pins. They are unbreakable, the back being formed of one piece, the rolled gold plate front then being rolled on, making the entire Pin practically one piece. They will not catch in the hair or fabric, because no sharp points or edges are exposed. The rolled gold plate front is warranted to wear for years without tarnishing, and the manufacturer's guarantee is with every Pin, and if it does not give satisfaction it will be replaced. We want every lady reader of this offer to have one or more of these dainty Waist Pins, also to become a regular subscriber to our



UNIVERSAL MAGAZINE.

This publication is a bright, clean, home monthly, containing sixty-four pages each issue of choice short stories, fashions, patterns, poetry and other matter interesting to the household. Send us 30 cents in stamps, money order or coin, and we will enter your subscription for one year to the UNIVERSAL MAGAZINE, and we will send you as a free premium either the one large Pin or the two smaller Pins, as you may select, postpaid; or, better still, send us 50 cents for a two-year subscription and we will send you the full set of three Pins as a free premium. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

"MAKING THE FARM PAY."

"Making the Farm Pay" is a very valuable book for several good reasons:

1. Because it tells you how to care for and enrich your soil, giving the latest ideas in soil treatment and drainage.

2. Because it takes up the proper rotation of field crops for different soils; their adaptation and economic relations, and explains the culture directions of crops.

3. Because it explains fruit culture and forestry, showing how to bud, spray, graft and prune; how to kill injurious insects that affect fruit and shade trees; also insects that destroy field crops and garden products.

4. Because it tells how to make vegetable gardening and trucking pay; how hundreds of dollars can be made, by using proper methods, on only a few acres.

5. Because it tells you how to select and feed farm animals for the greatest net profits, explaining the balanced ration and how much feed and many dollars can be saved by proper feeding. The colored feeding chart, indicating the amount of digestible protein, carbohydrates, fats, ash, water and indigestible residue in principal feed stuffs, is alone worth a ten-dollar bill to a stock feeder.

6. Because it takes up the diseases of farm animals, giving the causes, symptoms and treatments of each, which will save you the loss of many dollars' worth of stock. These are explained in common terms that anyone can read and understand.

7. Because it shows how to make and fill a silo and explains the value of silage to the average farmer. It gives many rules on measuring feed and grain and many valuable hints and helps for every farmer.

8. Because it tells how to make poultry pay and discusses the different breeds—the "sitting" and "non-sitting," the "general-purpose" and "fancy" breeds. The work tells how to caponize poultry, giving illustrations and cuts; also describes the diseases of poultry and their cure.

9. Because "MAKING THE FARM PAY" is written by the best, practical authorities, and takes up improved methods of modern agriculture in all branches of farming. It is written by men who have done what they advise others to do.

10. Because "it is the most in agriculture for the money." It is a ready-reference library in practical, scientific farming, giving you hundreds of money-saving methods and explaining the successful principles that every wide-awake farmer wishes to know—how to make his farm pay.

Our Subscription Proposition.

Anyone who will send one dollar to this office will receive The National Farmer and Stock Grower for two years and can select one copy of the book "MAKING THE FARM PAY," and it will be sent as a subscription premium, by mail, prepaid, safe delivery and satisfaction guaranteed.

HERE IS A SUBSCRIPTION BLANK.

Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find one dollar to pay for two-years' subscription to The National Farmer and Stock Grower, for which please give me credit. You will please send me as a Souvenir Supplement, post free, safe delivery and satisfaction guaranteed, one copy of the book "MAKING THE FARM PAY."

Name.....

Address.....

MADE-OVER CLOTHING.

Industrial Item For the Homestead, Where Economy is Wealth.

Many women look with suspicion on any directions as to making over old clothes, and in the way it is often done the made-over garment shows unmistakably that it was new once in the long ago, even if it has some likeness to the prevailing styles.

This need not be if the article to be made over is carefully ripped apart without cutting the cloth and the threads all picked out, and if there is any accumulation of lint, as is often the case at seams or hems, it should be scraped off with a knife. Then wash in water that has had white soap dissolved in it to make a pretty strong suds. Wash in different waters until perfectly clean, then rinse in clear water to take out the soap and partly dry, ironing on the side that is to be inside of the forthcoming garment. If the goods are black or blue, the rinsing water should be "blue or indigo;" it improves the color.

This mode of washing is suitable to almost every material, all woolens, linens and cottons coming out like new, but some silks will not stand such treatment without being the worse in color and texture, or both. On this account, for silk, I always use gasoline that has been warmed by setting a pan containing it in a larger vessel of boiling water, covering tightly to keep any fumes out of the air, and even then I never let the pan stand where there is a light or an open fire. I rub and shake the silk pieces or garment until the gasoline is soiled, then rinse in clear gasoline and hang out to evaporate. When dry and most of the odor is gone, press with a moderately warm iron. Too hot a one is bad for the silk fibre and it also fades some colors, so that unless you can keep the iron up to the same degree of heat when pressing all the pieces the effect of the goods when made up will be decidedly spotted.

Gasoline will not take out gummy substances nor perspiration soil. For these, alcohol has served me well. I once had a bottle of gum benzoin spilled in a suitcase and most of it was absorbed by a black silk dress, which everyone pronounced hopelessly spoiled. I had noticed that alcohol took out varnish, so bought a half pint and sponged every spot till I thought them all clean, and when the alcohol had evaporated the dress was as good as ever, except some spots that had gotten the worst soaking. These had to be treated again, when they were completely eradicated.

Lace yokes, collars or other trimmings can be cleaned the same as cloth, and, when ripped from the article they have ornamented, should be cleaned at once and put away to be used at some future time for some other garment. I never put the same old trimming on the made-over dress or coat; it seems so much newer if the ornamentation is varied a little. At the present time, with the rage for pipings and buttons, most anything that may be in the house will work in nicely, as both contrasting and harmonizing colors are used and button molds may be gotten of any size that one wants. For wash dresses I always use agate buttons for molds, turning them upside down so that the oval surface of the button will be the top when covered. I prefer them to wooden button molds, because they cannot become water-soaked; this prevents the cloth covering from getting stained, as it sometimes is from the wooden-button molds.

In making over, one has to "cut according to the cloth;" but the present styles are very friendly to the one who is "making auld claes look amaist as weel's the new," the art immortalized by Burns in his "Cutter's Saturday Night," for unless worn so badly that considerable has to be cut away, it is no great achievement to get a whole dress out of a skirt made a few years ago. I have just made over a black-cloth skirt into a one-piece dress, and it is just as pretty as though made up of new materials, as I put the wrong side out. This should always be done if the weave will admit, for any faded streaks will not then show. If the stuff is not pretty on the wrong side, then one must dye over the faded spots; but this is another story.

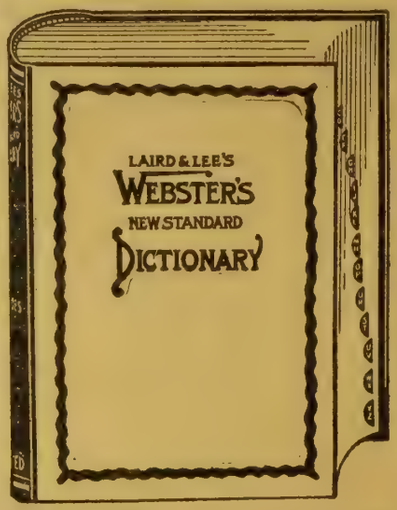
The cheap and well-fitting patterns that now may be chosen from the pages of The National Farmer and Stock Grower are a great help to the one who cannot "cut by guess," as some term this art. The one who has an eye to form can vary the different accessories of the coat or other garment to be made; but even if one must depend wholly on paper patterns, one can change about so that when an article of clothing is worn there need be no fear of meeting its counterpart as to style. I have friends who each buy several skirt and waist or coat patterns and exchange with each other. This gives them a wide selection of collars, cuffs, etc., to select from and gives abundant variety from which to evolve quite original effects.—Cora S. Cornman.

Greatest Value Ever Offered For $1.00

THE VERY BEST MONTHLY FARM PAPER FOR TWO YEARS AND A COPY OF LAIRD & LEE'S

WEBSTER'S NEW STANDARD DICTIONARY

WHICH IS THE MOST COMPACT, USEFUL, HANDY, INSTRUCTIVE BOOK EVER ISSUED BY THE AMERICAN PRESS.



LAIRD & LEE'S Webster's New Standard Dictionary of the English Language — a wonderful book, 756 pages in all, 840 illustrations, substantially bound, gilt title, red edges, patent thumb index. Special edition for office and general use on farms, estates, ranches, etc.; massive but handy; contains ten encyclopedic features, supplement of new words, dictionaries of biography, geography, musical terms, Biblical, classical, historical and mythological names, foreign phrases, English word-building, rules in orthography, current abbreviations, metric system with conversion tables; weighs twenty-eight ounces. We are using WEBSTER'S NEW STANDARD DICTIONARY as a subscription premium to the best monthly farm paper in the United States.

The National Farmer and Stock Grower

is a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in THE NATIONAL FARMER AND STOCK GROWER. There are thirty-two pages, four columns to the page. It is published monthly.

SPECIAL INDUCEMENTS.

Our offer to you: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will also send you, postage paid, safe delivery guaranteed, one copy of this great WEBSTER'S DICTIONARY. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Distantly Related.

"Are you related to Barney Sullivan?" Patrick Sullivan was once asked.

"Very distantly," replied Patrick. "I was me mother's first child, and Barney was the sivinteenth."—Woman's Home Companion.

Please read about the Book of Live Stock Champions on page 31.

Foolish to Buy Wood Shingles

What's the use of buying common **wood** shingles now that you can get the original and genuine Edwards STEEL Shingles for LESS MONEY? Don't wood shingles **catch fire**, don't they **rot**, don't they **cost a lot of time and money** to put on?

Nobody ever heard of an Edwards Steel Shingle roof **burning up** or **rotting**. And it doesn't take long to put them on. For these **steel** shingles come in great big clusters of 100 or more.

Edwards STEEL Shingles

Each Edwards Steel Shingle not only has thoroughly galvanized sides, **but each EDGE is dipped in MOLTEN ZINC.** No chance of **rust.** All joints are permanently water-tight as a result of our patented Interlocking Device, which takes care of expansion and contraction.

PRICES We sell direct from factory and pay the freight. Our cost of doing business is divided among thousands of sales. Hence our ability to underprice wood shingles. You have been intending to get our prices for some time. **Do** it this time. Send a postal now—today—and get, by return mail, Catalog 95, the Roofing Offer of the Age. Give dimensions of roof if you can, so we can quote price on the complete job. (120)

THE EDWARDS MANUFACTURING CO.
907-957 Lock St., Cincinnati, Ohio
Largest Makers of Sheet Metal Products in the World

CORN FOR MISSOURI.

Food For Thought When Contemplating the Crop of 1913.

The farmers of Missouri have in the past lost considerable because of the fact that they have not grown corn varieties which were adapted to their respective sections of the state. In many instances, because corn has failed to mature in some certain year, extremely early varieties have been secured, which has materially decreased the yield. A corn variety to give best results in any section should mature early enough to be safe from frost, yet it should be late enough to utilize the greater part of the growing season in order to insure a large yield.

The results of the 1913 corn co-operative tests of the Missouri Experiment Station, conducted in practically all of the counties of the state, show Commercial White to be the highest-yielding variety in the test. There is considerable objection to this variety, however, due to the fact that it is always late in maturing. Good seed of this variety is very hard to secure, however, as few men are growing it. The Boone County White and Reid's Yellow Dent varieties stand next to the Commercial White and seem well adapted to practically every section of the state. The Boone County White has a tendency to be slow in maturing, but does unusually well on the bottom lands and richer uplands of the state. The Reid's Yellow Dent is a variety that will mature practically every year and seems well adapted to lands of average fertility. The Johnson County White takes practically the same requirements as the Boone County White and is well adapted to the better lands of the state. St. Charles White, St. Charles Yellow and Cartner are varieties which have been developed to suit local needs. The St. Charles White seems especially adapted to the Missouri river bottoms as well as to the lowlands of Southeast Missouri. For the better lands of the Ozark region, the varieties recommended for general upland conditions are good, but for the average Ozark uplands, varieties like the old-fashioned Calico or Golden Beauty or the Iowa Silver Mine are preferable.

As a general recommendation, Commercial White, Boon County White and Johnson County White are the white varieties which can be most generally recommended, while Reid's Yellow Dent, St. Charles Yellow and Leaming can be recommended as yellow varieties which will give fair results in practically every section of the state. All of our experiments show that it is a good practice to secure seed as near home as possible, because of the fact that it is more likely to be acclimated.—T. R. Douglas, Missouri Agricultural Experiment Station.

EVERY DAY A FARMER DAY.

Special Effort Being Made to Make the Missouri State Fair a Practical Benefit to the Farmer.

The Missouri State Fair at Sedalia, September 27-October 3, gives wonderful promise of a great exhibition and largely-increased attendance. Coming just before the American Royal at Kansas City, the Illinois State Fair at Springfield and the New State Fair at Muskogee, Okla., and with a largely-increased premium list, all departments of the exhibition will be strong, especially the live stock show. An example of the prospects for the show may be seen in the entry list for the World's Greatest Saddle Horse Stake, in which there have been twenty entries.

In arranging for the coming exhibition at Sedalia, particular attention has been paid to the practical interests of the farmer. The model farm on the Fair Grounds; lectures and demonstrations by the experts of the federal station for the prevention of hog cholera; plowing, dairy and egg-laying contests; the Boys' State Fair School; premiums in canning and breadmaking for girls; and corn growing, stock and corn judging for the boys of the farm; and an especially attractive display of farm machinery will be among the features.

Monday, September 30, will be "Automobile Day," and thousands of automobile parties are expected to visit the Fair and enjoy the special features that have been arranged for that day. Tuesday is "Sedalia Day;" Wednesday, "Agricultural Implement Dealers' Day;" Thursday, "Governor's Day;" Friday, "Missouri Editors' Day;" and every day "Missouri Farmers' Day."

Several thousand dollars have been expended on improvements on the grounds and new buildings and many free amusements have been secured to entertain the visitors, among them Thaviu's Band and Grand Opera Sextette, latest model monoplane, a four-drop balloonist, a splendid racing card and five big acts of vaudeville.

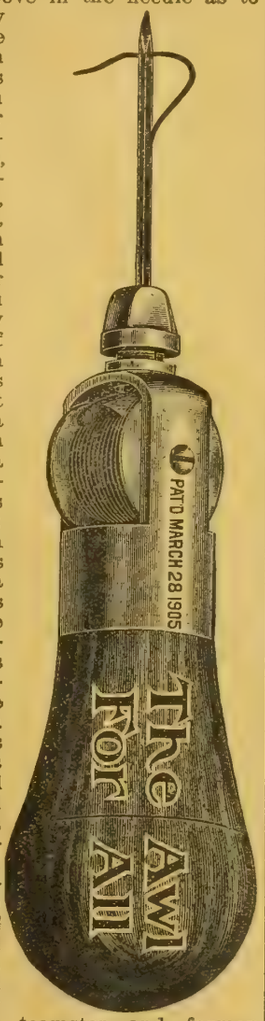
The homes of Sedalia will be thrown open to those who prefer not to stop at the hotels, and an information bureau located on the public square of Sedalia, with a branch office on the Fair Grounds, will furnish messenger service to direct visitors to their destinations and furnish information.

The catalogue and premium list may be secured free on application to Secretary John T. Stinson, Sedalia, Missouri.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Barb Wire FENCING **$1.29 PER REEL AND UP**

A Tremendous Bargain

We have just bought 5,000 Reels New Gal'v. Barbed Wire Fencing at an exceptionally low price. Made of the best Bessemer steel—Full guage and size—Well galvanized (not the painted kind)—No seconds or poor stuff; all new and first class wire.

80 Rods in Reel

2—Point Cattle **2—Point Hog**
4—Point Cattle **4—Point Hog**

Save 20% to 40%

In the recent flood it was under water a few days—not damaged 5%—A wonderful bargain. Take our word for it. Order a sample reel for inspection. You take no risk. Quick shipments—Don't delay.

A. J. Child & Sons Merc. Co.
Established 1874
517 N. Main Street St. Louis, Mo.

Evolution of the Carriage Tire.

(By C. W. Martin, Manager Carriage Tire Department, The Goodyear Tire and Rubber Company, Akron, Ohio.)

"Carriage tires were made for a short period prior to 1898, but in this year the famous Solid Wing Carriage Tire was made by The Goodyear Tire and Rubber Company, Akron, Ohio," says C. W. Martin, Manager of the Carriage Tire Department.

"Nine out of ten people, if asked whether or not they thought the carriage and buggy business was on the increase, would answer that they were positive it was going down hill mighty fast. The data gathered from manufacturers of carriages and buggies proves that conditions are otherwise. They report that business is on the increase, and are enthusiastic about next year's business.

"In the nineties, the idea of applying a rubber tire to a buggy was first conceived. The first rubber-tired buggy was operated in Detroit, and, like the first bicycle, created considerable interest, also comment and criticism.

"Like most all innovations, the carriage tire was considered a fad. However, it has grown remarkably until at the present time it is a staple article.

"The demand for carriage tires is increasing each year, which is proven not only by the number of tires manufactured, but also by statistics from the buggy and carriage manufacturers.

"We entered the field of carriage-tire manufacturing early. Shortly after we invented and placed upon the market the Wing Carriage Tire, which has held an eminent position in this field ever since.

"Carriage tires were not on the market for any length of time until it developed that their construction was lacking in one respect. Dirt and water sifted between the base of the tire and the rim, which caused the fabric to break, resulting in the loosening of the internal wires. This detrimental condition was overcome in the Wing tire. Instead of allowing the sides of the tire to extend directly to the base, we decided to mold that portion fitting in the channel outwardly.

"In this manner the wing of the tire was parallel to the top of the channel, which prevented foreign substances from entering.

"The Wing tire was made and sold as an improvement over the original plain tire. The evidence of its superiority resulted immediately in remarkable sales.

"Approximately half the vehicles manufactured this year will be equipped with Goodyear carriage tires."

Illinois State Fair.

The Illinois State Fair at Springfield will open at Springfield, October 3d and continue until the 11th.

Missouri State Fair.

Don't forget that the opening date of the Missouri State Fair is Saturday, September 27th.

IN CHARGE OF ADVERTISING.

F. W. Heiskell to Direct the Future Advertising Policies of the International Harvester Co.

It has been announced by the management of the International Harvester Company of America that F. W. Heiskell, for two years Assistant Advertising Manager, will succeed M. R. D. Owings as Advertising Manager, and that A. G. Seyfarth, formerly head of the Production Department, will take the position left vacant by Mr. Heiskell's promotion.

Both of these promotions are along the regular civil service system of advancement laid down by the company in building up its organization. Mr. Heiskell began his work in the harvesting machine business twenty years ago, while still a high school boy in Indianapolis, working in the repair room under James B. Heywood, who was guiding the McCormick destinies in Indianapolis at that time. After his graduation in 1895 he was given a permanent position.

He worked his way up from the Repair Department, until in 1906 he was sent to Fort Wayne to be assistant to J. W. Wisehart, who was the International General Agent at that place. The following year he was sent to Akron, Ohio, to establish a Transfer Agency, using the Buckeye plant recently purchased by the International Harvester Company from the Aultman-Miller Company. In 1907 he went to East St. Louis to establish a transfer and distributing house for southwest territory, for the purpose of relieving the congestion at Kansas City. He was later made Assistant General Agent at Indianapolis under "Jess" Everson, which position he was holding when he was transferred to the Chicago headquarters to be Assistant Advertising Manager.

Mr. Seyfarth has been identified with the Advertising Department of the International since its formation in 1903. Beginning as a catalogue writer, he has gradually gone ahead until the last few years he has had charge of the Production Department, which issues catalogues, folders, calendars, the I. H. C. Almanac and Encyclopedia and other literature. He is a University of Michigan man.

Both Mr. Heiskell and Mr. Seyfarth are well known to the trade. They possess the confidence and esteem not only of the fellow-members of the International organization, but of the farm-machine world in general.

St. Louis Wool Market.

On August 30th, at St. Louis, the Missouri, Illinois and Southeast Iowa wools, best grades, were selling at 20 to 21 cents; fair medium, 16 to 19 cents; and heavy wools, 13 to 17 cents; Texas, Arkansas, Oklahoma and Southern wools about a cent a pound lower. There is no activity in wool trading, unless it be at St. Louis, where a good number of buyers are scouting around. Anyone wishing quick information in regard to the wool market should mention this paper and write to A. J. Child & Sons, 515 North Main street, St. Louis, Mo., for the latest wool circular.

Barbed-wire Fencing.

The barbed wire advertised by A. J. Child & Sons, 517 North Main street, St.Louis, Mo., on page 23, was under water a few days in a flood, otherwise it is first-class, new wire. Three thousand reels have been sold and delivered without a single complaint. An opportunity to fence well and cheaply should not be neglected. This is not an advertisement. It is a good news item.

Cement Sidewalks.

"The four principal requirements of good sidewalks are smoothness, non-absorbent of water, durability and low in first cost. The one that comes nearest fitting them all is that of Portland cement construction.

"Care must be taken in the construction of a cement sidewalk, and one of the principal things to consider is the foundation. This has often been entirely neglected with the result that the walk was soon in need of repair. The foundation should be of some material that is easily drained and readily and evenly packed. Broken stones or gravel are often used, but the best results have been obtained by using cinders. An excavation ten inches below the finished surface should first be prepared. In this place six inches of cinders evenly packed to give an even bearing surface for the walk. On this is placed three inches of concrete with an additional inch of cement covering for wearing surface. The foundation should be thoroughly wet before applying the concrete. If the base is allowed to set before the top coat is put on it should be left rough to give a binding surface for the next coat.

"Improper proportioning and mixing of materials and laying in freezing weather often causes failures; but more often we find the failure is due to a poor foundation."—O. P. Pennock, Colorado Agricultural College.

Corn Harvesting Simple.

Attention is invited to the card of the New Process Mfg. Co., Salina, Kas., on page 4. For several years this corn harvester has been advertised with considerable success. It is worth investigating.—(Advt.)

The River Apple Trade.

The first large, full consignment of apples from Calhoun county, Illinois, arrived in St. Louis August 29th, although other boats brought in a few apples earlier in the week. The apple business at Calhoun, Rip Rap and other landings in the district is open in full force. A feature this year is that the freight charges are five cents higher than last year. Steamboat owners are charging twenty cents a barrel. The price last year was fifteen cents. Labor is higher and more scarce, it is said.

A Splendid Seed House.

The A. W. Schisler Grain Company do a splendid business in reliable seeds. It is safe and advantageous to do business with them. Write to the A. W. Schisler Grain Company, 708 North Fourth street, St. Louis, Mo., and ask for the Golden Arrow Seed Catalogue.

St. Louis Root Market.

The roots received from the country shippers were selling as follows on the St. Louis market late in August. Quote by the pound: Golden Seal, $3.75; Lady Slipper, 17c.; Seneca, 50c.; Pink, 32c.; Black, 8 to 9c.; May Apple, 5c.; Snake, 32c.; Black Snake (Echinacea), 10 to 11c.—split half price; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 5c.; Blood, 5½c.; Blueflag, 2½c.; Sassafras—Bark of root, 5c.; Wild Ginger, 7c.; Spikenard, 3c.; Skullcap leaves—Bright, 9c.; dark less; Wild Ginseng, $6.75 to $7.00; transplanted, $5.00 to $6.00; cultivated, $3.50 to $4.00.

FOUR BEAUTIFUL FERNS

To be Obtained as Subscription Premium in Connection With either Our NATIONAL FARMER AND STOCK GROWER, a Splendid Monthly Farm Paper, or With Our Monthly UNIVERSAL MAGAZINE, a Gem of a Story and Literary Publication.

NOW IS THE ACCEPTED TIME.

We wish to deliver WITHOUT COST to your door in good, healthy growing condition a valuable assortment of beautiful ferns. We have secured them from fern growers who boast of the fact that their plants are entirely free from all injurious insects or disease which destroy foliage plants of this type, and are assured each individual plant is one of the finest ever produced. There is nothing that will add more cheer to the home through long, dark winter months than a few well-chosen house decorative plants, and those we offer comprised the very best varieties in cultivation, and of a size and quality that will quickly develop into beautiful specimens. We give below a description of each variety:

ROOSEVELT FERN.—This fern is a new variety recently introduced and one of the finest for house decorative purposes grown. It is of compact, vigorous-growing habit, producing in great numbers wide, massive fronds of good length, beautifully tapered from base to tip, that droop gracefully over the pot, hiding it completely from view. The pinnae or leaves of this fern are distinctly undulated, giving the whole plant an attractive, wavy appearance, which adds materially to its beauty. Without an exception, ROOSEVELT has proved the strongest-growing variety ever produced and withstands better than any other variety unfavorable growing conditions of indoor culture found in the average home. A small plant requires but little care to quickly develop into a finished specimen of rare beauty.

BOSTON FERN.—This fern is one of the oldest and best known varieties grown, and in the long years of its cultivation has proven well worthy of a place in every home. It is known by some as the "Fountain Fern," which name it derived from its graceful drooping habit of growth, and until the recent production of the ROOSEVELT Fern was acknowledged the finest of its type. It is a very rapid grower, producing fronds of unusual length, frequently measuring from six to eight feet, and its freedom of growth without special care has made it popular with all who admire beautiful house plants.

THE ROOSEVELT FERN.

WHITMANI FERN.—This charming creation caused a real sensation among lovers of plants, each frond being as delicately and finely cut as the most perfect Ostrich Plume, by which name it is commonly known. It is a very vigorous grower, constantly unfolding new fronds of fine, feathery foliage, entirely distinct from any other variety, and which quickly grows to a width of from ten to twelve inches. The foliage is of good, substantial texture that withstands the abuse to which house plants are subjected, and so compact that each frond appears as one massive Ostrich Plume. WHITMANI is one of the few feathery foliage ferns with which everyone can succeed in growing to finished specimen plants under the average unfavorable growing conditions of the house.

ASPARAGUS PLUMOSUS.—A plant for all purposes, rapidly adapting itself to any conditions. Its rapid, sturdy growth, combined with its exquisite, lacy foliage makes it a plant of such airy grace and value as to be desired by everyone. The bright, rich, green fronds are as fine and delicate as the most beautiful lace, by reason of which it is given the name "Lace Fern."

OUR SUBSCRIPTION PROPOSITIONS.

We publish two papers. No. 1 is the monthly NATIONAL FARMER AND STOCK GROWER, the best farm publication in the United States. It furnishes good, instructive reading that will help farmers, stockmen, poultrymen, dairymen, fruit and vegetable growers in any state. The price is 50 cents a year, and anyone who will send us 50 cents to pay for one-year's subscription can select a set of ferns as a free premium, and we will send them fresh from the fernery, safe delivery in good order guaranteed.

Our second publication is the UNIVERSAL MAGAZINE, a bright, little pocket publication of sixty-four pages, two columns to the page. It contains good stories, poetry, fashions, embroideries, illustrations, and is well worth the price, which is 25 cents a year. Anyone who will send us 50 cents to pay for the UNIVERSAL MAGAZINE for two years can select our set of ferns as advertised, and we will send them at once as a premium, safe delivery and good condition guaranteed. Time is flying. Address at once **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

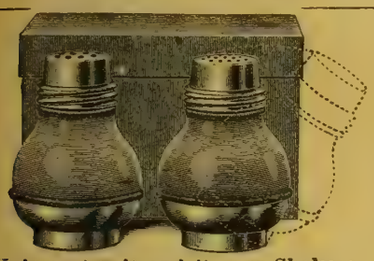
SALT AND PEPPER SHAKERS.

The Best Subscription Premium Ever Offered With the Universal Magazine.

The UNIVERSAL MAGAZINE ought to be known by everybody for the reason that it is a nice, bright, cheerful, illustrated monthly magazine of sixty-four pages, two columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

When we send out the UNIVERSAL MAGAZINE we also like to send out a useful and meritorious subscription premium with it.

To this end we have adopted a



Universal Salt and Pepper Shakers—Reduced Size.

pair of ALUMINUM SALT AND PEPPER SHAKERS, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents by mail in response to this advertisement we will send the UNIVERSAL MAGAZINE for ten months, and we will send the pair of UNIVERSAL SALT AND PEPPER SHAKERS as a premium, postage paid, safe delivery and satisfaction guaranteed. Send in your orders to

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

This Beautiful 20 Year Watch $3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, 7 jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for Gents Free.

$3.75

THIN MODEL

20 Year Guarantee

EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it, if you think it is a bargain and equal to any $15.00 watch, pay the express agent our Special price $3.75. Mention Ladies', Men's or Boys' size.

HUNTER WATCH CO., DEPT. 923, CHICAGO, ILL.

Excellent Sewing Machine

Offered as a subscription premium with the UNIVERSAL MAGAZINE and other publications. Write us for the best proposition of the kind that has ever been made.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

Best Grade Vacuum Cleaner

Offered as a premium with the UNIVERSAL MAGAZINE and other live publications. Write to-day for our premium offer.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

STERLING SILVER THIMBLE.

Given as a Premium With That Nice Family Publication, the Universal Magazine.

Every woman, whether she sews much or little, should have a Silver Thimble. No need to use a rusty steel or dangerous brass thimble, when a Solid Silver Thimble can be had for the cost of packing and mailing.

If you are not now a subscriber to the UNIVERSAL MAGAZINE you are missing one of the most delightful publications, and as a trial offer we will send the UNIVERSAL MAGAZINE for a year and one of these Thimbles for thirty cents in stamps or coin. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of sixty-four pages, two columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication. The sizes of the Thimble are 7, 8, 9 and 10. Order by size. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Rusting of Iron Prevented.

"Rusting of iron and steel is natural and unpreventable, but it can be retarded in its rapidity of formation. On exposure to the weather iron combines with oxygen of the air and rust is formed.

"Water (either as liquid or vapor) and oxygen must be present. Rusting is not merely the simple union of iron and oxygen, but rust is the result of complex actions between iron, water substances dissolved in the water (as soil, dust, etc.), impurities in the iron, etc. In the changes occurring there are formed small electric currents between particles of the iron and of the other substances and oxide of iron results.

"Some substances hasten rusting and others retard it. Those which aid are materials of an acid nature. Some forms of iron do not rust as readily as others. An iron which is worked well in its making and which is comparatively pure is especially resistant to rusting. Substances of an alkaline nature, such as quicklime, soda, caustic soda, potash, often inhibit rusting. A solution of potassium bichromate is especially good."—Raymond Hertwig, Colorado Agricultural College.

Score Cards For the Housewife.

In the judging of culinary products there is great diversity of opinion as to what constitutes an excellent loaf of bread, a glass of perfect jelly or a good cake—as the case may be. This is explained in the fact that we have set up no definite standards of what to expect. The personal element—our likes and dislikes—often affect our decision to the exclusion of judgment that should result from thoughtful consideration. The score cards to follow have been prepared as a tentative standard to "vary from" and as a means of calling the attention of the housewife to the essential points that go to make up quality. This setting up of standards of perfection will result in greater precision in observation and in greater accuracy in judgment.

It should be understood that score cards are not represented to be the one acceptable standard. Knowledge and individual theories may lead one to attach different values to the points named. The score card given herewith has been formulated by the Department of Home Economics at the Colorado State Agricultural College for use in the college classes and in judging at Fairs:

Flavor	35 Points.
Texture	35 Points.
Color	15 Points.
Clearness	10 Points.
General appearance	5 Points.

Flavor.—Of pronounced yet agreeable flavor.

Texture.—Jelly to score high should cut easily with a spoon, breaking with distinct cleavage and holding the form as cut. It should not be syrupy, sticky or tough.

Color.—Pronounced, yet natural—that produced from the fruit, not by the use of artificial coloring.

Clearness.—Free from pulp and bubbles. Transparent and sparkling.

General appearance. — Glasses should be of good quality, shape and size, and should be neatly labeled.

Dressed-beef Movement.

During the month of August St. Louis received a total of 5,690,300 pounds of dressed beef and shipped out a total of 26,102,600 pounds. Last year, in August, 12,685,200 pounds were received and 35,483,200 pounds were shipped out. Generally speaking, arrivals in St. Louis are from the West and shipments are to the East.

A Pocket Book Circulation Premium.

THE NATIONAL FARMER Folding Bill Book.

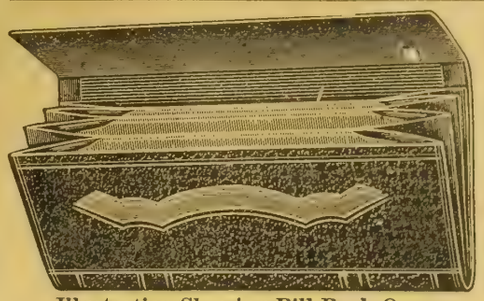
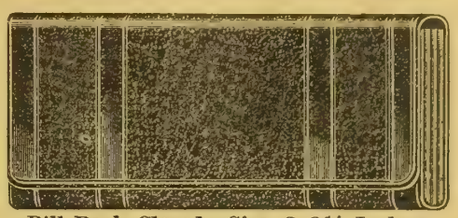


Illustration Showing Bill Book Open.



Bill Book Closed—Size, 3x8½ Inches.

Convenient to carry Currency, Bills, Notes, Receipts, Railroad Tickets, Lodge Identification Cards, Stamps, Etc.

BEST VALUE AND MOST SERVICEABLE PREMIUM EVER OFFERED.

Every Prospective Subscriber Wants One and Needs One.

National Farmer Folding Pocket Bill Book, Genuine Seal Grain Leather Cover, Very Fine Finish, Fancy Embossed, Good Quality Throughout.

Our Subscription Offer.

WE have adopted THE NATIONAL FARMER FOLDING BILL BOOK as a subscription premium with the best monthly farm paper in the United States.

The National Farmer and Stock Grower

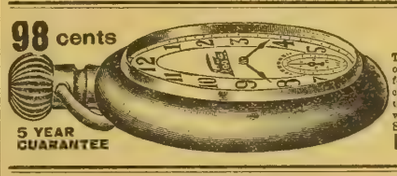
is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

98 cents



5 YEAR GUARANTEE

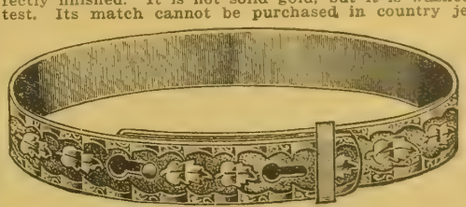
Railroad Watch

To advertise our business, make new friends and introduce our catalogue of Elgin Watches we will send this elegant Railroad watch by mail postpaid for ONLY 98 CENTS. Gentlemen's size, full nickel silver plated case, locomotive on dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. Send this advertisement to us with 98 CENTS and watch will be sent by return mail post paid. Satisfaction guaranteed or money refunded. Send 98c today. Address

R. E. CHALMERS & CO., 538 So. Dearborn St., CHICAGO.

The Universal Magazine Bracelet.

This is all the rage. An adjustable Bracelet. The most elegant design and perfectly finished. It is not solid gold, but it is washed and plated and will stand the acid test. Its match cannot be purchased in country jewelry stores for any price. It is a duplicate of the latest Parisian creation made expressly for the purpose of using it as a subscription premium to the **Universal Magazine**. The **Universal Magazine** is a nice, bright, cheerful, illustrated monthly magazine of sixty-four pages, two columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 50 cents we will send the **Universal Magazine** for two years, and we will send one elegant **Universal Magazine Bracelet**, postage free, as a subscription premium. Money returned if not satisfied. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Universal Magazine Bracelet.

To Club Raisers:—Anyone who will get up a club of four two-year subscriptions in accordance with this advertisement and send us two dollars to pay for same will be credited with one extra two-year subscription to the **Universal Magazine** and we will also send one extra Bracelet for getting up the club.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.

Sprays of Small Daisies.

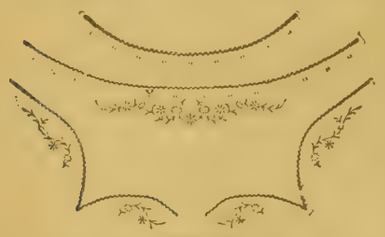
No. 751.—Sprays of Small Daisies. They can be arranged over a blouse or shirt waist; on collars and cuffs; utilized for children's dresses; for pin cushions, handkerchiefs and for a variety of objects.

The leaves and daisies may all be worked solidly, or as eyelets, or the leaves solidly and the daisies as eyelets. The stems are to be outlined

When making solid embroidery, first pad the stamped figure by darning backward and forward, lengthwise, then cover closely with over-and-over stitches worked in the opposite direction from the padding.

To make the leaves and flower petals as eyelets, run a thread round the stamped figure, cut a slight slit lengthwise and then crosswise, push back the material and work closely over and over. Outline the stems by taking short stitches, keeping the needle toward the right and working upward.

Use embroidery cotton in weight adapted to the material.



Night Gown With Short Sleeves.

No. 752.—Night Gown With Short Sleeves. The scalloped edges may be padded and buttonholed; the dots and leaves to be worked in solid embroidery or as eyelets; the stems are to be outlined; the narrow slits for the drawing ribbon are to be made as eyelets.

To pad the continuous scallops rapidly and effectively, cut a skein of thread, apply two or more strands over the center of the stamped pattern, keeping within the lines, tack here and there in couching fashion, gathering the threads closely at each point of the scallops; or work chain stitch between the lines, heavier at the center, lighter at the points; then proceed to buttonhole closely over this foundation. When working solid embroidery, pad the stamped figure by darning backward and forward, lengthwise, and then cover closely with over-and-over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the leaves and slits as eyelets, first run a thread around the stamped line, make a slit lengthwise, push back the material and then work over and over closely. To make the dots as eyelets, first encircle the outline then pierce with a stiletto and work closely over and over.

Use embroidery cotton adapted to the material.

A Child's Sacque.

No. 718.—Design For a Child's Sacque. The scalloped edge is designed to be padded and buttonholed; the sprays of leaves worked either in solid embroidery or as eyelets; the stems to be outlined, and the round dots in solid work or as eyelets.

To pad the scallops, work chain stitch between the lines, heavier at the centers, lighter at the points; or cut a skein of thread, apply two or more strands over the center of the stamped pattern, keeping within the lines; tack here and there in couching style, gathering the threads closely together at each point of the scallops, then proceed to buttonhole closely over the foundation. When making solid embroidery, first pad the stamped figure by darning backward and forward, lengthwise, and then cover closely with over-and-over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the petals and leaves as eyelets, run a thread around the outline, cut a slight slit lengthwise, then crosswise, push the material back on the wrong side and work closely over and over. To make the dots as eyelets, first encircle by running a thread around the outline, pierce with a stiletto and work closely over and over.

Use embroidery cotton in number adapted to the material.

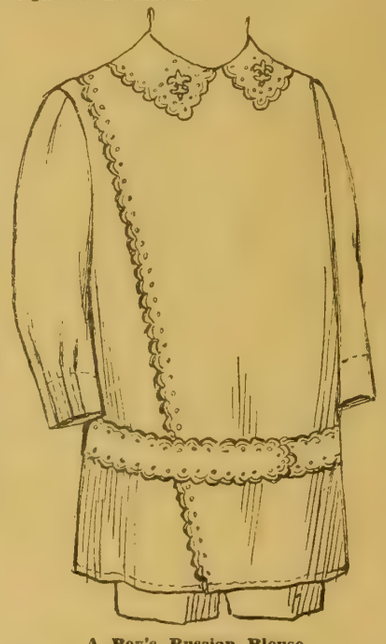
Collar and Cuffs of a Child's Dress.

No. 750.—Design For a Collar and Cuffs of a Child's Dress. The flowers and leaves can be worked solidly or as eyelets. The stems are to be outlined.

When making solid embroidery, first pad the stamped figures by darning backward and forward, lengthwise, then cover closely with over-and-over stitches worked in the opposite direction from the padding.

To make round eyelets, first encircle by running a thread around the outline, pierce with a stiletto and work closely over and over, to make the leaves and flower petals as eyelets, run a thread around the stamped figure, cut a slight slit lengthwise and then crosswise, push back the material and work closely over and over. Outline the stems by taking short stitches, keeping the needle toward the right and working upward.

Use embroidery cotton according to the weight of the material.

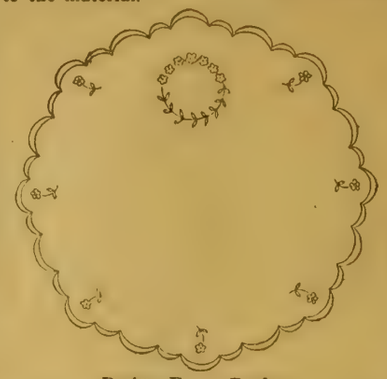


A Boy's Russian Blouse.

No. 753.—Design For a Boy's Russian Blouse. The scalloped edges are to be padded and buttonholed. The dots can be worked either solidly or as eyelets. The fleurs de lis are to be worked solidly.

To pad the scallops, work chain stitch between the lines, heavier at the center and lighter at the points; or cut a skein of thread and apply two or more strands over the center of the stamped pattern, keeping within the lines, tack here and there in couching style, gathering the threads closely at each point of the scallops; then buttonhole closely over the foundation. Make solid embroidery by first darning backward and forward over the stamped figure and then cover closely with over-and-over stitches, working in the opposite direction from the padding. To make the dots as eyelets, first run a thread round the stamped figure, then punch with a stiletto push back the material on the wrong side and work closely over and over.

Use embroidery cotton in weight adapted to the material.



Design For a Doyley.

No. 749.—Design For a Doyley Nine Inches in Diameter. The scalloped edge is designed to be padded and buttonholed; the sprays of leaves worked either in solid embroidery or as eyelets; the stems to be outlined and the flowers small in solid work.

To pad the scallops rapidly and effectively, work chain stitch between the lines, heavier at the center, lighter at the points, or cut a skein of thread, apply two or more strands over the center of the stamped pattern, keeping within the lines; tack here and there in couching style, gathering the threads closely together at each point of the scallops, then proceed to buttonhole closely over the foundation. When making solid embroidery, first pad the stamped figures by darning backward and forward, lengthwise, and then cover closely with over-and-over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the leaves as eyelets, first encircle by running a thread around the outline, cut a slight slit lengthwise, then crosswise, push the material back on the wrong side and work closely over and over. Five transfers are given.

Use embroidery cotton in number adapted to the material.

Each embroidery pattern is 10 cents, and is well worth the money.

Please address all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Woman Who "Always Tells the Truth."

The woman who "always tells the truth" has a habit of announcing the fact wherever she goes, and she usually gives the impression that the truth is a mighty unsavory morsel. Is it not noticeable that the people who make a virtue of telling the truth seem to make it their business to have unpleasant truths to tell?

The woman in question met a little bride on the street. The number of suits this bride has had in her lifetime might have been counted on one hand. But for this once-in-a-lifetime occasion the girl had spent twenty-five dollars on a ready-made grey suit. To her it seemed a small fortune. She was wearing the prized suit when the truthful woman accosted her with: "For goodness' sake, Gertie, go right down town and have that skirt shortened; have it cut off three inches. It makes you look forty years old and grey, too! Why, don't you know that a person with a yellow skin can't wear grey?"

Another woman, who probably never lied, although she made no merit of telling the truth, and who did not parade every unpleasant fact she knew, overheard this but turned aside as though she had not. An hour later, Gertrude, the bride, came to her with eyes suspiciously pink.

"I want to ask you something," she said. "Does this suit make me look awfully old, and does the grey make my skin look more sallow? You know this is what I wore on my wedding trip, and I can't bear to think that I looked a fright and was a disgrace to George all through those two lovely weeks."

The woman well knew that she could have chosen a suit far more becoming to Gertrude's peculiar style, but the suit now belonged to the young bride and had clinging around it some tender memories. It did have merits and on these the woman dwelt, so that the wound Gertrude had received at the tongue of the other woman was somewhat eased.

"That is a beautiful shade of grey, Gertrude, and a lovely piece of material," she said. "You showed taste in selecting a quiet, restful shade, and you look like a dignified little lady in it. I am very sure that George was proud of you every minute of the time. As you wear either a white or an old-rose colored waist with the suit and the grey is not brought near to your skin, you needn't worry for one moment about that color affecting your complexion."

This is only one example of many that might be given of those "truthful," tactless women who go about inflicting wounds where the least they could do would be to just keep still. There are times when unpleasant facts cannot be glossed over, but then it is the tongue of love, and not the sharp, criticising tongue that should deal with these matters. Blessed are those who make a business of carrying pleasant truths. The burdens they have eased, the wounds they have healed, the hearts they have lightened, can never be counted.—Janet Thomas Van Osdel.

Cruelty to Animals.

"Isn't Bugsby the kind-hearted chap who built the luxurious patent kennel for stray dogs?"

"Yes."

"How did it work?"

"After he had been bitten seven times while trying to coax the dogs it enter it the Humane Society locked him up for cruelty to animals."—Cleveland Plain Dealer.

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AMERICAN EXTRAVAGANCE.

More Money Expended For Luxuries Than For Food, Clothing and Other Necessaries.

People who are interested in forcing inhabitants of the cities to pay exorbitant prices for farm products are greatly assisted by the sensational reports that are sent out in regard to a possible famine in meat and bread. All these reports being sensational, find ready publication in the daily press, and it is a relief to find that sometimes there is representation of the other side of the subject.

Quite recently Mr. J. J. Pulleyn, Comptroller of the Emigrant Industrial Savings Bank of New York City, published an article containing several startling statements, of which the following are a few samples:

"We pay more money for bartenders than we do for tailors." "The cost of tobacco is more than is paid for butter, cheese and milk." "More money is expended for candy than for paint." "Three hundred million dollars a year are paid for soda water." "The beer bill alone is larger than the bread bill." "The money expended for diamonds and pearls would pay the interest on the national debt."

We are not interested in the extravagances except so far as to publish the statement made by the banker. The people complain of the price of clothing when sheep growers are getting 15 to 18 cents a pound for wool, and 10 cents a pound is a good average quotation for cotton. They complain of the price of bread when bakers are buying 196 pounds of flour for $3.55. They complain that the corn crop is a failure when corn meal in market is selling at less than two cents a pound. Thirty-two pounds of oats at this writing are not netting any farmer over 35 cents. Good, fat mutton sheep can be had alive at four cents a pound; fat hogs at nine cents a pound; breakfast bacon is retailing at 38 cents and cattle on the hoof are two and a half cents lower than at the high time; potatoes at 60 to 65 cents a bushel; onions at 50 cents to $1.10 a bushel; and sweet potatoes at 60 to 90 cents a bushel bring together the rough-and-ready prices of farmers' products, except butter, and the last Elgin quotation at this writing is 26½ cents a pound for the best creamery.

Under cover of the sensational reports regarding one item that may appear high all the others are put up. The Agricultural Department of the United States is trying to establish better methods for marketing farm products. Let the Agricultural Department send bulletins to the city people saying what the wholesale prices are once a month. Let them send these figures to the daily newspapers to counteract the interested reports that are sent out, to show the housekeepers how much margin they are paying over the prices paid to the farmers.

The Commission Returned.

The Commission that went to Europe to find out how the farmers there obtain loans of money at a reasonable rate of interest returned to New York on July 27th.

The Commissioners sailed April 26 for Italy, and in the past three months have prosecuted their studies in Italy, Hungary, Austria, France, Germany, England, Ireland and Wales. Sub-committees were sent to Russia, Denmark, Switzerland, Holland, Belgium, Norway, Sweden, Egypt, Spain and Scotland. In all of these countries the members of the Commission were officially received by the respective governments, and were given every opportunity to carry on their investigation.

Members of the Commission were unanimous in declaring that their mission had been successful. It was announced recently that the Commission had been organized into a permanent body, in order to carry on the work of putting into effect the findings and recommendations which resulted from their conferences.

It is the purpose of the Commission to make a complete report to Congress before the end of the present year, which it is planned shall be the basis of legislation to establish a system of rural credits, as well as other reforms looking toward the betterment of living and working conditions for the rural population of the country.

The Commission addressed a letter to the Governors of the various states and to farmers' organizations and agricultural institutions, describing in part the agricultural organizations which were observed in Europe. In this letter the Commission declares it has been deeply impressed with the vital importance of a thoroughly organized and united rural population.

The Commission expresses the belief that it will be necessary to modify in some respects the European systems which have been studied, in order to adapt them to the needs of American farmers, but the Commission is highly optimistic that the facts they have gathered will be of great value in developing co-operative methods for the farmers in this country.

The Well-written Copy.

As a child of five or six gaily swung herself back and forth in the aisle of a street car, supported by resting her arms on the backs of two opposite seats, a baby in the arms of its mother looked on in silent astonishment, its eyes growing larger with wonder at each new manifestation of her power. Here was something that it had never seen before; that it felt instinctively was quite beyond its power of imitation; and yet the attentiveness which it gave to every motion showed plainly that it would have been only too glad to imitate the stunt.

This is a practical illustration of child life everywhere. Baby tries first to imitate mamma or papa, and when a little larger, every one in its path is writing a copy, it may be unconsciously, which it at once tries to follow. Some of us can remember the copies which our teachers wrote: one in a full round hand, her successor aiming at extreme slant or vertical, with individual flourishes foreign to any standard system of penmanship. And thus the child was continually learning and unlearning in the aim to become a good penman.

We may set our own copies with the utmost care and still find flaws in them. But outside of the immediate family, the baby will look primarily to child life for its patterns; and the single bad habit of some disagreeable boy or girl held up before your baby for an hour may teach a habit that it will take days of patient labor to counteract. The best teacher strives to keep the bad copies entirely out of sight and to present to view only those written in the well-rounded letters which spell character.—Bessie L. Putnam.

Farmers and Good Roads.

During the month of August Col. C. O. Raine, Master of the Missouri Grange, consulted with the St. Louis Conventions Bureau about designating one day as Farmers' Day during the Good Roads Convention in St. Louis next November. Col. Raine will urge each Grange in Missouri to send a representative delegation to the convention, because good roads is an absorbing topic in every rural community. The appeal to Missouri Granges also has been sent out by National Grange Master Wilson, who asks Granges all over the United States to send delegations and work for better roads. Col. Raine left for a tour of Missouri, during which he will visit all Granges and urge the importance of the good roads proposition and the advantage of being represented.

The American Royal Stock Show at Kansas City opens October 6th and continues until October 11th.

PROSPECTUS.

The Farmers' and Shippers' Directory of Business Interests.

A New Publication by the Hale Publishing Co., of St. Louis, Mo.—Corrected, Enlarged and Issued Frequently—Price Only 50 Cents a Copy.

Next Edition, Dated October 1st, Will Be Issued and Mailed in September—Corrections and Additions Now Being Made and Orders Solicited.

THE FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS is designed to contain the name, occupation and business address of all the firms engaged in such business, that their names, address and line of goods manufactured or handled may be of value to general grain farmers, stock raisers, ranchmen, dairymen, fruit and vegetable growers, poultry and bee keepers, and all others engaged in agricultural pursuits or in handling farm products. The book is arranged by states and all the names and addresses are in alphabetical order.

INDUSTRIES INCLUDED IN THE BOOK.

The list includes an alphabetical arrangement of names, addresses and occupations of individuals and firms representing the following industries:

Agricultural Books and Charts—Agricultural Implements—Arms and Ammunition—Auctioneers, Live Stock—Beekeepers' Supplies—Building and Construction—Cattle Troughs, Self-feeders—Cisterns and Tanks—Colonization Companies—Commission Agents, Cotton and Wool—Commission Agents, Dressed Meats—Commission Agents, Cattle, Hog and Sheep—Commission Agents, Hay, Grain and Seed—Commission Salesmen, Butter, Cheese, Eggs, Poultry and Produce—Commission Agents, Horse and Mule—Co-operative Associations—Cotton-ginning Machinery—Creameries and Dairy Distributers—Dairy Apparatus—Dynamite and Blasting Powders—Electric Farm Appliances—Engines For Farms—Experts, Farm Specialties—Farm Chemicals and Sprays—Farm Books and Papers—Farm Tools and Hardware—Fencing, Farm and Ranch—Fertilizer Manufacturers—Fruit Specialists—Grain Elevators and Graders—Harness and Saddles—Horse Goods—Horse and Mule Dealers—Incubators and Brooders—Irrigation Plants and Machinery—Live Stock Dealers—Merchants, Farm Goods—Motor Cars and Trucks—Nurserymen and Florists—Packers, Abattoirs and Wholesale Butchers—Paints and Varnish—Poultry Supplies—Printers, Fruit and Package Labels—Purchasing Agents, Cattle, Hogs and Sheep—Road Machines—Roofing—Sale Stables—Seed Growers and Dealers—Sheep Dips and Specialties—Stock Foods and Tonics—Stock Yards and Markets—Stump Pullers—Swine Breeders' Goods—Tractors, Farm—Trade Publications—Vegetable and Fruit Packages—Vehicles and Harness—Veterinary Appliances—Water Engines and Powers—Water Systems—Well-drilling Tools—Windmills and Engines—and all other industries having business connections with the farm interests of the country.

The October edition will contain 5,000 such names and addresses. Send 50 cents for a copy of the October number. It is worth the money and more and will be mailed and delivered post free in September.

Special Note.—We will furnish our monthly NATIONAL FARMER AND STOCK GROWER for two years and one copy of the FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS for one dollar.

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No. 7863.—Semi-Princesse Gown. 34 to 40 bust.

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No. 7337.—Mannish Shirt Waist For Misses and Small Women. Fourteen, sixteen and eighteen years.

No. 7954.—Semi-Princesse Gown. 34 to 42 bust.

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The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

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A Kick on the Head.

The angry citizen puffed into the office of the city editor.

"See here, sir," he yelled, "what do you mean by publishing my resignation from my political office in this way?"

"You gave the story out yourself, didn't you?" asked the editor.

"Of course I did," replied the angry citizen. "But your fool paper prints it under the head of 'Public Improvements.'"—New York Sun.

Oh, You George!

Grace—"I've had a lovely time. The flowers you sent were exquisite; the box of candy was delicious; I enjoyed the concert so much, and the ride home through the park was simply grand."

George—"May I give you just one kiss?"

Grace—"Oh, George. You are too good to me!"—Chicago Inter-Ocean.

Tabby Couldn't Read.

Mother, to little Ethel, sobbing as if her heart was broken—"Well, well, what is the matter, dear?"

Ethel—"Tabby got losted."

Mother—"Never mind, darling, we'll advertise in the papers for Tabby."

Ethel, still sobbing—"She'll never, never come home, 'cause she can't read."—New York Times.

Dividing the Task.

"The real division of labor, as a husband once put before me, is: 'She says it, and I does it.'"—Bishop of Bristol.

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PANAMA-PACIFIC.

World's Greatest Exposition Two-thirds Completed.

At this time, one and one-half years before its formal opening day, February 20, 1915, the Panama-Pacific International Exposition is more than two-thirds completed. This estimate is based upon the total amount of work necessary in the complete preparation of the Exposition. Every department of the Exposition is pronopnced by executives familiar with the organization of Universal Expositions to be further advanced than were those of any of the greatest Expositions held in America at a similar pre-Exposition period. Twenty-seven of the world's nations have accepted the invitation conveyed through the Department of State. This record is unprecedented at a time one year and one-half before the opening. Thirty-five states have selected sites for state pavilions. Almost seven thousand applications for concession privileges have been received. The applications for exhibit space would, if all were granted, exhaust the entire exhibit area.

Construction is far advanced. The most difficult part in Exposition building is past. An immense amount of preparatory work has been accomplished. Ten of the fourteen huge exhibit palaces are now under construction. One building, the Service Building, is completed. Contracts for three additional buildings will be let within a short period.

All buildings are being built under time contracts with definite limits for their completion. A number of the most noted sculptors in America have advanced far in the preparation of the sculptural models to be reproduced upon the Exposition grounds. Under the direction of Mr. A. Stirling Calder some of the most important models are being enlarged in the sculptural warehouses.

A phase of the Exposition, in which it will stand alone among all great Expositions of America and Europe, will be found in its representation of the South and Central American republics. These nations will participate upon a great scale.

More than 140 great Congresses and conventions, many of them of international interest and importance, have voted to meet in San Francisco in 1915. This number will undoubtedly be greatly augmented. Many conventions will not take final action until 1914, owing to a usual custom to choose the annual meeting place one year in advance of the time of meeting. To accommodate these great bodies, which will bring together many of the world's most brilliant minds, the Exposition Company voted $1,000,000 for an auditorium at the civic center. The first work upon this building has started.

About 3,500 men are now employed upon the Exposition grounds. The esplanade, to lie before the main exhibit palaces, has been sown to grass. The freight ferry slip at the eastern end of the esplanade is completed and work on the passenger ferry slip is under way. The yacht harbor at the opposite end of the esplanade is practically finished. A considerable portion of the grounds is under railway track and within a short period cargoes may be unloaded at the freight ferry slips and transported by rail to any part of the Exposition grounds. The Exposition Company operates its own railway.

Economical Ways of Women.

"My wife is keen for a bargain," said the man who talks about his family. "What a peculiar woman!" exclaimed the one who has to listen.

"Yes, sir," went on the other, "and I'll just give you an example of how she saves money. Yesterday was her sister's birthday, and her sister lives in the southern part of the state. Well, my wife bought a present to send her, but when I got home last night there was the present all wrapped up but not sent yet."

" 'Why, you ought to have sent that yesterday,' says I. 'She'll get it too late for her birthday, now.'

" 'That's all right,' says my wife. 'I called her up by long distance this morning and asked her to be patient. I told her she'd get it by the sixteenth. You see the package weighs nineteen pounds, so I can't send it by parcels post. And on the fifteenth the new ruling goes into effect by which twenty pounds can be mailed. I save about 22 cents by waiting until the fifteenth.'

" 'How much did the telephone call cost you?' says I. And my wife got mad!' "—Cleveland Plain Dealer.

Could Not Eat Dogs.

Against an old Georgia negro, charged with stealing a pig, the evidence was absolutely conclusive, and the Judge, who knew the old darky well, said reproachfully:

"Now, uncle, why did you steal that pig?"

"Bekaws mah poah family was starvin', yo' honnoh," whimpered the old man.

"Family starving!" cried the Judge. "But they told me you keep five dogs. How is that, uncle?"

"Why, yo' honnoh," said uncle, reprovingly, "yo' wouldn't 'spect mah family to eat dem dogs!"—Harper's Magazine.

Autie Smelled Them.

There is an old lady living in a small town in Southern Pennsylvaina who makes great efforts to keep abreast of the times. Her opportunities, however, are circumscribed, and she is sometimes compelled to resort to her imagination. She went to a church sociable lately, and as she entered the room one of the attendants said:

"Good evening, auntie. I am glad you came. We are going to have tableaux this evening."

"Yes, I know," replied the old lady; "I smelt 'em when I first came in."—New York Globe.

Pills For Souvenirs.

"I tell ye' the new doctor that's just moved to Torpidville is an uptydate feller!" declared honest Farmer Hornbeak, upon his return from the nearby village. "You know, whenever a new establishment starts up it is customary for 'em to hold sort of a grand openin' and distribute soovyneers. Well, this doctor, he held a reception in his new office this afternoon, and gave everybody that attended a dose of pills."—New York Globe.

At the Beach.

"Frank wants to hold my hand all the time."

"Well, is there any harm in that?"

"But I need my hand occasionally. I have to write to Charlie sometimes."—Washington Herald.

They Do Not Speak.

"Once a friend of mine and I agreed that it would be helpful for each of us to tell the other his faults."

"How did it work?"

"We haven't spoken for nine years."—Chicago Record.

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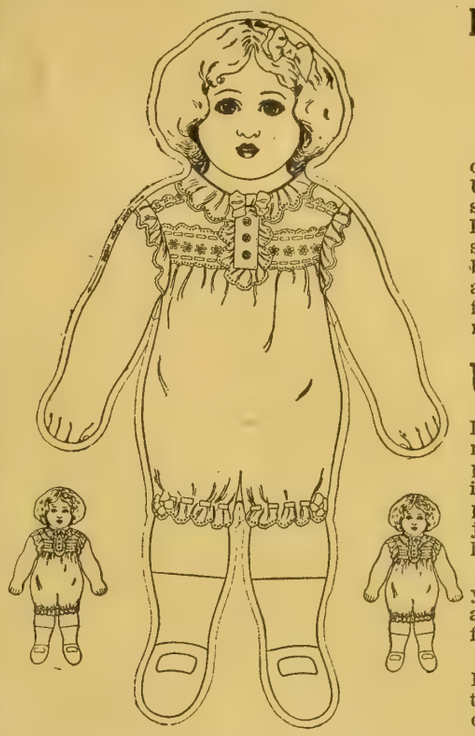

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The Fruitman and Gardener.

We have made arrangements with the publisher of **The Fruitman and Gardener** whereby we can furnish both papers for the price of one. It is a limited arrangement on the co-operative plan that we help each other, giving our efforts towards increasing each other's business. **The Fruitman and Gardener** is all right in

every respect, with a special talent in adapting articles for all climates. No better paper is published for the money, and we have selected it as the best of several that have been offered. Anyone who will send us the usual fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower can select **The Fruitman and Gardener** for one year as a subscription premium. This offer will not last long, for the reason that the number we can accept on this half-price arrangement is small. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE NEW APPLE ORCHARD.

A Few Simple Observations Concerning Pollenization—How to Grow Crops Without Robbing the Land—Value of Deep Tillage.

Every year new apple orchards are being put out. Some of these are set out by men that thoroughly understand the principles on which an orchard should be planted, while more are set out without much regard to some of the most important factors in successful orcharding. Mistakes made at this time are not easily rectified, and it is easier to avoid them in the first place than it is to correct them afterwards.

The soil on which the orchard is to be planted should be well cultivated and drained before the trees are set out. In deciding how far apart the trees are to be placed, it must be remembered that trees need a free circulation of air between them and so should not be set too close together. Where the trees are placed too close together, the branches soon fill up the spaces between them and the wind is checked to such an extent that pollenization is interfered with. We depend on bees to do much of this work of pollenization, but the wind is an additional agent that frequently does more work than the bees. While the bees are an effective agency, they are an unreliable one. At the ends of some winters the colonies of bees are either killed out altogether or so weakened that they are unable to visit more than a small portion of the flowers on the fruit trees. In some neighborhoods very few bees are kept. So all facilities should be offered to the wind to do a part of this work. One large orchard has the trees packed so close together that the central portion of it never bears as good a crop of apples as the outside, and this is charged to the lack of pollenization.

It is impossible to give a rule for the setting of trees, as this must depend on the size of the tree and the habit of growth. Large branching trees should be set thirty to thirty-five feet apart each way, while small trees may be set not farther apart than twenty-four feet. When a man buys his trees he should inquire as to the habit of growth of the variety he has chosen.

After the trees are set, the orchardist should begin the growing of some cultivated crop on the ground of the orchard area, and this should be kept up till the trees come into bearing. Some say: "Do no try to grow a crop on this ground, lest the trees be deprived of plant food and moisture." But the man that sets an orchard in these days is not generally engaged in soil robbing. He expects to manure the land every year, and he should each year put on the ground more fertility than is taken off. In this way he will be constantly improving the soil for the use of the trees. The cultivation of the soil will also let in the air to help set loose the food elements latent in the soil. Under such a regime the trees will grow much faster than they otherwise would and will come into bearing years earlier than they would if they were left to themselves and were given the use of undisturbed soil.

During the first and following years the ground should be plowed deep, and that, too, near the trees, but this deep plowing should be a little farther from the trees each year. The great advantage in deeply preparing the ground for the trees is, that roots that strike deep are less subject to drouth than when they lie near the surface of the soil, and in the case of the deep-running roots the cultivator will not damage them so much in subsequent years.

Sod-binding should be avoided from the very first. Many orchards every year are set out in fields that have firm sod all over them, and only a small space is dug up for each tree. It will be found that the roots hesitate to enter this sod-bound area, and in some cases it will be found that the roots are running around and around in the space that was at first dug up for them. If trees are placed in a field of this kind, the circle of earth around the trees should be enlarged each year by deeply spading and applying fertilizer.

Fruit on the Frisco.

Under the management of Frank Anderson, Director of Development on the Frisco Lines, there is now an exposition car displaying methods of fruit packing and shipping. It started from VanBuren, Ark., August 26th and will stop at numerous towns in Southern Missouri and Northern Arkansas, including Winslow, Elkins, Lincoln, Fayetteville, Springdale, Lowell, Bentonville, Hiwasse, Rogers, all in Arkansas, and Seligman, Monett, Marionville, Republic, Cedar Gap, Mountain Grove, Koshkanong, West Plains and Lebanon, in Missouri. It is the first time that an exhibition car of this kind has been attempted.

The First Evaporated Apples.

The first shipment of evaporated apples of the season arrived in St. Louis August 6th from Southern Illionis. It consisted of three bags of 100 pounds each, shipped by John Soger, if Iuka, Ill., to Jacob Goldsmith & Co., of 204 North Main street. The three bags were sold at auction at the St. Louis Fruit Exchange for 5¾ cents a pound, one cent higher than the price of the first shipment last year. The first shipment this year was about a week early, said to be due to the dry weather.

Helps in the Laundry.

On proper starching the ease of ironing depends, as starch that sticks to the iron can never give satisfactory results, and uncooked or underdone starch will always stick and cause misery to the ironer, and it is a good rule to have the starch boiled steadily an hour before it is strained. After this, some of it can be thinned to the proper condition for dresses, shirt waists and other pieces that require light starching. The proportions for good starch are one measurement of starch to eight of boiling water. Mix the starch first in a small quantity of cold water, then add the boiling water, and it needs to be stirred a few times after it begins to boil.

White clothes should be dipped while the starch is hot, but colored articles require a cool starch to prevent the colors from fading. Make a clothespin apron, as it is much easier to get pins from the pockets of the apron than to stoop every time a garment is hung on the line to get pins from a basket on the ground: and clothespins, basket and line should be washed requently, as they make soiled spots on the clothes unless they are kept perfectly clean.

When washing men's overalls, bedspreads and all such heavy articles, use an old-fashioned churn dash to pound the dirt out with, as this will remove the dirt far better and easier than washing on the washboard. If you have no churn dash, you can make a similar device from a piece of wood an inch thick and at least eight inches in diameter, bored full of half-inch auger holes and tacked to an old broom handle. Lift the article up and down in the hot suds and pound until all soil is removed from the goods.

You can save half the labor of ironing clothes by taking a little more time and pains with the last wringing. Fold pieces so they will go smooth and flat between the rollers.

To wash nice gingham and percale dresses and skirts so they will look like new, pour boiling water on some borax soap and let stand a few minutes or until a good lather is formed, then add as much water as is needed for washing the garments, then put in the pieces and wash quickly through the suds. The borax soap not only softens the water, but it helps to keep the color in the goods, and there is nothing better than the Twenty-mule-team Soap for washing the finest ginghams, and white garments put to soak in this suds for several hours before rubbing them out will come out beautifully white with very little rubbing; and anything that saves rubbing saves the goods, and while soap can be rubbed on all white goods, nice colored goods must be washed in a lather made with the soap.—A. M. H.

He Was a Deadhead.

A country deacon went on a free ticket to a circus entertainment. His pastor remonstrated with him on the wickedness of so doing. The deacon answered:

"Why, you see, pastor, I had a deadhead ticket, and I thought it my duty to go and keep somebody out of that seat who might be harmed by the performance." — Ladies' Home Journal.

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THE MODERN MILKMAID.

"Where are you going, my pretty maid?"
"I'm going a-milking, sir," she said.
"May I go with you, my pretty maid?"
"Get a doctor's certificate first," she said.
"Can't bring bacteria on any terms;
Cows are so apt, sir, at picking up germs;
Take a carbolic plunge and peroxide spray,
Don sterilized rubber clothes; then, sir, you may,
If you can prove that your germs are all dead,
Go with the milking, sir," she said.

"Might I assist you, my pretty maid?"
"Get a lactologist's license!" she said;
"Then I will let you help clean up my stable!
Polish the floors just as bright as you're able;
Bed them well down with sterilized straw,
Germs have a foundness for milk in the raw.

Then treat the cows to a lively shampoo;
A bath in hot water, and carbolic, too.
Polish their teeth with a sterilized brush;
Spray out their throats; and do all with a rush;
Ten billion more germs be born ere you're through;
Get sterilized milk pails and stools for two;
Put a State seal on the sterilized door;
Spray the whole place with carbolic once more:
Then we'll be sure that the germs are all dead;
Yes, you may go with me, sir," she said.
—Toronto Sun.

A VACATION SONG.

Vacation time has come, hey-he,
'Skeeters and sunburns and sprains,
And many a man
With a frying pan
Beats it up from the plains
Into the mountains, up by the snow,
Where the biggest 'skeeters and woodticks grow,
Hey-ho,
Where the biggest woodticks grow!

Vacation time has come, hey-ho,
Boardwalks and flunkeys and bills,
And many a man
Hocks what he can
And beats it down from the hills
To the salted sands where the tangos go
And a square meal costs ten dollars or so,
Hey-ho,
Yes, costs ten dollars or so!

Vacation time has come, hey-ho,
Scatter and chatter and roam;
Let every man
Do what he can
To beat it away from his home.
He will wear off his tummy and scatter his dough,
But what is the difference? He's been on the go,
Hey-ho,
You bet, he's been on the go!
—Ralph Bacon.

THE FATE OF THE BEEF STEER.

Hush-a-by, Long Horn, your pards are all sleepin',
Stop your durn millin' an' tossin' your head,
Wavin' your horns so unrestful, an' sweepin'
All of the beef herd with eyes big an' red.
Mebbe you know when you're pawin' the dust up,
Bellerin' ugly, an' switchin' your tail;
Mebbe you know you are nearing the bust-up,
Nearin' the quittin' place—end of the trail.

Say, it's a queer trail that you've got to foller,
Scattered all over the face of the land,
All of you made into goods but the holler,
Part of you bottled and part of you canned.
Wait till they're through with you—till you knock under;
You've got so ticklish a journey to go.
All of the round-ups between here an' thunder
Couldn't locate you, they'll scatter you so.

You think we crowd you—you'll have to go faster;
You ain't all steak—you'll discover that, too;
Wait till they put your red hair into plaster,
Boil down your hoofs into Stickum's Best Glue.
All of the grief in this world ain't bad weather;
Better lie down there an' take a short snooze;
Wait till they tan your rough hide into leather;
Wait till some feller is wearin' your shoes.

You don't know where you will have to go roamin',
What will be eaten an' what will be worn;
Mebbe some woman in New York will be combin'
Out her back hair with a piece of your horn;
Mebbe the same time your tail will be travelin',
Cooked into soup for some tenderfoot's feed;
Even your tongue will be served up on sinkers;
All of your innards gone on a stampede.
Better lie down there an' rest up, or ranger;
You ain't nigh come to the end of your trail;
Mebbe some woman, to you perfect stranger,
Will brush up crumbs with the end of your tail.
Don't pay to be too durn proud of your beller;
You ain't the only bad steer up north;
Wise to remember that no livin' feller
Ever can tell what a day will bring forth.
—J. W. Foley.

FARM BOYS AND GIRLS.

Natural Ability Compared With City Boys—Value of Open-air Life —Example of Farm-boy Responsibility.

One of the best-known County Superintendents in the United States recently said to the writer: "I am astonished at the great difference there is between the city boys and girls and the country boys and girls as to ability. This applies not only to book study but also to all kinds of manual training. I have especially noticed it in the matters of nature study, the judging of corn and in the teaching of practical domestic science. The minds of the country boys and girls seem to be several years in advance of the mind development in the city boys and girls of the same age."

The speaker had spent a great part of his life as the principal of a big city school in a big city. He had had thousands of city children under him and had been able to form an idea of their development, both as to mind and body. When he became Superintendent of the county schools he was brought into contact with country children. He also had the advantage of having himself been brought up on a farm and had received part of his education in a country school.

Now, why is it that ability to do things is greater in children on the farm than with children of like age in the city? It is due to sun and the wind. Both of these forces are great agencies. The wind brings perfectly pure air for the breathing. The rays of the sun are loaded with life-giving energy. In the city the air is not so pure, and sunshine is largely cut off. Great buildings shade the streets and the children come and go in their shade. Where trees are grown there is additional shade, and where there is neither protection the children can often take a street car and "get in out of the sun." The children live in the shade, walk in the shade, study in the shade. A very large part of their lives is spent indoors, where the air may seem to be carrying its full quota of oxygen, but is not. Nearly all house air has too much carbonic acid, coming from lungs and lamps, and is poorer in oxygen than is out-of-doors air.

The country boy riding a sulky plow can't get into the shade. He has to stay in the sunshine. In all field work shade is an impossibility.

Another great factor making for ability in farm boys and girls is the responsibility thrown onto them at a very early age. This develops the mind. The city boys and girls are coddled too much. They are absolutely unable to act for themselves when children and are brought up as dependents. The writer one day saw a country boy plowing corn. He was riding a sulky plow and driving two horses. It was in a forty-acre field. The boy was so small and apparently young that the writer went over the fence and visited him. That little fellow was only eleven years old, yet he was an expert at cultivating corn. He and a brother nine years old were milking seven cows morning and night. He said he had been milking for four years. Imagine what a sulky plow and a pair of heavy draft horses would do to the ordinary city boy.

But the country boy and girl are not given a fair show. They do not have the facilities for education to which they are entitled. Nor will they have till country schools are consolidated and country children are given an opportunity to develop the mind-power with them.

At the National Dairy Show, October 23d to November 1st, the Dairy Division of the United States Department of Agriculture will give daily illustrations of the value of cows in an experiment showing cost of feed and results.

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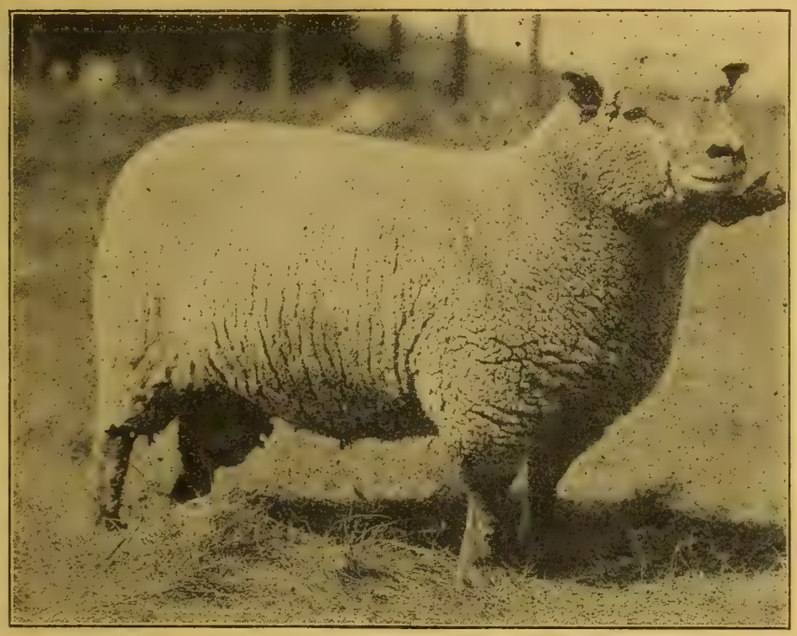

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INEXPERIENCED FARMERS.

Some of Their Experiments—How Agricultural Knowledge Must Be Acquired.

Every year multitudes of inexperienced men enter upon the occupation of farming. Our cities are full of men who have their eyes fixed on a future farm. They have been brought up in the city, but they have read about farming and longed to begin a life that seems to them to be ideal. They have dreamed only of the rosy side of farm life. If one tries to point out the darker side, they have an answer that, in their own minds, is satisfactory.

Naturally, this number annually sends out a quota to enter upon the work of soil cultivation. Now, it is only a credit to them that they long for the country life, but it is a pity that they are so sure about the things concerning which they know little, as they are willing only to take advice that accords with their dreams.

One of the common errors of the inexperienced farmer is to begin too large. He is so sure of winning that he plunges in too deep. That very fact often makes his success impossible.

A young city man planned to go into the raising of poultry. He knew nothing about it, but his first move was to build a great ark of a poultry house at a cost of $600. He bought incubators and eggs and began hatching. He knew nothing about temperatures and moisture, and said that his chicks were all born crazy. They "ran round and round and fell over dead," as he described it to the writer. In a little time the experiment was abandoned.

That young man did not know enough to learn how, and he lost $600 in an attempt to do something he did not understand how to do. Had he felt his way along he might have succeeded. It is better to fail in a small matter than in a large one.

Another city man who knew nothing about farming was advised by those who did know something about it, not to go in heavily if he changed from city life to country life. But he had figured it all out and so bought a big farm, paying part for it and leaving himself nothing with which to equip the farm or to live while his crops were growing. In about two years his farm was sold under foreclosure and his family was broken up, the members drifting to different places. He has never recovered from the disaster.

The wife of another city man inherited $40,000, and he went into agriculture on a great scale. His first purchase was of a pair of very expensive carriage horses and some beautiful turnouts. He could be seen driving along the road holding his whip upright and with the heads of his horses high in the air. He tried celery raising on a large scale, but disastrously, and followed that with other experiments, all of which ended in the same way. In ten years he and his family were without money, and they went back to the city.

The trouble with all these people was, that they could not be made to understand that agricultural knowledge must be acquired by actual practice. Any man that goes in heavily and has no experience is on dangerous ground. Experience is the essential requirement for success, though the knowledge obtained from others is a great help. It is no more possible to learn how to farm by reading about it than it is to learn how to swim by reading a book describing the method used in swimming. The instruction helps, but the application must be made in safe water. Experienced farmers can derive great benefit from books because they have sufficient foundation of knowledge to apply the written instruction to advantage.

GET RID OF THE PEST.

Canada Thistle Can Be Eradicated by Clean Cultivation.

Many farmers in their efforts to kill the noxious Canada thistle abandon their efforts with success in sight and the thistles soon recover, says H. R. Cox, in Farmers' Bulletin No. 545, which the Department of Agriculture has recently sent out.

The man is of far more importance than the method in eradicating this weed, which is a pest from Maine to Kansas and in the Pacific Coast States. While the South is not liable to be affected, there seems to be danger of its spreading into the Rocky Mountain States. So serious and so general have its inroads proved that in twenty-five states the thistle is proscribed as a noxious weed and the law directs its killing or destruction in such a manner as to prevent the maturing and dissemination of seed.

Canada thistles can be eradicated in a comparatively short time with little or no loss in the use of the land provided the following rules are observed:

1. Deprive the thistles of their tops continually, thus exhausting the roots. The top of the plant serves much the same purpose as the lungs of an animal, so that if the plant is continually deprived of that it must soon die. There is no one best method of keeping down the tops. Each field must be handled according to circumstances. Usually some form of clean cultivation is the best, either with a crop or by bare fallow.

2. Outline a systematic plan of attack.

3. Keep the plan in mind at all times and follow it faithfully.

Alfalfa, clover, the grasses, millet, sorghum, hemp, buckwheat and small grains are all crops adapted to the purpose of smothering the Canada thistle. They restrict the top growth of the thistles by shading them and also crowd the roots. Alfalfa is probably the best for this purpose. The land should be occupied by such crops at all times so that the thistle may have no chance to recover. This method is of most value in giving the weed a setback which renders easier the work of clean cultivation which should follow.

The method of salting the thistles in pastures is adapted to small patches accessible to live stock, especially sheep. In their efforts to get the salt the stock nibble the thistles and trample them to death. It seems best to let them grow until they start to bloom and then cut off the tops close to the ground and apply a small handful of salt to each new shoot that springs up. Permanent eradication of this weed by plant poisons has not proved very practicable.

Thistles that occur on waste lands may be prevented from maturing if their tops are cut off just as the blossoming starts. Two cuttings a year are usually necessary to prevent seeding. Thistles in such locations, however, can be entirely eradicated if the work is thorough. Various types of cultivators equipped with knives or sweeps that are effective in cutting off the tops of Canada thistles are shown in the new bulletin by the department's agriculturist.

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TO FILL PORES IN THE WALLS.

Concrete Silos Should Be Coated With Coal-tar Mixture.

The field men of the dairy farming investigations of the United States Department of Agriculture have recently been giving careful attention to methods of improving concrete silos so as to prevent the drying out of silage near the walls and to protect the concrete from the action of silage juice.

They find that the concrete silo has given universal satisfaction among the farmers, provided it is properly built, of good material, well reinforced and set on a good foundation. The walls, however, as ordinarily built, are porous, and silage near the walls of the silo is apt to dry unless the inside of the silo is given a coating of some material that will fill the pores in the concrete. In the case of a large number of concrete silos in the South and West the field agents of the division applied with a brush an inside coat of raw coal tar thinned with gasoline. This coat made the silos air-tight and also protected the concrete from the action of the silage juice.

Silage juice, in some cases, affects concrete very little, but in other cases, especially in silos in which broken limestone was used for aggregate, the corrosive effect of silage juice is quite marked, especially around doors which do not fit tightly.

Coal tar thinned with gasoline seems to afford excellent protection to keep the acid from affecting the concrete. If corn has been cut at the right stage and is of the right degree of maturity and the silage is well packed, there will be very little, if any, spoiled silage near the walls. Coal tar can also be used successfully for coating the inside of stave silos.

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WARNING TO FRUIT GROWERS.

No Serum For All Fruit Tree Complaints.

The attention of the Missouri Agricultural Experiment Station has been called to what seems to be an organized attempt to hold up Missouri fruit growers by offering them a worthless mixture which is guaranteed to cure all complaints of fruit trees. The first reports came from the vicinity of Moberly, Mo. Similar reports have come from other states in the West.

Those attempting to sell this serum pose as authorized representatives of the West Virginia Agricultural Experiment Station, and in order to make their business bear more weight they claim to be cooperating with the United States Department of Agriculture and the Missouri Agricultural Experiment Station. These men are openly violating the federal insecticide law which was passed two years ago, and are thereby laying themselves liable to fine and imprisonment.

It is the duty of the Missouri College of Agriculture to investigate and recommend remedies for pests and diseases attacking fruit trees in Missouri. Fruit growers are warned against spending money for any quack serum which is guaranteed to cure all complaints. Each particular pest and disease requires a specific treatment, and there is no such thing as a serum that will cure all complaints, such as blight, borers, cankers, etc. An attempt will be made to run down and prosecute these men should they continue to violate the law. Farmers and fruit growers should promptly notify the Missouri College of Agriculture at Columbia of any attempt to sell this quack remedy.—L. Haseman, Missouri Agricultural College.

Some Reasons Why Fruits and Vegetables Spoil.

All about us in ground, water and air are numberless little plants called moulds, yeasts and bacteria. Most of them are only visible by aid of a microscope. Some of these little plants do well in one kind of soil or atmosphere, while others require environment of an entirely different nature.

The souring of milk, the working of canned fruits, the decay of canned vegetables and meats, the change of cider into vinegar, etc., are all due to the presence of certain of these plants.

The fact that they are too small to be seen as they pass through the air explains why so many people believe the air itself causes the working of canned goods.

It has been found, however, that it is possible to keep canned goods without sealing in the usual manner by simply filtering all the air which reaches them. For example, take a can of peas, seal it with a plug of cotton instead of the usual lid, then heat it until all the germs are killed and the vegetables will keep without spoiling, because, while the air can pass in and out of the jar, the plants causing the damage are strained out. Experiments of this kind have proved in different laboratories that it is the inhabitants of the air and not the air itself which causes decay. — Miss Grace Smiley, Colorado Agricultural College.

Condition of Barley.

According to the most recent report of the Department of Agriculture at Washington, D. C., the status of the barley crop is as follows: Condition—73.4 per cent. of a normal at time of harvest, compared with 74.9 per cent. on August 1st; 88.9 per cent. at time of harvest last year, and 81.1 per cent., the average condition at time of harvest for the last ten years.

The indicated yield per acre, estimated from condition reports, is 23.2 bushels, compared with 29.7 bushels harvested last year, and 24.5 bushels, the average yield of 1908-12. On the planted area, 7,255,000 acres, it is estimated the final total production will be about 168,000,000 bushels, compared with 224,000,000 bushels harvested last year, and 160,000,000 bushels harvested in 1911.

Oats Crop of 1913.

According to the United States report, dated September 9th, the condition of oats was 74 per cent. of a normal at time of harvest, compared with 73.7 per cent. on August 1st; 92.3 per cent. at time of harvest last year, and 79.3 per cent., the average condition at time of harvest for the last ten years.

The indicated yield per acre, estimated from condition reports, is 27.8 bushels, compared with 37.4 bushels harvested last year, and 29.7 bushels, the average yield of 1908-12. On the planted area, 38,341,000 acres, it is estimated the final total production will be about 1,066,000,000 bushels, compared with 1,418,000,000 bushels harvested last year, and 922,000,000 harvested in 1911.

Buckwheat Also Declined.

The month of August, among other things it has to answer for, is a decrease in the buckwheat crop of 1913. The September report issued on the 9th, but actually based on the 1st, placed the condition at 75.4 per cent. of a normal, compared with 85.5 per cent. on August 1st; 91.6 per cent. on September 1st last year, and 87 per cent., the average condition on September 1st for the last ten years.

The indicated yield per acre, estimated from condition reports, is 18.2 bushels, compared with 22.9 bushels harvested last year, and 21 bushels, the average yield of 1908-12. On the planted area, 841,000 acres, it is estimated the final total production will be about 15,000,000 bushels, compared with 19,000,000 bushels harvested last year, and 18,000,000 bushels in 1911.

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CENTERING AT TULSA, OKLA.

Dry-farming Congress and Exposition to Open October 22d, 1913.

The International Soil Products Exposition, to be held at Tulsa, Okla., in October, in connection with the International Dry-farming Congress, will be a veritable World's Fair for farmers.

When the gates are opened on October 23d there will be on show good crops from practically every continent on the globe, as well as from eighteen Western States and four western provinces of Canada. Never before in the history of this country have so many states and nations taken part in an exclusively Agricultural Fair and Exposition.

Chinese farmers will bring an exhibit nearly 15,000 miles to Tulsa to compete with the farmers of Oklahoma, Kansas and Texas on the same crops as are grown in the states named. The exhibit from China will consist largely of cotton, corn, Kaffir corn, milo maize, millet, kaoliang, wheat, rye and barley.

Wheat from a number of foreign countries will compete with the wheat of the United States and Canada for world supremacy and for the $1,250 threshing machine given by the Rumely Company for the best bushel shown. Cotton from California will fight for prizes with the cotton of Oklahoma and Texas. Corn from Mexico, where the stalks grow sixteen feet high and two crops are raised in a season, will be shown in competition with other corn from the best farms in the South and Southwest. Oats from Russia, Australia, Saskatchewan, Oregon and Utah will contest for world's prizes with the oats of Kansas and Oklahoma. Every conceivable farm product grown in Western America will be exhibited.

The United States government is spending $20,000 on an enoromous exhibit of the work which is being done by the Department of Agriculture. The people of Saskatchewan, Canada, are spending as much, and the province itself has asked the Exposition management to furnish a building 60 by 240 feet in size for the Saskatchewan exhibit alone. The Canadian Show will be the finest and most elaborate ever given on the south side of the international line. Kansas, Texas, New Mexico, Arizona, Utah, Nevada, Idaho and California are expected to have official state exhibits.

The Exposition buildings and grounds will occupy 120 acres, seventy acres of which will be given over to a complete Farm Machine Show and tillage and power demonstration. Every farm implement used in the West and Southwest will not only be shown, but will be operated by skilled men. Up-to-date methods and machines for cultivating, planting and harvesting will be shown daily in actual operation, just as on the farm and in the hands of the farmer himself.

Why Does Celery Go to Seed?

One of the greatest difficulties experienced in celery growing is the production of "seeders." During the summer the plants may send up seed stalks and thus become worthless. The production of "seeders" results from some shock or set-back to the plants. Going to seed is due, in all probability, either to drying out of the young plants in the seed bed, or to chilling of the plants during the early stages of their growth. If the plants are kept in a vigorous condition from the start, not being allowed to suffer from chilling or lack of water at any time, the dangers from "seeding" are considerably lessened. —W. W. Robbins, Colorado Agricultural College, Fort Collins, Colo.

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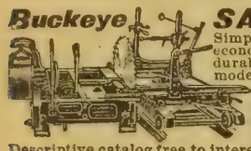
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16-h.-p. Avery, No. 1117, return flue	600
16 h.-p. Russell Com., No. 11,244, direct flue	600
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18 h.-p. Kelly, direct flue	1,000
18 h.-p. Minneapolis, direct flue	1,000
18 h.-p. Geiser, No. 11,915, direct flue	1,250
20 h.-p. Buffalo-Pitts, return F. F. B.	575
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THE MAY BEETLE TO BE FEARED.

Expected to be Unusually Abundant in the Coming Year 1914—Preventive Measures Advised.

Deep Plowing This Fall Will Do Much to Control Common White Grubs of This Beetle Which Seriously Attack Corn, Timothy, Strawberries, Potatoes and Nursery Plants.

A very conservative estimate places the damage to corn, timothy and potatoes in Iowa, Wisconsin and Illinois done by the common white grubs in 1912 at not less than $7,000,000. These states got the worst of it last year. This estimate resulted from a personal survey by John J. Davis, Scientific Assistant, Bureau of Entomology, whose interesting pamphlet on the "Common White Grub" was recently issued as Farmers' Bulletin No. 543 by the Department of Agriculture, and it can be had by writing the Hon. Secretary of Agriculture, Washington, D. C., and asking for it.

Injury was sustained in almost every section of the country north of the Ohio river from the Atlantic ocean to South Dakota.

Observations seems to make it quite certain that in the Northern States the total life cycle of this injurious species is three years. May beetles were unusually abundant in 1908 and 1911 and the grubs caused the greatest damage in 1909 and 1912.

There is a general belief, which is erroneous, that the common white grubs of the field and the white grubs found in manure heaps and rotten logs are identical. The grubs of May beetles are not known to breed in refuse of any kind.

The grub of the Southern green June beetle is also commonly mistaken for the more serious pest. The grub of the June beetle seems to prefer fertilized soils and may also be distinguished from the true white grub by its peculiar method of crawling on its back.

Farmers in the regions infested last year will find it of special value to do deep plowing this fall. Ordinarily the best time to plow is between October 1st and October 15th. The grubs will at this time have changed to pupae and adult beetles. These pass the winter in cells, and if the cells are disturbed their inhabitants will be destroyed.

It is important to remember that plowing should not be delayed until cold weather, for then the grubs will have gone down to their winter quarters beyond the reach of the plow.

An infested field may be thoroughly freed from grubs by pasturing it with hogs, and this method should be followed wherever possible. Hogs will root to a depth of a foot or more in search of grubs.

Domestic fowls, turkeys in particular, if given the run of infested fields when the land is being plowed, will destroy large numbers of grubs. Pasturing of hogs to root out these grubs should not be delayed later than the middle of October nor practiced earlier than April or May, since in winter the grubs are probably too deep in the ground to be reached.

The May beetles usually deposit their eggs in fields of grass, timothy and small grains, especially in the vicinity of timber, where they feed. The crops planted in these fields the year following a season of beetles should be those least susceptible to grub injury. Such crops are small grains, buckwheat, clover, alfalfa and peas. There is no authentic record of the grub attacking these crops. In 1914 a maximum acreage of such crops as corn and potatoes should be planted, as this will be in general a season for beetles rather than grubs. These should be kept thoroughly cultivated during the flight of the beetles (May and June). Land which is planted to small grains, timothy and other crops which cover the ground with vegetation at this time should be planted in fields farthest from trees.

Liberal applications of commercial fertilizer will assist grass in overcoming grubs if there are not too many of them. When a lawn is badly infested, the sod should be removed and the grubs gathered by hand, after which fall plowing will probably prove satisfactory. In Europe cheap labor is often employed to gather grubs after the plow, especially where the grubs are numerous.

OATS MARKET SITUATION.

About Holding Its Own With Former Prices—Decided Improvement Over a Year Ago.

A year ago oats were selling at a cent a pound; that is, 32 cents for a thirty-two-pound bushel. Out if this the farmer paid freight, commissions and all expenses. This not being low enough to suit Congress, they have legislated to induce shippers of oats from foreign countries to come in and reduce the price still further.

But the foreign consignments are not yet admitted free of duty and oats did not stay at 32 cents a bushel.

On September 30th, 1913, cash oats were selling at 42½ cents a bushel, against 32 cents last year on same date, and 46½ cents two years ago.

In regard to the September option that expired by limitation September 30th, it went out at 41⅛ cents a bushel, against 41 cents August 30th, 31 cents a year ago and 45 cents two years ago.

In a little tabulation following right here we show the quotations for December and next May, and the May quotation at 45⅞ cents looks very well as an indication of the future.

Oats Option Quotations.

1913.			1914.
	Sept.	Dec.	May.
May 31	38⅝	39⅛	....
June 30	42⅜	43⅞	....
July 31	41	43⅛	45⅜
August 30	41	43⅞	41
September 30	41⅛	42⅝	45⅞

We do not know nor do we care to advance an opinion in regard to the effect of the admission of foreign grown oats. Big receipts of oats from other countries would make a world of difference. The market as made to-day is based on the sale of only a small percentage of the actual crop, and it will not require such an abundant importation to knock our market into a cocked hat. We take comfort in the fact that on September 30th, at Chicago, at the close of the market, the quotation for oats was 45⅞ cents. The future is not far off.

ST. LOUIS HORSE SHOW.

October 27th to November 1st, 1913.

All farmers, and esepcially those who are stockmen, should come in and attend the St. Louis Horse Show, which begins Monday, October 27th, and continues the whole week. The entries will be large and up to the highest standard. The officers are: G. Lacy Crawford, President; William C. McBride, Paul Brown, Sam Lazarus, Charles A. Stix, A. A. Busch, Martin L. Clardy, Thomas W. Garland, S. H. Britton and Melville L. Wilkinson, Vice-Presidents; James H. Bright, Secretary; and Merritt H. Marshall, Treasurer. The show will be given in the Coliseum, which is a magnificent building for the purpose.

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FOR THE FRUIT GROWER.

Someone in the family ought to be a fruit grower; and yet it is very hard to interest the stockman in fruits. We will do our best, however, by placing a good fruit book in the hands of our readers. The book entitled Amateur Fruit Growing was written by Samuel B. Green, a practical man and one of the best authorities on the subject. There are 134 pages, written with special reference to the growing of fruits for the home and the market. We will send the book entitled Amateur Fruit Growing and The National Farmer and Stock Grower one year for 55 cents. Send a money order to Hale Publishing Co., 3550 Vista Ave., St Louis, Mo.

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and accomplish more work in removing stumps, rocks, also planting trees, digging ditches, etc., than twenty men. It's effective, safe and easily used; guaranteed Standard Brand; shipped DIRECT from Mill in this state, lowest prices. No salesmen. Established over 30 years. Write for full particulars.
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THE 500 QUESTIONS ANSWERED.

This is all about swine, and is a book by L. H. Cooch. There are 526 questions and 526 answers. They are natural questions and practical answers. The questions relate to breeding, mating, feeding, pasturing, fattening, management, diseases, etc., of swine. It is a complete veterinary authority on all swine diseases. The answers to questions on feeding alone, if properly attended to, will put enough pounds on one pig to pay for many books. We are sending The National Farmer and Stock Grower for one year and the 500 hog question book for 60 cents. Address, Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

THE ARGENTINE MEAT.

Review of the Situation After the Meat is Sold.

The Butchers' Advocate of New York City, September 17th, said:

"Due to the fact that the meat shipment which arrived in New York last week was easily and quickly disposed of, rumors are going the rounds of the meat trade in New York and near-by cities regarding fresh shipments, which are expected to arrive in the course of a few weeks. The first shipment of 1,000 quarters was sold mainly in New York and Philadelphia, the latter city taking 40,000 pounds of it, which was easily disposed of.

It is stated upon good authority that there is a cargo of 5,000 quarters of beef now on the way from Buenos Ayres to New York, sent by the River Plate Fresh Meat Company, one of the largest group of Anglo-Argentine packing companies. This quantity means approximately 1,250 carcasses, which at an average of 750 pounds makes a cargo of 875,000 pounds.

"At the same time there are quite a few importations of Argentine meat coming from London. The trade began during the past summer and is being vigorously followed up. One concern has a contract which calls for 400 quarters a month, extending up to January 1st. There are several other firms operating in a small way in this direction.

"It is believed that the added impetus which this trade has already given the South American cattlemen will lead to an immediate extension of the industry. Among other indications of preparations to raise cattle in South America for the foreign meat trade is the reference made in the annual report of the Brazil Railway Company, published recently. The report of the company, the President of which is Percival Farquhar, New York, says regarding the cattle company organized in connection with the railway:

" 'The total area of land purchased is 8,163,081 acres in the states of Sao Paulo, Parana, Matto Grosso and Minas Geraes. The company at the end of the year had about 200,000 head of native cattle and 915 head of pure-bred imported cattle.

" 'All the lands are well watered and, with the exception of portions here and there in Eastern Matto Grosso, which are covered with valuable hardwood timber, they are excellent grazing lands.

" 'The division of the property into ranches has progressed rapidly, a large amount of fencing has been done, and suitable houses and sheds have been erected.

" 'A contract has been entered into with well-known North American packers to join in the construction of and to manage a modern packing factory at Sao Paulo, so as to obtain a certain market for the company's products.

" 'The importation of pure-bred cattle to improve the native stock has proved a success, the losses from redwater, fever and other diseases which attack all imported cattle being small.

" 'The company will begin to send cattle to market early in 1914.' "

THE ARGENTINE MEAT.

The Views of the Receiver as to the Quality of the Arrivals.

The National Provisioner of September 13th reported that the first big consignment of Argentine beef to come direct to the New York market arrived at the end of this week on a vessel of the Lamport & Holt Line, which runs direct between the River Plate and New York. The lot comprised 1,000 quarters of Argentine beef, and was consigned to B. Frankfeld & Company, who are big meat brokers on the New York Produce Exchange. Mr. Frankfeld stated to The National Provisioner that the beef was of good quality, and he expected it to sell in competition with native corn-fed stuff.

The newspapers exaggerated the facts connected with this shipment. They had a big delegation of meat butchers awaiting the docking of the steamer, and other details which Mr. Frankfeld said originated entirely in the imagination of the reporters. The beef will take the commercial channels, and will go from the importers to commission and wholesale houses to be offered to the consuming trade.

Heretofore Argentine beef arriving on the Eastern markets has been in very small quantities, and reshipped via British ports. This is the first adequate test of Argentine beef importation direct, and the results will be watched with interest.

"The present system puts importers of Argentine beef at a disadvantage," said Mr. Frankfeld. "It isn't beef which has been inspected before and after slaughter by United States government inspectors and cannot be put into regular government inspected houses. Another disadvantage is that the fat of Argentine beef is not permitted to be made into oleomargarine. It can be used only for soap fat. Fat for oleomargarine sells for more than fat for soap making and other purposes and therefore there is a loss.

"We hope that the Department at Washington will arrange to have this difficulty done away with. We hope there will be some solution of this problem after the return of Dr. Melvin, Chief of the Bureau of Animal Industry, who went to Argentine to study their methods of inspection.

"There is a market here for Argentine beef, and I believe the business will develop. The people who have used the beef say it is equal in every respect to the American product. I have tried it myself. The meat is as fine as the domestic product."

Cash Grain at St. Louis.

The following prices were quoted for cash grain at St. Louis on the last day of September:

Wheat.—No. 2 red wheat, 92½ to 95½c.; No. 3 red, 91½ to 93c.; No. 4 red, 88 to 91½c.; No. 2 hard, 87½ to 93c.; No. 3 hard, 87 to 92½c.; No. 4 hard, 85c.

Corn.—No. 2 corn, 72c.; No. 3 corn, 72c.; No. 2 yellow, 72½c.; No. 3 yellow, 72c.; No. 4 yellow, 71c.; No. 2 white, 74c.; No. 3 white, 72½c.

Oats.—No. 2 oats, 42½c.; No. 3 oats, 42c.; No. 4 oats, 41½c.; No. 2 white, 44 to 44½c.; standard, 43½ to 44c.; No. 3 white, 42½ to 43½c.; No. 4 white, 42 to 42½c.; No. 2 rye, 68c.

CORN MARKET SITUATION.

Market For the Present Lower—Market For the Future Higher—Small Future Advance on a Big Decrease in Crop.

Corn is not selling low, but corn has not advanced much by reason of the diminished crop. On August 30th, cash corn at St. Louis was quoted at 74¾ cents, and on September 30th the price was reduced to 72 cents. A year ago the quotation was 69 cents, and two years ago 68½ cents.

At Chicago, September 30th, the September option was closed out at 70⅜ cents, against 69 cents a year ago and 68½ cents two years ago. The September option being now departed, we can leave it in peace.

The December corn option is the next to ripen, and when it ripens on December 31st more will be known about corn then than now. But the December option is not as important as May, which is eight months away. The first we saw of the December option was last May, when on the 31st the quotation was 56⅝ cents. It has now advanced to 70⅝ cents, the quotation at Chicago on the closing hour on September 30th.

We left the May quotation at Chicago on August 30th at 70½ cents, and by September 30th the price had advanced to 72 cents.

For the better understanding of these figures we place a small tabulated statement which show them as follows:

Corn Option, Chicago Basis.

1913.	Sept.	Dec.	May. 1914.
May 31	58¼	56⅝	....
June 30	62¾	59½	....
July 31	66	63	65
August 30	72¾	68⅝	70½
September 30	70⅜	70⅝	72

Here we leave the corn crop and prices until next month. We write these reports once a month on the last day of each month, and those who keep The National Farmer and Stock Grower can keep a better record than is kept by people in the trade.

Captain T. F. Peck, Commissioner for the state of Tennessee, says that commercial fertilizers can be used with profit, and the failures are mostly due to the user and not to the goods.

Dry Farmers to Meet.

The Dry-farming Congress of 1913 and exhibit of farm products will be held at Tulsa, Oklahoma, October 22d to November 1st, inclusive. If all farmers adopted the dry-farming methods crops would be larger. Dry farmers believe in deep tillage, and, what is more important, they practice what they preach.

NECESSARY ON A FARM.

The Crocodile Wrench—Actually Six Handy Farm Tools in One.

Yes, an absolute necessity. The Crocodile Wrench means business. Every farm ought to have an extra wrench or two, especially when the wrench is a Crocodile Wrench premium, which is a pipe wrench, a nut wrench, has three dies for cleaning or cutting threads, and a screwdriver. The picture is small, but the Crocodile Wrench is twice as long, and it is full size for any purpose. It is drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

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Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Et

Get our Thresher Tank for water.

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FRAZIER'S DISTEMPER CURE

Positively cured, if you use FRAZIER'S DISTEMPER CURE. Influenza, Pink-Eye, Catarrhal Fever, Coughs and Colds, cured in 4 to 8 days. One dose acts as a preventive. One bottle a guaranteed Cure or your money refunded. $1 bottle holds three 50-cent bottles. Send postal for free horse booklet. Sold by all druggists, or prepaid from

BINKLEY MEDICAL CO., Dept. H, Nappanee, Ind.

The Spalding Deep-Tilling Machine

is doing wonderful work all around you, preparing a 12 to 16-inch deep, thoroughly pulverized and mixed seed-bed, in one operation. Such a seed-bed cannot help but increase crops. AND IT DOES.

Ask for reports from farmers in your neighborhood. We will send them to you, together with catalog and other information.

Spalding Department 88

Gale Manufacturing Company, Albion, Mich.

MAKING AND SAVING MANURE.

The Compost Heap—Value of Forest Leaves—A Few Remarks on a Familiar Subject.

Most people do not appreciate the fact that as much fertility is contained in the common grass, leaves and waste herbage of the farm as in barn-yard manure. The barn-yard manure is in a form in which we are accustomed to think of it as manure, and so we recognize its fertility, while the others are not in that form and do not make the same impression upon us.

The writer recently visited a most remarkable garden, owned and worked by an amateur. This man kept no stock but poultry, and not a large number of fowls. But his garden was a sight to see in its luxuriance. It covered several acres.

He was asked what kind of fertilizers he used and received the reply that he used principally decayed vegetation. He then led the way to beyond a clump of high-growing bushes and pointed to an immense compost heap. Onto that heap went everything that would rot, and during one year he makes provision for the next year.

All the refuse from his garden was carried to this compost heap. All the leaves that fell in the adjacent forest were so utilized, and some of these leaves contain as much as seven per cent. of nitrogen. On the roadside grew sweet clover, and that was cut and piled on the compost heap. Even all the weeds that could be found reached the same resting place. It is astonishing how much such stuff can be discovered in any neighborhood.

The same objections cannot be made to the compost heap in the open air as to the manure pile in the open air, for the new material constantly being put on the compost heap protects it from the sun and the wind, the rotting going on at the bottom. Perhaps, however, the protection of the heap during hot summer days might be an advantage, but in the spring, fall and winter the rain is needed to help along the rotting.

Some farmers are becoming so alive to this value of composting that they haul forest leaves and dump them into the hog yard, where they are soon incorporated with the other manure. Forest leaves especially should not be permitted to go to waste.

Barn-yard manure being compacted and its decay assured should not be exposed to the outside conditions of sun, wind and rain. A good many investigations have been carried on that seem to show that, as a general thing, barn-yard manure kept in the open is worth less than half as much as manure that has been kept under a shed where it would not be affected by sun, wind and rain.

The liquid manure that is almost always allowed to go to waste contains a large part of the total fertility in the voidings of the animals.

If all are saved, the increased value of the manure of a mature bovine is about $4.00 per year greater than when handled in the ordinary wasteful manner.

Cement floors are a great help in the saving of both the dry and liquid portions of the manure, and provisions should be made for running the liquid portions into a cement tank, from which they can be easily removed.

Less Water and More Cultivation.

Those who are unfamiliar with the application of water to crops may get a wrong conception among the real facts as to the proper amount of water necessary to produce a good yield. With a copious application by the flooding method, the top layer becomes saturated and the usual result is a baked surface when the hot rays of the sun strike the moistened soil. This soil layer that has dried or baked under this condition possesses an infinite number of pores or extremely small holes. These apertures act as so many small tubes and the nature of moisture is to follow up these passage ways, as the oil in a wick, and when reaching the surface evaporates, thus a total loss to the use of the plant.

Experience has shown that with some soils, within a period of sixty to seventy-two hours after the irrigation flood method, the plants show that they are suffering from the lack of moisture due to the capillary action. It isn't "more water" that is needed so much as "more cultivation," something that will break up the top layer and produce a mulch. The broken surface will eliminate or to a large degree retard the loss of moisture due to capillary action produced by the hard, dry surface.

Less water may be used to produce crops with more thorough cultivation.—R. L. Parshall, Colorado Agricultural College, Fort Collins, Colo.

ALFALFA SEED PRODUCTION.

By Philo K. Blinn, Colorado Agricultural College, Fort Collins, Colo.

Alfalfa is indispensable to the farmers of the Western States for hay production and for keeping up soil fertility in their crop rotations. The area in alfalfa is rapidly increasing in many of the Eastern States. Consequently, there is a large demand for alfalfa seed for sowing new fields, and each year the supply of desirable seed seems to be more limited.

It has become well established that some strains of alfalfa are superior to others, especially for some localities. It seems important that there should be developed an alfalfa seed-growing industry to furnish a more dependable "home-grown" supply of the best strains of alfalfa seed.

Fifteen or twenty years ago certain districts in Colorado were producing considerable alfalfa seed, even exporting some. Recently the same sections are growing barely enough seed for local demands.

During the early years of alfalfa seed growing in these districts, yields of seed varying from five to ten bushels per acre were quite common. Now it is seldom that a grower can secure a yield of more than three or four bushels of seed per acre. This is especially true on some of the best irrigated land. Such yields are not inducement enough for a farmer on high-priced land to leave a crop of alfalfa to mature for seed.

The question as to why alfalfa is failing to produce seed as abundantly as it did in former years has caused the Experiment Station to devote special attention to the problem. The solution has not been fully reached. But some results of value are reported in Bulletin 191 of the Colorado Agricultural College and will be sent free on request.

Enrich Yourself

Supplying a Great Demand

The price of beef is steadily rising, due to the shortage of beef cattle. It is no longer profitable to raise cattle on ranges. That was a wasteful method, and with the passing of free pasturage the costs are too great to leave a profit. Yet people need beef and are willing to pay good prices to get it. That is the demand you may profit by supplying.

Search all over this continent and you will find no section in which cattle do as well or can be raised as cheaply as on the plains of northwest Texas. It is the natural home of the steer. Here great herds roamed in the early days. They fed on the luxurious grasses and went to market without grain. Latterly their weights and the owners' profits have been increased by grain-feeding near to the slaughtering market. But that is now too expensive, considering the high price of corn.

It has been found that the steer can be fed and finished here on ensilage and milo and kafir grain. The cost of feeding is reduced — the quality of the meat improved — a better price is secured and once again beef cattle are money-makers.

The territory available for this work is the millions of acres of northwest Texas, where the rainfall is less than twenty inches a year. It is too dry for corn, but milo and kafir thrive under dry-farming methods.

Herefords are graded up to nearly pure blood and they are the most profitable animal to feed. Weanlings can be brought up to 1,400-pound steers in less than three years, and this young beef sells well, saving a year's time, interest and feed.

Hogs thrive on the same feed. This is their climate, too, as there are no diseases in the high, dry air.

Lately it has been found that upward of one million acres of this fertile prairie is underlaid with an inexhaustible supply of pure water, near enough to the surface to be economically pumped and used for irrigation. This water makes the production of tremendous crops of feed easy and certain. With water, 50 bushels of wheat, 100 bushels of oats and 80 bushels of kafir are not unusual yields, and a small acreage of the irrigated land with a larger area of the dry land forms an ideal stock farm. Irrigation here means stock-feed insurance and is a guarantee of your profit.

The opportunity here is described in detail in a new folder just issued by the Santa Fe entitled "The Shallow Water Country of Northwest Texas." I would like every stock-grower in the country to read it as well as our leaflet, "Letters from Farmers." Then, if you are interested in following the matter further, I will be glad to place at your service the faculties of this department to assist you in finding the location best adapted to your needs.

The interest of the Santa Fe in settlers along its lines does not cease with helping them to select a location. We have a corps of agricultural demonstrators, who are employed by the railroad to help settlers to learn as quickly as possible the best crops and methods of handling for any given section. The assistance of these men will be yours without cost, and the enthusiastic letters from settlers already here will show you that their advice means a large increase of profit to those who have taken advantage of it.

Drop me a postal for this "Northwest Texas" folder and leaflet.
C. L. Seagraves, General Colonization Agent, A. T. & S. F. Ry,
2516 Railway Exchange, Chicago.

Wheat Crop of 1913.

According to the latest report of the United States Department of Agriculture the most bountiful wheat crop in the history of the country was harvested this year. This was due principally to the bumper crop of winter wheat.

The government estimate of the spring-wheat crop showed increased prospects for that crop, making the total production 243,000,000 bushels, or an increase of 4.3 per cent. over the August estimate.

This increase brought the estimate of the total wheat crop of the country to 754,000,000 bushels, or 6,000,000 bushels more than the great record crop of 1901.

Condition of the Corn Crop.

We all know that the crop of corn for the year 1913 was reduced by the drouth. The extent is officially noticed in the government report that was issued on September 9th, as follows: Condition for the United States—65.1 per cent. of a normal, compared with 75.8 per cent., August 1st; 82.1 per cent. on September 1st last year, and 80.9 per cent., the average condition on September 1st for the last ten years.

The indicated yield per acre, estimated from condition reports, is 22 bushels, compared with 29.2 bushels harvested last year, and 26.5 bushels the average yield 1908-12. On the planted area, 106,884,000 acres, it is estimated the final total production will be about 2,251,000,000 bushels, compared with 3,125,000,000 bushels harvested last year, and 2,531,000,000 bushels in 1911.

Our Industrial Policy set forth on page 15 is interesting.

THE MALTA FEVER.

A Blow at Goat's Milk—Malta Fever Transmitted—Milk Should Be Boiled Before Using.

The Bureau of Animal Industry have compiled a bulletin which is of practical interest to all who raise goats and to such invalids as have been prescribed goat's milk as a diet.

Proofs have conclusively established that the transmission of a fever known variously as "Malta," "mountain," "slow typhoid," or by certain other designations, to man is accomplished by the milk of infected goats.

Careful observation in Texas and New Mexico show that the disease has always made its appearance among people connected with goat raising. Entire families have been taken sick with it on goat ranches. The sickness appears usually after the kidding season, during the months of April, May and June, when the people are in closer contact with the goats.

Observations have also shown that just over the border in Mexico goat herders are not nearly so liable to the disease. Conclusions have been drawn that this is not due to any natural immunity but to the fact that the Mexicans always boil the milk before drinking it, while the Americans use it raw.

The general opinion has prevailed that the United States is free from Malta fever and that the disease has only occurred through importations. However, it now seems evident that the Malta fever has existed in Texas and New Mexico for at least twenty-five years. The fever takes its name from Great Britain's island in the Mediterranean, where the disease has been exceedingly prevalent among British soldiers and sailors. Its occurrence in tropical and subtropical localities has been noted in almost every country. A number of cases have been reported among our soldiers who had just returned from the Philippine Islands.

Pasteurization of infected milk for twenty minutes at 145 degrees Fahrenheit is sufficient to destroy the organism which transmits the disease. Therefore, milk pasteurized for the destruction of typhoid and tuberculosis germs will also be free from the Malta fever germ.

The symptoms in human beings are usually pronounced and give rise to a more or less severe affection. The most striking symptom is an attack of fever with periods of normal temperatures. The duration of these periods varies considerably during the disease. The fever may be remittent or intermittent; it may be continuously high or low, and at all stages of the disease the type of fever may change. It may be very acute from the onset, the fever setting in with chills and rise of temperature associated with headache and pain in the back and a general ill feeling. The pulse and respirations are generally affected in accordance with the height of the fever. The course of the disease may extend for from six weeks up to a year, and cases have even been observed in which relapses have occurred for three years. In human beings the mortality is estimated at three per cent.

In animals the course of the disease always appears to be protracted. Cases have been noted in goats that extended over a period of more than a year. The prognosis in animals is always favorable as far as the health is concerned. But although the disease has no active effect on goats, its eradication must be considered for the public health, and it is particularly important since there has been a tendency recently among physicians to advise the drinking of goat's milk for children and invalids.

Goverment Approves Tobacco Dip For Scabies in Cattle.

The Secretary of Agriculture at Washington, D. C., has amended Order 143, effective August 15, 1913, relating to dips for scabies in cattle by permitting the use of the tobacco dip prepared from tobacco and suitable tobacco products, provided it contains not less than seven hundredths of one per cent. of nicotine. Heretofore the requirements have been that the tobacco dip should contain not less than five hundredths of one per cent. of nicotine and two per cent. flowers of sulphur. The tobacco dip of the new strength need not contain the sulphur. The regulation remains unchanged regarding the lime-and-sulphur dip, which may be used as directed in the order.

Look Out for Hog Cholera!
Scourge Spreading Rapidly

Can Be Prevented—Can't Be Cured

Don't be the man who locks the stable door after the horse is stolen. Don't wait until cholera breaks out in your own neighborhood before you try to save your herd. "An ounce of prevention is worth a pound of cure"—and in this case a little prevention **without one penny of risk** may mean the saving of many hundreds of hardearned dollars. You can't afford to risk another day's delay—especially when I offer to do for you what I have done for thousands of farmers, and before you pay me a single penny. Read my offer below:

Act Quick—Don't Wait Until the Scourge Sweeps Off Your Hogs

Your only hope lies in **prevention**, and the time to **act is now.** The first step is to get rid of the disease-breeding, treacherous **stomach and intestinal worms**—the pests that not only rob your animals of their food but, what is still worse, sap their vitality and make them easy victims of cholera and other contagious diseases. **Worms** are often so deadly in their attacks that they are mistaken for the cholera scourge itself. Rid your hogs of these **disease-breeding** pests—do as thousands of other farmers are doing—feed Sal-Vet—**get rid of the WORMS**—and you will have less to fear from cholera and similar fatal diseases.

I'll rid your hogs of worms or no pay. I'll drive out the blood-sucking, life-sapping, disease-breeding parasites which are the cause of 90% of all live stock ailments. I'll do for you what I have done for thousands of farmers. **I'll prove it before you pay.** I'll do it with Sal-Vet—the greatest worm destroyer and live stock conditioner ever discovered—the most widely known and used live stock preparation on the market. You take no risk whatever. Sal-Vet has saved millions of dollars worth of hogs because it promptly gets rid of the destructive **WORMS** and puts all farm animals in a vigorous, healthy condition enabling them to better resist contagious diseases. Read the letters below.

The Great Worm Destroyer

TRADE MARK

SAL-VET

REG. U.S. PAT. OFF.

The Great Live Stock Conditioner

"Hogs all around my place had the cholera. I have been feeding Sal-Vet and not one of my hogs were taken sick. I cannot help believing that Sal-Vet prevented my hogs from contracting the disease." (Signed) L. O. Haworth, Cuba, Kansas.

"I cannot find words to express how much I think of 'Sal Vet.' Hogs all around my place had cholera, but I did not lose a single one of mine, and all winter they continued to look just fine. They had been on Sal-vet of course."—Wm. Campbell, Rt. No. 10, Decatur, Ind.

"I had cholera on my farm but *not* in the particular bunch to which I fed Sal-Vet. I consider it a good medicine to feed to hogs the Year 'round."—H. M. Schondelmaier, Houstonia, Mo.

"I have used Sal-Vet for two years, within which time I have not lost a single hog. I consider it a sure preventive for cholera. Have fattened 74 head of May pigs that we sold December 10th, and which averaged 207 pounds each. They took Sal-Vet every day, and never stopped growing. We cannot say enough for the merit of Sal-Vet."—F. R. Dalrymple, Carthage, Ind.

"My hogs were in bad shape when I received your Sal-Vet. Since feeding it they look fine and ARE fine. I have not lost a hog but those belonging to my neighbors on all sides have died."

—D. H. Manshop, Colo, Iowa.

"The hog cholera is all around us in this neighborhood, but so far there is not a single case among the hogs belonging to the men who are feeding Sal-Vet."—Thomas Cannedy, Roodhouse, Ill.

I'll Feed Your Stock 60 Days Before You Pay

All I ask is the privilege of sending you as much Sal-Vet as you need to last all your stock 60 days. I don't ask you to send me a single penny in advance or to take any risk. Simply place Sal-Vet where your hogs, sheep, cattle and horses can run to it freely and **they will doctor themselves.** Sal-Vet is a medicated salt. It requires no mixing, no dosing, no drenching, no starving. No trouble at all.

Send No Money---Just the Coupon

Simply fill out the coupon, tell me how many head of stock you have, and I'll ship you enough Sal-Vet to last all of them 60 days. When it arrives pay the freight charges and at the end of 60 days report results. If Sal-Vet does not do what I claim, I'll cancel the charge—you won't owe me a penny. Send today. Address

SIDNEY R. FEIL, President

THE S. R. FEIL CO., Man'f'g Chemists

Dept. NFSG CLEVELAND, OHIO

PRICES: 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12. No orders filled for less than 40 lbs. on 60-day trial offer. Never sold in bulk; only in Trade-Marked "Sal-Vet" packages. 60 day trial shipments are based on 1 lb. of Sal-Vet for each sheep or hog and 4 lbs. for each horse or head of cattle, as near as we can come without breaking regular packages.

(157)

SIDNEY R. FEIL, Pres.
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Ship me enough SAL-VET to last my stock 60 days. I will pay the freight charges when it arrives, agree to report results promptly in 60 days, and will at that time pay for it if it does what you claim; if it does not you are to cancel the charge.

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P.O..... State.....

Shipping Station.....

Number of Sheep.....

Hogs.....Cattle.....Horses.....

THE NATIONAL FARMER and Stock Grower of AMERICA.

(Title Registered in U. S. Patent Office.)

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Known bondholders, mortgagees and other security holders, holding one per cent. or more of total amount of bonds, mortgages, or other securities, Philip H. Hale and M. M. Hale. (Signed) Philip H. Hale, Secretary and Manager.

Sworn to and subscribed before me this 1st day of October, 1913.
(Signed) Fred. A. Blake, Notary Public.
(My commission expires February 3d, 1914.)

Every possible interest of the American farmer has been deliberately sacrificed in the traiff bill which is about to receive the signature of the President of the United States. When it has been on the statute books long enough to show its effect it will be found to be worse than famine and pestilence combined.

Plant Food and Prosperity.

Possibly one of the most interesting and instructive addresses ever delivered before an assemblage of farmers is the one entitled "Plant Food and Prosperity" by Professor Henry G. Bell, of Chicago, who is Agronomist of the Middle West Soil Improvement Committee of the National Fertilizer Association. The address was delivered at Plano, Ill., in September, before the National Farmers' Congress.

Professor Bell began his address by a statement of the situation. In a race between population and population, population has production left behind. He shows by our decreased exports of wheat and flour we are approaching the limit of our home maintenance.

Professor Bell goes back into ancient history and reviews the methods of the Romans and how they had a working understanding of the rotation in crops.

He then step by step gets down to the present day and explaining the experiments that have shown the increasing harvests brought about by thorough tillage, seed selection, crop rotation and adding plant food to the soil in the shape of fertilizing materials.

Professor Bell entered into an examination of the elements that are under control of the farmer and those that are not. He places the farmer face to face with his own responsibility. Then comes the examination into results of farming methods in different countries, and he attributes the better German results to abundant use of plant food in the shape of commercial fertilizers.

Then comes the actual examination of American agriculture and the showing that is testified to by Commissioners of Agriculture and Directors of Agricultural Experiment Stations. It is one-sided testimony, because they, with one accord, eighteen of them, in states where large quantities of commercial fertilizer are used, say that the judicious use of fertilizer is a great factor in the prosperity of the country.

We have skimmed the pamphlet simply to draw attention of our readers to it, that they may address Professor Bell at Room 916, Postal Telegraph Building, Chicago, Ill., and ask him for a copy of "Plant Food and Prosperity" that he will be glad to send free of cost. Professor Bell is a scientific farmer, ripened by practical experience to be a safe counsellor of working farmers, and his statements are supported by abundant evidence to prove them.

Cattle on the hoof or meat on the block are arriving from Australia, Canada and from South America. There ought to be no meat famine under such circumstances.

The admission of foreign meats free of duty will not stimulate the production of cattle in the United States any more than the admission of foreign wools free of duty will encourage the wool grower to raise more sheep.

We are advertising some excellent ferns as subscription premiums. We have sent out a liberal number and we are assured that they grow finely and give full and complete satisfaction. See page 31.

St. Louis as a Fur Market.

The rise of St. Louis as a fur market is in recent years and due entirely to the activity of firms now in business and receiving furs on the market. The fur trade is somewhat peculiar, inasmuch as all houses deal directly as buyers with the shipper. They sell traps, baits and all the equipment to make a first-class hunter or trapper; they instruct them to catch, to cure and prepare furs and skins for market. Without the instruction sometimes a trapper prepares his skins in such a manner as to reduce the selling price. Our fur advertisements will be found on page 15. Last season, according to the Merchants' Exchange report, St. Louis handled 65 to 75 per cent. of all the furs trapped in North America and amounting to twelve millions of dollars. This year the United States government has changed the sale of all the government catch of seal skins, foxes and other Alaska furs from London, England, to St. Louis, Missouri.

The first big shipment of beef from Argentine was too previous. The United States government collected a small import duty upon it, and it did not sell any higher on that account.

We have no objection to Argentine meat coming into this country providing it is taxed for the support of the government, the same as we are taxed.

Common carriers in the United States are not allowed to give rebates to shippers, but Congress and the President are rebating duties to foreign shippers of grain, cattle and meats, for that is what it amounts to—taking money out of the pockets of our own people and giving it to foreign speculators.

On page 20 we are making an extraordinary subscription proposition by combining Collier's Weekly, one year, The National Farmer and Stock Grower, one year, and a copy of the magnificent Book of Live Stock Champions, all for $2.50, the price of Collier's alone. Collier's is about the most influential and attractive weekly publication in the United States.

The corn crop of the year 1913 is so small that the price of the corn crop of 1914 is assured. Corn is king once more and corn prices will not be reduced by any action of Congress. Corn and Hogs ought to be the battle cry of all American farmers.

The Northwestern Agriculturist, a slashing good farm paper, speaking of some Congressmen and Senators, said that they voted for protection for the millers and against protection for the farmers, and that is what they did.

St. Louis Cotton Market.

The St. Louis cotton market received the first considerable consignments of cotton for the season during the month of September, the total being 4,243 bales larger than were received last year. The total receipts at all ports this year in September were 1,358,486 bales, against 1,241,853 bales for the corresponding period last year. On October 1st, St. Louis quotations were as follows: Ordinary, 10⅞c.; good ordinary, 11⅞c.; low middling, 12⅞c.; middling, 13⅞c.; good middling, 14¼c.; middling fair, 14⅝c.

During the month of October, should any of our readers wish quick, up-to-the-minute quotations with a view of shipment to St. Louis, we advise communication with the Napoleon Hill Cotton Co., 116 South Main street, St. Louis, Mo., a first-class commission firm, standing high in the cotton trade. St. Louis is a superior cotton market and fully a third of the crop should be sold here in the interest of the growers and shippers.

Not a great many farm papers stood up for the rights in the interest of the farmers during the session of Congress that passes the tariff bill, and farmers should stand up for them.

EMINENT'S BESS, 209,719—THE WORLD'S CHAMPION JERSEY COW. Owned and exhibited by Walter S. Prickett, Roycroft Farm, Sidnaw, Michigan. Year's record—18,782 pounds, 15.6 ounces of milk, which contained 962 pounds, 13.6 ounces of fat, which is equivalent to 1,132 pounds, 12 ounces of salted commercial butter. This is the world's record for both the Jersey and Guernsey breeds of cattle. The total cost of the feed bill for the year was $116.54.

REPEATER, 7th—SENIOR YEARLING BULL AND VERY NEARLY PERFECTION ACCORDING TO HEREFORD CATTLE STANDARDS. REPEATER was junior champion and grand champion of the Hereford breed at the Iowa State Fair of 1913, and is progressing through the circuit with many prizes to his credit.

CLASSIFIED ADVERTISEMENTS.

AGENTS WANTED.

YOUNG MAN, would you accept and wear a fine tailor-made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use $5 a day for a little spare time? Perhaps we can offer you a steady job? Write at once and get beautiful samples, styles and this wonderful offer. Banner Tailoring Co., Dept. 499, Chicago.

FARM AND RANCH LANDS.

ALABAMA.—Fertile prairie land near railroad town. Good for all kinds of farming and finest of stock countries. Buy from owner and save commission. State number acres wanted. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—Look on page 18 for the advertisement of the lands on the Cotton Belt Route. The land of peanuts and pork. Simple agriculture that pays the way and earns the money with which to purchase and build comfortable homes. Write to **E. W. LaBeaume,** G. P. A., 1709 Pierce Building, St. Louis, Mo., and ask for the Arkansas Booklet.

ARKANSAS LAND FREE.—500,000 acres government land now open to settlement. Guide Book with lists, laws, etc., 25c. Township map of state 25c. additional. **L. E. Moore,** Little Rock, Ark.

ARKANSAS.—For cheap lands in healthy, well-watered districts, no swamps or rocks, where we grow most everything. One eighty-acre farm, fifty acres in cultivation, four-room house, six-stall barn, 700 young bearing peach trees. Price, $1,200 cash for quick sale. Also 160 acres, unimproved, much small, good timber, only one mile from station; good investment; no trading; $8.00 per acre. **A. P. Dyke,** Hope, Ark. Note.—Hope is in Hempstead county, at the junction of four railroads.

CANADIAN FARMS.—Canada offers to working farmers great advantages for settlement. Get your Canadian Home from the Canadian Pacific. Long time loans are made to enable you to pay for land and improvements. Lands near the Canadian Pacific are unsurpassed in fertility. Write for illustrated booklets. Address, **C. M. Thornton,** Colonization Agent, 112 West Adams street, Chicago, Ill.

MICHIGAN.—WE SELL OCEANA FARMS—Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

TEXAS.—Northwest Texas, the shallow-water country, that can easily be irrigated. See the story on page 5 and send to **C. L. Seagraves,** 2516 Railway Exchange, Chicago, Ill., and ask for the "Northwest Texas" Folder.

TEXAS.—Lands on the Cotton Belt Route in Texas are highly productive, in law-abiding communities, made rich by fruit and vegetable farming and stock raising. Good lands yet to be had cheap, but not for long, for prices are advancing. Write to **E. W. LaBeaume,** G. P. A., 1709 Pierce Building, St. Louis, Mo., and ask for Texas Booklet of Low-rate Excursions.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Bldg., Chicago.**

WANTED to hear from owner who has good farm for sale. Send description and price. **NORTHWESTERN BUSINESS AGENCY, Minneapolis, Minn.**

FARM MACHINERY.

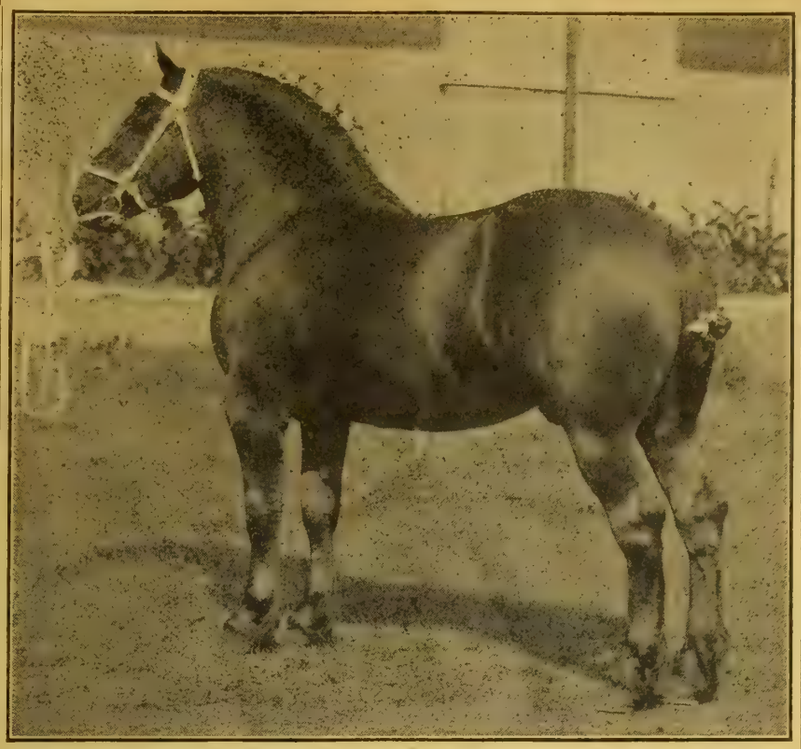
FERTILIZE INTELLIGENTLY. — Every seed in a packed seed bed; every ounce of fertilizer at the roots. The Peoria Union Combined Drill makes every seed count. Sows every seed at an exact, even depth, in a packed furrow. Write a postal card to get all the facts to Peoria Drill and Seeder Company, 2430 North Perry street, Peoria, Illinois.

VAN BRUNT SEED DRILLS.—Investigate thoroughly before buying any drill. Even seeding, correct planting, light draft, durable. Our Free Drill Book tells the story of the Van Brunt superiority. Write and ask for Book No. 7 VB and address John Deere Plow Company, Moline, Ill.

BUILDING MATERIALS.

BUILDING MATERIAL.—You can save 40 to 60 per cent. on your lumber bills. You can put up a barn or a silo good and cheap. Doors, windows, sash, all mill work of the finest kind. No matter which state you are in, this appeals to all who contemplate building or adding to buildings. Address, Hewitt-Lea-Funck Company, 488 Union avenue, Seattle, Washington.

ATLAS PORTLAND CEMENT.—Concrete is the remarkable development of the past few years. Once get in the concrete-mixing habit and your farm will receive continual lines of construction in everlasting form. We issue a book of 160 pages on concrete work. It is especially adapted to the farm. It will enlighten you. Address Atlas Portland Cement Company, Department 165, 30 Broad street, New York, N. Y., and ask for free farm book on concrete work.

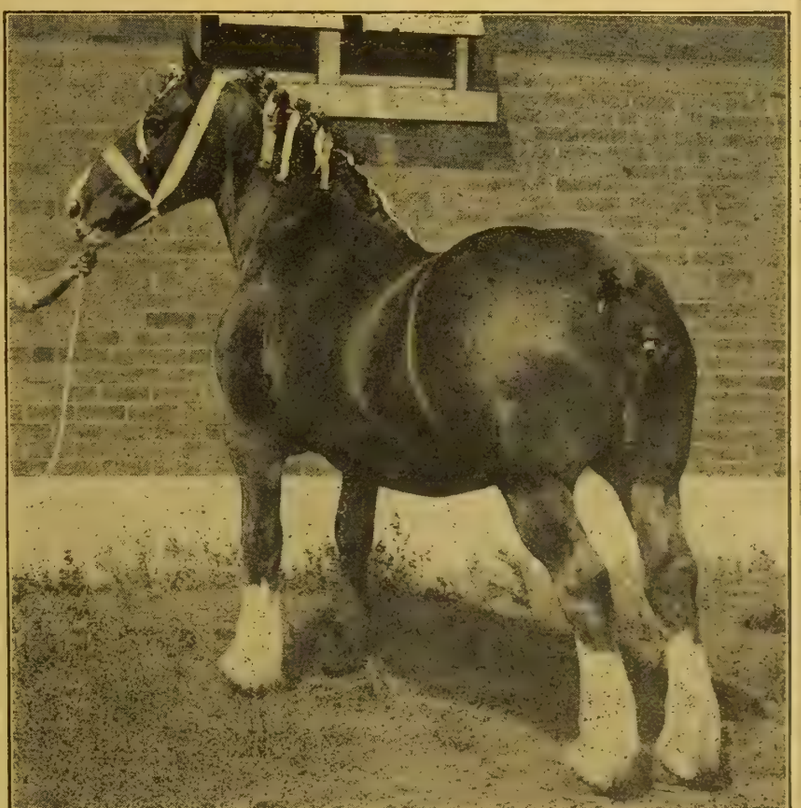


KOILACIA—PERCHERON STALLION. Champion at the Minnesota State Fair of 1913. A three-year-old that is probably one of the most perfect Percherons ever seen; noted for scale, substance, toppiness, combined with perfect feet, ankles and flat bone.

St. Louis Live Stock.

During th month of September the St. Louis National Stock Yards received 147,093 cattle, of which number 104,408 head were in the native division. It is the record month for St. Louis in native cattle.

At an English egg-laying contest, now nearing its close, a pen of White Wyandottes is first; a pen of Buff Plymouth Rocks is second; and another pen of White Wyandottes is third. There are 100 pens, six hens to the pen in the contest.



TATTON AURORA—SHIRE MARE. At twelve years of age and weighing 2,375 pounds, already a winner of many blue ribbons, she won the championship at the Iowa State Fair in a contest with the highest class of Shire mares. TATTON AURORA was exhibited by Trumans' Pioneer Stud Farm, Bushnell, Ill.

GOOD BOOKS AND PAPERS.

THE CORN CROPS.—A discussion of maize, Kaffirs and sorghums as grown in the United States and Canada. It is by Prof. E. G. Montgomery, of the New York State College of Agriculture. It is one of the books edited by Prof. L. H. Bailey, the highest authority on agriculture and horticulture. **THE CORN CROPS** is a book of 350 pages, illustrated, indexed, twenty-nine chapters, and it satisfies the reader and fills him with practical information. Published by the Macmillan Company, 66 Fifth avenue New York City, and the price is $1.60 per copy.

THE POTASH INDUSTRY.—Farmers who are interested in increasing their crops ought to obtain and read an elegant pamphlet issued for the purpose of showing the facts in regard to the potash industry. Potash is one of the three essential plant foods that have to be restored to worn-out soils and equally necessary to increase the fertility of good soils in order to grow maximum crops. The only commercial supply of potash comes from Germany. The pamphlet gives a full account of mining potash salts. The book shows that in Germany as much potash is used annually as there is used in all the balance of the world. The pamphlet also clearly defines the claims set forth and established for potash as a commercial fertilizer that pays the farmer. For a copy address German Kali Works, 1901 McCormick Building, Chicago, Ill.

SECRETS OF ALL CLEANING.—This is the story of the new Awco Washing Machine. It also is the instruction book in regard to the most improved methods in cleaning everything. Such books are priceless, yet they are a very long way from being worthless; in fact, many free books are the most valuable. Washing has been the drudgery of the farm. It is so no more. Washing machines run by light power will do the work. If you wish to know how it is, address American Washer Co., Dept. 3617-118 Sidney street, St. Louis, Mo.

SOUTHERN LANDS.

NATURE'S TREASURE GARDEN is calling You—Come South and grow with the country. Land $15 an acre up, cheapest in America, 2 and 3 crops grown yearly, ample markets, Living costs low. Climate very healthful and agreeable. Farm lists, "Southern Field" magazine and state booklets free.

M. V. RICHARDS, L. & I. Agt. Room 71, Washington, D. C.

Southern Ry. Mobile & Ohio, Ga. So. & Fla. Ry.

A POCKET CALCULATOR FREE.

Shows the Answer You Want as Quickly as a Watch Shows Time.

Almost every problem likely to come up in any line of business, office, store, farm or factory is quickly answered by Ropp's New Calculator, saving hours of work, money and wrangle. This book is a complete and accurate authority. Prevents your own mistakes or the mistakes of others. It will save you many dollars every year. If you want to know the interest on any sum for any time at 3, 3½, 4, 4½, 5, 5½, 6 or 7 per cent., you can have the answer at once. The net proceeds of any bill is instantly found.

If your hired man wants to know how much is due him, you can give him the figures by month, week or day. The book contains so much of value that it would be impossible to cover it in this space.

You can get a copy of this Calculator free, however, by writing to the Keystone Steel and Wire Co., 5526 Industrial street, Peoria, Ill. They are sending this fifty-cent book to all who are interested in better farm fencing and to help advertise their "Square Deal" Fence which is built different from all others. The "Square Deal" Fence Book and Ropp's Calculator are both sent free, postage paid.

NOBODY can sell you a better engine and nobody will quote you as low as my latest reduced Factory Prices Direct to Users.

I made the **WITTE**, the **leader** in usefulness 27 years ago, when the gas engine business was in its swaddling clothes. I have kept it ahead ever since, as the thousands of my customers testify.

WITTE Engines

Gasoline, Gas and Kerosene.

Sizes 1½ to 40 H-P. stationary and mounted, (skids and trucks) with detachable cylinders, vertical valves, and other features of merit without which no engine can be really high-grade. Start easily; no cranking; run without watching, 24 hours a day. Cheaper power, per horse, than others give.

Buy Direct From Factory

60 Days' Free Trial. 5-Year Guaranty.

I give you lowest factory prices ever known for strictly high standard engines of proven worth. No reasonable terms refused if you don't wish to pay all cash. Get my new book, FREE, with latest prices.

ED. H. WITTE, WITTE IRON WORKS CO. 1721 OAKLAND, AVE., KANSAS CITY, MISSOURI.

THE AIR IN THE SOIL.

Free Passage of Air Necessary to the Development of Nitrogen-collecting Bacteria—Roots Require Air as Well as Plant Food or Water.

An experimenter with soils makes the statement that a sandy soil seems to favor a high protein content in soy beans. A sermon might be preached on that text. The reason for the higher protein content of any beans on such a soil is apparent. Sandy soil permits the ingress of a larger amount of air than does clay soil. The roots of the soy bean are covered with little tubercles in which dwell the minute organisms that take the free nitrogen in the air and fix it in a form that can be used by the plant. This nitrogen in turn combines with several times its bulk of carbon and forms protein, with the assistance of hydrogen.

It is evident that the amount of nitrogen that is taken out of the air in the soil must be limited by the amount of air that can get into the soil. Therefore it is necessary to make provisions for the free passage of air into the soil.

But what is true of the soy bean is equally true of all the leguminous plants, such as peas, all kinds of beans, the clovers, alfalfa and of all kinds of plants that bear pods. For on the roots of all such plants tubercles form, provided the germs that form the tubercles are in the soil.

Unless air can come into the soil in considerable quantities, all of the so-called nitrogen-gathering plants will be able to develop but weakly. The condition of the soil is therefore sometimes directly responsible for the failure of some of these nitrogenous crops.

But there is another factor entering into the case, and that is the oxygen consumed by the roots of plants. That, too, comes from the air in the soil, and unless that air supply is considerable, the plants cannot thrive.

There are several factors entering into the case of a deficient air supply. One of the most common means of shutting off the air is to pack the soil so hard at the surface that it is glazed over at the top till it is air-tight. This happens in the footpath. It is the compacting of the soil that makes it impossible for plants to grow in such a soil, not because the roots cannot force their way through the compacted soil, but because the air cannot permeate it, and the roots will not go where there is no air.

Often a heavy rain falling on a clay soil will compact the surface so the air cannot get through, and so it is noticed on such a field that all the plants are stunted and have ceased to grow. The remedy is to break up the crust after each rain so that the air can get in. It is this letting in of a fresh supply of air that causes the remarkable growth in a field of potatoes or other plants after a cultition or a hoeing.

Swine have been known to pack the ground around a fruit tree so hard that the tree died because the air could not get into the soil.

Too much water in the soil has the same effect of keeping out the air. Drainage of wet lands therefore is necessary for the growing of any but aquatic and semi-aquatic plants. These latter plants are able to get their nitrogen and their oxygen from the air that is diffused through the water. Dry-land plants have not that power in sufficient degree to allow them to thrive under wet conditions.

FILLING THE SILO.

Corn the Great Stand-by—Exclusion of Air Necessary to Proper Silage Making—A Few Observations on the Subject.

Corn is the best material with which to fill the silo, though a good many other things have been tried and are being tried. Peas and oats mixed are still used in some localities, but, in the main, these make better hay than silage. Where beet pulp can be obtained, this is also proving quite popular, but beet-sugar factories are not numerous, and dried beet pulp is more easily handled than the beet-pulp silage. But in the great area in which corn can be grown that plant will always remain the great stand-by in the making of silage.

Putting in too immature corn has not been found to be advisable, as the resultant silage has in it too much acid. For this reason, in the North the Southern silage corn has been supplanted by the dent varieties in the filling of the silo, for the dent varieties reach the glazing stage before the Southern varieties of corn do.

The corn should be put in the cutter with the ears on and the ears should be distributed as evenly as possible, so that the leaves will press against them and keep out the air. Air spoils silage, and its exclusion is the great secret of proper silage making.

To keep out air, empty spaces are to be avoided and settling becomes a part of the process. Therefore it is better not to fill the silo too rapidly. The filling can be spread over enough days to permit of settling between the different periods of filling.

Tramping the silage is a feature that must be looked after carefully. The sides must be tramped, as the center tends to look after itself. However, the way the cut corn drops into the silo will hinder or help this work.

It is a mistake to cut down a great amount of corn before cutting into silage length begins, for wilting is likely to injure the product. Moisture is a considerable factor, and in dry times the best silage makers use the hose freely in wetting the mass of silage. Some fix the hose nozzle onto the cutting machine and sprinkle the silage as it is cut.

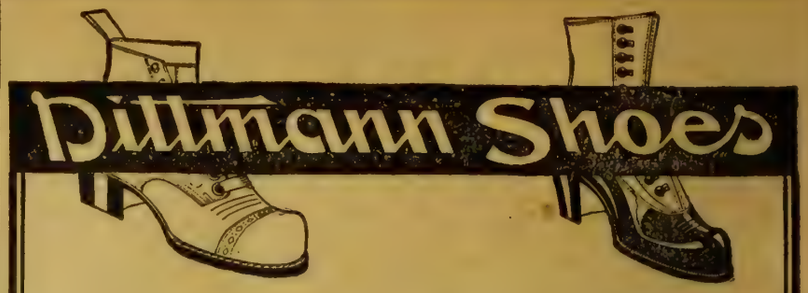
Therefore the work of filling the silo can go on in rainy weather as well as in good weather, if the rain is not heavy enough to keep the men from working. Of course, in wet weather there is no danger of the corn wilting, which is an item in favor of wet weather.

Many different methods have been tried in putting corn into the silo. Different farmers have put in whole stalks and claimed fairly good results; but, taking the experiments as a whole, uncut corn stalks have not proved a safe kind of silage, as it is very difficult to pack them close enough to exclude all air. Where whole stalks are used, however, cutting into short pieces is avoided, and that amount of labor saved. But cutting short is to be advised, and three-fourths of an inch is about the right length to pack well.

Covering the top with marsh grass or straw helps to keep the air from the top of the silage and preserves more than when no such covering is used. The grass rots down and forms a compact air-tight surface.

Too dry corn stalks do not give a silage that packs well. The air gets in and dry mold reduces the value of the silage for feeding.

It is reported from Texas that the matter of maturing all heifer calves is becoming the practice, and only very poor specimens, not worth raising, are being sent to market.



It's a *Good* Old Habit to Wear Dittmann Shoes—Known for 69 Years as Leaders in Quality

Four Pointers

Quality—Good materials carefully selected and put together by careful, experienced workers.

Style—Designs that are modish and in the lead, giving trimness to the foot.

Comfort—Shapes that are right for the foot and proportioned to give ease.

Durability—The result of both quality and right shape, thus giving best possible wear at the price which is true economy.

These are but a few of the many reasons why there is satisfaction in wearing Dittmann Shoes.

Smart Shoes for Women

In the house, on the street, everywhere, a woman needs shoes that are neat and stylish, yet comfortable. All these and durability as well are found in the many snappy models of Dittmann Shoes.

Ladies who wear Dittmann Shoes are certain of neat looking footwear, right for all occasions, at the least possible expense, the year through.

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Let the children wear our durable, hygienic, neat looking

9 O'Clock School Shoe

9 O'Clock Coupons Get School Flags

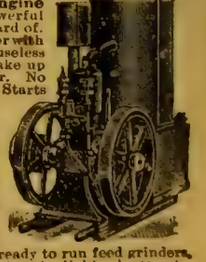
If you do not know of a Dittmann dealer, write us and we'll tell you where he is. Enclose 2c and we'll send the little ones, *free*, a valuable history:—"Our Flag" by Francis Scott Key III, illustrated in three colors. Write today.

It pays to trade with Dittmann Dealers.

Dittmann Shoe Co.
MANUFACTURERS ST. LOUIS

Detroit Kerosene Engine

Saves Time, Trouble, Expense



The Detroit Kerosene Engine is the simplest and most powerful engine you ever saw or heard of. Direct transmission of power with 3 moving parts only—no useless cams, gears or valves to take up power or get out of order. No trouble—no extra expense. Starts without cranking.

Runs on Cheap Kerosene

Will run on distillate and gasoline, but kerosene costs less than half as much as gasoline. Besides, kerosene contains more heat units than gasoline. Result—more power—steadier power—at one-half the expense of fuel. Comes to you all ready to run feed grinders, separators, pumps, saws, electric light plants etc. All sizes in stock ready to ship.

GUARANTEED 6 YEARS—Sent on trial direct from our factory at lowest factory prices. Don't buy an engine until you have seen the "Detroit." Write today for catalog and agent's special introductory price on first order from your territory. (188)

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

A REAL GUN

L. C. SMITH NEW DESIGN with HUNTER ONE TRIGGER

Above illustration is IDEAL grade. Price with two triggers $37.50 net. With Automatic Ejector $49.00 net. With Automatic Ejector and Hunter One Trigger, $69.00 net. Write for New Catalog of New Designs. Prices $25 to $1000 net.

HUNTER ARMS CO.

MAKERS 11—22 Hub St.

FULTON, N.Y.

CERTIFIED MILK.

Methods and Standards Adopted by the American Association of Milk Commissions—How to Get Them.

The first bulletin in the new department series of the United States Department of Agriculture is a contribution from the Bureau of Animal Industry, entitled "Medical Milk Commissions and Certified Milk." This is a revision of a previous bulletin on the same subject.

The organization and objects of the first Milk Commission are described and the origin and meaning of "certified milk" are set forth. The word "certified" has been registered in the United States Patent Office and may only be used by a duly organized medical milk commission.

The first Milk Commission was organized in 1893. Since that time over sixty commissions have been established, but nearly one-third of that number are inactive at present.

About 125 dairies are engaged in producing certified milk, and the daily production is nearly 25,000 gallons, an increase of 300 per cent. in five years. While this seems a remarkable increase, it should be remembered that only about one-half of one per cent. of the total milk supply of the country is certified.

While the chief demand for certified milk is for infants and sick people, it further serves to teach the public the value of careful methods in milk production and the extra cost of absolutely clean milk.

The bulletin describes the equipment and methods necessary for the production of certified milk. It is pointed out that expensive equipment is not a necessity so much as a careful and unremitting attention to details.

The American Association of American Milk Commissions was organized in the year 1907. The methods and standards for the production and distribution of certified milk adopted by this association at its 1912 meeting are given in the appendix to the bulletin. Write for it to the Department of Agriculture, Washington, D. C.

Holstein-Friesian Records.

During the period from June 13th to 30th, 1913, records for 260 cows were accepted to entry in the Holstein-Friesian Advanced Register. This herd of 260 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days **105,768.3** pounds milk, containing **3,715.899** pounds butter-fat, thus showing an average of **3.51** per cent. fat. The average production for each animal was **406.8** pounds milk, containing **14.292** pounds butter-fat, equivalent to **58.1** pounds or **27.6** quarts of milk per day, and **16.67** pounds of commercial butter per week. These figures are furnished by Mr. Malcolm Gardner, Superintendent of Advanced Registry.

NATIONAL DAIRY SHOW.

Programme For Each Day From the Opening to the Close.

We are receiving inquiries concerning the different events that are coming off at this year's Dairy Show. In order to meet this demand for information, we have drawn up what will act as a guide for prospective visitors in selecting their dates for visiting the National Dairy Show between October 23d and November 1st, at Chicago.

Friday, October 24th—Grange Day.—10:00 A.M.—International Association of Dairy and Milk Inspectors; judging dairy products; students' judging contests.

Saturday, October 25th.—10:00 A. M.—International Association of Dairy and Milk Inspectors; judging dairy products.

Monday, October 27th—Ayrshire Cattle Club Day.—9:30 A. M.—Judging Ayrshires. 12:00 noon—Saddle and Sirloin Club, Round Table conference. 2:00 P.M.—Show Building, International Milk Dealers. 8:00 P. M.—LaSalle Hotel, International Milk Dealers. 8:00 P. M.—Congress Hotel, National Creamery Butter Manufacturers.

Tuesday, October 28th — Jersey Cattle Club Day.—9:30 A. M.—Judging Jersey cattle. 12:30 noon—Record Building, Saddle and Sirloin Club; Railroad Dairy Department Men's lunch. 1:00 P. M.—Record Building, American Dairy Farmers' Association; Record Building, Dutch Belted Cattle Association meeting. 2:00 P. M.—Show Building, International Milk Dealers' Association. 8:00 P. M.—International Milk Dealers' contests in arena.

Wednesday, October 29th—Guernsey Cattle Club Day.—9:30 A. M.—Judging Guernsey cattle. 10:00 A. M.—Auditorium, Show Building, National Creamery Butter Makers' Association. 10:30 A. M.—Saddle and Sirloin Club; Dairy Department Men of Agricultural Colleges. 12:15 noon—Saddle and Sirloin Club; Dairy and Farm Paper Editors' lunch. 1:00 P. M.—Record Building, American Dairy Farmers' Association; Banquet Hall, Stock Yards Inn, National Association of Ice Cream Manufacturers.

Thursday, October 30th—Holstein-Friesian Cattle Association Day.—9:30 A. M.—Judging Holstein cattle. 10:00 A. M.—Auditorium, Show Building, conference for organizing National Association of Creamery Managers. 1:00 P. M.—Record Building, American Dairy Farmers' Association. 1:30 P. M.—Arena, Milk Producers' Association contests; Auditorium, Show Building, National Creamery Butter Makers' Association; Room 5, Record Building, Illinois Butter Manufacturers' Improvement Association; Banquet Hall, Stock Yards Inn, National Association of Ice Cream Manufacturers.

Friday, October 31st—Ice Cream Manufacturers' Day.—10:00 A. M.—Auditorium, Show Building, National Creamery Butter Makers' Association; Banquet Hall, Stock Yards Inn, National Ice Cream Manufacturers. 8:30 P. M.—Arena, contests by members of Ice Cream Manufacturers' Association.

Saturday, November 1st.—12:15 noon—Saddle and Sirloin Club; National Association of Dairy Herdsmen; meeting and lunch.

With butter at the present high price every ounce of cream counts

Cream is more than ever a very valuable commodity these days, and it is doubly important that not a drop be wasted or lost.

If you are still using the "gravity" setting method you are losing a pound of butter-fat in the skim-milk for every four or five pounds you get.

The advantages of the DE LAVAL over inferior cream separators at all times are greatest at the season when milk is often cool and cows are old in lactation.

A DE LAVAL

Will Save Its Cost by Spring

Then why put off any longer the purchase of this great money saving machine. Put it in now and let it save its own cost during the Fall and Winter and by next Spring you will be just so much ahead.

Even if you have only a few cows in milk you can buy a DE LAVAL now and save its cost by Spring, and you can buy a DE LAVAL machine for cash or on such liberal terms that it will actually pay for itself.

THE DE LAVAL SEPARATOR CO.

NEW YORK CHICAGO SAN FRANCISCO SEATTLE

Each cattle club on their respective day, or the day following, will have interesting meetings and club dinners in the evening.

Interstate Butter Contest.

"One of the most interesting butter contests was held in connection with the North Iowa Fair at Mason City, Iowa, September 8th to 12th. Superintendent Howard D. Reynolds, of the Central States Butter Contest Association, was in charge. One hundred and seventy-three tubs were entered. The entry from states is as follows: Iowa, 71 tubs; Minnesota, 74 tubs; Wisconsin, 18 tubs; South Dakota, 5 tubs; Michigan, 3 tubs; Nebraska, 1 tub; and Illinois, 1 tub.

"The average score of the 173 tubs was 93.14.

"In the Whole-milk Class there were 87 entries. Alfred Camp, of Owatonna, Minn., won first with a score of 97¾. F. W. Bremer, Sumner, Iowa, won second; score, 97½. F. W. Hedtke, Norwood, Minn., won third; score, 97¼.

"In the Gathered-cream Class there were 86 entries. Henry Hanson, Cylinder, Iowa, won first with a score of 95½. Mrs. A. B. McLaughlin, Elgin, Minn., won second; score, 95. Watson Shick, Monona, Iowa, won third; score, 94¾.

"The butter was sold to Gude Bros., Kieffe Company, New York, at 31 cents per pound on track at Mason City.

"The judges were F. L. Odell, of the Dairy Division, Department of Agriculture, Washington, D. C.; Jas. Sorenson, Manager of the Minnesota State Creamery, Albert Lea, Minn.; and J. J. Ross, Assistant Dairy Commissioner, Iowa Falls, Iowa."

At the Missouri State Fair this year the poultry entries increased over a thousand in excess of last year.

Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

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SHIELD BRAND, 99.6 Per Cent. Purity; Free From Dodder.

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USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.
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In these collection offers we have made up collections suitable for almost every purpose, selecting only the best varieties in each collection.

Everyone ordering one or more of these "COLLECTIONS" will receive a copy of our 47th annual Catalog which will be issued in January, 1914. This describes and prices over 800 varieties of Trees, Shrubs, etc.; also gives valuable cultural hints. *Write to-day before you forget.* Address,

H. J. WEBER & SONS NURSERY CO.,
Dept. G, Nursery, Mo.

Cowpea Good as Egg Food.

"Cowpeas are not only relished by hens, but are excellent egg food for them. One successful poultryman gives this experience: The peas, after maturing, were harvested and stored in dry lofts, and thrown to the fowls in scratching pens, where they were scratched over and searched for during the day.

"After a few days the egg supply was visibly increased, and within a few weeks almost doubled that from an equal number of hens kept in separate quarters and fed on other grains. The hens seemed to like the small branches anl leaves, and would eat every particle except the hard, stiff stems.

"The general health of the flock was excellent, and not a single hen showed the least symptom of ailment during the winter season. Considering the ease with which cowpeas may be raised, it seems that everyone should give them a test as food for the poultry."—Tennessee Agriculture.

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of beans and peas with a guaranteed Owens Thresher. All your seed separated and cleaned from the vines and pods without splitting. Pea and bean growing is the most profitable farming if handled right.

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GROWING ALFALFA.

It Will Satisfy More Needs Than Any Other Plant—Old as Egypt and Will Grow in Any Climate.

We find in the Farmers' Digest an article on alfalfa, as follows:

"A careful analysis of American agricultural conditions shows that we need more fertile fields, or rather fields with greater fertility. We ned larger and better herds. We need better roads. We need larger bank accounts. We need better homes. We need better citizenship. How can all this be done? Perhaps no one thing will do more to secure these things than growing alfalfa.

"Many farmers in the Corn Belt do not believe that they can grow alfalfa. They are under the impression that it requires peculiar climatic conditions, and a peculiar type of soil, such as is found in the Western States, particularly Kansas, Nebraska, Colorado, California and Utah—the great alfalfa states. We have reached the point where we know we can grow alfalfa in the Corn Belt, and it is now up to us to grow it.

"There is nothing new about alfalfa. Alfalfa is as old as the pyramids. It was grown in the time of Rameses, the first Egyptian ruler that history tells us very much about—and this is as far back as we need to go for all practical purposes. Caesar and his predecessors were strong believers in alfalfa, and their cavalry horses were fed upon it. Books on agriculture, written in the early days of the Roman Empire, tell how to grow alfalfa. Doubtless the world-wide supremacy of Caesar's armies and the Roman Empire was due in no small way to the abundant yields of alfalfa grown by the Roman farmers.

"The early colonial settlers brought alfalfa seed with them, and many years ago alfalfa was in high repute under the name of lucerne in the Atlantic Coast States. Even in that remote time, alfalfa was recognized as having remarkable attributes, although it acted strangely under cultivation, because its habits were not well understood. One man would succeed in securing a fine stand, while another would fail almost completely.

"One hundred years ago the Spaniards brought alfalfa to Chili, Peru and into Mexico, and later introduced the plant in Southern California. From there it spread eastward to Utah, Idaho, Colorado, Montana, Kansas and Nebraska.

"At the present time all of the alfalfa grown east of the Mississippi river is less than the area of the little state of New Jersey. The total area under alfalfa in this country is 4,707,136 acres. Of this area Kansas alone has 956,962 acres of alfalfa, or about one-fifth of our entire alfalfa crop. Nebraska comes second with 685,282 acres; Colorado third with 508,892 acres; California fourth with 484,134 acres; and Idaho fifth with 308,892 acres.

"The Corn Belt States are lamentably shy in the growing of alfalfa, as is shown by the following rank in which they come as producers of the crop: Missouri, 17; Ohio, 19; Iowa, 20; Illinois, 23; Wisconsin, 23; Indiana, 24; Michigan, 29; and Minnesota, 35.

"With the unquestioned advantages of alfalfa, we should be growing more of this great legume crop."

Seventy millions of dollars' worth of foreign goods are in bonded warehouses awaiting the passage of the bill that relieves the owners thereof from paying duties amounting to fifteen million dollars at least. In the meantime there are American citizens returning from abroad who are harassed and humiliated because they object to being forced to pay duties on personal effects.

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EDITION OF 1912.

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True to Life Pictures Reproduced From Photographs Taken in the Principal Show Rings of the American Continent by the Greatest Animal Artists.

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THIS is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in THE BOOK OF LIVE STOCK CHAMPIONS are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

There is not a second-class animal or inferior picture in the book. Every animal is a record-maker, record-breaker, famous sire, mother of champions, or winner in the prize ring.

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THE BOOK OF LIVE STOCK CHAMPIONS is published as a Souvenir Supplement to THE NATIONAL FARMER AND STOCK GROWER, issued monthly at St. Louis, Mo., a splendid, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. There are thirty-two pages, four columns to the page.

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THE CORN GRADES.

Interested Parties Are Given an Opportunity to be Heard on the Subject Before the Grades Are Finally Fixed.

In the September number of The National Farmer and Stock Grower we mentioned at some length the specifications for the new commercial grades of corn as proposed by the United States Department of Agriculture. We have since been informed that a public hearing will be held at the Department of Agriculture, Washington, D. C., on Tuesday, October 29th, 1913, at 10:00 A. M., in order that all persons interested in the commercial grading of American corn may have an opportunity to be heard on the tentative grades for corn, as announced on August 22d, 1913, before federal grades for commercial corn are definitely fixed by the Department of Agriculture.

For the purpose of giving those interested an opportunity to become familiar with the data on which the tentative grades are based, prior to the hearing, representatives of the Office of Grain Standardization will present the more important results of the investigations at New Orleans, La., on October 15th, in connection with the annual meeting of the Grain Dealers' National Assoication; and at Des Moines, Iowa, on October 21st, at a special meeting under call of the President of the National Council of Farmers' Co-operative Associations. The Department has also expressed a willingness to give additional opportunity for a further consideration of these data at a general meeting in Washington the day immediately preceding the date of the formal hearing, in case anyone interested should care to call such a meeting.

WHEAT MARKET SITUATION.

Bountiful Home Harvest—World's Crop Largest—Our Seaports to be Opened to Foreign Wheat Free of Duty—Prices Unsatisfactory.

We estimate that the tariff agitation and the certainty of foreign wheats being admitted free of duty have already cost the wheat growers an average of five cents a bushel during the past six months. How more it will cost when the foreign wheats are actually arriving and admitted free of duty we are not prepared to say.

The wheat that best stands competition is the soft wheat that is marketed so largely at St. Louis, which is considered worth three cents a bushel more than the hard wheats. Even as we write, on September 30th, No. 2 red is selling at St. Louis at 92½ to 95½ cents a bushel, while No. 2 hard wheat is selling at 87½ to 93 cents a bushel, having advanced a cent or two during the month, although the general market at Chicago, on contract grades, has declined or remained stationary.

When the September wheat option first began to be traded in, some time in June last year, the first figure we noticed was 90 cents a bushel. When we quoted it on August 30th the price was 85⅞ cents, and on September 30th, when the goods were delivered and the curtain was rung down, the price was 85⅛ cents a bushel, and the loss difference in our opinion was due to the men who draw $7,500 a year in Washington to legislate against the American farmer.

During the month of September the December wheat option declined about two cents a bushel. On August 30th the Chicago quotation was 89⅝ cents a bushel, and thirty days later, on September 30th, the price had declined to 87⅝ cents a bushel.

Now comes the indicator, the significant figure that foretells the future. We hear of people consulting the clairvoyant to find lost articles and to tell the future. There is no clairvoyant equal to the Board of Trade quotation, which is the consensus of opinion of all the traders at the time it is quoted. They may be mistaken, because half of them expect the market to go higher and the other half expect it to go lower; but money is required to buy or sell, and conversation alone will not change a quotation.

As we write this it is eight full months to the last day of May, and yet the May quotation is in the minds of every grain trader. The May quotation on August 30th was 94½ cents, and on September 30th, thirty days later, the quotation had declined to 92⅝ cents.

We believe that wheat is the harvest crop of the greatest importance; that farmers have loved to grow wheat; even when prices have been extremely low, and it is scant encouragement after the largest crop ever raised was in the year 1913 that Australia, Argentine, Russia, Canada and all wheat-growing nations are invited to come in with their wheat absolutely free of duty, and in order to make up the deficiency in revenues, additional, unnecessary war taxes are imposed directly on our own people.

Endorses Santa Fe Methods.

Earl Raynor, of Floydada, testifies to the usefulness of the Santa Fe Farm Demonstration Department in its assistance to the settlers in Northwest Texas, saying: "Even though there was but little rain, and the ordinary crops—those planted in the usual way— did not show much yield in 1912, my demonstration milo and Kaffir produced under your direction thirty bushels per acre. I am proud I took the work with the Santa Fe Demonstration Department, and would be glad to plant my entire 1913 crop under that supervision. I know of no surer or quicker way to get a knowledge of scientific and dependable methods for satisfactory crop production."

This refers to the article entitled "Enrich Yourself" on page 6.

FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS.

October Edition, 1913.

This is not a directory of farmers and shippers, but it is a directory for the use of farmers and all shippers and handlers of farm products.

The Directory contains an alphabetical arrangement by states in which there are about five thousand (5,000) names and addresses, also stating whatever the occupation may be. Industries represented are as follows:

Agricultural Books and Charts—Agricultural Implements—Arms and Ammunition — Auctioneers, Live Stock—Beekeepers' Supplies—Building and Construction — Cattle Troughs, Self-feeders—Cisterns and Tanks — Colonization Companies—Commission Agents, Cotton and Wool—Commission Agents, Dressed Meats—Commission Agents, Cattle, Hog and Sheep—Commission Agents, Hay, Grain and Seed—Commission Salesmen, Butter, Cheese, Eggs, Poultry and Produce—Commission Agents, Horse and Mule—Co-operative Associations—Cotton-ginning Machinery—Creameries and Dairy Distributers—Dairy Apparatus—Dynamite and Blasting Powders—Electric Farm Appliances—Engines For Farms—Experts, Farm Specialties—Farm Chemicals and Sprays—Farm Books and Papers—Farm Tools and Hardware—Fencing, Farm and Ranch—Fertilizer Manufacturers—Fruit Specialists—Grain Elevators and Graders—Harness and Saddles—Horse Goods—Horse and Mule Dealers—Incubators and Brooders—Irrigation plants and Machinery—Live Stock Dealers—Merchants, Farm Goods—Motor Cars and Trucks—Nurserymen and Florists—Packers, Abattoirs and Wholesale Butchers—Paints and Varnish—Poultry Supplies—Printers, Fruit and Package Labels—Purchasing Agents, Cattle, Hogs and Sheep—Road Machines — Roofing — Sale Stables—Seed Growers and Dealers—Sheep Dips and Specialties—Stock Foods and Tonics—Stock Yards and Markets — Stump Pullers — Swine Breeders' Goods—Tractors, Farm—Trade Publications—Vegetable and Fruit Packages—Vehicles and Harness—Veterinary Appliances—Water Engines and Powers—Water Systems — Well-drilling Tools — Windmills and Engines—and all others having business connections with the farm interests of the country.

The subscription price of one copy of the FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS is fifty (50) cents, and we will be glad to send a copy to anyone on receipt of price. As a special proposition we desire to say that we will furnish our monthly NATIONAL FARMER AND STOCK GROWER for two years and one copy of the FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS for one dollar.

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FURS

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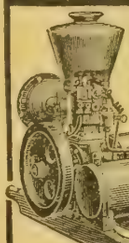
20 Reasons Why You Should Investigate the SANDOW Kerosene Stationary ENGINE



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Use the guaranteed remedy on it for all cases of coughs, colds, shipping fever, epizootic, influenza and pinkeye. We guarantee the first bottle of Frazier's Distemper Cure to give results or your money back. The $1 bottle holds exactly eight ounces, just two ounces more than any other so-called distemper cure on the market. Get your money's worth and get the big bottle with the guarantee. Send for our free horse booklet. Binkley Medical Co., Dept. H, Nappanee, Ind.—(Advt.)

ZENOLEUM DESTROYED.

Under insecticide act of 1910 seven cases of zenoleum shipped by the Zenner Disinfectant Company, of Detroit, Mich., were condemned by the government for being misbranded. The company made no defense and a default was entered and the goods were destroyed. The case was before the District Court of the United States, December 10th, 1912.

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And pay highest prices for **Coon, Mink, Skunk, Possum, Muskrat,** and all other **Furs, Hides** and **Ginseng.** Best facilities in America. Send for Free Price List and Shipping Tags. No commission charged.

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FREE—Write today for catalog and certificate, entitling you to free $50 course in running traction engines—we own three tractors. Only auto school in the world teaching tractioneering. Send name today for free course and catalog.

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1130 E. 15th Street, Kansas City, Mo.

The American Swineherd.

We have been requested by our patrons and friends to arrange a club whereby we can offer them a swine raiser's paper as a premium with The National Farmer and Stock Grower, and we have succeeded in doing so. **The American Swineherd** is published monthly, and is usually a seventy-two-page, three-column paper, splendidly edited from practical standards and always interesting from the very beginning to the end. It is a satisfactory paper, and all who subscribe are very much pleased with it. We have entered into a co-operative arrangement with the publishers of **The American Swineherd,** whereby we can offer for a limited time The National Farmer and Stock Grower and **The American Swineherd,** both papers, for the price of one. Anyone who will send us a money order for fifty (50) cents in answer to this proposition will be supplied with both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

ABSORBING CANADIAN CATTLE.

Since July, 16,000 Head Have Crossed the Line, Paying Duty at the Front Door.

The Canadian Weekly Sun of September 24th states as follows:

"Since the 1st of August, 16,000 head of cattle have been shipped to Buffalo from the Toronto market. Last Friday alone forty-eight cars were sent across the line. Practically all of these shipments consisted of stockers. In spite of a duty of 27½ per cent. and after paying freight and yard fees, the Toronto commission men who have undertaken this venture are able to reap a profit of $5.00 per head (as speculators). Light stockers weighing 300 to 500 pounds, which are selling in Toronto at from $3.00 to $4.25, bring $5.80 to $6.25 on the Buffalo market. Stockers weighing 500 to 700 pounds can be bought in Toronto for $4.25 to $5.00. This is a difference of from $4.00 to $15 per head.

Why the Movement Occurred.

"In Quebec and in the eastern counties of Ontario a very serious feed condition exists. Hay was practically a failure and severe drouth has burned up pastures and considerably reduced other crops. As a result, farmers are forced to sell off their young cattle. These cattle were shipped into Toronto, and for a while the market held firm. When shipments became so heavy that a congestion was feared, some enterprising Toronto commission men made an experimental shipment to Buffalo. The result was the American market has absorbed all our surplus without demoralizing the home trade. The strong demand for stockers and feeders on the Buffalo market comes principally from Pennsylvania, where there is an abundance of feed and a shortage of cattle.

The Future Situation.

"While it is a good thing this avenue of trade has opened up just at a time when Canadian farmers had to sacrifice their stock, yet it means a future shortage of cattle. Also, if farmers had been able to hold these cattle for a month or so it is highly probable much higher prices would have been realized, due to the abolishing of the United States tariff. It is the opinion of American cattle dealers that despite the fact that their market is being thrown open to the world, that high prices will prevail for many years to come. It is also said that American breeders will scour this country for good female stock with which to recuperate their herds. A bright future awaits those farmers who are in a position to take advantage of this almost unlimited market."

Standing a Bull With Stallions.

The following very sensible article is from the American Breeder, published semi-monthly at Kansas City:

"The average stallion owner does not think of the possibility of standing a good bull for public service. A good registered bull can be purchased cheaply enough so that it should pay for itself easily in two or three years. An animal of this kind is not very difficult to handle and should not interfere with the other work.

"Cattle prices are higher and the demand for improving blood greater than the average breeder thinks for. A two-year-old heifer of good size and fairly well bred, safe with calf, will sell on the market for from $50 to $80 without any 'papers.' In many localities good milch cows have sold as high as $150. Why is it not profitable to look after this part of the breeding industry? Breeders who have studied only the horse end of it may lose a good opportunity by not thinking about the cattle market.

A good bull should stand for around $5.00 in most localities. In some localities, where there are many pure-bred cows, the service fee might be advanced. A lot of breeders have an extra mongrel stallion that they could dispose of and place in its stead a good bull very profitably. The mares coming to this mongrel stallion could be transferred to better sires, or at least a part of them. The bull would open a new field. An enclosure separate from the bull's habitation would serve as the breeding paddock. A bull, properly handled, can be brought in with a lead strap (in case of some dairy bulls a 'jockey stick' is considered necessary), released to make the service and caught without trouble for returning to its paddock.

Some cow owners will need a little education and enlightenment as to the value of better progeny. A calf sired by a good, pure-bred bull is worth at weaning time from $5.00 to $10 more than one sired by a scrub. Those who expect to raise cattle and increase the quality of their herds cannot measure the value of a good sire in dollars and cents. A further advantage in using a good bull is, that one owning a calf sired by a good animal will not be forced to hunt for buyers. Nearly all live stock buyers are now hunting for the best, and a few dollars in the price does not usually interfere with the transfer.

In some localities, a breeder, thinking of standing a good bull, will find several owners of good cows ready to co-operate with him. It is often the case that men owning a limited amount of land and desiring to keep a small herd of choice pure-bred cows are held back because of the cost of a bull suited to their needs. If a breeder can find two or more farmers so situated, and keeping the same breed of cows, he very likely can get them to join him in selecting a bull, which all will be glad to patronize. The same problem has given rise, in some sections, to co-operative breeding clubs, and doubtless there are many places where progressive, capable breeders can work out a better solution of standing the right kind of a bull. This plan, properly followed, with either beef-bred or dairy cattle, could soon give any favorable locality a reputation for a superior class of young stock.

Don't Wait Until Hogs Are Sick
Feed Merry War Powdered Lye NOW

E. Myers, President, E. Myers Lye Company

Epidemics of hog sickness nearly always come without warning. And when an epidemic breaks out—it's all over but burning a lot of worthless carcasses! Your pork profits, Mr. Farmer, are too big a part of your income for you to take chances with. You can **insure** your pork profits by beginning right now to **feed your hogs regularly twice each day** a small quantity of MERRY WAR POWDERED LYE mixed with their rations or drinking water. Full directions on every can.

Has Saved The Lives of Thousands of Hogs

It is the **safe** preventive of hog cholera, it quickly destroys hog worms, makes hogs fat, sleek, healthy—puts them in prime condition and enormously increases pork profits. So **don't wait** until your hogs begin to cough, snoop around and get off their feed. Begin feeding them MERRY WAR POWDERED LYE **now—and be on the safe side.**

Don't Experiment—There Are No Substitutes

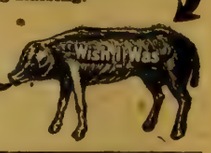
Don't be persuaded to try an ordinary, old-fashioned lye as a possible preventive of hog cholera. At best, it would be a doubtful, **perhaps a dangerous experiment.** MERRY WAR POWDERED LYE will **not** hurt your hogs. It is the specially prepared lye that is **safe** to feed to hogs as directed on every can, **and there are no substitutes.** MERRY WAR POWDERED LYE is not only a **safe** preventive of cholera, but it is also the best hog fattener, and all 'round conditioner the world has ever known.

10c A Can At All Dealers

MERRY WAR POWDERED LYE is for sale at most dealers, 10c per can (**120 feeds**). It is convenient to buy in case lots—4 dozen cans $4.80. Costs only **5c per hog, per month,** to feed regularly—by far the best and much the cheapest hog insurance you can buy. If your grocers, druggists or feed dealers can't supply you, write us stating their names. We will see that you are supplied, also send you FREE a valuable booklet, "How To Get The Biggest Profits From Hog Raising."

Order direct from us in case lots—4 dozen cans $4.80—if dealers won't supply you.

"There Are No Substitutes"



E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

Hog Grades and Prices.

Many farmers who do not ship hogs to market have little idea of the many different grades and classes that are recognized by the trade, and they do not understand why the best hogs do not sell at the highest price.

All hogs are sold at a price per 100 pounds, and sometimes light hogs top the market, sometimes medium-weight hogs sell the highest, and sometimes the heavy hogs sell at the highest price per pound.

Just now hogs are selling irregularly. The heavy hogs are at a discount. The people who purchase light hogs are paying the most money per pound, because they are obliged to. Bacon is selling at extravagant prices to consumers, and it is natural that bacon hogs should outsell the heavier hogs used in the packing trade.

One day during the last week in September we noticed that at Chicago light shipping hogs were selling at $8.90 to $9.10 per 100 pounds and topped the market, and heavy shippers were selling at $8.15 to $8.40 per 100 pounds, which is a tremendous difference. The light butcher hogs were selling at $8.55 to $8.90, and heavy butcher hogs at $8.20 to $8.40; medium weights were selling at $8.10 to $8.50 per 100 pounds.

Mixed hogs, 170 to 200 pounds average, sold at $8.20 to $8.50 per 100 pounds; mixed, 210 to 250 pounds, at $7.90 to $8.20; and the bulk of sales at $7.90 to $8.40 per 100 pounds.

In the heavy classes, throw-out packing sows were selling at $6.50 to $7.35; rough, heavy packing at $7.40 to $7.65; and heavy packing, and fine hogs at that, were selling at $7.65 to $8.00, fully a cent a pound below the top of the market.

Other grades sold as follows: Fair to choice light, $8.55 to $8.90; light light, 135 to 165 pounds, $8.10 to $8.60; pigs, good to fancy, $6.50 to $8.40; pigs, inferior to fair, $4.25 to $6.25; boars, inferior to choice, $1.00 to $2.50; stags, subject to dockage, $7.90 to $8.60; government throw-outs, $4.50 to $6.00; government pigs, $1.00 to $3.50 per 100 pounds.

It will be seen by this summary that the best hogs are not bringing the best price per pound, and it is almost safe to say that the market is upside down.

For wet weather,—
dry clothes
and
comfort
wear Tower's
Fish Brand
REFLEX
SLICKER

It is all you want, or can get, in a rough and ready service coat. Thoroughly waterproof and strong at every point.

$3.00 at your dealer's

Satisfaction Guaranteed

A. J. Tower Co.
BOSTON
Tower Canadian Limited, Toronto

Identified always by this trade mark
TOWER'S FISH BRAND

813 *Catalog free*

Fresh Pork All the Year.

Here is the way a farmer in South Dakota has fresh pork all the year round: He takes the whole hog, dresses and bones it and slices it into pieces that contain if possible both fat and lean. He then salts the meat about half as much as he would for the table, places it in a pan of hot lard and leaves it there until it is half cooked. This kills any disease germs that may be in the meat and helps to preserve it. He afterwards packs it in earthen jars, covering it with its own lard. The meat is always as fresh as when first killed. One should take care when removing meat to cover that remaining with hot lard taken from the jar.

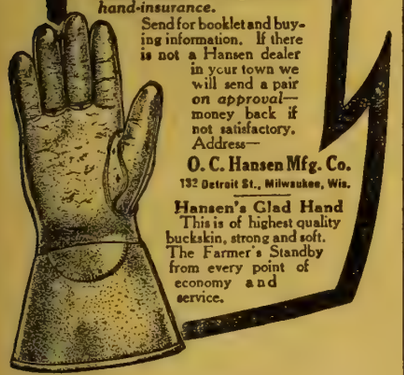
Hitch Up With Hansen

You can—easily. This Dan Patch keeps your hand free and safe from hurt, yet, with lining and without, never hinders a movement of your fingers. Flexible and strong, it seems built exactly to suit *your hand.*

Hansen's Gloves

are made of the best leathers the world affords—selected for softness and strength. In 500 styles for every hand at every work. Washable and lasting.

The Hansen line includes gloves for rough work and light chores. Special Thresherman's Gauntlet—gloves for autoist, cyclist, sportsman, etc. There are gloves for women's and boys' wear—all with the double economy of long wear and *hand-insurance.*



Send for booklet and buying information. If there is not a Hansen dealer in your town we will send a pair *on approval*—money back if not satisfactory. Address—

O. C. Hansen Mfg. Co.
132 Detroit St., Milwaukee, Wis.

Hansen's Glad Hand
This is of highest quality buckskin, strong and soft. The Farmer's Standby from every point of economy and service.

OUR INDUSTRIAL POLICY.

We Are in Favor of All Foreign Farm Productions Admitted to This Country Paying a Duty For the Support of the United States Government, and to Pay It at the Front Door.

We Are Strenuously Opposed to the Admission of Any Foreign Products or Manufactured Goods Free of Duty, But We Are Not in Favor of Any Prohibitive Tariffs.

No matter what laws have been passed by Congress, we still believe that the most important item we can publish at the present time is our industrial policy, so far as it relates to the tariff. We therefore repeat our views on that question.

The National Farmer and Stock Grower is in favor of the United States Custom House collecting by law a reasonable range of duties upon all foreign farm products and all manufactured goods admitted into the United States from foreign countries, the amount of said duties to be applied to the support of the national government.

By the tariff policy that we advocate fully one-half the money required for the support of the national government can be collected at the custom houses, besides furnishing the farmer and manufacturer the very moderate amount of protection to which they are entitled. We are opposed to the admission of foreign farm products free of duty, because admission of such products duty free always leads to the advantage of the foreign merchant and speculator and causing increased burdens to be imposed on our own people. We are in favor of duties being levied upon all manufactured goods admitted to this country for the double purpose of furnishing revenue and for the protection of our manufactures, for the reason that all interests are entitled to protection, if it is accorded to anyone.

With moderate import duties received by the United States on various products as heretofore collected the total amount that is covered into the United States treasury is over three hundreds of millions of dollars a year, and if not collected that way will have to be obtained by direct and unnecessary taxes upon our own industries. The foreign goods admitted free of duty displace home productions and result in higher prices to the American consumer and higher taxation also upon our own products and incomes to make up the lost revenues.

Every farmer in the United States is taxed by his county and by the state; he also pays a share of the taxes collected in various ways for the support of the federal government. We believe that in return for his support in tax money and in time of necessity for his personal services the American citizen is entitled to preference in his home market for his own productions from the laws of the government he is a part. We believe that the advantages of our own markets belong to the citizens of the United States, and that all foreign farm productions should pay a duty at the front door as the goods are admitted, in compensation for the taxes we have to pay on our own. In times of scarcity, caused by drouth or other unavoidable influences, the foreign farm productions can come in under light duties on a fair basis, and in times of abundance the country is far better off without them.

We believe the farmer as a producer outranks all other people; the manufacturer is next, but without the farmer's products the manufacturer would have to shut his doors.

Legislation against the farming interest is the height of folly, and general discrimination against the farmer is a political crime. Legislation against the farmer will cause more poverty in the cities than most people imagine. The non-producing, so-called consumers in cities will be the first to find it out and be the greatest sufferers. The farmers who can provide for themselves will be slow to increase their products in the face of injurious legislation in which their interests have been utterly ignored.

Wore It Off.

An especially enthusiastic lady tourist had kept up her Gatling fire of questions until she had thoroughly mastered the geography of the country. Then she ventured to ask the driver how he had lost his finger.

"Cut off in an accident, I suppose?"

"No, madam," he said. "I wore that finger off pointing out scenery to tourists."

Weight Counts More Than Numbers.

Whatever there may be in the matter of a meat famine during the next year, it will be due more to a shortage of corn than to any other cause. Although cattle, hogs and sheep are enumerated by the head, the weight is also a great consideration. Two little 800-pound steers are required to equal one steer weighing 1,600 pounds, and in a general way there are more light steers marketed than heavy ones. When it comes to feeding the people, it is weight that counts, and to make the weight corn is required in abundant quantities. Thirty years ago people who were watching the live stock markets did not figure upon the number of pigs but upon the quantity of corn and other available feeds, and now that there is an appearance of a shortage in the meat supply, the whole world appears to be counting the pigs and disregarding what makes the weights. Whenever we get another full corn crop to feed cattle and hogs we will have the cattle and the hogs to feed.

In the live stock markets of the country breeding ewes are selling higher than fat muttons.

Tire Cost Cut Four Ways

We claim your favor on No-Rim-Cut tires solely on the ground of saving.

We cut tire bills in four ways which no one else employs. That's how we won the world's largest tire business. And that's how we are going to win you.

Way One—In these tires we end rim-cutting—make it impossible. We do this in the only feasible way—a way which we control.

With old-type tires—clincher tires—rim-cutting ruins almost one tire in three. That is shown by most careful statistics.

Way Two—We add to our tire cost $1,500 daily to final-cure these tires on air. That is done to save countless blow-outs.

No other tire maker does this, because of the extra expense.

Way Three—We alone use a patent method to prevent tread separation. We paid $50,000 for it.

This way reduces by sixty per cent the danger of loose treads.

Way Four—We limit our profit to 8½ per cent. By matchless output and modern equipment we have brought tire cost to minimum.

As a result, these costly tires—No-Rim-Cut tires—now cost you no more than other standard tires. They used to cost one-fifth more.

So you get all these savings, which cost us fortunes, at no extra price. Do you think it wise, under these conditions, to go without them all.

Go see these tires—now the rulers of Tiredom. Our dealers are everywhere.

GOODYEAR
AKRON, OHIO.

No-Rim-Cut Tires
With All-Weather Treads

THE GOODYEAR TIRE & RUBBER CO., Akron, Ohio

Toronto, Canada, London, England, Mexico City, Mexico, Dealers Everywhere. Branches and Agencies in 103 Principal Cities.
Write Us on Anything You Want in Rubber.

(1347)

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St. Louis. The announcement is made that twelve of these Auction Sales of Range Horses will be held at the National Stock Yards, Ill., during the season of 1913 by

Campbell & Reid and Western Sale Stables Co.

At each of these sales Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale ring were originally well-bred Range Horses. The next three Auctions will be held on

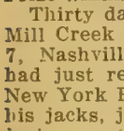
Thursday, October 16,
Thursday, October 30,
—and—
Thursday, November 13,

which is the last sale of the season. We will be glad to hear from Ranchmen having Horses for sale. The demand is good, especially for well-bred Mares and Geldings in fine condition.

Please address
J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

Prize-winning Jacks From Tennessee.

Thirty days ago Thos. H. Ezell, of Mill Creek Stock Farm, R. F. D. No. 7, Nashville, Tenn., wrote that he had just returned from the Greater New York Fair and Exposition. With his jacks, jennets and mules he had just won thirty-one first awards, fifteen seconds, nine thirds and three fourths; also four loving cups and medals. He took championships with his good two-year Ezell's Champion; another with Tennessee's Choice; and another with a yearling mule. We have not the space to mention all of his winnings, but when last heard from he was at Gallatin, Tenn., where he had taken fourteen first prizes. His card is on page 20.



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41 INCHES HIGH
100 other styles of Farm, Poultry and Lawn Fencing direct from factory at save-the-dealer's-profit-prices. Our large catalog is free.
21 CENTS A ROD
KITSELMAN BROS. Box 261 Muncie, Ind

FARM FENCE FROM FACTORY TO FARM
26-inch Hog Fence,....14c.
41-inch Farm Fence,....21c.
48-inch Poultry Fence....22½c.
80-rod spool Barb Wire, $1.55
Many styles and heights. Our large Free Catalog contains fence information you should have.
COILED SPRING FENCE CO. Box 256 Winchester, Ind.

BROWN FENCE WE PAY FREIGHT
13 Cents Per Rod Up
Strongest, heaviest wire. Double galvanized. Outlasts others nearly 2 to 1. Low prices direct from factory. Over 150 styles for every purpose—lawn, chicken, poultry, rabbit, horse, cattle. Also lawn fence and gates of all styles. Mail postal for catalog and sample to test and compare with others. Address
THE BROWN FENCE & WIRE CO.
Department 15 Cleveland, Ohio

A Top Load of Hogs.

On Friday, September 26th, Capt. R. M. Fountain, a regular shipper for many years from Boone county, Missouri, was at the National Stock Yards with a load of hogs of his own raising and feeding that averaged 200 pounds, and sold at $9.00 per 100 pounds, which was not only the top of the local market, but the same as the top in Chicago and 42½ cents higher than the top in Kansas City. The hogs were fine and fat, and there were heavier loads that sold at a less price per pound.

CHICAGO LIVE STOCK.

Basis of Sales on Last Day of the Month of September.

Tuesday, September 30th.—Receipts of cattle were 7,000 head, including 3,500 head Western rangers. The market was very dull and slow with bids generally lower because buyers expect a big run on Wednesday. Many medium steers were carried over because bids were not satisfactory. The supply sold mainly at $8.25 to $8.80, with a few at $9.00; cows and heifers ruled weaker with the demand slim; common to medium sold at $5.60 to $6.50; good to choice, $6.60 to $7.50; fat heifers, $7.50 to $8.50; canners and cutters, $4.00 to $5.00; bulls were also lower at $5.75 to $7.40, including bolognas at $5.80 to $6.30; veal calves sold stronger at $11 to $11.75; stockers and feeders were 10c. lower at $6.50 to $7.85.

Hogs.—Receipts, 18,000 head; good hogs were strong, but the other grades were no better than steady; at the start a few sold 10c. higher; top reached $9.10, with the bulk of sales of packing class at $8.10 to $8.45. About 4,000 head were carried over. Many pigs sold at $6.00 to $7.00.

Sheep.—Receipts, 35,000 head; heavy sheep were scarce and sold strong with the ewes at $3.75 to $4.30, and the wethers at $4.00 to $4.75; fat lambs sold 10c. lower at $7.00 to $7.30; feeder lambs met with a strong demand at $6.25 to $6.60—all quotations being at the price stated per 100 pounds.

St. Louis Mule Trade.

At the St. Louis National Stock Yards several thousand mules are on sale all the time. Most of these mules have been fattened since arriving from the country. The mule is the only animal that can be kept in a stock yard over a day or two without loss. Some mules brought in thin are on feed quite a while, and the difference between condition coming in and going out is remarkable. They arrive in farm order and go out in perfect working condition. They arrive in mixed loads and go out classified. Good, big mules are selling strong; cotton mules, 14.3 to 15.2, are also strong; mining mules are in good demand; but plain, small, thin, rough, green, common and blemished mules are not selling quickly and cannot be fed in the yards without eating their heads off. The information comes from Holland, Nugent & Maxwell Bros. Commission Company, who are receiving and selling mules every day in the week.

Light Hogs Still on Top.

On Wednesday, October 1st, at the St. Louis National Stock Yards, the best price, $8.85 per 100 pounds, was paid for a load of hogs shipped by Roundtree & Young, of Dade county, Missouri, that averaged only 175 pounds. The price paid was 25 cents per 100 pounds higher than any hogs sold at Kansas City on the same day. St. Louis always shines as a hog market, and especially so when light hogs are in demand, for the reason the market is the favorite buying headquarters for many packing houses towards the East that only slaughter light hogs. On the same day we refer to, Baltimore took 1,051 hogs from St. Louis; Detroit took 1,340; New York City, East Buffalo, Pittsburg and Shamokin, Pa., Wheeling, W. Va., and other cities also bought light hogs at St. Louis.

ARGENTINE BEEF IS O. K.

Government Chemists Find It is Wholesome After Long Freezing.

From Washington, D. C., on September 28th, it was announced that all beef imported from Argentine has had the stamp of approval of the government chemists.

Tests at the New York laboratory of the Bureau of Chemistry showed the carcasses of a high standard.

These tests were applied entirely to the physical condition of the beef, not to the market grade.

Chemists examined the beef carcass by carcass and found that it kept well in transit. Some were skeptical, but they found that the long shipment did not affect the condition.

This beef from Argentine is frozen and therefore seems different to the consumer than the ordinary American variety. American beef is merely chilled, packed in ice for shipment.

The New Tariff Bill.

We have not the full tariff bill, but the following is about correct: Bread on free list; butter, duty reduced from 6 to 2½ cents a pound; cabbages and cattle on free list; cheese, duty reduced from 6 to 2½ cents a pound; corn meal, cream, eggs, flour, fresh beef, lard, milk, potatoes, all on free list; poultry, duty reduced from three cents to one cent a pound; prepared meats, free; rice, duty reduced from two cents to one cent a pound; sheep, free; sugar on free list after March, 1915; swine, wheat, wool, all free, and woolen goods amply protected. It is still a protective tariff, with protection denied the farmer.

Mobile and Ohio Activity.

The National Live Stock Reporter mentions that the M. & O. Railway has recently brought in seventy-nine cars of stock to the St. Louis market in one day upon a new bi-weekly special service from the Southeastern States. The article in the Reporter concludes by saying that the M. & O. is giving the service and is getting the business. In this connection it is well to state that there is not a better live stock railroad in the United States than the M. & O. Ten years ago that road had nothing of consequence to haul either way, and live stock had to be grown to furnish the hauling. Under the active energy of Mr. W. G. Harding, General Live Stock Agent of the road, inducements were offered owners of pure-bred beef cattle to hold sales in the South. Mr. Harding anticipated by ten years the work of the Meat Packers' Association in placing bulls where they were most required, and the shipments from the South to the St. Louis market had the seed sown by the man who is now bending every energy to haul the stock to market. Any solicitor can divide shipments when they are plenty to divide; but it takes a genius to get the business when it has to be created as well as routed. Such has been the record of the M. & O. the past ten years. Some of the shipments diverted to that road have been little short of highway robbery.

HERE'S THE TONIC

THAT MAKES FAT STOCK

Healthy, vigorous stock is the only kind that makes you money.

Put your horses, cattle, hogs and sheep in fine condition and then keep them healthy, fat and strong by using the famous

Dr. LeGear's Stock Powders.

Unrivalled as a milk producer—gives horses strength and endurance, slick coats and high spirits. Adds heft to your beef, steers and hogs—makes the wool grow on your sheep's back.

It is a tonic that makes stock relish and assimilate their feed—a general toner of the system.

Large packages 25c, 50c and $1.00.
25 lb. pails, $2.50—100 lb. drums $9.00.

Druggists and Dealers everywhere carry a complete line of Dr. LeGear's Famous Stock and Poultry Remedies.

Write us for copy of Dr. LeGear's Stock and Poultry Book—it's free.

DR. L. D. LEGEAR MEDICINE CO.
715 Howard St., St. Louis, Mo.

Best Conditioner Worm Expeller
Death to Heaves
"Guaranteed or Money Back."
Coughs, Distemper, Indigestion.
50c, $1.00 per can.
NEWTON'S Large for Heaves.
At druggists' or sent postpaid.
THE NEWTON REMEDY CO., TOLEDO, OHIO

BLACK LEG LOSSES SURELY PREVENTED by Cutter's Blackleg Pills. Low-priced, always fresh and reliable, they are used by over 80 per cent of California and Western stockmen, because they protect where other vaccines fail. Write for booklet and testimonials.

10-dose pkge Blackleg Pills.....$1.00
50-dose pkge. Blackleg Pills..... 4.00
Cutter's Blackleg Pill Injector.. 1.50

Pills may be used in any injector, but Cutter's is simplest, strongest and easiest to use.

Every package dated, unused pills returnable for free exchange for fresh after date on package. Do not use old vaccine, or of uncertain age (ours or any other) as it affords less protection than fresh.

Discounts: 250 doses, 10 p.ct.; 500 doses, 20 p.ct. Insist on Cutter's. If druggist doesn't stock, order from Laboratory, giving address plainly. We prepay charges and ship promptly. Send personal check or M. O.
THE CUTTER LABORATORY, BERKELEY, CAL. OR CHICAGO, ILL.

SPAVAPLI A real absorbant blister. Put on like paint. One application lasts a month—a second seldom needed. For the reduction of all hard or soft enlargements. Price, $1.00 per ounce, enough for two applications. TAMPA VETERINARY INFIRMARY, 1113 Florida Ave., Tampa, Fla.

FULL LINE OF **Belting** AND LUBRICATING **Oils** at very low prices and our Free SUPPLY BOOK. Walter Engr. & Auto Co., 1900 Locust st., St. Louis

Greatest of All Shows.

The Greatest Live Stock Show on Earth is the Chicago International. This year it will be held November 29th to December 6th. The premium list is out and to be had on application to Mr. B. H. Heide, Secretary, Union Stock Yards, Chicago, Ill. It is time to make preparations to attend this show. It is the clearing house, the concentration of all the State Fair winners for the final victory.

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid)

is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other. Doesn't imitate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of blemishes and tells you how to treat them. Covers over 200 veterinary subjects. 192 pages, 69 illustrations. Write for a free copy.

FLEMING BROS., Chemists,
218 Union Stock Yards, Chicago, Ill.

Running Water

In House and Barn at even temperature Winter or Summer at Small Cost.

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A Trotting Wonder.

"To appreciate the surpassing merit of Peter Volo's performance at Columbus last week, when he trotted two heats in a race in 2:06¼ and 2:07, one must compare it with other colt races. Nothing that a two-year-old has done can hold a candle to it, for where two-year-olds are considered there is a vast difference between going one fast heat in a race or against time and going two record-breaking miles one right after another, as Peter Volo did at Columbus.

"When Native Belle set the record for two-year-olds at 2:07¾, in the race for the Kentucky Futurity, she trotted her first heat in 2:12¾, five seconds back of her limit, so that she was just nicely warmed up for the supreme effort. And Colorado E., when he lowered the record for three-year-olds to 2:04¾, where it now stands, went an easy mile in 2:11¼ in the first heat of the Kentucky Purse, and then was cut loose, fresh and full of trot in the second round.

"But the great son of Peter the Great, 2:07¼, trotted his first heat in 2:06¼, with the last half in 1:02¼—enough to pump out anything but a veritable flying machine—and came right back in 2:07. Both heats were faster than any other two-year-old ever trotted one heat, and, as stated in the Herald the next day, they averaged faster than the fastest two heats to the credit of any three-year-old trotter or pacer."—New York Herald, September 28th.

Horse Sales at St. Louis.

In an interview with Mr. T. H. Holland, of the firm of Holland, Nugent & Maxwell Bros., at the St. Louis National Stock Yards, he said it was very difficult to quote horse prices, for the simple reason that horses could look very much alike and be sold a hundred dollars apart in price in the auction. He reported his last sale as follows: "We had 900 horses to sell and had all classes, from $5.00 to $300. Some horses were sold $30 to $50 less than at the best time last spring. We cleaned up in good shape; all our horses sold. Be careful and buy your big horses with quality, full age and reasonably sound, and remember that big side bones are a bad thing and take from $40 to $75 off a good horse. Your Southerners should be broke, as you know that all Southern buyers want the horses to work single, and you lose just as much on a Southerner that does not work good as you do on a good horse. When they come back for being green single, or won't drive out of the shed, they will bring from $25 to $40 less than they do if they are broke. Now plugs can be sold from $15 to $50; there seems to be some demand for them; but the kind of horses the shippers suffer the most on are good, young, sound horses, four years old, that will weigh from 1,100 to 1,250 pounds, thin in flesh and not in condition to come to market, and they should be let alone." Holland, Nugent & Maxwell Bros. hold auction every Monday and Tuesday and keep it red-hot all the time.

Southern Cattle at St. Louis.

In the Southern Cattle Division at the St. Louis National Stock Yards on October 1st, 169 grass Texas steers, 1,016 pounds average, sold at $7.00 per 100 pounds; 108 steers, 886 pounds, at $6.35; 297 steers, 858 pounds, at $6.30. Sales from other states in car lots were: Fourteen Tennessee mixed, 665 pounds, at $4.75; twenty-two head Mississippi mixed, 684 pounds, at $4.40; eighteen head same, 571 pounds, at $4.35; forty-five cows, 614 pounds, at $5.25; fifteen cows, 547 pounds, at $4.35; seventeen calves and yearlings, 387 pounds, at $4.75; twenty-three calves and yearlings, 328 pounds, at $4.65; thirty-three Florida mixed, 472 pounds average, at $4.75; twelve Alabama cows, 575 pounds, at $4.40; and Alabama calves and yearlings, 220 to 450 pounds, at $4.60 to $5.50.

Sells Lambs at the Top.

"Joseph E. Howell, one of our old-time friends from Boone county, Missouri, was in to-day with a car of sheep and lambs that contained sixty head of lambs that weighed 69 pounds, and sold at $7.40, which was the top of the market. Mr. Howell was highly pleased with the sale of his stock."—Live Stock Reporter, October 1st.

St. Louis Sheep and Lambs.

On October 1st, at the St. Louis National Stock Yards, the best lambs offered sold at $7.40 per 100 pounds, while other good ones went at $7.25 to $7.35, and medium grades at $6.85 to $7.15, and fair kinds at $6.25 to $6.75, and the culls at $5.00 to $6.00. No yearlings were offered, but if here would have sold at $5.50 to $6.00, and there was some inquiry for them.

Most of the good mutton sheep sold at $4.35 per 100 pounds, with others that were not strictly good at $4.25 to $4.30; choppers and good stockers went at $3.25 to $3.65; plain stockers, $2.50 to $3.10; canners and cull sheep, $2.00 to $2.40; and bucks, $3.25 per 100 pounds.

Yearling Sheep Bring $9.35.

That stock feeders do not have to bring cattle to the old-time weights of 1,600 to 1,800 pounds in order to obtain the top price per pound on the market was well sustained by the sale of fourteen head yearling steers averaging only 967 pounds, which being shipped from Morgan county, Illinois, to the St. Louis National Stock Yards by Mr. J. J. Bull were sold at $9.35 per 100 pounds on October 1st, which price was not only the top of the market for the day, but it is doubtful if any heavier load would have sold any higher. Although these were Illinois cattle, the significance of these weights and such prices is more to such states as Mississippi and Alabama, where raising light-weight fat steers of high quality ought to be a picnic.

HORSE AND MULE NOTES.

It is reported that the horsemen of the Union Stock Yards, Chicago, will establish a selling agency at New York City.

The annual imported Shire mare sale by the Trumans' Pioneer Stud Farm of Bushnell, Ill., will be held on December 11th, 1913.

The thoroughbred horse is at no discount in England. At a sale held by Tattersalls at Doncaster during race week, 320 yearlings brought the astonishing total of $1,114,990, or an average of $3,485. In 1910 the average was $1,720 for 271 head, and in 1911 it was $2,465 for 298 head. Prices have thus doubled in three years. The top price of the sale was $30,500.

In the month of September, the St. Louis National Stock Yards received 14,969 horses and mules, which brings the total so far this year up to 105,627 head. And there are three months more in the year yet to be heard from.

HORSE AND MULE SALESMEN.

Holland, Nugent & Maxwell Brothers.

NATIONAL STOCK YARDS,
EAST ST. LOUIS, ILLINOIS.

Horse Auctions Every Monday and Tuesday.

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MULE DEPT.—Ed. Conway, Lan Morris.
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Holland, Nugent & Maxwell Brothers,
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THICK, SWOLLEN GLANDS that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with

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also any Bunch or Swelling. **No blister, no hair gone,** and horse kept at work. Concentrated—only a few drops required at an application. $2 per bottle delivered.

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ABSORBINE, JR., antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Knotted Varicose Veins, Ulcers. $1 and $2 a bottle at dealers or delivered. Book "Evidence" free.
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HORSE LAME? Use KINDIG'S Famous OINTMENT. A sure cure for bone, big, and blood spavin, ringbone, curb, soft bunches splint, etc. 50 cents, postpaid. E. Kindig, Jr., Remedy Co., 4825 Woodland Ave., Phila.

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Yours truly, H. S. HELPHRY.

WE Originated the Plan of—Treating Horses—Under Signed Contract to Return Money if Remedy Fails. But write, describing your case, and we will send our—BOOK—sample contract, letters from Breeders and business man the world over, on every kind of case, and advice—all free (to horse owners and managers).

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Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

MISSOURI NATIONAL CONTEST.

Egg Laying at Mountain Grove, Mo. — Breed Averages — Individual and Pen Records.

Report of First Nine and a Half Months—Seventy Pens, Ten Hens to Pen—700 Birds in All.

Eleven Hens Pass the 200-egg Mark in Nine and a Half Months—The Next Contest.

The splendid record which the hens made for the first seven and a half months of the National Egg-laying Contest at Mountain Grove was greatly affected during July and August by the unusually hot weather. The extreme heat simply played havoc with the hens. To keep them in a trap nest even long enough to lay, the hens would suffer intensely from the heat and several of them died from the effects of same, even when given the best of care, and even though they were released every hour from the trap nest. On the hottest days they were released oftener than this, but still many of them came off the nests in such a condition that it took several hours for them to recover. In many states the farmers have suffered great loss from the heat and drouth. Such high temperatures are unusual in Missouri.

The total number of eggs laid in August was 7,691, which makes a grand total of 87,764 for nine and a half months. A pen of Rose Comb White Leghorns, No. 10, from Maryville, Mo., won the silver cup for August with 171 eggs. The English pen of Single Comb White Leghorns still leads the contest by 271 eggs. The leading hen is a Buff Wyandotte, No. 860, which has laid 230 eggs to date. Two other hens are only four eggs behind her. Many of the varieties are changing places each month, and as the contest does not close until November 15th, there will yet be many changes. Some hens which made good records last year are not doing practically anything this year, and many which did not do well last year are doing extra well this year. The most consistent layers in the entire contest have been the Silver Wyandottes. They have held second place for many months, and this variety also averaged 160 eggs per hen last year.

The Ten Highest Pens to August 31.

	Eggs.
S. C. W. Leghorns, England	1,830
Silver Wyandottes, Iowa	1,559
Black Minorcas, Iowa	1,543
Anconas, Missouri	1,541
Buff Wyandottes, Missouri	1,534
S. C. White Leghorns, California	1,515
White Wyandottes, Arkansas	1,495
Black Langshans, Missouri	1,482
Buff Wyandottes, Vermont	1,475
R. C. White Leghorns, Missouri	1,471

The Ten Leading Pens For August.

R. C. White Leghorns, Missouri.	171
Black Minorcas, Missouri	166
S. C. Buff Leghorns, Missouri	163
S. C. White Leghorns, California	160
Black Minorcas, Iowa	157
Anconas, Missouri	156
Buff Wyandottes, Missouri	147
Black Minorcas, New York	144
S. C. White Leghorns, England.	144
Silver Wyandottes, Iowa	141

The Hens Laying 200 Eggs or Over.

Buff Wyandote, Vermont	230
Buff Wyandotte, Missouri	226
S. C. White Leghorn, England.	226
S. C. White Leghorn, England.	221
S. C. White Leghorn, England.	215
R. C. White Leghorn, Missouri.	212
Ancona, Missouri	211
Black Langshan, Missouri	209
Ancona, Missouri	206
A. C. White Leghorn, England.	206
Black Orpington, Canada	201

The Next Contest.

The pens have practically all been filled for some time. We can accommodate one more pen each of Buff Leghorns, Brown Leghorns, R. C. White Leghorns, Campines and Partridge Wyandottes. We will have pens from all parts of Missouri, the United States, Vancouver Island, Canada and England, and we are importing three pens from the New Zealand and Australian contestants who have been making such wonderful records in the contests of those countries. We expect to see if their birds will make as good or better records here than our own American birds. The records of the hens from these several countries will be watched with unusual interest. We believe the American hens, which have been properly bred, will be able to hold their own with the hens from any country. The last few years many breeders have been paying closer attention to selection and breeding for egg production and we expect to see the American hen and the Missouri hen hold their own. The hens which win in the next contest will centainly be the world's champion layers.—T. E. Quisenberry, Director, State Poultry Experiment Station, Mountain Grove, Mo.

FALL POULTRY MANAGEMENT.

Instruction For the Beginner and Reminders For the Experienced.

Where late broods of chicks are still not well feathered out, it is best to keep the hens with them till they (the chicks) have obtained enough feathers to protect them from cold during the chilly nights. The mother hens will often show a decided disinclination to remain with their chicks, but they are needed to provide warmth, and generally they are getting more grass with the chicks than they would in the poultry yard.

As long as the different broods of chicks can be kept by themselves it will be a simpler method to feed them than when they are mingling with the mixed flock of old and young. Corn can be fed them in greater quantities than can be well fed to the old hens. On the chicks it will not be likely to produce surplus fat, while on the old hens it is almost certain to do so.

Soak the corn and oats, if they be not cooked, to make them more easily digestible by the fowls. Sprouting oats for them gives a very desirable kind of easily-digested food. The oats can be put in shallow boxes and wet daily by sprinkling, or dipping the boxes in water, which is the quicker way. In eight days or less the oats will have sprouts on them two inches long, and are in the right stage for feeding. A new lot should be put to soak each day and soaked twenty-four hours before being spread in the boxes for sprouting, and a new box should be started each day. It sounds like a long process, but is not. After a method of doing this has been established, it will require but a few minutes each day. It provides green and grain food at the same time. This feed is growing in popularity with all poultry raisers.

Getting rid of the old stock is a necessity at this time of year. If the hens have not been marked by legbands or in some other way, so that their ages are known, it is best to get rid of the fattest and heaviest. It is probable that the fattest birds have not been laying so many eggs as the thinner birds, or perhaps they are fatter because they are older. Anyway, a bird that is already fat at this time of year does not hold out much promise of egg production during the coming winter.

In the fall the preying animals must be looked out for. One farmer that raises hundreds of fowls annually tells the writer that every fall they have a period of fighting skunks, which do not seem to bother them at any other time of year. It is probable that in the fall the young of the animals that hunt fowls have just reached the stage of development where they must look after themselves, and they have not the caution of the older animals of their kind. They often make long journeys to places where they are not being expected and hence are not guarded against.

Don't forget the grit for the growing chicks, even though they have the run of the farm. Often grit is not easily obtainable by them, especially on land where the soil is a black loam and gravel not plentiful.

High Hog Prices Expected.

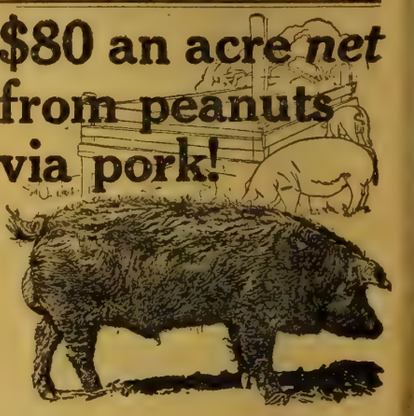
"Confident prediction of a phenomenally high hog market in 1914 is made by many traders. Prices may work a little lower in the near future, but wait until next March, they argue. For three months or more every market in the country has been flooded with pigs and immature stuff, and in the long run that must tell. Corn is usually blamed for sick pigs, but this year there was plenty of old grain and the new crop matured early, so that old arguments cannot be pressed into service. Anybody who has watched the course of market events realizes that we will run into a shortage in 1914. Western packers here this week attending the convention coincide in this view, pointing out that the short corn crop will merely aggravate the deficiency."—Chicago Live Stock World.

St. Louis Poultry Show.

At the St. Louis Coliseum, on Thanksgiving Week, there will be held the usual annual Poultry Show, with a premium list amounting to $5,000. E. W. Grove, Jr., donor of the famous $500 Grove Trophy for White Leghorns, is President of the Mississippi Valley Poultry Association, under whose auspices the show is to be held. Judge W. H. Henderson, a famous fancier and breeder of Barred Plymouth Rocks, is Vice-President; and Henry Steinmesch, equally famous as breeder and fancier and show conductor, 220 Market street, St. Louis, Mo., is Secretary and Treasurer.

The pure-bred stock exhibit of the Missouri State Fair consisted of 2,900 animals.

$80 an acre *net* from peanuts via pork!



An acre of peanuts will produce three times as much pork as an acre of corn. Yet peanuts are raised by the same methods of tillage as corn, and instead of *depleting* the soil, as corn does, they enrich it.

At the Arkansas experiment station an acre of peanuts made 1,250 lbs. of gain on hogs, while an acre of corn made only 436 lbs. And 1,250 lbs. is not an extra good showing. Mr. Wright of Lufkin, Texas pastures his hogs on peanuts and makes *1500 to 1800* lbs. of pork per acre! Along the

Cotton Belt Route in Arkansas and Texas

peanuts **alone** pay big. J. M. Jones a farmer who lives 8 miles from Jonesboro, Ark., sold $953.32 worth of Spanish peanuts and peanut hay from 10 acres. Land that will yield big peanut crops can be bought **now** at $25 to $30 per acre.

Peanuts is just **one** of the money making crops of Arkansas and Texas. When you get fine land at $15 to $30 per acre; when you have a **mild short** winter and don't have to stall feed stock; when you get **all** the rain that **any** crop needs (40 to 50 inches), you'll make big money, no matter what you raise. With good roads, good schools, close markets, phones, rural delivery, churches, etc., you don't have to sacrifice **any** social advantage in Arkansas and East Texas.

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SQUARE DEAL FENCE

before you buy. See the famous **SQUARE DEAL LOCK**—the double grip that will not slip. See the one piece stay wires, the wavy, springy, strand wires, the perfect weaving, the heavy, even galvanizing, the strong, flexible quality of **square deal wire** made in our own mills, not bought in the open market.

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COLOR OF SOILS.

The General View of the Farmer is in Line With the Knowledge of the Scientist.

Is the color of a soil an index to its agricultural value? Why is one soil black and another red or yellow? These are some of the questions which are taken up in a recent bulletin by the Bureau of Soils of the Department of Agriculture.

The differences in color of soils was one of the first facts about them to impress the agriculturist and naturally he made a study of the subject and came to conclusions, some of which were right and some of which were not. Geologists, too, have paid a good deal of attention to these various colors, but more in regard to their bearing on the origin and formation of soils than to their agricultural significance.

The bulletin states that theoretically the color is of importance as a guide to the origin and processes involved in the formation of the soil and as an indication of the relative age of any particular soil, and that it is of practical importance, because it determines to a greater or less extent the absorption of the sun's energy, and is often a guide to the drainage conditions, the crop adaptations and to the cultural methods best suited to the soil.

It is said that no soil colors are pure colors. but are simply shades and tints. Soils ordinarily called red get their color from oxide of iron, which itself is never a pure red, but varies from brown to yellowish, and when in the soil is still further changed by other substances. Colors range all the way from white of beach sands to the black mucks of swamps. The various colors are due to the content of white minerals, organic matter and iron oxide.

Light-colored soils, that is, white or grayish, are not worth much, as a rule, for general field crops, but are often valuable for special purposes. In moist climates such soils are poor in organic matter and in arid regions may contain a high content of alkali or gypsum.

Black soils are universally looked upon with favor. They usually contain a high percentage of organic matter and are well supplied with lime. The black color is thought to be due to the formation of humus by the action of the lime on the decaying animal and vegetable matter.

Red soils are highly esteemed in the cotton-growing sections of the South, where they are considered the richest. Some authorities take a red color to be an indication that the land is well drained. This they base on the fact that standing water would dissolve out the oxide of iron which coats the soil particles.

The only real agricultural value color has in itself is in its ability to radiate heat and absorb it. Colors also may have something to do with regulating the light intensity which influences bacterial and chemical reactions. Dark soils have been found to maintain a slightly higher temperature than light soils under the same conditions.

The Standard Bale of Cotton.

In response to a number of letters and telegrams from cotton producers to the effect that they are penalyzed for shipping bales larger than 27x54 inches, the United States Department of Agriculture has notified these correspondents that their safest course is to insist that ginners at once change their gin boxes to the size 27x54 inches. This can be done by ginners at a cost of not more than $5.00 to $10.00 per box.

This situation arises from the fact that on March 4th, 1913, traffic representatives of the South Atlantic and Gulf Steamship Conference agreed that on and after September 1st, 1913, "any bale from gin boxes of greater length or width than 27x54 inches shall pay an extra freight of $1.00 per bale."

Many ginners at once changed their gin boxes to meet the shipping requirements of the steamship companies, but other smaller ginners either did not receive notice of the change or else neglected to change their boxes. The result was that cotton producers who had their cotton ginned in gins that have boxes over the required size and have shipped this cotton, have been penalized the extra freight of $1.00 per bale.

The reason for the adoption of this rule by the steamship companies and other traffic representatives is, that it is more difficult to pack and handle bales of irregular size in cars or steamship holds.

The National Corn Exposition.

The Sixth National Corn Exposition to be held in Dallas, Texas, February 10th to 24th, 1914, will offer trophies and premiums amounting to thousands of dollars for individual ears of corn, ten-ear samples of corn, probably bushel lots of corn, also for grains and other kinds of farm seeds in peck samples, sheaves of grain, forage crops from four to six inches in diameter, bales of hay and other farm crops. For such crops as milo, Kaffir corn and other non-saccharine sorghums, samples of ten heads, also pecks of fresh grain, will constitute an exhibit.

Among premiums offered is the Grand Premier Trophy, valued at $1,000, presented by the Indiana Commission to the National Corn Exposition for the best ten ears of corn at the show.

Of equal value is the Kellogg Corn Trophy, presented by the Kellogg Post Toasties Company, for the best single ear of corn.

There will be several other championship cups for wheat, oats, barley, various grasses and grains, and $50,000 in prizes, consisting of cash, farm implements, etc.

The Secretary-Manager of the National Corn Exposition is Professor C. P. Bull, and he is now making his headquarters at Dallas, Texas. He will send intending exhibitors all the information they may need in the way of directions and explanations regarding the selection, preparation and general scoring points of different grains and forage crops that will be included in the contests. We have not yet seen the premium list, but Prof. Bull will send it to applicants directly it is ready.

The Flax Crop of the United States.

From the report of the Department of Agriculture: Condition—74.9 per cent. of a normal on September 1st, compared with 77.4 per cent. on August 1st; 86.3 per cent. on September 1st last year, and 80.9 per cent., the average condition on September 1st for the last ten years.

The indicated yield per acre, estimated from condition reports, is 8.4 bushels, compared with 9.8 bushels harvested last year, and 8.2 bushels, average yield harvested 1908-12. On the planted area, 2,525,000 acres, it is estimated the total final production will be about 20,000,000 bushels, compared with 28,000,000 bushels harvested last year, and 19,000,000 bushels harvested in 1911.

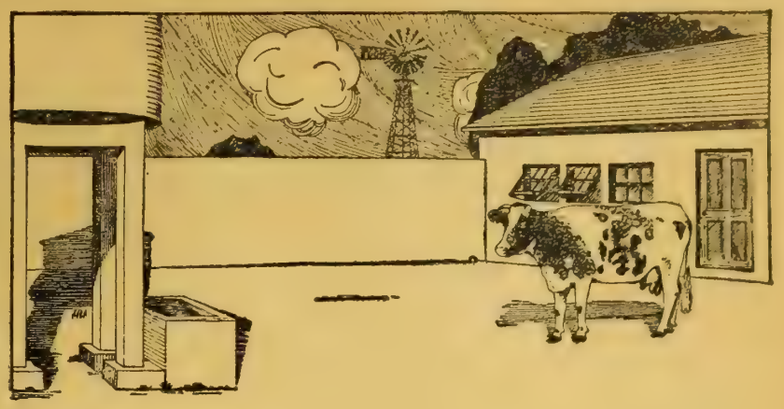
Splendid Crop of Rice.

In the last United States report the condition of the rice crop was placed at 88 per cent. of a normal, compared with 88.7 per cent. on August 1st; 88.8 per cent. on September 1st last year, and 89.2 per cent., the average on September 1st for the last ten years.

The indicated yield per acre, estimated from condition reports, is 32.3 bushels, compared with 34.7 bushels harvested last year, and 33.8 bushels, the average yield harvested in 1908-12. On the planted area, 824,100 acres, it is estimated that the final total production will be about 27,000,000 bushels, compared with 25,000,000 bushels harvested last year, and 23,000,000 bushels harvested in 1911.

Good Cash For a Bull.

G. W. Wilson, shipping from Callaway county, Missouri, marketed a choice 1,930-pound Shorthorn bull at $7.50 per 100 pounds. A gross price of $144.75 for an aged pure-bred bull looks as though they are worth as much worn-out but fat as they were in the beginning.



Almost everything but the cow

in this picture is concrete. The trough, the water tank, the wind wall and the stable—all concrete. Think of the things you can build on your farm—permanently of concrete:

Feed floors, fence posts, walks, foundations, steps, ice houses, cellars—think of it!

Over a million and a half farmers have had our free 168-page book "Concrete Construction about the Home and on the Farm." Have you had your copy? Write for it today.

If your dealer cannot supply you with Atlas, write to

THE ATLAS PORTLAND CEMENT CO., Dept 165—30 Broad St., N.Y.
Chicago—Philadelphia

Largest productive capacity of any cement company in the world. Over 50,000 barrels per day.

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You can make big money farming in Arkansas

Same Latitude—Same Crops

THE soil is newer, richer and much lower in price. A splendid climate makes it possible to produce bountiful crops of nearly every variety known to man. It will pay you to investigate.

We have just published six illustrated folders on Arkansas. Send for the one that interests you.

1. Central Arkansas
2. Northeastern Arkansas
3. Southeastern Arkansas
4. Southwestern Arkansas
5. White River Country
6. Arkansas Valley

The way there is via Memphis and the

MISSOURI PACIFIC IRON MOUNTAIN

Iron Mountain Route

Splendidly equipped trains

Mr. J. N. Anderson, Immigration Agent, Iron Mountain, St. Louis
Please send me Arkansas Land Folder
No.——— *Name*———
Address———

ARGENTINE MEAT.

First Large Consignment Direct to New York.

The American Meat Trade and Retail Butchers' Journal of New York City, September 18th, contained the following:

"New York City received its first big direct shipment of Argentine beef on Saturday. Previous shipments of River Plate beef have reached New York via London, but last week's consignment of 1,000 quarters came direct to New York from Argentine on a Lampert & Holt Line steamer. The shipment was consigned to B. Frankfeld & Co., of the Produce Exchange, who disposed of the beef through local commission men. Mr. Frankfeld told the American Meat Trade Journal that the shipment had been broken up and that many houses were handling it.

"Owing to the fact that the beef was without United States meat inspection before and after slaughter, houses which are under government authority are not allowed to handle this meat. The fat of the imported meat will not be allowed to enter into the manufacture of oleomargarine.

"There has been considerable discussion regarding the selling qualities of Argentine meat. Some butchers maintain that it won't do at all for the average New York trade, while others contend that the meat is as good as any that enters the New York market. The disposition of this recent shipment will be watched with deep interest in view of this fact, as it is stated that coming direct to New York, and not being shipped by way of London, the beef will be able to get a fairer test. Also it is given out that this beef, which arrived last week, is not of the hard frozen variety such as reached New York on previous occasions, but is merely chilled at a temperature slightly lower than used in the case of refrigerated beef. It was expected that by the time the beef steamer reached port the tariff of 1½ cents per pound would have been eliminated by President Wilson, having affixed his signature to the Underwood bill. But the bill was in the hands of the Conference Committee last week and a duty had to be paid on the shipment."

The Concrete Silo.

"It has been made part of the duty of the Dairy Department of the Missouri College of Agriculture to assist farmers of this state in constructing silos. The College has no interest in any particular kind of silo, but tries to give unprejudiced information concerning all kinds that are adapted to the state. The College is interested only in having a large number of good silos built, regardless of what kind they may be.

"Since there are no dealers in concrete silos or agents distributing information in regard to them, the farmers of the state have to rely largely upon the College of Agriculture for information about building this type of silo. The assistance offered by the College is in the nature of supplying plans for forms, giving estimates for materials, and as far as possible sending a man to assist in starting the construction of the silo. The Department of Dairy Husbandry has been led to give special attention to supplying information concerning the concrete silo on account of the misrepresentation this type of silo has received at the hands of agents for other kinds.

Every silo which has been built according to the plans supplied by this department has been successful. Contrary to reports circulated by certain silo agents, not a single concrete silo built under College supervision has cracked. Among dozens of concrete silos that have been built in this state only four have cracked, and this resulted from insufficient reinforcement. These silos were repaired by putting hoops on the outside and filling the cracks with cement and are used to-day with success. If a concrete silo is properly reinforced there is absolutely no danger of its cracking.

The farmers are also informed that silage will not keep in concrete silos, which statement has no foundation. Reports from over forty farmers using concrete silos in Missouri state that their silage keeps perfectly. One concrete silo on a farm near Columbia has been used five years, and the owner says that not a bushel of silage has been spoiled in that length of time. The College of Agriculture has been entirely unable to locate a concrete silo where the silage has not kept when it was put into it in the proper condition.—F. M. Brandt, Columbia, Missouri.

The Range Horse Sales.

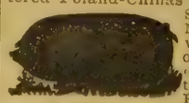
The season is drawing to a close. There will be three more sales conducted by Campbell & Reid and the Western Sale Stables Company at the St. Louis National Stock Yards. One on Thursday, October 16th; one on Thursday, October 30th, and the twelfth and last sale on Thursday, November 13th. All farmers and stockmen, horsemen in particular, will find it to be to their advantage to attend these sales.

LIVE STOCK BREEDERS' CARDS.

BIG SALE OF FINE HOGS.

Poland-Chinas of Breeding, Size and Constitution; Also Two Stallions and One Jack.

We desire to announce that about the end of November we will hold a sale of magnificent Poland-China Hogs, two Stallions and one Jack. Due notice will be given in this paper of number to be offered. We have recently purchased fifty-five head of registered Poland-Chinas from the great breeders, Sheehy Bros., of Hume, Mo., and some of them will be included in the offerings. We also have of our own breeding that will be offered. Fifty Poland-Chinas, 40 to 200 pounds; twenty-five Durocs, 100 to 250 pounds. All of the Poland-China Hogs were sired by the great Meddler and Wallbridge Boars and from some of the most noted Sows in America. Durocs sired by Mortgage Lifter and the mighty Col. Prince; Dams, TRY-STATE FAIR winners or others just as good. My catalogue and price list are free. Write for them and mention this paper.



THE GRANDVIEW BREEDING FARM,
Wilder Carpenter, Proprietor,
MARMADUKE, ARK.

TRUMANS' PIONEER STUD FARM,
Ameica's Largest and Oldest.

Importers of
SHIRE, PERCEHERON and HACKNEY STALLIONS.

Write for catalogue.

Address,
J.G.TRUMAN, Manager, Bushnell, Ill.

POLAND CHINAS

Out of stretchy Sows and 1,000-lb. Boars. Buy them and win. Angus cattle. **J.P.Vissering, Box 1, Alton, Ill.**

POLAND-CHINA SWINE.

Spring Pigs that can't be beat at $20 and $25; Fall Pigs at $15. Come and see them or write.

D. F. BEAUCHAMP, Meredosia, Ill.

O. I. C. AND CHESTER WHITES.

February, March, April and May Boars and Gilts; no kin. Bred Sows, prolific large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Chickens for sale.

RAYMOND RUEBUSH, Sciota, Ill.

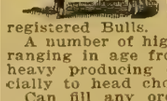
SALE OF HOLSTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.



250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your wants.

JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

DUROC-JERSEY SWINE.

Have some splendid Spring Boars ready for service; also one good Yearling Boar, a good breeder. Prices reasonable.

H. H. HOFMANN, R. R. 1, Belleville, Ill.

"THE PINES" HERD OF HOLSTEINS.

Breeder and shipper of high-grade
HOLSTEIN CALVES.
Prices reasonable.

J. W. FARRELL, Prop., R.F.D. 3, Elgin, Ill.

LARGE STRAIN POLAND-CHINAS.

I am offering nothing but Spring Pigs at present. The best that money can buy. They have a tendency to make extra large ones.

S. R. GRIGG, Proprietor,
The Golden Ridge Farm, Mulberry Grove, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES.

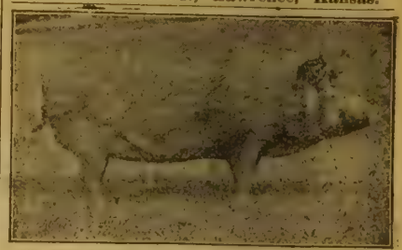
Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

WILLARD MILLER, R.F.D. 2, Anita, Iowa.

PURE-BRED REKISTERED ANGORA GOATS.

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.



TAMWORTHS FOR SALE.—The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

KENTUCKY JACK AND PERCHERON FARMS (Successors to the Cook Farms and the Cloverdale Jack and Percheron Farm).

We have the best herd of big-bone Kentucky Mammoth Jacks in the country, and a splendid lot of Percheron Stallions and Mares. Also a few nice Saddlers and Drivers. We will make special prices to those who buy this fall. Catalog ready November 1st. Write or visit our farms.

J. F. COOK & H.T. BROWN, Proprietors, LEXINGTON, KY.

POLAND-CHINAS OF THE BEST STRAINS.

Big Type with Quality. Spring Boars and Gilts at $20 to $25, registered and papers to buyers. They are by the Great Longfellow's Special, 64,200; also Fall Pigs by him, and some by Sensation Chief, 67,433. Many satisfied customers in thirty-seven states. Catalogue free.

A. F. SIEFKER, Defiance, Mo.

Registered Large Yorkshires.

Boars make splendid cross on lard-type Sows. Increases size of Litter and Pigs. Earliest to mature; healthy, gentle, good grazers. Fine lot healthy Spring Pigs. Dam of these Pigs has record of nineteen Pigs in one Litter.

Write for descriptive booklet,

T. C. KIMBER,
P. O. Box 1212, - St. Louis, Mo.

THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. **J. H. DUNLAP, Box 373, - Williamsport, Ohio.**

MILL CREEK STOCK FARM.

(The Home of the Starlights.)

THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks). A written guarantee. Send for catalog.

R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

The Jersey

The Jersey gives richer milk and more butter than any other known breed, at a lower keeping cost. She does it continuously and persistently. Her milk and butter bring better prices than the product of any other dairy breed. That's where quality *does* count. Jersey facts free. Write now. We have no cows for sale.

AMERICAN JERSEY CATTLE CLUB
324 W. 23d Street, New York

BLOODED STOCK NOTES.

Mr. J. P. Vissering, the veteran breeder of Aberdeen-Angus cattle and large Poland-Chinas, has a small card in this edition, and it is worthy of attention. Look at the live stock breeders' advertisements on page 20.

Mr. T. C. Kimber, whose address is Postoffice Box 1212, St. Louis, Mo., and whose farm is near Ironton, Mo., has restored his card advertising Registered Large Yorkshire Hogs to the paper for the reason that he has a large lot of fine spring pigs for sale. The Yorkshire is one of the great breeds that grows largely into bacon, and a farmer makes no mistake when he gets a start of the breed. The bacon hog is in great demand and bacon on the breakfast table is an expensive necessity, if not a luxury. Mr. Kimber has a sow that has just farrowed the extraordinary litter of nineteen pigs and all doing well.

Mr. D. F. Beauchamp, of Meredosia, Ill., is again in a position to offer some fine Poland-China pigs of his own breeding for sale. He has advertised in this paper for about eight years and sold many pigs by doing so. His customers feel pretty good when they see the pigs he sends them. His card is on page 20.

Mr. Charles Ford, of Mortonsville, Ky., breeder of Tamworth swine, is out on the circuit winning prizes at the different State Fairs, but he will soon be home again and always has pigs of his own breeding for sale that are classesd as excellent in any company. The Tamworth hog is more noted for superior bacon production than for good looks except upon the basis that "handsome is as handsome does."

Mr. Wilder Carpenter, of Marmaduke, Ark., advertising under the name of the Grandview Breeding Farm, has recently purchased from Sheehy Bros., of Hume, Mo., fifty-five head of splendid Poland-China hogs. It is one of the finest lots of Poland-Chinas, and, added to the herd of the Grandview Breeding Farm, will constitute stock far beyond the average in any state. Mr. Carpenter will hold a public sale of seventy-five head of Poland-Chinas, two stallions and one jack towards the end of November. It will be a very interesting event. Mr. Carpenter has prize-winning hogs, and that is sufficient guarantee for the stock on any farm. Marmaduke is situated on the St. Louis and Southwestern Railway, familiarly known as the Cotton Belt Route, and is north of Paragould, Ark., and is easily reached by visitors.

Mr. A. F. Siefker, whose farm is on Route 1, Defiance, Mo., has sent in his fall advertisement of high-quality and big-strain Poland-Chinas. Just at this time when we are expected to run into a shortage of hogs, and now that the quality counts more than it ever did before, such pigs ought to be snapped up in very short order. The card referred to is on page 20.

Dairy farmers will find it to their advantage to start the march of improvement and keep it up as best they can, not advancing beyond their means but working close up to all benefits that can be obtained with the means at command. It is easy to obtain a few grade heifers and a pure-bred bull of the Holstein breed, and they very soon develop a milk-producing herd that can return good money for the feed and care and a profit on the investment. Mr. J. D. Farrell, Proprietor of "The Pines" herd of Holsteins, R. F. D. 3, Elgin, Ill., has a card in the paper offering a few high-grade calves for sale. His advertisements do not stay in long, because it is usually a case of "first come first served" until they are gone. His card is on page 20.

Mr. H. H. Hofmann, who is on Rural Route 1, from Belleville, is the nearest Illinois breeder who advertises in The National Farmer and Stock Grower. He has a splendid herd of Duroc-Jersey swine and sells most of them by advertising in The National Farmer and Stock Grower.

Pure-bred pigs ought to be in good demand, and will be. The admission of pork and pigs free of duty will not stop the demand for hams and bacon. Be on the right side of the hog raising. Have hogs that get fat and shapely when they come to sell on the market. S. R. Griggs is one advertising fine hogs. His are Poland-Chinas. There are other good breeds, but he thinks the Poland-China is the best, and he has some good ones. He has a card on page 20.

The Cook Farms and the Cloverdale Jack and Percheron Farm of Lexington, Ky., have consolidated and will be known hereafter as the Kentucky Jack and Percheron Farms. J. F. Cook and H. T. Brown are the proprietors. They have recently bought the Union Stock Yards on West Fourth street, where they will have their sale barn. They will have in stock this season 200 head of mammoth jacks and Percheron horses. The catalogue will be ready November 1st and they will be glad to have all intending buyers of jacks and Percheron horses to visit their farms.

Mr. C. M. Winslow, Secretary of the Ayrshire Breeders' Association, Brandon, Vt., is sending out interesting data showing why you should select the Ayrshire cow. He makes all these items interesting and we are glad to receive them at this office.

Rules For the Use of Fertilizers.

1. Nitrogen (or "ammonia") encourages strong leaf, vine and bush growth.
2. Potash makes firm tuber, bulb and fiber.
3. Phosphoric acid makes blooms "set" and seeds and seed pods form abundantly.
4. If the wild growth on your farm is profuse and your tomato and melon vines run to leaf, your soil is rich in nitrogen.
5. If trees do not thrive, onions seem soggy and tomato vines lack sturdiness of stalk, the soil needs potash.
6. If your tomatoes, melons, grain and cotton fail to "set" plenty of seed and fruit, phosphoric acid is called for.
7. If you expect to take from your land a crop rich in leaf, as lettuce, increase the proportion of nitrogen in your fertilizer.
8. If potatoes or onions are desirable, provide plenty of potash.
9. If abundant corn, wheat, cotton bolls, melons, peaches, strawberries or tomatoes are wanted, see to the phosphoric acid.—Back to the Land.

A First-class Institution.

The L. C. McLain Orthopedic Sanitarium, 916 Aubert avenue, St. Louis, Mo., is one of the best institutions in the city of St. Louis. We are glad to have it represented in these columns.

Son of Lou Dillon.

Lou Dillon's two-year-old colt Ben Billings, by Bingen, 2:06¼, trotted a mile against time in 2:29¼, at the North Randall Fair, near Cleveland, a few days ago. He has trotted a quarter in 0:35 in his work and is booked for a record of 2:10 or better in his three-year-old form.—New York Herald.

FARCEUR—BELGIAN STALLION, THREE YEARS OLD. Champion at the Iowa State Fair of 1913. Exhibited by Wm. Crownover, of Hudson, Iowa. He was awarded the championship in one of the greandest exhibitions of Belgian horses ever seen in this country.

A Fine Assortment of Aluminum Ware

As a Subscription Premium in Connection With The National Farmer and Stock Grower, the Best Monthly Farm Paper.

Aluminum utensils have no equal as sanitary cooking vessels, and their light weight makes their use a pleasure. They will not rust, tarnish or chip, and will last a lifetime.

The assortment we offer, as illustrated above, consists of the following: Egg Separator, Coffee Strainer, Funnel, Measuring Cup, Salt Dredge and Tea Strainer, all of high quality, and of practical use in every kitchen daily.

SEND US ONLY 60 CENTS

And we will send you THE NATIONAL FARMER AND STOCK GROWER, the reliable and practical farm monthly, for a full year, and send you postpaid this splendid assortment of aluminum ware as a premium by parcels post. Satisfaction and safe delivery guaranteed. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

The Fruitman and Gardener.

We have made arrangements with the publisher of **The Fruitman and Gardener** whereby we can furnish both papers for the price of one. It is a limited arrangement on the co-operative plan that we help each other, giving our efforts towards increasing each other's business. **The Fruitman and Gardener** is all right in

every respect, with a special talent in adapting articles for all climates. No better paper is published for the money, and we have selected it as the best of several that have been offered. Anyone who will send us the usual fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower can select **The Fruitman and Gardener** for one year as a subscription premium. This offer will not last long, for the reason that the number we can accept on this half-price arrangement is small. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Gladioli.

When digging the gladioli bulbs in fall there are usually a quantity of small ones, so small that they scarcely seem worth saving. And yet they are too good to throw away. This year we had a present of a quart or two of these tiny things, many of them scarcely larger than a good-sized seed, yet the friend who gave them said that it was from just such that she got a start and that she thought some of them would bloom the first season.

They were sown with a drill—thicker than we would do again. By mid-summer flower spikes began to appear and early in September that row was a blaze of beauty, including a number of different varieties, some of which were as beautifully marked as an orchid. They are of the Lemoine type, with smaller flowers than some of the others, but certainly proved well worth the care given, and we shall remember in future not to throw away the wee bulbs, but treat them as seeds with which to brighten places where weeds might otherwise be allowed to spring up.

When taking up the gladioli, choose a warm day in late autumn and take up the entire plants, spreading them where they will dry, and in a few days, after they are well cured, cut the tops off an inch above the bulb and pack away in a dry, frost-proof place during the winter. If the cellar is damp, a closet may be preferable. When replanting in spring, make several plantings a couple of weeks apart to insure a succession of bloom; that is, if the bulbs are of large size. But if the tiny ones are used, they will vary so much in size that the bloom will be continuous from mid-summer until frosts come.—Bessie L. Putnam.

Among the Hardy Bulbs.

The busy woman who likes flowers will do well to look after the bed of hardy bulbs during September or October, for in few other classes of flowers may such rich and varied results be obtained at so small cost. They bloom almost ere the snow vanishes, and present exquisite coloring, graceful form, and in many instances delightful fragrance. Their season may be prolonged through all the months of spring, and there is comparatively little work about their care.

Select a well-drained plot; or, if it is not naturally well drained, dig the bed out, put in a few stones and then replace the soil, adding a generous supply of fertilizer from the barn-yard. Bulbs are all such hearty eaters that one can scarcely have the soil too rich, providing the fertilizer is entirely decomposed. Ground that is suitable to grow cabbage would raise bulbs if this restriction is enforced; but direct contact with the fresh fertilizer is almost sure to cause decay to any bulb.

Plant the bulbs from four to six inches deep according to their size. The small bulbs of the present season naturally seek a shallow position, and should be planted accordingly; but those older and larger need deeper planting.

Avoid stiff rows. A clump arranged as by nature is far more pleasing. A rule for planting bulbs in grass is to drop a handful where they happen to fall. This is in many instances quite as effective for bedding. Avoid mixing species. Massing different varieties of the same species is much better. Thus a bed of either hyancinths or tulips gives better results than would one in which the two were intermingled.

There are a number of the hardy bulbs which are cheap and easily grown that are too little known among flower lovers. Notable among these is the triteleia, an almost continual bloomer in the window garden during the winter months. Its delicately-tinted and perfumed flowers have the faint odor of the primrose, and while the blossoms are not showy but have rather the retiring habits of some wild flower, it is generally worthy of greater prominence.

The fritillaria, characteristically dubbed guinea-hen flower, quaintly checkered in purple and white, has no counterpart in our gardens. While the flowers are graceful in the extreme, their peculiar color and marking proclude combination with other flowers, yet as a group by themselves are as attractive as unusual.

Glory of the Snow, of the clearest blue with white eye, is a flower which is always pleasing; and as the star-like blossoms are borne in clusters it is a profitable plant in which to invest. Appearing about the time of the first crocus, or a few days later, it lingers some days after its companion has faded. It multiplies rapidly after once being established, and is admirable for planting here and there in the sods of the lawn, the tops of the plants disappearing before the grass is tall enough to mow.

The scilla blooms about the same time and is in numerous ways its equal. Its bell-shaped, drooping flowers are of the clearest blue, and are the last to linger of the very earliest spring blossoms, waning as the first of the hyacinths appear.

Everyone knows the hyacinths, from the early Roman to the last spike of the tall-growing varieties. But few are aware that in the Belgian hyacinth we may prolong the beauty of this blossom until the end of May, this late variety being of a clear blue, combining beautifully with the lily-of-the-valley and lacking only in fragrance. It requires the same care of the ordinary hyacinth.

Most of the above are very cheap, and a generous planting of at least a portion will yield a rich reward.

Of the standard varieties one cannot have too many. And whichever sorts are chosen, they increase so rapidly that one soon has enough and to spare. Cover with a generous coat of leaves at the beginning of winter; give rich soil; never make the mistake of cutting off the leaves as they begin to die, but instead allow them to ripen undisturbed, and you will have an abundance of blossoms.—Bessie L. Putnam.

CALLED ADULTERATION.

Tomato Canners Warned Not to Add Water to Canned Tomatoes.

There seems to be a general misunderstanding in certain localities regarding what constitutes adulteration of canned tomatoes, and for this reason many may find interesting and enlightening a repetition of the Department of Agriculture's food inspecting decision on this subject.

The can in any canned food product serves not only as a container but also as an index of the quantity of food contained. It should be as full of food as is practicable without injuring the quality or appearance of the contents.

Tomatoes are a food product which may be canned without the addition of any other substance; therefore the addition of water is deemed adulteration. Pulp has been discovered prepared from trimmings, cores and other waste material, which was added to canned tomatoes. This pulp is not a normal ingredient of canned tomatoes, and is, therefore, adulteration.

Also, if in the canning of a lot of tomatoes more juice is added than normally would be present, the same is considered an adulteration in the opinion of the Board of Food and Drug Inspection.

A number of decisions have been handed down in favor of the United States in suits brought against companies that have shipped in interstate commerce canned tomatoes adulterated with pulp or an excessive amount of juice. To prevent any unwitting violation of the law by others, who may be ignorant of what adulteration of canned tomatoes is considered to mean, these particulars are once more called to the public's attention by the United States Department of Agriculture.

Grandmother's Garden.

Fashions move in cycles, in floral realms as surely as in those of dress, and the flowers which were the pride of grandmother now find an honored place in the best of homes. There was a peculiar fitness in the brilliancy of the poppy, which mingled freely with the vegetables and made beautiful the plot which so well served its part in the sustenance of the family. The seeds were never saved, but nature did the sowing, and as the plants came up like weeds in spring, those only were reserved which were not in the way of the vegetables. To-day we have the more intense shades of the original poppies, and yet we still cling gratefully to the white-edged, silken beauties that link with the long ago.

Every now and then we find springing up some old garden plants which we had thought out of existence long ago. Notably among these is the Campanula or bellflower, with its spike of blue pendant bells. Again, the Blackberry Lily, a member of the Iris family, with curiously-mottled flowers, and seeds which well imitate a ripe blackberry, may be found springing up anew years after it had presumably become extinct in that locality.

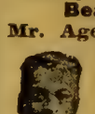
Let us learn from the persistence of some of these old-time flowers upon what to depend if too busy to give more than passing attention. We may all have our row of hollyhocks screening undesirable views from the front yard; our poppies in the garden, peonies by the gate, and not only in flaming red, but in pink, rose and white, fragrant as a rose and very much larger. Let us, then, make the most of our opportunities, and where only weeds grew give place to the hardy flowers.—Bessie L. Putnam.

AGENTS

Big Money

Every Other Agents' Offer Beaten to a Frazzle

Mr. Agent: Open your eyes—I have a good thing—a big thing for you. Listen to a whisper—don't make me shout so loud that other agents in your territory can hear what I have to say—and maybe get ahead of you.



N. M. Ruthstein
The Steel Shoe Man

$50 to $100 a Week Certain Selling Steel Shoes

Farmers, miners, smelters, railroad men, creamery workers, hunters, every man who needs strong, long wearing, easy, comfortable, water and mud-proof—warm in winter and cool in summer—shoes, will buy and recommend **"Steel Shoes."**

One pair outwears five pair of any other style shoe ever made, and costs no more than ordinary leather working shoes.

$300,000 for Advertising

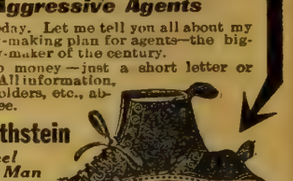
I have spent this enormous amount of money in the last five years advertising "Steel Shoes." They are well and favorably known to thousands of men and boys everywhere. This is the largest sum ever spent to help agents make sales and profits.

Live Agents—Hustling Agents —Aggressive Agents

Write today. Let me tell you all about my new money-making plan for agents—the biggest money-maker of the century.

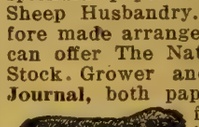
Send no money—just a short letter or postcard. All information, booklets, folders, etc., absolutely free.

N. M. Ruthstein
The Steel Shoe Man
103 Racine St.
RACINE, WIS.



The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal**, both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**



Get A Camera Free.

We give one as a premium with the UNIVERSAL MAGAZINE and other publications. Write for our offer to-day.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

A BENJAMIN AIR RIFLE

Given free as a premium with the UNIVERSAL MAGAZINE and other publications. Ask us to send you our offer.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

Wood Shingles? No! No!! No!!!

STOP the Awful Waste

of **wood shingles** — the cause of disastrous fires, leaky roofs and endless expense and trouble. Use beautiful, indestructible **Edwards "STEEL" Shingles.** Cost less, last longer than wood—better in every way. Over 100,000 men now use **Edwards "STEEL"** Shingles—the shingles that never **rot, rust** or **burn.** Ten times easier to put on. Each one dipped in **molten zinc** after it is cut. No raw or exposed edges. Patented Edwards Interlocking Device permits contraction and expansion — makes joints **water-tight** FOREVER! $10,000 guarantee against lightning loss FREE.

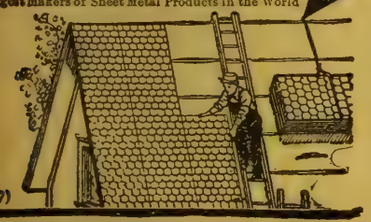
START Saving Money By Using

Edwards STEEL Shingles

Fire-Proof! Rust-Proof! Leak-Proof!

We sell direct from factory and pay freight. SHINGLE BOOK FREE. Write for book and Prepaid Factory Prices. See for yourself how much less **Steel** costs than **wood—then get busy!** If you give dimensions of your roof, we will quote prices on entire job. Send postal right off — Catalog No. 1057 and special prices will come by **return mail.**

THE EDWARDS MANUFACTURING COMPANY
2007-1057 Lock St. Cincinnati, Ohio
Largest Makers of Sheet Metal Products in the World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Decrease in Wild Animals.

During the past fiscal year 4,686 predatory animals were killed by federal officers on the national forests, according to an actual count of carcasses. An indeterminate number of animals, whose bodies were not found, are presumed to have died from poison.

The ranger's bag of beasts of prey this year, as shown by forest service figures, was made up of 206 bears, 3,541 coyotes, 133 mountain lions, 62 lynx, 583 wild cats, 64 wolves and 97 wolf pups. The figures indicate that the national forests are becoming cleared of wild animals that prey upon domestic live stock and game, for the forest ranger fills in odd moments between other jobs by thinning out "undesirable citizens" of the animal world.

Wolves are said to cause greater losses to Western stockmen than any other of the predatory animals. It is estimated that a family of wolves will destroy about $3,000 worth of stock per annum, and that one able-bodied individual costs the grazing industry $600 a season.

The wolves are of two classes—the smaller prairie wolves or coyotes, and the larger grey, black or timber wolves called "lobos." These latter are the great stock destroyers against which the campaign of the rangers has been waged.

The methods of hunting wolves in the West vary. On the plains, wolves are sometimes hunted with dogs and horses, but this way is considered expensive and often dangerous. This sport is described by Roosevelt in his earlier hunting books. On national forests the rangers either set out poison or baited steel traps, or by watching trails and hiding near a wolf's den are able to shoot one or both of the old wolves when they return from foraging. In no other way, according to the forest service, can the number of wolves be kept down so well as by finding their dens and destroying the young.

The skins of the predatory animals killed by the rangers are either kept as souvenirs or sold for a price or for bounty. Wolf skins in the West are said to bring from $4.00 to $6.00 for robes and rugs; a mountain lion skin, $10 to $20; and a bear skin, anywhere from $20 to $150, according to size and species. In addition to this there are bounties on bears, lions and wolves in most of the Western stock states. Wyoming in ten years has paid out over $65,000 in bounties on wolves alone and $95,000 more on coyotes and mountain lions.

Through his activity against these pests, the forest ranger, it is said, has saved the stockmen many thousands of dollars during the year, while the protection to game animals, such as deer, elk and antelope, is of almost equal importance.—United States Department of Agriculture.

Condemned by the Government.

The Standard Flaked Food Company, Owosso, Mich., has been fined $50 for the alleged shipment into Indiana of so-called "Honey Crisps Corn Flakes," which was misbranded, according to a notice of judgment just issued by the Department of Agriculture.

The label on the package described it as "Delicious Honey Crisps, a Toasted Corn Flake Dainty—Guaranteed by the Standard Pure Food Company under the Food and Drugs Act of June 30, 1906, guaranty filed with Secretary of Agriculture under Serial No. 5165."

This label was considered deceptive, and misbranding was charged because it conveyed the idea that the product contained a substantial amount of honey, whereas analysis showed it to contain practically no honey.

FOREST NOTES.

The state of Washington stands first in lumber production, with Louisiana second.

It is said that 90,000,000 broom handles are used annually in the United States—one for each man, woman and child.

The lands burned over during the terrible fires on the Idaho national forests in 1910 are now largely covered with a thick growth of young tree seedlings by natural reseeding.

Manufacturers of artificial limbs are seeking substitutes for English willow, used because of its combined lightness and strength. It is claimed that the Orford cedar of the Pacific Coast will prove equally serviceable.

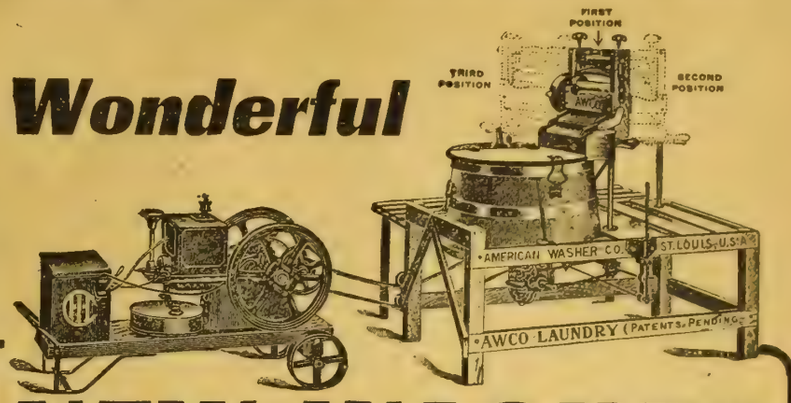
In the open yellow-pine forests of Washington and Oregon a collapsible plow is being used in digging fire lines to stop surface fires. The plow can be dismantled and folded into a compact form, so that it can be packed on horseback, and weighs only forty pounds. When in use, one man with a horse can do the work of twenty or more men working with shovels.

Actual Yield of Potatoes.

The white or Irish potato crop is reported as follows by the United States Department of Agriculture: Condition—69.9 per cent. of a normal on September 1st, compared with 78 per cent. on August 1st; 87.2 per cent. on September 1st last year, and 79.4 per cent., the average condition on September 1st for the last ten years.

The indicated yield per acre, estimated from condition reports, is 88.1 bushels, compared with 113.4 bushels harvested last year, and 96.1 bushels, the average yield harvested 1908-12. On the planted area, 3,685,000 acres, it is estimated the final total production will be about 421,000,000 bushels, compared with 421,000,000 bushels harvested last year, and 293,000,000 bushels harvested in 1911.

Wonderful



NEW WASHER

If you go another day without finding out about the superb new attachment of the Awco Washer you are neglecting a great opportunity. The great new model—the model on which we have been experimenting and testing for two years is now ready. Thousands of people who have known that at last we have the great wonder working washer have been inquiring anxiously for our announcement. ***At last it is here. The final achievement in washing machine manufacturing after twenty years.***

The Awco Whole Laundry In 4 feet Square

Here are some of the great exclusive features of the Awco Washer:

The Klatch-Katch which puts you in instant command of the washer, makes wringer finger pinching impossible, prevents all clogging and won't allow buttons to be torn off.

The new three position wringer attachment which enables the clothes to move from washing machine to basket almost automatically.

The new four foot square outfit on which you have a whole laundry and which may be pushed out of the way into a corner.

Arrangement whereby all lifting and moving of heavy tubs positively done away with.

Find out about these things before you buy another washer. If you want absolutely the latest features in washing machines, here they are. It is marvelous the way this outfit takes the clothes from the washer—puts them into the rinsing water, then takes them from the rinsing water and puts them into the bluing water and then lifts them from the bluing water and into the basket ready for the drying line. You can scarcely believe that such mechanical ingenuity is possible. And it is so simple. ***The touch of the finger works the Klatch-Katch. A mere motion of the hand gives you the three wringer positions.***

FREE Famous Book On Washing and Cleaning Secrets FREE

We, the world's leading manufacturers of washing machines, have issued a book. It is the best book on Washing and Chemical or French Dry Cleaning Methods that has ever been issued. We have actually been offered a check of $10.00 for this book. It contains every secret of cleaning. It also tells you all about the splendid Awco Washer.

Send This Free Coupon

Just put your name and address on the free coupon or send a letter or a postal and the book will be mailed to you absolutely free and postpaid. The book tells you about washing and cleaning everything. It gives you the recipe for the finest cleaning fluid for woolen goods, for mixed goods or cotton goods. It tells you how to remove iron mold, ink stains, grass stains and even scorch stains. It tells you how to take off tar and pitch and every other discoloration. It tells you how to clean velvet goods and furs and how to best wash all of your woolens. You could not buy a better book than this if you tried. Write today and we will send it free. **Remember your name on the coupon or a postal or a letter. Send immediately.**

American Washer Co.
Dept. 3617, 118 Sidney St., ST. LOUIS, MO.

AMERICAN WASHER CO.,
Dept. 3617, 118 Sidney St., St. Louis, Mo.
Gentlemen:—Please send me free and prepaid, absolutely without any expense to me, your book "Secrets of All Cleaning" and full information about the Awco Washer and its new features.

My Name.....

My Address.....

Please answer the following questions:

Do You Own a Washing Machine?.....

Do You Own a Gasoline Engine?.....

The Commercial Motor Versus the High Cost of Farm Produce.

"The most interesting feature of this fast approaching era of improved roads and the commercial motor is their certain effect in the cheapening of the cost of farm produce to dwellers in the cities," says C. W. Martin, Manager Motor Truck Tire Department, The Goodyear Tire and Rubber Company, Akron, Ohio.

"The delays and cost of transportation have prevented the farmer living some distance from a distributing point from marketing his produce profitably. With soft roads and horse-drawn wagons, five miles is the average limit beyond which the green goods of a city's supply cannot be drawn. With good roads and mechanical transportation, all the country within thirty miles or more is available for truck gardens. Fruit and vegetables can be profitably produced over a territory many times larger than when hauled by horses.

"An illustration of how firmly mechanical transportation has become established in this country," says Mr. Martin, "is given in the action taken recently by a motor truck club in the West. The club intends to compete with the railroads by operating a fleet of motor trucks. With commercial vehicles it is estimated that better service can be given at a minimum cost.

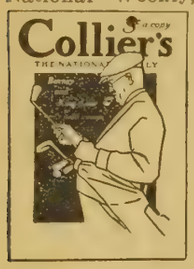
"Let us be thankful that this condition throughout the country is fast approaching. Better roads and commercial motors will within the next few years make a great improvement in conditions, for altogether they will cut down the average cost of hauling farm produce to less than half of what it is to-day."

The Apple Crop.

The estimate of the apple crop is 47.7 per cent. of a normal, compared with 52.2 per cent. on August 1st; 67.9 per cent. on September 1st last year, and 54.4 per cent., the average condition on September 1st for the last ten years.

GRAND COMBINATION OFFER.

Collier's Weekly, The National Farmer and Stock Grower and the Book of Live Stock Champions—All For $2.50, the Price of Collier's Alone.



For the first time Collier's, the National Weekly, is offered in a clubbing combination, and at the same time has been reduced in price from $5.50 to $2.50 a year, at which last-named price we are enabled to offer it and include a year's subscription to our National Farmer and Stock Grower and a copy of the Book of Live Stock Champions. Collier's is a most progressive, illustrated weekly, independent in politics, and in addition to its special articles on topics of vital import in politics, finance and commerce it also has good stories, serial and short, while in every issue are pictures of world happenings that both interest and instruct. Timely editorials, fine illustrations, charming stories—all these you will get in Collier's.

THE NATIONAL FARMER AND STOCK GROWER

Is a nice, clean, general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

THE BOOK OF LIVE STOCK CHAMPIONS,

Which we also include in this combination offer, is a new edition of the most valuable book ever published in the interest of high-class stock raising. The pictures in the Book of Live Stock Champions are of famous animals. There are sweepstakes and championship winners at State, National and International Fairs and Expositions. These include individual awards in breeders' competitions, also herds with prize-ring honors; the beef cattle include grand champion steers and car-loads; the dairy cattle include record makers and large producers of milk and butter; the horses include thoroughbred, trotting, coach, draft, hunters, ponies, jack stock, etc. Hogs, sheep and goats are represented by the best in every breed. The book is elegantly bound in blue cloth, 352 pages, with nearly 750 separate and distinct illustrations, one, two, five or more champions to the page.

AN EXTRAORDINARY OFFER.

Send us $2.50 by postoffice or erxpess money order and you will receive Collier's Weekly for one year, fifty-two issues, The National Farmer and Stock Grower one year, and a copy of the Book of Live Stock Champions, postpaid. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Milo Produces 127 Bushels Per Acre.

Robert F. Alley, Hale Center, Texas, says:

"Through entry as a contestant in the State Industrial Congress, I demonstrated the ability of my farm at Hale Center to produce 127 bushels of milo maize in 1912. This statement is made upon authority of the state organization, a representation of which made the test personally.

"Alfalfa grown on my farm produced six tons per acre, the entire output being sold at the barn for $16 per ton, or $96 per acre.

"My wheat yielded forty bushels per acre, and, like the milo maize and alfalfa, was irrigated.

"I am adding live stock to my farm enterprise, including hogs, thoroughbred cows and horses."

Mr. Alley is in the country that is mentioned in the advertisement entitled "Enrich Yourself" on page 6. The Santa Fe Route is helping farmers to help themselves.

GOVERNMENT MEAT INSPECTION.

What It Amounts To—Big Figures, But a Very Small Percentage of Disease—Number of Slaughter Houses, Etc.

The magnitude of the government meat inspection service is shown by the following figures covering the past seven years, the period during which the present law has been in effect. In this period more than 377,000,000 animals, or 55,857,143 a year, were inspected at slaughter, of which 1,100,000 carcasses and 4,750,000 parts of carcasses were condemned. The re-inspection of meat and meat food products in their various preparations amounted to 44,000,000,000 pounds, of which there were condemned on re-inspection 148,000,000 pounds. There were certified for export 8,000,000,000 pounds.

Federal inspection is maintained at 792 slaughtering and packing establishments, which number includes practically every establishment of importance in the country. These establishments are distributed in 227 towns and cities. The force necessary to conduct inspection is composed of 2,400 veterinary inspectors and assistants.

The quickness and certainty with which the government inspectors stationed in packing houses detect tuberculosis and other diseases in animals and carcasses examined by them at the time of slaughter is an interesting example of developed expertness. Each veterinary inspector is well grounded in the fundamental knowledge of animal diseases, and when entering the service is taken in hand by an experienced inspector for careful instruction in his duties.

In the large packing establishments the post-mortem inspection work is so divided and systematized that each carcass must pass the scrutiny of several inspectors, each of whom gives his entire attention to examining certain particular parts. Under this system the inspector's vision and sense of touch become so highly trained that exceedingly slight variations from the normal in organ or tissue are detected instantly, and the government tag is promptly affixed to all the carcasses which show such variation, and they are set aside for further inspection by a final inspector.

The American Washer Co.

A voluntary word in favor of a St. Louis enterprise is in order. The Awco is a washer designed to lighten the household labor on the farm. It is illustrated on page 23. We recommend that the mechanical ingenuity of this invention be thoroughly investigated. Write to American Washer Company, Dept. 3617, 118 Sidney street, St. Louis, Mo.

Universal Sugar Bowl and Cream Pitcher.

This Elegant Quadruple Silver-Plated Sugar and Cream Set Given as a Premium With The National Farmer and Stock Grower and the Universal Magazine.

One of the Most Popular Premiums We Have Ever Offered.

The illustrations represent in reduced size our SUGAR BOWL AND CREAM PITCHER PREMIUM. They are quadruple silver plate and gold-lined, full size for table use, and will adorn in fit manner any table in the land.

Our Subscription Propositions.

We publish two papers. No. 1 is the monthly NATIONAL FARMER AND STOCK GROWER, the best farm publication in the United States. It furnishes good, instructive reading that will help farmers, stockmen, poultrymen, dairymen, fruit and vegetable growers in any state. The price is 50 cents a year.

Our second publication is the UNIVERSAL MAGAZINE, a bright, little pocket publication of sixty-four pages, two columns to the page. It contains good stories, poetry, fashions, embroideries, illustrations, and is well worth the price, which is 25 cents a year.

Send Us One Good Dollar

And we will send you THE NATIONAL FARMER AND STOCK GROWER for one year; we will also send you the UNIVERSAL MAGAZINE for one year; and we will send you the SUGAR BOWL AND CREAM PITCHER SET by parcels post, safe delivery in good order and satisfaction guaranteed. Sign your name and postoffice address against the advertisement and enclose the dollar with it, and we will do the rest. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Nursery Proposition.

On page 12 will be found a proposition by the H. J. Weber Nursery Company at Nursery, St. Louis county, Mo. This nursery was established in the year 1867, and is one of the best known in the trade. They grow fruit and ornamental trees, evergreens, shrubs, wholesale and retail. Our readers who deal with this firm will find Messrs. Weber will fill orders exactly and give perfect saisfaction.

How to Harvest Seed Corn.

Professor P. G. Holden is with the International Harvester Company, doing as much good for farmers and probably more than when he was at the Agricultural College. He has just issued a pamphlet that begins the reading matter with a quotation from his own book, as follows:

"If I owned the farms in the states of the corn belt to-day, my first instruction would be: Harvest the seed for next year's corn crop four or five days before the average time for the first killing frost in your vicinity and hang it in a dry place with good circulation of air."

The pamphlet referred to shows by words and by pictures the full details of harvesting seed corn. It is practical and full of interest. A postal card addressed to the Agricultural Extension Department, International Harvester Company, Chicago, Ill., will get a free copy if you ask for it.

Heavy Native Cattle.

On October 1st G. W. Edwards, of Macoupin county, Illinois, contributed a very nice load of heavy-weight steers to the market that sold at a price next to the top. His string consisted of eighteen head that averaged 1,413 pounds, and sold for $9.00 per 100 pounds. The cattle were fed on ensilage and corn and made very good gains. Mr. Edwards believes in the feeding of ensilage and highly recommends it.

Three Indian Dolls For 30c

And a year's subscription to the Universal Magazine. These dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—THE PRINCESS TAMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. The Universal Magazine is a nice, bright, cheerful, illustrated magazine of thirty-two pages, three columns to the page, containing home reading, stories, patterns, fashions and poetry— a splendid publication.

Send us thirty (30) cents for one-year's subscription to the Universal Magazine and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis. Mo.**

This Beautiful 20 Year Watch $3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, 7 jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for Gents Free.

$3.75

THIN MODEL

20 Year Guarantee

EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it, if you think it a bargain and equal to any $15.00 watch, pay the express agent our Special price $3.75. Mention Ladies', Men's or Boys' size.

HUNTER WATCH CO., DEPT. 1023, CHICAGO, ILL.

STERLING SILVER THIMBLE.

Given as a Premium With That Nice Family Publication, the Universal Magazine.

Every woman, whether she sews much or little, should have a Silver Thimble. No need to use a rusty steel or dangerous brass thimble, when a Solid Silver Thimble can be had for the cost of packing and mailing.

If you are not now a subscriber to the UNIVERSAL MAGAZINE you are missing one of the most delightful publications, and as a trial offer we will send the UNIVERSAL MAGAZINE for a year and one of these Thimbles for thirty cents in stamps or coin. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication. The sizes of the Thimble are 7, 8, 9 and 10; order by size. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

"MY CORN'S GONE!"

"I used SMILO." A little piece on corn instantly stops pain; corn quickly dies, loosens and comes out whole. SMILO looks like court plaster—not bunglesome bandages or pads, nor mussy salves. One piece treats over 20 corns—only 15c. Send stamps or money TODAY. Agents wanted.

SMILO SALES CO., 2030 E. Prairie Ave., ST. LOUIS, MO.

Elegant German Silver Mesh Bag

Given as a premium with the UNIVERSAL MAGAZINE and other first-class publications. Ask for our proposition.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

Excellent Sewing Machine

Offered as a subscription premium with the UNIVERSAL MAGAZINE and other publications. Write us for the best proposition of the kind that has ever been made.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

BOOK of CROSS STITCH

Contains hundreds of designs and four complete alphabets. With it we send our catalogue of FANCY WORK. Send 10c. silver or six 2-cent stamps. Address,

LADIES' ART CO., 125 Gay Bldg., ST. LOUIS, MO.

Best Grade Vacuum Cleaner

Offered as a premium with the UNIVERSAL MAGAZINE and other live publications. Write to-day for our premium offer.

EVANS SUBSCRIPTION AGENCY,
3550 Vista Ave., - ST. LOUIS, MO.

VEGETABLES AT ST. LOUIS.

Prices at Which Consignments Sold on the Wholesale Market on the Last Day of September.

Potatoes.—Quote by the bushel: Basis sacked on track, at 70 to 78c. for ordinary to fancy Sandland Early Ohio, and Red River Early Ohio at 80 to 83c.; white stock, Rural and Burbank, at 75 to 78c. for fair quality and 80 to 83c. for good to fancy well matured.

Onions.—Sacked Red Globe at $1.75 to $1.80 per 100 pounds for Northern, and at $2.00 delivered for fancy Eastern per 100 pounds; choice packed white at $2.65 per 100 pounds delivered (heated less).

Pickling Onions.—Chicago boxes at $1.25 to $1.35.

Spanish Onions.—At $1.30 per crate.

Beets.—Home-grown at 25c. per dozen bunches and at 50c. per box loose.

Butter Beans.—Home-grown at $1.75 and Lima beans at $2.25 per three-gallon tray or peck basket.

Cabbage.—Dull and lower. Bulk Holland seed at $23 to $25 per ton delivered, and domestic at $20 delivered. Home-grown at 85c. per 100 pounds.

Carrots.—Sale: One car sacked Eastern at $1.60 per 100-pound sack delivered. Home-grown at 15 to 25c. per dozen bunches.

Cauliflower.—New York (Buffalo) crates at $1.25 to $1.60 for choice to fancy.

Celery.—Michigan fancy bunched at 40c. delivered for xxx, 35c. for xx, and 25c. for x; Colorado crates (five to seven dozen) in jobbing way at $2.50 to $2.75; Michigan large crates (ten to twelve and a half dozen) at $2.25 to $2.50 delivered, and square boxes (two to two and a half dozen) at 50 to 60c.

Cucumbers.—New York bushel baskets cucumbers at $1.25 to $1.50 and Dill pickles at $1.50.

Eggplant.—Home-grown at 25 to 75c. per bushel loose.

Gumbo.—New Orleans at $1.50 per hamper. Home-grown at 50c. per peck basket.

Horseradish.—Choice home-grown at $5.00 to $5.50 (mainly at $5.25 for choice) per barrel loose from wagons.

Lettuce.—New York crates and hampers at $2.00. Home-grown at 25 to 30c. per bushel box.

Parsley.—Home-grown at 15 to 20c. per dozen bunches.

Peppers.—Home-grown at 65 to 90c. per bushel loose; Chicago boxes at 25 to 40c. and sacks at $1.00; Alabama four-basket crates at 25 to 35c.

Rutabagas.—Dull at 40c. per bushel delivered in bulk.

Spinach.—Home-grown at 30 to 50c. per bushel loose.

String Beans.—Baltimore hampers at $1.25 to $1.50 delivered—car sold at $1.40 to $1.50 delivered, and 300 hampers at $1.25 delivered; Tennessee and Kentucky melon baskets wax beans at 50 to 60c.; Mississippi melon baskets green at 50 to 60c. and hampers at $1.40. Home-grown round green at $1.25 to $1.50 per bushel loose.

Sweet Potatoes.—Eastern shore (Virginia) yellow lower, with sales of part car in jobbing way at $2.00 delivered; one car at $1.85 and $1.90 delivered; Alabama hampers yellow slow at 65c. delivered; home-grown Bermuda sold at 50 to 60c., and Red Nansemond at $75c. to $1.00 per bushel box loose.

Tomatoes.—Lower, under large offerings. Two cars Ohio (Toledo) bushel baskets sold at 75 to 90c. delivered; Chicago boxes sold at 40 for best offerings. Home-grown ripes sold at 35 to 50c. for catsup stock up to 75c. to $1.00 for good to choice per bushel loose.

Turnips.—Home-grown at 25 to 30c. per dozen bunches and at 75c. per bushel loose.

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THE NATIONAL FARMER Folding Bill Book.

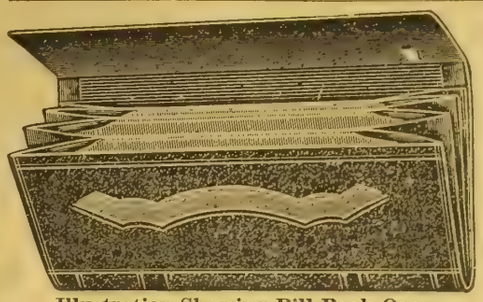

Illustration Showing Bill Book Open.

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What To Send Us.

Send us a postoffice money order for sixty (60) cents, or 60 cents in clean, new one-cent stamps, and we will send you the good publication, The National Farmer and Stock Grower, for one full year, and we will mail you one NATIONAL FARMER FOLDING BILL BOOK, postpaid, safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Willys-Overland Autos.

Do not forget to read and study carefully the points of superiority set forth on page 32 of the Willys-Overland cars. Superior quality and the lowest cost consistent with it.

Endurance Test With Horses.

Only nine horses took part in the endurance test promoted by the Morgan Horse Club, in connection with the Vermont State Fair. Each horse carried 160 pounds or more, and the ride was from Northfield, Vt., to White River Junction, a distance of 149 miles, the horses being judged for condition on arrival. General A. L. Mills, of the United States Army, awarded the prize to Halcyon, a three-quarter-bred Arab mare owned by Colonel Spencer Borden, of Fall River, Mass. She covered the distance in thirty hours and thirty-nine minutes.

Elegance and Economy.

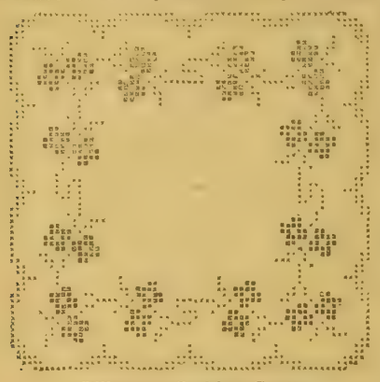
All our readers should send for the Fall Style Book issued by the National Cloak and Suit Company, advertised on page 3. By so doing you will insure elegance with economy. Sign and send in the coupon.

Tobacco Growers at Work.

"On account of the cold weather, growers in different sections of the state worked all of last Sunday cutting their tobacco. They paid from $2.00 to $3.00 per day for help, but could not secure all needed, even at that figure."—Farmers' Home Journal, Louisville, Ky.

MAY MANTON EMBROIDERY.

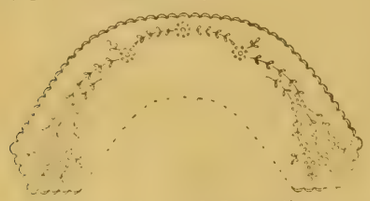
These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.



Pillow or Cushion Cover.

No. 754 is a design for embroidering a pillow or cushion cover sixteen inches square in cross-stitch style.

In the pattern all the stitches are shown as simple crosses, but in the illustration some are lighter, some heavier. The lighter stitches represent the border and the leaves. The heavier crosses represent flowers. As the leaves and flowers are conventionalized, any preferred colors may be used.



Fancy Collar and Instructions.

No. 759.—Design for embroidering a fancy collar. Especially adapted to May Manton's Pattern No. 7980.

The scalloped edges are to be padded and buttonholed. The flowers, leaves and dots can be worked solidly or as eyelets. The stems are to be outlined.

To pad continuous scallops rapidly and effectively, work chain stitch between the lines, heavier at the center and lighter at the points; or apply two or more strands of embroidery cotton over the design between the lines, tack here and there in couching style and draw closely together at the points. Buttonhole closely over the foundation.

Make solid embroidery by first darning backward and forward over the stamped figure and then cover closely with over and over stitches, worked in the opposite direction from the padding. To outline, take short stitches, keep the needle toward the right and work upward. To make the dots as eyelets, first encircle by running a thread around the outline, pierce with a stiletto and work over and over. To make the flowers and leaves as eyelets, first run a thread around the stamped figure, then cut a slight slit lengthwise, and then crosswise of the long openings, push back the material on the wrong side and work closely over and over.

Use embroidery cotton in weight adapted to the material.

Attractive Square.

No. 758.—A design for embroidering an eight-inch square. Four transfers are given.

The embroidery may all be done in outline stitch or the flowers, leaves and calyxes may be worked in long and short stitch with the stems and veins outlined.

To outline, take short stitches, keeping the needle toward the right and work upward.

When making the long and short stitch, take irregular stitches close together, working slantwise from the center toward the outer edges of the pattern; no padding is required.

Use wash embroidery silks or mercerized floss in any one color throughout or in the natural colors of the flowers and leaves.

Wallachian Embroidery.

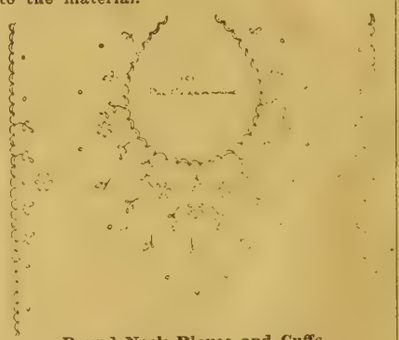
No. 755.—A design for embroidering drawers with curved edges. Transfer patterns for two legs, including 1⅛ yards of scallops for each, are given. The scalloped edges are to be padded and buttonholed. Lace is designed to be applied between the dotted lines and the flowers are to be embroidered over it. The flowers are to be worked in Wallachian stitch with the centers as eyelets or to be outlined in over and over stitch. The leaves can be worked as eyelets or solidly and the stems are to be outlined.

To make continuous scallops, work chain stitch between the lines, heavier at the centers and lighter at the points, or apply two or more strands over the center, tacking here and there in couching style. Buttonhole closely over the foundation.

Wallachian embroidery is made of buttonhole stitches, starting from the central line of the stamped figure. Buttonhole toward the outer edge of each petal, carefully following the curves of the design. When outlining the stems, take short stitches, keeping the needle toward the right and work upward.

To make the flowers and leaves of solid embroidery, pad the stamped figures by darning backward and forward lengthwise and then cover closely with over and over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the leaves as eyelets, first run a thread around the stamped figures, then cut a slight slit lengthwise, then crosswise, push back the material and work closely over and over.

Use embroidery cotton in number adapted to the material.



Round Neck Blouse and Cuffs.

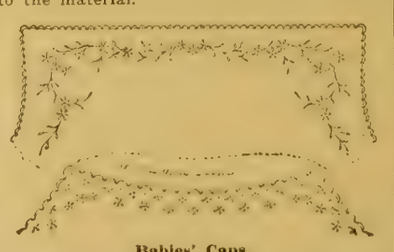
No. 757.—Design for embroidering a round-neck blouse or chemisette and sleeve edges.

The scalloped edges are to be padded and buttonholed. The flowers, leaves and dots can be worked solidly or as eyelets. The stems are to be outlined.

To pad continuous scallops rapidly and effectively, work chain stitch between the lines, heavier at the center and lighter at the points; or apply two or more strands of embroidery cotton over the design between lines, tack here and there in couching style and draw closely together at the points. Buttonhole closely over the foundation.

Make solid embroidery by first darning backward and forward over the stamped figure and then cover closely with over and over stitches, worked in the opposite direction from the padding. To outline, take short stitches, keep the needle toward the right and work upward. To make the dots as eyelets, first encircle by running a thread around the outline, pierce with a stiletto and work over and over. To make the flowers and leaves as eyelets, first run a thread round the stamped figure, then cut a slight slit lengthwise, and then crosswise of the long openings, push back the material on the wrong side and work closely over and over.

Use embroidery cotton in weight adapted to the material.



Babies' Caps.

No. 756.—Designs for embroidering babies' caps, one plain, one with a revers.

The scalloped edges are designed to be padded and buttonholed. The edges, daisies and dots to be worked as eyelets or solidly with the stems outlined; or the flower sprays may be worked in a combination of solid work and eyelets.

To pad the scallops, work chain stitch between the lines, heavier at the centers and lighter at the points; or cut a skein of thread, apply two or more strands over the design, keeping within the lines, tack here and there in couching style and draw the threads together at the points of the scallops. Buttonhole closely over the foundation.

To make the daisies as eyelets, run a thread round each outline. Cut a slit lengthwise, then crosswise. To make the dots as eyelets, run a thread round the outline, then pierce with a stiletto. Push the material back on the wrong side and work closely over and over.

To outline, take short stitches, keeping the needle toward the right and work upward.

To make the daisies and dots solidly, pad by darning backward and forward between the lines and cover closely with over and over stitches worked in the opposite direction from the padding.

Use embroidery cotton or silk in weight adapted to the material.

Each embroidery pattern is 10 cents, and is well worth the money.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Fall House Cleaning.

There are many bits of knowledge that help to make housework easier and more quickly performed, and the housewife is usually anxious for such information, and it is not every housekeeper that knows the value of gasoline at house-cleaning time, but it must never be used in a room where there is a fire. Curtains, windows, shades and woodwork can all be cleaned with the fluid, and all upholstery may be cleaned and restored to its original color by a thorough soaking in gasoline and careful rubbing with soft white cloths, and the most delicate enamel will not be injured by a liberal rubbing.

To clean window glass, first wipe off with a soft cloth to remove all dust, then dampen the cloth with the gasoline, rub over the glass, then polish with soft, dry cloths.

Wheat bran placed in coarse flannel bags is excellent for cleaning dust and soil from delicate wall paper, and the best way to clean white paint is to dip a piece of soft flannel into warm water, wring out and dip in clean bran, using this to rub the paint.

Dust all frames of chairs, first with a damp cloth, then with a dry one, and lastly with a very soft cloth, to put on the polish.

To clean all brass articles and brass on furniture, dampen a cloth with ammonia, rub it briskly over a piece of pumice stone and then over the brass, then polish with a piece of flannel, and the brass will shine like new.

The autumn is a good time to hang paper, for we then have something fresh and new to feast our eyes on during the six months which are usually spent indoors, and it is not a difficult feat in these days when one can buy ready-mixed paints to give all the woodwork a new coating of paint, and it adds a world of freshness to the appearance of the room. An excellent soap solution for washing very soiled woodwork, carpets and curtains is made by dissolving a bar of good soap in a pint of boiling water, and then stirring in a tablespoonful of powdered borax, then set this aside to cool, and stir enough of this soap solution in the water to make a strong lather.

Put the curtains to soak over night in plenty of water to which a cup of coal oil has been added, then rinse them out in the morning and put them to soak for an hour or two in warm suds with the borax and soap solution added before rubbing them out, and a light squeezing between the hands will bring them out beautifully white and clean unless they were very soiled before washing, and in that case they need to be boiled in suds made with this soap. The finest lace and muslin can be washed through this suds without any injury to be fabric, as the borax in the solution softens the water, and there is nothing better than this solution for washing white counterpanes, cotton blankets and all bed covers that have been used during the summer and need a thorough cleaning.—Martha.

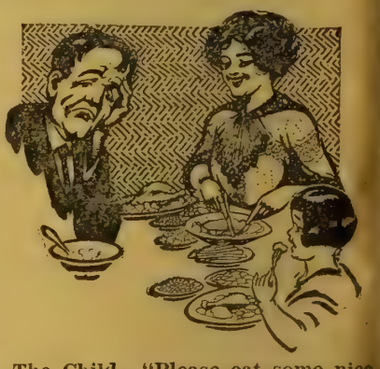
Sleet, snow and hail in the Panhandle of Texas in the month of September indicate the beginning of a long winter, no matter whether it be mild or severe.

What Is Home Without an Appetite?

Many a Miserable Dyspeptic Can Quickly Enjoy a Good Appetite Using Stuart's Dyspepsia Tablets.

There is nothing so deplorable as a home where at every meal one member of the family sits in silence eating a special diet while others are partaking of the regular food.

Not only does this condition become almost unbearable to the dyspeptic, but it throws anything but a joyous spirit over the rest of the family.



The Child—"Please eat some nice chicken, papa."

The Father—"No, Buster, daddy don't feel like eating."

The presence of dishes before him that a stomach sufferer cannot eat, makes him sick at his stomach and he is actually doing himself an injury when he eats at such a table.

A Stuart's Dyspepsia Tablet taken after each meal will excite appetite and in a short time one will find the sight of food becoming less and less repugnant until after a few meals one will take courage enough to join with the family in the regular fare.

As soon as this is done and there follows no evil effects then by continuing the use of Stuart's Dyspepsia Tablets you will soon be restored to your normal healthy and vigorous appetite.

One of the real pleasures of eating is the joy of smelling and seeing food. These qualities are essential to the normal digestion for they excite the flow of saliva in the mouth, and the gastric juices in the stomach, and thus make ready the digestive apparatus for the food when it is eaten.

Stuart's Dyspepsia Tablets contain ingredients that every system needs. Weakened fluids of nature used in digestion are quickly restored to their normal proportion, and in a short time are so evenly balanced that the system can manufacture its own pepsin and hydrochloric acid as it should.

Go to your druggist today and buy a box of Stuart's Dyspepsia Tablets. Price, 50 cents.

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The Best Subscription Premium Ever Offered With the Universal Magazine.

The UNIVERSAL MAGAZINE ought to be known by everybody for the reason that it is a nice, bright, cheerful, illustrated monthly magazine of sixty-four pages, two columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

When we send out the UNIVERSAL MAGAZINE we also like to send out a useful and meritorious subscription premium with it.

To this end we have adopted a pair of ALUMINUM SALT AND

Universal Salt and Pepper Shakers—Reduced Size.

PEPPER SHAKERS, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents by mail in response to this advertisement we will send the UNIVERSAL MAGAZINE for ten months, and we will send the pair of UNIVERSAL SALT AND PEPPER SHAKERS as a premium, postage paid, safe delivery and satisfaction guaranteed. Send in your orders to

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Pickles and Relishes.

To one gallon of vinegar add one teacupful of salt, one cupful of sugar, one cupful of ground mustard, mixing all thoroughly together Wash cucumbers as they are gathered and drop them into the mixture. They will keep nicely without heating the vinegar and are much better in flavor than when first packed in brine; besides, the labor of freshening is eliminated. After the crock is filled, cover with horseradish or grape leaves, adding a few pieces of horseradish root to insure the keeping quality. If preferred, pieces of cinnamon bark may also be added.

Tomato Pickles.—The old-fashioned way of putting up tomato pickles is still a favorite in many homes. The secret of success is in selecting perfect fruit, without a crack or blemish, and packing carefully in good cider vinegar, weakening as for table use. Pack a layer of tomatoes and then a layer of grape or horseradish leaves, finishing with a layer of the leaves. Keep in a cool place.

Pepper Mangoes.—Pick the peppers after they have attained their full size but before they have turned red, using only the large, sweet peppers. Soak in salt water over night or even for twenty-four hours to remove a portion of the pungency. Then with a sharp knife carefully cut out the stem of each and remove the seeds. Stuff with chopped cabbage or a mixture of cabbage, green tomatoes, celery and onions, chopped fine, return the portion of the stem cut out and tie in place with a cord. When all are stuffed, cover with vinegar and keep in a cool place, the mangoes being held under the vinegar by weighting down with a plate or piece of board.

Chow-Chow.—Chop a peck of green tomatoes, sprinkle a little salt over them and let drain in a colander over night. In the morning add an equal quantity of chopped cabbage, two or three peppers, removing the seeds, four onions and two heads of celery. Heat enough cider vinegar to cover the mixture, add a tablespoonful of white mustard seed, a tablespoonful of ground mustard and a teaspoonful of whole cloves. Put the mixed vegetables into the boiling vinegar and fill at once into sterilized cans, place in the top of each a piece of horseradish root and seal at once. The product is much more crisp and fresh than when cooked by the usual method.

Cold Catsup.—This is easily made, the laborious straining process being avoided, and it is a splendid keeper, surprising as this may seem until the recipe is tested. One and one-half pints best cider vinegar; stir in one-half teacupful salt, one teacupful brown sugar, one-half teacupful mustard seed, one ounce celery seed, one teacupful each of ground cloves and mace, two teaspoonfuls ground cinnamon, two teaspoonfuls ground pepper, two or three onions cut in slices and each divided four or five times, three small, long peppers, four large green peppers cut into small pieces and with seeds removed, two large roots grated horseradish. Mix well, then take one-half peck ripe tomatoes freshly gathered. Peel by dipping in hot water, cut across the middle and remove seeds and juice, retaining only the firm flesh. Cut in good-sized pieces into the prepared vinegar. This will keep all winter without sealing if in a cool place.

Cucumber Relish.—Slice fine, as for table use, four cucumbers and sprinkle with salt. Let stand three hours or over night. Then add three onions chopped or sliced fine, three pints vinegar, one-half pound brown sugar. Cook until tender. Mix one tablespoonful ground mustard, one tablespoonful mustard seed, one teaspoonful flour, one teaspoonful celery seed together, and stir in when the mixture reaches the boiling point one-half teaspoonful turmeric or a handful of nasturtium seeds may be added if liked. Seal in glass jars.

Corn Salad.—Twelve ears corn, one head cabbage. Chop and sprinkle with salt. While chopping these vegetables, have heating three cups brown sugar, three tablespoonfuls mustard, three tablespoonfuls flour, one-half teaspoonful cayenne pepper, one and one-half quarts vinegar, one teaspoonful turmeric. Cook until the corn is tender; can and seal.

Canned Tomatoes.—Until recently the majority of people thought that tin cans were an essential to tomato canning in the home. But every year these are being laid aside for glass, experience proving that the latter is just as reliable, more economical in the end. While the first cost of the tin cans is a little less, they cannot be used with safety more than two years, often only one year, for if the tin is rusted in a single spot their use means danger from poisoning. The contents must be removed from the can as soon as it is opened. And even with all precautions, the most careful housewives use the articles sealed in tin with just a bit of misgiving.

With ordinary care, canning tomatoes in glass is as easily done as ordinary fruit, and the cans are never unfitted for future use through contact with the acid. Select perfectly sound fruit. It has been stated, and with more than a little truth, that a diseased spot in a tomato renders the entire fruit diseased. Certain it is that imperfections in it spread with great rapidity. Avoid overripe fruit. Use new rubbers, perfectly fitting covers and thoroughly sterilized cans. Brighten up the caps with ashes or some good scouring powder. Not only will they look better, but if there is a defect in the metal it will be discovered.

We prefer to peel as you would an apple, instead of scalding, to remove the skins. Slice and cook in enough water to prevent scorching. Cook until thoroughly scalded through, add salt to taste and can and seal. If the precautions above indicated are taken and the tomatoes kept in a cool place, there is seldom more trouble in getting them to keep than with the average fruit.—Bessie L. Putnam.

One Was Enough.

Robert Bridges, the new poet laureate, is a fastidious critic and hence sees little to admire in the commonplace verse of Alfred Noyes.

Noyes once brought to Mr. Bridges two very long odes that he proposed to submit to the English Review.

"I'll read them aloud," the young man said, "and afterwards you will tell me which is in your opinion the more likely to be accepted by the English Review.

Poor Mr. Bridges sighed and settled himself in his chair, and Noyes, in his loud, harsh voice, read the first ode. It was very long, and at its conclusion Mr. Bridges leaped to his feet and said, briskly:

"Now, my young friend, I can advise you. Send the other ode to the Review."

Top Prices For Sheep and Lambs.

The top of the market is shown by the sale of 67-pound lambs at $7.15 per 100 pounds, and 108-pound mutton sheep at $4.25 per 100 pounds, at the St. Louis National Stock Yards, September 25th.

HOUSEHOLD HELPS, HINTS AND RECEIPTS.

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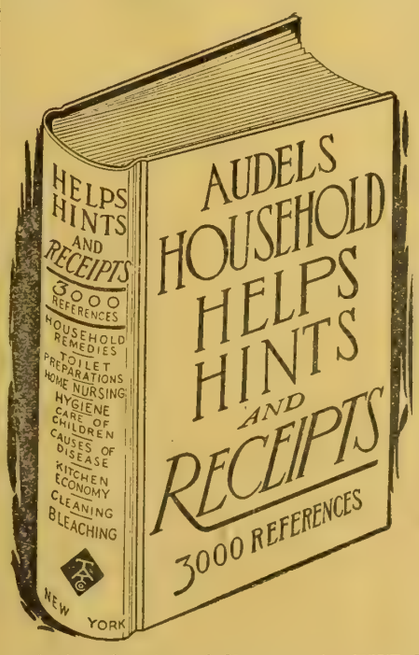
This book is a mine of practical information for everybody with a home, containing 336 pages of valuable facts. It tells you how to clean and care for any and every kind of article in the home, or wearing apparel; the care and development of the human body; diet; children; etc. Tells how to make all kinds of toilet preparations, beautifiers, household remedies, cements, pastes, polishes, disinfectants, dyes, antiseptics, beverages, soaps, perfumery, etc. Tells how to do stenciling, paper-hanging, painting, waterproofing, fire-proofing, how to prevent disease, correct obesity, leanness, appendicitis, headaches. Teaches the uses of ammonia, benzine, charcoal, alum, lemons, salt, borax, etc. What to do in case of accidents or poisoning, as well as remedies for bites and stings, and how to treat in emergencies all common ailments.



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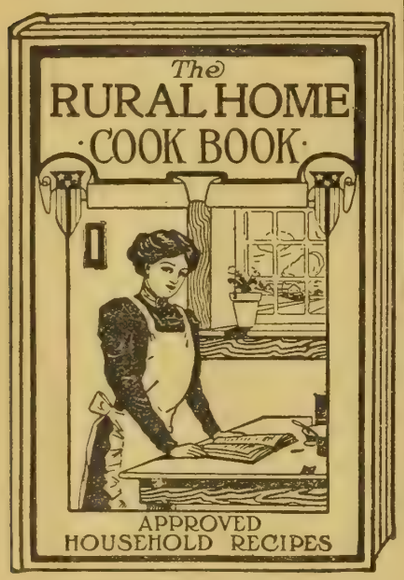
At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.



Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address postpaid safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Hints For Home Practice.

There are many excellent remedies that may be easily prepared by the housekeepr and which will afford relief, and if used in time will effect a cure without the necessity of calling the doctor.

Save all the pieces of old, soft linen and flannel, as the linen will be needed sooner or later for the sundry small accidents that every family is heir to.

A roll of old flannel is a perfect treasure during the season, when colds, sore throat, rheumatism and neuralgia are prevalent, and have another roll of soft, thin cloth to be used for mustard and other kinds of plasters and poultices.

For a chronic sore, bathe three times daily with weak suds made of the best castile soap and ten drops of carbolic acid in a basin of warm water, and afterwards apply vaseline or any good healing salve.

One of the best remedies for bed sores is made with the white of an egg and lard. Beat enough lard into the egg to form a salve, then put some on a soft, white cloth and apply right to the sore.

One good way to cure backache is to take one-half teaspoonful of sulphur in a glass of milk for nine mornings without missing a day.

If you are troubled with asthma, try this pleasant remedy: Gather a lot of peach leaves, dry them and keep in a closely-covered glass jar. Boil enough of the leaves to make a strong tea, then strain and add this to one quart of good molasses and cook to a candy. Pull and cut into small pieces and take a piece five times a day. One who has tried it says she has derived great benefit from using this remedy.

If you want a good and safe face powder, buy some of the best prepared chalk, break it up fine and put in an earthen dish, then pour enough rain water over it to cover it well and let stand until the next morning, then pour this water off and pour fresh water on and repeat this for four or five mornings, and when the last water is poured off, place in the sun to dry out thoroughly. When perfectly dry, break into fine powder and mix well with this powder one part of boric powder to two parts of the chalk and add a little perfume, and you will have one of the best face powders, and especially good to use if there are any facial eruptions, as the boric powder tends to heal and soothe any skin irritation. A small cut or wound will heal very quickly if covered at once with the dry boric powder and bound up closely, as this powder is healing because it is antiseptic, and by keeping an injured spot of flesh healthy permits it to heal.

I believe a cold should be taken in hand as soon as it begins to appear, and that many a severe illness may thus be avoided, and by using boric powder as a snuff two or three times a day at the very first symptoms of the cold it can often be arrested; and it is a good plan to rub a mixture of kerosene and lard on the bridge of the nose and between the eyes just before retiring at night.—M. A. T.

HAY MARKET AT ST. LOUIS.

Being a Statement of Actual Sales Made on the Last Day of September, Sales Covering All Grades.

Receipts of hay at St. Louis on the last day of September were sixty-one cars, and were sold as follows: Sales on St. Louis side of the river: Clover-mixed—One car part common heavy mixed at $14 and part threshed at $12.50; one car common heavy mixed at $14.50; one do. at $15; part car stained and damaged at $15; two parts of cars common heavy mixed at $15; one car No. 2 heavy mixed at $16; one do. do. at $17; one car No. 2 light mixed at $17.50; one car part heavy and part light mixed at $17 round; one car No. 1 at $18; three do. at $18.50; one cart part heavy mixed and part timothy at $18.50 round; one car part old No. 2 timothy and part No. 1 clover-mixed at $19 round; two cars No. 1 light mixed (one East Side switched) at $20; one good do. do. at $20.50.

Timothy—One car common grassy mixed at $13; two parts of cars grassy mixed at $16; four cars and part car No. 2 at $19, three switched; four cars good No. 2 at $20, one switched; one car scant No. 1 at $21; one do. at $21.50; four cars No. 1 (one East Side) at $22; one do. at $22.50; three good No. 2 (two East Side) at $23; one car choice at $23.50. Prairie quotable at $17 to $18 for No. 2, and $19 and $20 for No. 1 to choice Western; one car high No. 1 (on East Side) at $18; one car choice (do.) at $19; one car part No. 2 clover, including part heavy clover-mixed at $15, switched; one car part No. 1 clover at $17 and part No. 2 timothy at $20; one car part No. 2 clover at $15 and part No. 1 timothy at $22.50. Alfalfa.—One car Nos. 2 and 3 at $15.50 round, delivered to East Side; one car No. 2 at $17.50; two cars do. at $17 and $18; one car No. 1 at $19.50; two cars do. at $20; two cars high No. 1 (one East Side) at $20.50.

Straw.—Sales: One car wheat at $6.50, track; one car do. at $7.00, track.

98 CENTS POST PAID
To advertise our business, make new friends and introduce our big catalogue of Elgin watches we will send this elegant watch postpaid for **only 98 cents.** Gent's size, high grade gold plate finish, lever escapement, stem wind and stem set, accurate time keeper, fully **Guaranteed for 6 Years.** Send 98 cents today and watch will be sent by return mail. Satisfaction guaranteed or money refunded. **ARNOLD WATCH CO., Dept. 1028, CHICAGO, ILL.**

Bargains in Arkansas Land.

Arkansas farm and fruit lands afford about as many really fine bargains in land as can be found anywhere in the United States. Mr. Dyke, who has an advertisement in the land columns, speaks of Hempstead county, Arkansas, as being a paradise for raising vegetables and as the home to perfection of the Elberta peach.

Three Fine Golden Locks Dolls.

One Big Doll and Two Smaller Dolls, Beautifully Lithographed in Five Colors on Heavy Cloth —All Ready to Cut Out, Sew Up and Stuff.

The Big Doll, "GOLDEN LOCKS," is twenty-seven inches tall; so large that baby's own clothes will fit it. There is no more popular plaything parents can give their children or little friends than a pretty Doll, and it is with a great deal of pleasure that we offer these beautiful Dollies in connection with a subscription to the UNIVERSAL MAGAZINE.

How to Get These Three Dollies Free.

Just send us 30 cents for one-year's subscription to the UNIVERSAL MAGAZINE and say that you want GOLDEN LOCKS and her two little sisters, and the magazine will be sent you for one full year and these three lovely Dollies forwarded you as a free premium, postpaid. The

Universal Magazine

Is a bright, clean, illustrated monthly magazine of sixty-four pages, containing home reading, stories, patterns, fashions, poetry, etc., and will be enjoyed by every member of the household.

Remember, 30 cents brings you the magazine for one year, also the three beautiful Dolls, free.

If you want two sets of these Dolls, send us 50 cents for a two-year subscription. Safe delivery guaranteed.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Enclosed find.....cents for a.....year's subscription to the UNIVERSAL MAGAZINE and three Dolls free—GOLDEN LOCKS and her two little sisters.

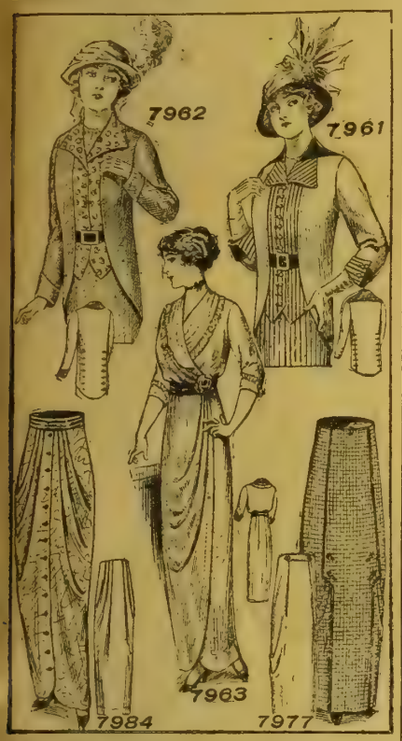
Name..... .....

R. F. D..... Box..... P. O. and State.....

MAY MANTON PATTERNS.

Easily Made, Advance Styles, Fashion and Perfection—The Standard of the World.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original. In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering. The price of each pattern is 10 cents.



No. 7962.—Cutaway Coat With Vest For Misses and Small Women. Sixteen and eighteen years.

No. 7961.—Cutaway Coat With Waistcoat. 34 to 40 bust. With three-quarter or long sleeves, with single or double collar, with or without belt.

No. 7963.—Draped Semi-Princesse Gown. 34 to 44 bust. With three-piece skirt, elbow or long sleeves, fichu or round collar.

No. 7984.—Draped One-piece Skirt. 22 to 30 waist. With high or natural waist line.

No. 7977.—Draped Two-piece Skirt. 22 to 32 waist. Closing at side front, with high or natural waist line.

No. 7985.—Semi-Princesse Dress For Misses and Small Women. Sixteen and eighteen years. With three-quarter or long sleeves, with or without chemisette.

No. 7972.—Draped Semi-Princesse Dress For Misses and Small Women. Sixteen and eighteen years. With three-quarter or long sleeves.

No. 7967.—Fancy Blouse With Tunic. 34 to 42 bust. With or without shirred chemisette, with short or elbow sleeves, to be worn over any skirt.

No. 7987.—Girl's Dress. Ten to fourteen years. With four-piece draped skirt, round or high neck.

No. 7966.—Girl's Balkan Middy Suit. Eight to fourteen years. With four-gored skirt, with rolling or sailor collar, short, three-quarter or long sleeves, with or without under waist.

No. 7864.—Tucked Blouse. 34 to 42 bust. With long or elbow sleeves.

No. 7983.—Long-waisted Blouse in Balkan Style. 34 to 40 bust. With elbow or long sleeves.

No. 7682.—Empire House Gown. 34 to 42 bust. With three-piece skirt, perforated for walking length, with elbow or long sleeves, chemisette that can be made low or high, with or without collar.

No. 7833.—Three-piece Skirt. 22 to 32 waist. With draped or plain front, with round or straight corners.

No. 7507.—Four-piece Skirt. 22 to 32 waist. With high or natural waist line.

DEFORMITIES CURED

CLUB FEET of any variety, and at any reasonable age, can be made straight, natural and useful. No plaster paris, no severe surgical operation, and the result is assured.

POTTS DISEASE when treated in time should result in no deformity; paralysis can be prevented and the growth not interfered with. Write for information and references.

SPINAL CURVATURE Recent cases usually make good recoveries and even those of long standing do well. No plaster paris, felt or leather jackets. Write for information and reference.

HIP DISEASE in the painful stage can be relieved and the inflammation permanently arrested. Shortening, deformity and loss of motion can often be corrected. No surgical operations or confinement.

INFANTILE PARALYSIS We can refer you to many responsible people all over the country, whose children, afflicted with Infantile Paralysis have been practically restored at this Sanitarium.

DEFORMED KNEES AND JOINTS of many varieties yield to our methods of treatment, and if interested you should know about it.

This is the only thoroughly equipped Sanitarium in the country devoted exclusively to the treatment of crippled and paralyzed conditions.

ILLUSTRATED BOOK FREE Write us for illustrated book which will be sent free on request to any address.

THE McLAIN ORTHOPEDIC SANITARIUM

916 Aubert Avenue **ST. LOUIS, MO.**

No. 7681.—Child's Tucked Dress. One, two and four years. With or without shirrings at long waist line.

No. 7952.—Child's Dress. Six months, one, two and four years. With square or round yoke, round, square or high neck, short or long sleeves, with or without shirring and belt.

No. 7982.—Child's Dress. Two to six years. With short or long sleeves, round or high neck.

No. 7986.—Boy's Suit. Two to six years. With long or short sleeves.

No. 7973.—Boy's Middy Suit. Two to six years. With or without shield, with short or long sleeves.

The above patterns will be mailed to any address by the Pattern Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

On the Other Shore.

"In the Father's house are many mansions," the pastor was saying to the divorced lady, who was quite ill.

"Yes, I know," she whispered, "and I was wondering if John would live in one and I in another over there."—Judge.

Meanness.

Jones—"The widow of that commuter killed in the wreck has been awarded $50,000 damages."

His Wife—"And I've been trying to have you move to the suburbs for months, you mean thing!"—University of Pennsylvania Punch Bowl.

Putting it Mildly.

Tom—"Did you say your friend is slender?"

Tab—"Well, she returned a silhouette gown because she couldn't make a shadow in it."—Judge.

Plenty of It.

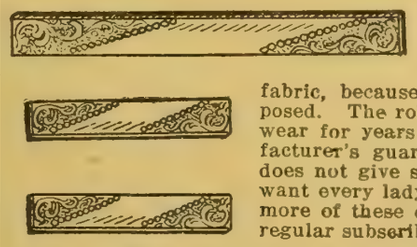
"Have you hot water in your house?"

"Have I? My dear boy, I'm never out of it."—Baltimore American.

Rolled Gold Plate Waist Pins

Given as a Free Premium With the Charming Monthly Publication, the UNIVERSAL MAGAZINE.

This beautiful Pin Set, as illustrated, consists of a large Pin (2¼ inches long) and two smaller Collar or Cuff Pins. They are unbreakable, the back being formed of one piece, the rolled gold plate front then being rolled on, making the entire Pin practically one piece. They will not catch in the hair or fabric, because no sharp points or edges are exposed. The rolled gold plate front is warranted to wear for years without tarnishing, and the manufacturer's guarantee is with every Pin, and if it does not give satisfaction it will be replaced. We want every lady reader of this offer to have one or more of these dainty Waist Pins, also to become a regular subscriber to our



UNIVERSAL MAGAZINE.

This publication is a bright, clean, home monthly, containing sixty-four pages each issue of choice short stories, fashions, patterns, poetry and other matter interesting to the household. Send us 25 cents in stamps, money order or coin, and we will enter your subscription for one year to the UNIVERSAL MAGAZINE, and we will send you as a free premium either the one large Pin or the two smaller Pins, as you may select, postpaid; or, better still, send us 50 cents for a two-year subscription and we will send you the full set of three Pins as a free premium. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Go Pimples—Come Beauty

This Is What Happens When Stuart's Calcium Wafers Are Used to Cleanse the Blood of All Impurities and the Skin of Eruptions.

If you want a beautiful complexion stop using cosmetics, salves, lotions, etc. They simply plaster the pores and prevent them from doing their natural and normal duties. If you stopped up all the pores you would actually die in a few days.

"Not a Pimple or Other Skin Eruption Left—I Used Stuart's Calcium Wafers."

There is no sense in being longer humiliated by having to appear in public with a pimple-covered, blotched face—a face that makes strangers ashamed. Stuart's Calcium Wafers will drive all blemishes away and make your face a welcome instead of an unwelcome sight. You'll no longer be a slave to pimples, acne, blackheads, liver spots, boils, eczema, tetter or any skin eruption.

Nowadays, when you see a real beauty, the chances are Stuart's Calcium Wafers wrought that wonderful change. It takes only a short time, even with very bad complexions—the kind that are disfigured with rash, eczema, boils, blotches and liver spots.

Stuart's Calcium Wafers cause the skin pores to breathe out impurities. The lungs burn up a great amount, but Nature imposes upon the skin the larger burden. Every tick of the clock means work, work, work for these wonderful Wafers. And every instant new skin is forming, impurities become less and less, the pores are reinvigorated, and soon such a thing as a pimple, blackhead or any other eruption is impossible. You marvel at the change.

The soft, rosy tint love-taps the cheeks; the neck, shoulders and arms show the health of youthful skin—in fact, you just can't help having a beautiful complexion if you use Stuart's Calcium Wafers.

They are put up in convenient form to carry wth you, are very palatable, and are sold by druggists everywhere at 50 cents a box.

How a Mother Trained Her Daughters.

Laura Dean as a bride found herself woefully ignorant of the essential principles of housekeeping. At home she had occasionally taken it upon herself to make a fluffy dessert or a new kind of candy that had won her many compliments. She had complacently prepared for her marriage, feeling well equipped for the step she was about to take, and that David was indeed a fortunate man.

But David was only starting in life, and before Laura had been married three months she realized that a knowledge of fluffy desserts and delicious candies are poor equipments upon which to run a home.

"But I'll clip the wings of the little god so he can't fly out the window by settling right down and learning this business from the bottom up. If only mother hadn't thought that she could do everything better than anyone else! Well, if I ever I have children—!"

Laura did have children—two girls three years apart. When Edna was four years old Laura assigned her a daily task for which she was held responsible. A big tree overshadowing the porch kept it strewn with leaves and twigs. Mrs. Dean provided her little daughter with a small broom and required of her that twice a day she brush off the porch and carry the leaves and twigs in a small basket provided for that purpose to the back of the barn. At first Edna was proud of the responsibility, but when the novelty wore off she was inclined to shirk the work until Mrs. Dean explained to her that by doing this task she was helping mother and making her day easier. From the very beginning Mrs. Dean found that the strongest appeal she could make to her children was to tell them they were real helps to mother. She had not forgotten that oft-repeated remark of her own mother: "It's more bother than it's worth to have children do things. I'd rather do the work myself."

Gradually other tasks were assigned to Edna, so that by the time she was seven and little Helen four, Edna was giving about two hours a day to her mother. She now washed the breakfast and luncheon dishes and made her own bed, while little Helen took up those easier tasks with which Edna had begun. The children were never allowed to work in a careless or haphazard way nor to do tasks beyond their strength. Mrs. Dean taught them the right way to do things. She was patient with their failures, but made them persevere until they succeeded. She never insisted, however, that her way was the only way. As the children grew older they often found ways of doing things which came handier to them than their mother's way, and so long as the results were as good, Mrs. Dean made no objection. She far preferred original children to mere imitators.

The children did not start to school until they were eight years old, but Mrs. Dean taught them a little each day at home. When they did start they were not behind the children of their age, and in a few years were ahead of many of them.

When Edna was ten she began to cook. She learned to cook well one thing before she tried another dish. The first thing she learned was to make coffee. She soon knew how to prepare several practical dishes, and on necessary occasions could prepare a simple meal without help.

During school days household tasks had to be regulated to school hours. Mrs. Dean always insisted upon a generous amount of playtime for her girls, and the more when they were going to school. Saturday morning was a busy time. The children helped with the baking, cleaned the pantry and kitchen floor, washed up enough potatoes and other vegetables to last through the week and picked over raisins and currants to be used during school days.

Then there was the marketing and household buying. For several years Mrs. Dean took the girls with her on her trips to market and store. She explained the names of the different cuts of meat and their comparative food values. She did the same thing in the wares of the grocery and dry goods stores. After a while she began to refer matters to their judgment. When she saw that the girls really understood buying she often allowed them to go to the stores without her and would commend or condemn their purchases, as the case might require. But so thoroughly did the girls profit by her training that it was seldom adverse criticism was needed.

Both girls were passionately fond of dolls, and for this Mrs. Dean was thankful. She ordered paper patterns and had the children cut out and make their dolls clothes from these patterns. Thus they became familiar with the use of paper patterns and they also learned to stitch daintily. When Edna was fifteen she made herself a dress that no experienced dressmaker would have been ashamed to call her handiwork.

Mrs. Dean also used the dolls to teach the girls the care of children. The dolls went through all the stages of babyhood and little girlhood and had every known disease. They were properly nursed through everything and lived to grow up into beautiful young lady dolls. Of course, as young lady dolls they must assume social responsibilities, and through them Mrs. Dean taught her girls many of the social observances.

The Deans could not afford a finishing school for their girls, but there was no need of it. They grew up learning how to do things right from the sweeping of porches to presiding at a dinner. Edna is now eighteen and Helen fifteen. They are almost as capable of running the house as is their mother, and they do it on any occasion when she wishes to be away for a day or a month.

Her friends envy Mrs. Dean her good times and her capable daughters, but Mrs. Dean knows that she has now only the reward for so patiently and lovingly training awkward, wee hands and restless young minds for the life work which should be understood by every young woman before she takes it upon herself to assume the responsibility of a home of her own.—Janet Thomas Van Osdel.

Corn From Argentine.

What is said to be the largest shipment of corn received from South America for more than two years arrived in New York Wednesday, September 24th, when a steamship put in with a cargo of 7,300 tons of shelled corn from Buenos Ayres. This shipment marked the beginning of a large importation arranged by several produce dealers in this country, it is said.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Hay Crop of 1913.

A preliminary estimate of the total production of hay during the present year places it at 63,000,000 tons, compared with 73,000,000 tons harvested last year, and 55,000,000 tons harvested in 1911.

The quality of the hay crop is estimated at 91.7 per cent., compared with 92.1 per cent. last year, and 92.1 per cent., the average for the last ten years.

More Vital Energy For You

MAGNETIC SHIELDS fill the system with **MAGNETIC FORCE**, which does what all the medicine on earth cannot do. It gives life, energy and tone to the blood and nerves, **MAKING THE BLOOD CIRCULATE VIGOROUSLY**, overcoming congestion, soreness and pain.

WE PROVE IT TO YOU POSITIVELY

Not in one case or a dozen cases, but in multitudes of cases, where people say they have been cured of Paralysis, Rheumatism, Lung Trouble, Kidney, Liver, Stomach and Bowel Troubles, Nervousness and most every other form of disease after medicine failed.

Our **MAGNETIC ABDOMINAL AND KIDNEY VITALIZER** for ladies and gentlemen, here illustrated, is only one of the many shields we make. **IT IS A WONDERFUL INVENTION**, scientifically constructed, and floods the system with magnetism, supplying **LIFE, STRENGTH** and **VIGOR**, to the **BACK, KIDNEYS, STOMACH, LIVER, BOWELS** and **BLADDER**, giving that buoyancy, tone and renewed vitality to the system that Magnetic force alone can supply. Your health depends upon a good circulation.

Fill Your System With This Magnetism

Write today for full information and free book, **"PLAIN ROAD TO HEALTH,"** by C. I. Thacher, M. D. Describe your case fully, we advise you free how to apply **MAGNETISM** for treating any form of weakness or disease.

THACHER MAGNETIC SHIELD CO., Inc., Suite 515, 110 South Wabash Avenue, Chicago, Ill.

THE OLD FARM SPRING.

Nothing comes out of the past to me
So beautiful, bright and clean,
As the spring beneath the chestnut tree,
With the ferns that grew so green.
The old farm spring is a lovely place,
And the water that trickles through
Is sweet and cold as an April cup
That the woodland fairies brew.

It has flowed so long in its quiet nook,
Sequestered and far and sweet,
With its fine old place to sit with a book
Away from the burning heat;
And so many faces have shimmered there
As they leaned o'er the pool to lave
The burning lips of their daily care
In the old spring's crystal wave.

The cattle have drunk from the overflow,
And the mossy trough has made
A drinking place for horses, low
'Neath the bending willow's shade.
It frosts the glass when you dip one in,
And it tastes so pure and fine—
The old farm spring where you first begin
To know of the world's real wine.

I never forget it, that quiet spot
Under the chestnut tree,
Where I go in dreams when the days are hot,
And wish all men could be.
The old farm spring that has flowed so long
The oldest inhabitant smiles
When he thinks of its age—and a redwing's song
Comes floating across the miles.
—Baltimore Sun.

ARLINGTON CEMETERY.

That silent spot, alas, may weep
Beyond Potomac's wave,
For there a nation's heroes sleep,
The loyal and the brave—

There, undisturbed, in calm repose,
Their pains and passions done,
Their battles fought, their triumphs closed,
Their final victory won.

No clouds of smoke to dim the eye,
No roar of shot or shell,
No onward march, no battlecry,
On plains where thousands fell.

No warlike blast or roll of drum,
No lonely watch to tread.
Ah, generations yet to come
Shall praise the fallen dead!

Year after year, how grand the scene,
By loyal hands that're true,
The graves are strewn with garlands green
Of those who wore the blue.

The thunderstorms of heaven may rave,
But under God's control,
Serene and calm will rest the brave
While endless ages roll.

Sleep on, then, fallen comrades, sleep!
Your dreams of war are fled.
The land you saved will sacred keep
The city of her dead.
—Philadelphia Record.

THE LITTLE HOUSE.

The little house is modest, and 'tis hidden by the branches
Of the sheltering trees that hover o'er its roof so old and brown,
And the sunshine streams upon it in a golden flood of glory,
Like a flicker of God's eyelit, sending benediction down.

The flowers grow about it, fragrant violets and roses,
And the sparrows chirp and twitter, making music in the eaves,
The morning glories clamber all around its doors and porches,
And the honeysuckle 'round the gate fragrant garland weaves.

In its prim, old-fashioned garden, dear old-fashioned blooms run riot,
There the hollyhocks stand stiffly and sedately in a row,
There the pink and the sweetwilliam, and the larkspur and the lilac,
Shed their spicy odors on the air when summer winds are low.

When our feet are worn with walking on the rocky roads of travel,
Thro' the City of Confusion, down the Vales of Toil and Care,
When our only prayer is for that peace the world can never give us,
Oh, our bruised hearts, and stricken, will be sure to find it there.

When at last we reach the pathway that leads upwards to its threshhold,
When we gain its sacred portal by a long and weary route,
We will find the gate wide open to give welcome to the wanderer,
And the door is ever ready with the latchstring hanging out.

We may linger in the mazes of the City of Confusion,
Thro' the "palaces of pleasure" we may long have wished to roam,
But our steps will soon turn backward to the brown and gnarled roof tree
Where love's beacon light is shining—for the little house is home.
—New Orleans Picayune.

OH, TO BE AT HOME!

Oh! to be at home in the end, in the end,
Oh! to be at home when the long day dies;
Oh! to be at home where the green roads bend
Around the path that runs to the rainbow skies,
Travel and adventure, and to see the sights,
A little bit and over, and the road once more
Down to dusks of dreaming in the clear, sweet nights,
Oh! to be at home in the vineclad door.
Oh! to be at home when the storm is raging deep,
Oh! to be at home in the quiet peace of things;
Home, the golden haven where the clean heart sleeps
So soft beneath the music that a loved lip sings.
—Foster McKinsey, in Baltimore Sun.

THE HORSE TO HIS MASTER.

I am a Horse;
You are a Man;
I've been your slave
Since I began,
And though I'm strong
Enough to shake
My shackles off
And make a break
For freedom that
Would lift the lid,
You've noticed
That I never did.
By day and night
I've worked for you,
And did the best
That I could do;
And though I may not
Always like
Your methods, yet
I never strike;
In heat and cold,
In wet and dry,
I'm always ready—
Glad to try
To do the very
Most I can
To satisfy
My master, man.
Therefore, my master,
If you please,
Considering
Such facts as these,
Say, don't you think
It ought to be
Your pleasure
To look out for me,
If for no other
Reason than
My greater usefulness
To man?
Of course, you might be worse,
I know
You sometimes treat your own kind so.
But I'm a Horse,
The man-slave to his master, Man,
And, furthermore,
My nature is
Much more dependent
Than is his,
And as I trust you, sir,
You should
Do all you can to make it good.
Nor do I ask a lot, I guess,
To be a fairly fair success—
Good food, good shelter, and good care,
I think, is just about my share.
No other pay I ask—
No touch
I make, but this;
Is that too much?
—W. J. Lampton.

The Baron's Love.

Oscar Hammerstein, as he watched from Madison avenue the building of his new opera house in New York, said to a reporter, apropos of the suit brought against him by the Metropolitan Opera Company:

"The Metropolitan directors love art."

Mr. Hammerstein smiled and lifted back his top hat.

"They love art profoundly," he said. "Their love reminds one of the Baron de Conte.

"The Baron de Conte had just got engaged to Lotta, old Gobsa Golde's daughter, the rich heiress.

"'Alphonse, do you love me?' Lotta asked one evening.

"'Indeed, I do!' the Baron answered.

"How much do you love me, Alphonse?' the heiress dreamily pursued.

"'I love you,' said the Baron, 'for all you are worth.'"

The Cow and the Calf.

He was one of those fresh young fellows, given to the use of bromidisms and stale slang. At the breakfast table, desiring the milk, he exclaimed: "Chase the cow down this way, please."

"Here, Jane," said the landlady, "take the cow down to where the calf is bawling."—Boston Transcript.

FOUR BEAUTIFUL FERNS

To be Obtained as Subscription Premium in Connection With either Our NATIONAL FARMER AND STOCK GROWER, a Splendid Monthly Farm Paper, or With Our Monthly UNIVERSAL MAGAZINE, a Gem of a Story and Literary Publication.

NOW IS THE ACCEPTED TIME.

We wish to deliver WITHOUT COST to your door in good, healthy growing condition a valuable assortment of beautiful ferns. We have secured them from fern growers who boast of the fact that their plants are entirely free from all injurious insects or disease which destroy foliage plants of this type, and are assured each individual plant is one of the finest ever produced. There is nothing that will add more cheer to the home through long, dark winter months than a few well-chosen house decorative plants, and those we offer comprised the very best varieties in cultivation, and of a size and quality that will quickly develop into beautiful specimens. We give below a description of each variety:

ROOSEVELT FERN.—This fern is a new variety recently introduced and one of the finest for house decorative purposes grown. It is of compact, vigorous-growing habit, producing in great numbers wide, massive fronds of good length, beautifully tapered from base to tip, that droop gracefully over the pot, hiding it completely from view. The pinnae or leaves of this fern are distinctly undulated, giving the whole plant an attractive, wavy appearance, which adds materially to its beauty. Without an exception, ROOSEVELT has proved the strongest-growing variety ever produced and withstands better than any other variety unfavorable growing conditions of indoor culture found in the average home. A small plant requires but little care to quickly develop into a finished specimen of rare beauty.

BOSTON FERN.—This fern is one of the oldest and best known varieties grown, and in the long years of its cultivation has proven well worthy of a place in every home. It is known by some as the "Fountain Fern," which name it derived from its graceful drooping habit of growth, and until the recent production of the ROOSEVELT Fern was acknowledged the finest of its type. It is a very rapid grower, producing fronds of unusual length, frequently measuring from six to eight feet, and its freedom of growth without special care has made it popular with all who admire beautiful house plants.

THE ROOSEVELT FERN.

WHITMANI FERN.—This charming creation caused a real sensation among lovers of plants, each frond being as delicately and finely cut as the most perfect Ostrich Plume, by which name it is commonly known. It is a very vigorous grower, constantly unfolding new fronds of fine, feathery foliage, entirely distinct from any other variety, and which quickly grows to a width of from ten to twelve inches. The foliage is of good, substantial texture that withstands the abuse to which house plants are subjected, and so compact that each frond appears as one massive Ostrich Plume. WHITMANI is one of the few feathery foliage ferns with which everyone can succeed in growing to finished specimen plants under the average unfavorable growing conditions of the house.

ASPARAGUS PLUMOSUS.—A plant for all purposes, rapidly adapting itself to any conditions. Its rapid, sturdy growth, combined with its exquisite, lacy foliage makes it a plant of such airy grace and value as to be desired by everyone. The bright, rich, green fronds are as fine and delicate as the most beautiful lace, by reason of which it is given the name "Lace Fern."

OUR SUBSCRIPTION PROPOSITIONS.

We publish two papers. No. 1 is the monthly NATIONAL FARMER AND STOCK GROWER, the best farm publication in the United States. It furnishes good, instructive reading that will help farmers, stockmen, poultrymen, dairymen, fruit and vegetable growers in any state. The price is 50 cents a year, and anyone who will send us 50 cents to pay for one-year's subscription can select a set of ferns as a free premium, and we will send them fresh from the fernery, safe delivery in good order guaranteed.

Our second publication is the UNIVERSAL MAGAZINE, a bright, little pocket publication of sixty-four pages, two columns to the page. It contains good stories, poetry, fashions, embroideries, illustrations, and is well worth the price, which is 25 cents a year. Anyone who will send us 50 cents to pay for the UNIVERSAL MAGAZINE for two years can select our set of ferns as advertised, and we will send them at once as a premium, safe delivery and good condition guaranteed. Time is flying. Address at once **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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The newest Overland is in every essential respect the greatest automobile we have ever produced. But in the very face of an unusual value *increase*, the price has been materially *decreased*.

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The motor is larger and more powerful. It is rated at 35 horsepower and will develop 50 miles an hour on an ordinarily good road.

More power and speed for less money than ever before.

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f. o. b. Toledo

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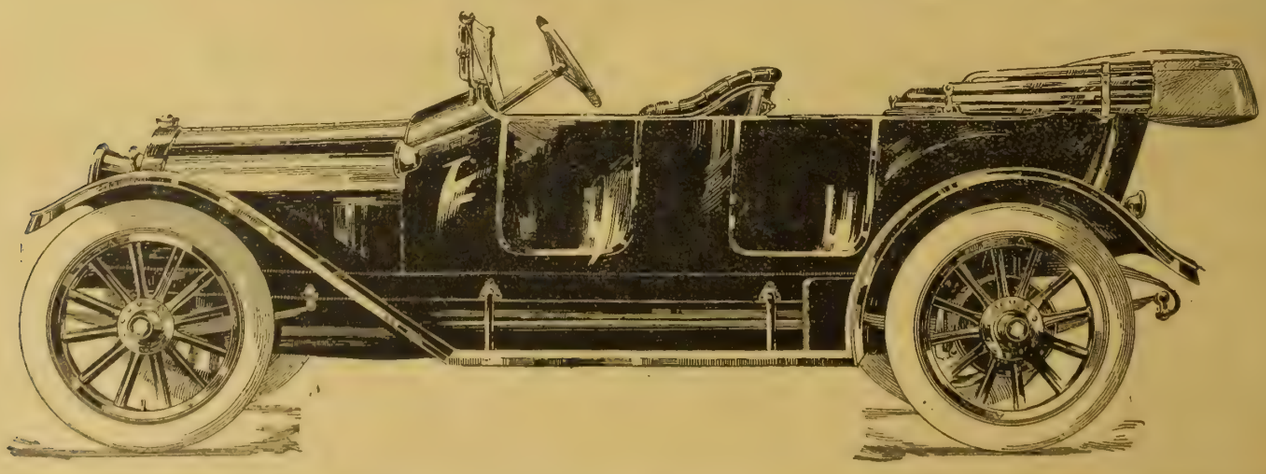

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and Stock GROWER

CATTLE-FEEDING CONTEST

Conducted During the Month of September, 1913, at the St. Louis National Stock Yards.

From September 1st to September 26th, inclusive, a show of feeding cattle was conducted at the St. Louis National Stock Yards, and the 119 different exhibits, ranging from one to six car-loads each, were examined and judged by Prof. W. J. Kennedy, of Iowa, who was at the yards four straight weeks for that purpose.

A grand total of 173 car-loads of feeder cattle took part in the competition, and Professor Kennedy, who is one of the leading authorities on live stock breeding and feeding, gave it as his opinion that it was the largest exhibit of feeder cattle one year and upward ever shown.

Points Considered in Judging.

In judging the cattle due consideration was given to the demands of the packer, the cattle feeder and the producer. The perfect score making the 100 per cent. was as follows:

	Per Cent.
Conformation — Straightness of lines, lowsetness, width of back, loin and hindquarters, width of head, shortness of neck, smoothness of shoulder and tail-head and depth of flank	25
Quality—Fineness of hair, uniformity of color and breeding without any undue coarseness of body framework	15
Capacity—Width and depth of chest, length of rib and depth of body, giving a strong constitution and feeding capacity	25
Scale—Good growth for age with sufficient size of bone to insure ruggedness in feed lot	10
Uniformity—The entire load should present a uniform appearance in conformation, quality, capacity and scale	25
Total	100

The Grand Prize.

Grand sweepstakes prize went to Col. J. T. Johnson, of Mexico, Mo., who exhibited a load of Angus feeders that weighed 944 pounds and scored 97 out of a possible 100 points.

Col. Johnson's load of sweepstakes Angus also captured first prize for the state of Missouri. His cash prize winnings on this single load amounted to $200. The sweepstakes steers were purchased by R. B. Glenn, of Stephens, Mo., at $8.15 per 100 pounds, who announced that he will feed these steers and market them at St. Louis next autumn.

Here is how Judge Kennedy describes the sweepstakes load of Angus belonging to Col. J. T. Johnson: "An extra choice load of feeders. Thin in flesh with good conformation, capacity and scale. Very uniform in all respects. An outstanding load of feeder cattle."

Second prize for the state of Missouri went to Thompson & Rader, of Marshfield, Mo., with a load of mixed Herefords and Shorthorns that scored 96¾.

Third prize for the state of Missouri went to W. B. Rariden, of Farmington, Mo., whose load of Shorthorns scored 96½.

J. P. Connolley, of Jacksonville, Mo., received honorable mention for his load of strong-weight Hereford feeders that scored 96¼.

M. H. Mairs, of Milan, Mo., also received honorable mention with his load of Herefords that scored 95.

Total entries for the state of Missouri amounted to 141 loads, and 183 of these, or 98 per cent., scored fair to extra choice. This is a remarkable showing.

The Illinois Offerings.

First prize for the state of Illinois went to S. S. Seiler, of Mount Carmel, whose load of Angus and Hereford steers and heifers scored 96¼.

Second prize in the Illinois division went to L. F. Douglass, of Broughton, whose Herefords scored 95½.

Third prize for the state of Illinois went to Claypool & Burns, of Greenview. They entered a load of Herefords that scored 95.

W. C. Doran, of Creal Springs, Ill., secured honorable mention on a load of Shorthorns that scored 94½.

A. B. Stephens, of Albers, Ill., also received honorable mention on a load of Shorthorns and Herefords that scored 93.

Total entries from the state of Illinois amounted to twenty-one car-loads, and twenty of these ranged from good to extra choice in quality.

Arkansas Prize Feeders.

Contest entries from Arkansas totaled nine cars, and they ranged from good to choice in quality; in fact, the Arkansas feeders in the contest were a credit to the state and clearly demonstrated that Arkansas can raise as good feeding cattle as any state in the Union, once her farmers and stockmen get into the business extensively.

First-prize load of feeders for the state of Arkansas went to Eidson, Webster & Sanders, of Springdale. Their load of Herefords scored 94.

Joe Culwell, of Goshen, Ark., captured second prize for his state with a load of Shorthorns and Herefords that scored 93.

E. A. Rector, of Okean, Ark., won third prize in the Arkansas division with a load of straight Herefords that scored 97½.

Honorable mention for the Arkansas division was secured by E. Dalton, of Pocahontas, who entered a load of Shorthorns good enough to score 91.

Eidson, Webster & Sanders also came in for honorable mention with a load of Herefords they exhibited that scored 90½.

Kansas Entries of High Quality.

G. D. McPherson, of Topeka, Kas., won first and second prizes for his state with two loads of Shorthorns. One load of yearlings scored 96 and one load of two's scored 95. Mr. McPherson had no competition, as the drouth in Kansas this year cut down the entries from his state. However, his cattle were very fine in quality and would have held their own in the face of heavy competition.

Money the Winners Received.

The prize list is as follows for car-lots of eighteen head or more:

State.	1st Prize.	2d Prize.	3d Prize.
Illinois.	$100	$65	$35
Missouri	100	65	35
Kansas.	100	65	35
Arkansas	100	65	35
Grand sweepstakes, any state			$100

"Analyzing the results of the contest," said Professor Kennedy, "you will see that 145 cars out of total entries of 173 loads ranged from good to extra choice in quality and graded from 83 to 97.

"Or, put another way, eighty-four per cent. of the total entries in the contest scored 83 to 97, ranging good to extra choice in quality. This is a showing I think your market should well be proud of. I noticed that most of the feeders of the contest were sold to go to Missouri, Illinois, Ohio, Indiana and Pennsylvania points. I feel confident that these feeders will do very creditably for their new owners.

"I know of one bunch of contest heifers that went to a Tennessee farmer at $7.00 per 100 pounds. This shows that the South is keenly alive to the necessity of stocking up with high-grade cattle."

The Feeder Contest will be a feature at the St. Louis National Stock Yards during the autumn of 1914. As there will be more time to prepare for that event, and the pioneer work has been already accomplished, next year's contest will surely be bigger and better in every respect. A feature of the 1914 event will be a regular auction day each week for selling the contest feeders. There will also be additional states in the premium list and doubtless many other new features which will be announced from time to time.

SEE HIM FIRST!

Before the fertilizer salesman arrives, go to your dealer and explain to him that you will not buy 2 per cent. goods that contain only 40 pounds of Potash per ton. Show him that modern, profitable fertilizers contain from 5 to **10 per cent. Potash,** and that the composition of crops and the effect of crops on soils require that the per cent. of Potash should be increased until it is as great as, or greater than, the per cent. of Phosphoric Acid in the fertilizer. It is this grade of goods that pays you and your dealer best. The quantity and quality of the crops are better and the actual plant food costs less per pound.

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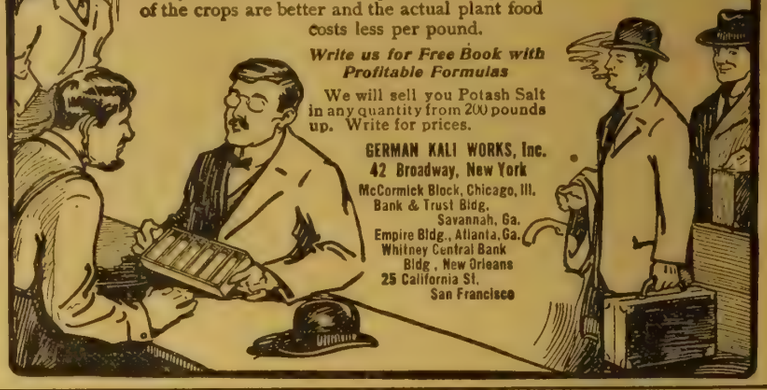

CANADIAN CATTLE PRODUCERS.

What Congress Did For Them and For Other Foreign Producers Pie For Them.

The live stock editor of the Toronto Canadian Sun of October 15th had the following, which was entitled "Let Us Have More of the Pie:"

"No piling up of words is necessary now to convince even people who are least open to conviction that those who argued in favor of reciprocity two years years ago were right in at least one of their contentions.

"Supporters of the Fielding-Taft agreement maintained that reciprocal free trade in cattle must prove advantageous to Canadian cattle producers, because the price of cattle was higher across the lines than here. They pointed to market reports in proof of the assertion made. To-day all Ontario is having ocular demonstrations of the truth of what was then asserted.

"The moment the Americans removed their tariff on cattle that moment a stream of bullocks began pouring towards Buffalo along every line of railway in Western Ontario, and cattle prices in Toronto advanced from a top of $6.35 immediately before the removal of the duty to a top of $8.00 on Monday of last week.

"If the United States duty were removed to-morrow from horses, butter, cheese, poultry, barley, potatoes, fruits, vegetables and all other farm products, corresponding advances would take place in those lines to-morrow.

"Our (Canadian) government has it in its power to secure that removal. The American offer of reciprocity still stands on the statute books of the United States. All that is necessary is the acceptance of that offer in order that Canadian farmers may secure free access to the American market in all lines of farm produce. Acceptance of the offer there should be.

"We have had a bite of the American market in the form of free cattle. More pie, please."

One Had Done It.

The suffragette was speaking.

"I'll bet there isn't a man in this audience who ever did anything around the house for his wife. If there is a man in this room that ever made the fire, milked the cow, cleaned the windows and made the beds every day without a kick, I'd like to see him, that's all."

But she forgot her husband was at the meeting. And he didn't dare stand up!—Post-Dispatch.

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of beans and peas with a guaranteed Owens Thresher. All your seed separated and cleaned from the vines and pods without splitting. Pea and bean growing is the most profitable farming if handled right.

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COTTON GIN REPORT.

An Increase Over Last Year, But Not Near the Figures of 1911.

The third cotton ginning report of the season, compiled from reports of Census Bureau correspondents and agents throughout the cotton belt and issued October 25th by Director William J. Harris, announced that 6,956,583 bales of cotton, counting round as half bales, of the growth of 1913 had been ginned prior to October 18th.

This includes the results of the most active period of the ginning season, September 25th to October 18th, during which, in recent years, more than one-fourth of the entire crop passed through the ginners' hands.

To October 18th last year, 6,873,206 bales, or 51 per cent. of the entire crop, had been ginned; in 1911 to that date 7,758,621 bales, or 49.9 per cent., had been ginned; in 1908 to that date 6,296,166 bales, or 48.1 per cent. of the crop, had been ginned, and in 1906 to that date 4,931,621 bales, or 38 per cent. of the crop, had been ginned.

Included in the total ginnings were 49,024 round bales, compared with 41,741 bales last year, 53,858 bales in 1911, 66,183 bales in 1910, 88,716 bales in 1909, and 118,720 bales in 1908.

The number of Sea Island cotton bales included was 30,880, compared with 15,960 bales last year, 40,303 bales in 1911, 36,482 bales in 1909, and 32,013 bales in 1908.

PROTECTING THINGS.

Flowers and Fruits—How to Protect Them Over Winter—Timely November Topic.

In many of the northern localities some of the plants have to be protected in the winter to prevent them freezing back to the roots or to prevent the roots freezing.

Where strawberries have to be covered, it should not be done till the weather has become cold and the top of the ground has been frozen. If the plants are covered too early, while the weather is warm and the plants wet, there is danger that the plants will rot. If the cold has become so settled that there is not likely to be a warm spell, it is safe to cover. Coarse material is best for this covering, as it will let in the air, while protecting from the sun. The main reason for protecting the plants is to prevent them from thawing out during warm days and not to prevent them from freezing. Once frozen, it is desired to keep them frozen till spring and then leave the covering on just long enough to permit the plants to thaw out gradually. The covering must be removed in the spring before mildewing or rotting of the leaves takes place.

Blackberries need to be covered in several of the Northern States. Where the soil is well drained and of a sandy nature, the best plan is to dig away the soil on one side enough to allow the plant to be bent at the root, low enough down so it will not break. The plant is then laid level with the ground, and a man holds his foot on it while earth is piled over it. Of course this dirt must be removed early in the spring, so as not to injure the buds.

Grapes are a harder proposition to handle. In some of the large vineyards, even in Michigan, the vines are taken down from the trellises every fall and the lower parts covered with earth. The pruning should be done before the grapevines are covered, as this will reduce the amount of vines to be covered. In covering, the vines should be laid down in the direction of the row. If the area is large, a furrow can be turned over them. But if only a few vines are to be so treated, it may be done by hand.

Roses are hard to protect, as they cannot easily be laid down. The most effective way of protecting them seems to be to wrap them with dry horse manure that is largely litter. This can be covered with newspapers tied around with string to keep the straw more securely in place. One man tried putting boards around and filling with coal ashes, but this did not work well for some reason and the plants died from freezing and thawing quite as much as they would have done unprotected.

Where trees and grapevines are in sod, the sod should not be broken up in the fall, as this will enable the frost to reach roots that have never before been reached by the freezing cold. If the winter is hard, this condition is likely to cause the loss of both trees and vines. This was a very common cause of loss from freezing in the hard winters of 1898 and 1899.

A little attention to these things at the right time will save many fruit-bearing trees, vines and plants.

Among the Plants.

It is always with a pang of sorrow that the flower grower surveys the work of frost, and either consigns the treasures of the summer to the elements or singles out here and there some favorite to be given a safe place in the home. When the cosmos and salvia are in the height of beauty, this may be retained for weeks if the soil is thoroughly drenched with water, letting the roots soak up the moisture for some hours. Then carefully transplant to a pot of rich soil and leave out doors in a shaded spot for a few days, keeping the soil moist at all times. The secret of success is in having the roots well filled with water before they are disturbed. Otherwise the plant is almost sure to wither, and then recuperation is slow and uncertain.

A hardy hydrangea was steadily dying, despite attention. The owner called the attention of a specialist to its condition, thinking there might be some insect or disease at work. He could detect nothing of the sort and advising her to give it a more sunny location, reminding her that the surrounding trees were small when it thrived and did its best; as they grew the lack of sunshine could easily work havoc with the shrub. And thus we may often, through our very love for flowers, crowd so many together that something must pay the penalty.

The best landscape gardeners refrain from breaking the sward on the lawn, restricting the flowers to the edges and background, or to margins of walks and drives. There is much in this, and the rural flower garden, which should be a bit of paradise, may be easily marred by lack in the planning. If your own fails to compare with that of a city friend, do not be discouraged but try to locate the fault. You have the soil, the sunshine, the room. You can have flowers that will compare favorably with the best; it may be just a little shifting of plans would improve matters amazingly.

The row of hollyhocks which has for generations lined the garden fence may prove an admirable screen between the front and back yard. If there is a dilapidated fence which is needed and cannot be replaced by a better one, plant a honeysuckle at each post; or a clematis; or scatter seed of the wild cucumber. There are many strong-growing vines which will convert the disagreeable feature into a thing of beauty. If one of your favorite trees should happen to die, consider before having it cut down whether or not it could be used to advantage as a support for the trumpet vine, Virginia creeper or some other rapidly-growing vine.

Flowers grown in masses are usually more satisfactory than the striving to have many sorts in the same bed. One lady decided last year that in a fence row which had usually grown weeds she would have foxgloves. The result was that this summer her flowers, in all possible blendings of color, were very much admired. But had she given this extended space to a half dozen different species the effect would have been materially lessened.

A bed of dahlias is a thing to look forward to with pleasure. If you have a few roots of possibly only one or two good varieties, watch your chance and exchange with a friend; or, if this is not practicable, even one or two good varieties well grown, massed about the kitchen porch, where they will be given an abundance of water and sunshine, will make this a beauty spot besides supplying bouquets innumerable.

Plan now for next summer and work out the plan as rapidly as possible, even if the present be only in laying the foundation for a fertile bit of soil. A five-cent packet of seeds next summer, or a few choice bulbs planted now, will give more real pleasure than many expensive purchases later. One of the charms of farm life is the chance to have flowers in abundance. You may think you have not the time; but a few minutes every day in the garden will bring increased strength to turn off the work more rapidly.—Bessie L. Putnam.

His Hundred Per Cent.

Sammy was not prone to overexertion in the class room; therefore, his mother was both surprised and delighted when he came home one noon with the announcement: "I got 100 this morning."

"That's lovely, Sammy!" exclaimed his proud mother. "What was it in?"

"Fifty in reading and fifty in 'rithmetic," was Sammy's reply.—Lippincott's.

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16 h.-p. Minneapolis, direct flue	950
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16 h.-p. Russell Com., No. 11,244, direct flue	600
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A Nursery Proposition.

On page 12 will be found a proposition by the H. J. Weber Nursery Company at Nursery, St. Louis county, Mo. This nursery was established in the year 1867, and is one of the best known in the trade. They grow fruit and ornamental trees, evergreens, shrubs, wholesale and retail. Our readers who deal with this firm will find Messrs. Weber will fill orders exactly and give perfect satisfaction.

CORN MARKET SITUATION.

Higher Market Than It Would Have Been Had the Crop Been Larger —A Seventy-cent Market For Some Time to Come.

We have always said, and will always stick to it, that the farmer is well informed of the prospective value of his grain crops. The little corn, comparatively speaking, that is shipped into market, compared to the total of the full crop of the country, is like the tail is to the dog, and in this case the tail wags the dog.

The stock feeder who feeds large quantities of corn has to figure on the Chicago basis and apply it to his locality by deducting freight to Chicago, or by competing with the local traders who are shipping to Chicago, or who are watching Chicago, even if they are shipping elsewhere.

We are not afraid that any other country will begin to flood the American market with corn. By admitting corn from other countries free of duty some corn may come in that otherwise would not come, but it is not with corn as it is with oats and wheat, because corn, like cotton, is a crop in which other nations are not so productive.

The corn market is the most independent of foreign conditions of all the grain crops. The short crop is holding up prices, and no country can ship in sufficient corn to reduce the prices. Corn is too high to cause any heavy stock feeding.

At the time we are writing, which is after the close of the market on October 31st, oats are selling at $1.25, corn at $1.34, and wheat at $1.60 per 100 pounds. These figures are not quite exact, but are near enough, and by the 100 pounds is the right way to look at grain prices.

Corn has advanced in price since last November, when the cash corn at St. Louis sold at 46½ cents a bushel, and the advance was gradual until on September 30th cash corn at St. Louis sold at 72 cents a bushel, and on October 31st the price for No. 2 corn on the St. Louis cash market was advanced to 74½ cents, which, by the way, was also the August closing price at St. Louis.

Our readers will remember that we left the September Chicago corn option on September 30th at 70⅝ cents, where it died by limitation of time. The December corn option at Chicago, September 30th, was quoted at 70⅝ cents, and on October 31st the quotation was little changed, but it was lower by a fraction at 70¼ cents.

On September 30th, at Chicago, the corn option that matures on May 31st of next year was quoted at 72 cents, and by October 31st the figure had also declined to 71¼ cents, and another option has since come to life, which is July, and the first quotation noticed by us was 70⅝ cents a bushel. There you have the corn market without the slightest prejudice. The past is the September trading; cash corn, 74½ cents; the present is the December option, 70¼ cents; the future May, 71¼ cents; and the far future July quotation at 70⅝ cents. Any farmer who reads this over and who knows the rate of freight from his own shipping point to Chicago can estimate his own market prospect for corn.

Corn Option, Chicago Basis.

	Sept.	Dec.	May.
1913.			1914.
May 31	58¼	56⅝	....
June 30	62¾	59½	....
July 31	66	63	65
August 30	72¾	68⅝	70½
October 31		70¼	71¼
October 31		70¼	71¼

In every issue of The National Farmer and Stock Grower we publish a review of the corn market. Each chapter is complete in itself, and the file of the publication makes it a continual story. There is no better way for a farmer to keep track of grain values than to keep a file of The National Farmer and Stock Grower.

Cash Grain at St. Louis.

On October 31st the cash grain at St. Louis sold as follows:

Wheat.—No. 2 red sold at 95 to 95½c., this side; East Side, at 95 to 96½c., latter delivered to destination; No. 3 red quoted at 93 to 94¾c., nominal; No. 4 red quoted at 90 to 93c.; No. 2 hard sold at 85½ to 86½c.; Kansas Turkey held at 92c.; No. 3 hard sold at 85c.; Turkey, 86 to 88c., nominal.

Corn.—No. 2 corn, 74½c.; No. 3 corn, car, 74½c.—74c., nominal, No. 2 yellow, 74½c.; No. 3 yellow, 74c., nominal; No. 2 white, 74½c.; No 3 white, 74c., nominal; cob corn, yellow, 75c. for old.

Oats.—No. 2 oats, 40 to 40½c.; No. 2 white, 42c.; Standard oats, 41½ to 42c.; No. 3 white, 40 to 41½c.—mainly 40 to 40½c.; No. 1 white, 39 to 40c., nominal; No. 3 oats, 39½ to 40c., nominal; No. 4 oats, 38½ to 39c., nominal.

St. Louis Apple Market.

Sales of arrivals early in November: River receipts (in extremes of quality): Ben Davis at $1.75 to $2.25 for No. 2 and $2.50 to $3.00 and $3.15 for choice to fancy; Gano at $1.75 to $3.25; Lansingburg Pippin, $2.25 to $3.50; Geniting, $1.75 to $3.00; Winesap, $2.25 to $4.50; Willowtwig, 2.00 to $2.65 for No. 2 to $3.50 and $3.75 for fancy; Blacktwig, $2.50 to $4.00; other varieties in proportion; common, small and trashy, wormy, etc., $1.25 to $1.75. Bulk Eastern Greenings selling at $2.40 per barrel measure, delivered, and bulk Ben Davis, $1.15 per 100 pounds on track for orchard run and hand-picked.

Producer and Distributer.

The inevitable difference between the milk producer and the milk distributer was in evidence at St. Louis during the month of October. The principal difference, according to the local press, is, that the dairymen say they wanted $1.90 a hundred pounds for milk showing three per cent. cream, and the St. Louis milk dealers offered only $1.85, but offered to pay $1.92⅔ for milk showing four per cent. cream. According to another statement, the farmers are being paid 18 cents a gallon, out of which they have to pay 1½ cents a gallon express charges. Cyrus Love, of Edwardsville, Ill., is Secretary of the Milk Shippers' Association, and the active Milk Committee is composed of F. M. Rule, St. Jacob; R. F. Ridgeway, Pocahontas; and William Schroeder, Brighton, Ill. At the close of the month it was reported that the differences for the present had been adjusted.

St. Louis received 29,550 tons of hay in October, 1913, against 21,323 tons in October, 1912.

BIG FOUR PROPOSITION.

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We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

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The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.

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WHEAT MARKET SITUATION.

A Rather Dull Affair, Without Much Hope of an Advance—Red Wheat Independence of Hard Wheat Conditions.

Wheat is now a world's crop without the interference of an import duty except that before Canada can participate in the benefits of the new condition that country must reduce her own duties; in other words, must agree to receive American wheat free of duty, which will be done when the Canadians see fit to pass the necessary legislation. Canada will certainly accept the piece of pie which our Congress and President have baked for them. In the meantime the free admission of wheat from other countries is not obstructed.

The shadow of this free admission of foreign wheats was discounted some time ago, and since last May farmers have not received what may be called a profitable price for wheat. Then, indeed, the good prices paid were for the soft red wheats, of which St. Louis is the central market, that sold above the dollar mark per bushel, and not for the hard wheats, that kept below the dollar mark.

We will now give the closing price of No. 2 red wheat at St. Louis and sold on the cash market on the last day in the month, and from these figures the depressed condition of the market can be understood. January, 1913, $1.08 to $1.12½; February, $1.06 to $1.09; March, $1.05 to $1.07½; April, $1.09 to $1.11; May, $1.03 to $1.06½; June, 89 to 91 cents; July, 83¾ to 85½ cents; August, 89 to 92½ cents; September, 92½ to 95½ cents; and October, 95 to 96½ cents a bushel. These St. Louis prices for soft red wheat vary from a fraction to nine cents a bushel more than hard wheat sold on the same market, there being a general understanding that soft red wheat is worth three cents a bushel more than hard wheat. We can therefore give it as our opinion that importations that will be largely of hard wheat will be slow to affect the prices received by the grower of soft wheat, and the day will come when in the general market quotations telegraphed day by day the difference between the soft and hard wheat will be given more prominence than at present.

In the meantime, let us state that on the cash wheat market of St. Louis, October 31st, soft wheat sold at 95 to 96½ cents a bushel, and that hard wheat, No. 2, sold at 86½ to 92 cents a bushel.

Turning to the Chicago market and noticing the Board of Trade quotations, we remember that on September 30th the September wheat option went into history at 85⅛ cents, against 91½ cents a year ago.

On September 30th the December wheat option was quoted at Chicago at 87⅝ cents a bushel, and on October 31st the price was reduced to 86¼ cents a bushel.

On September 30th the May, 1914, option was quoted at 92⅝ cents a bushel, and by October 31st the price had declined to 90¾ cents.

There is the wheat market. The past is represented in the cash wheat prices at St. Louis and the dead September option at Chicago; the present is shown in the December option, the next to mature; and the future is shown in the May, 1914, quotation, which will come to the front of the stage and hold the spot light from January 1st to May 31st of the year 1914, and by that time the new condition of the admission of foreign wheat free of duty will have shown what it means.

In admitting foreign wheat free of duty Congress has thrown the American market open to the whole world and no longer trusts the American farmer to feed the American people. If therefore the price of wheat should reach low marks that are unprofitable to the American farmer (and we are dangerously near that condition to-day), then must Congress recognize the responsibility for the drain of money that will for years go abroad to support the farmers of other countries. If any acreage is reduced by reason of lower prices consequent to the admission of foreign grain free of duty, wheat will be that crop. We do not hope to see it, but we fear it nevertheless.

Canadian Potatoes.

"Here and there the new tariff strikes a community as something very real and not simply as an interesting document that Congress has been discussing. Lubec, Me., has learned that the new tariff is more than a vague, distant and intangible economic theory. Last Tuesday, for the first time since a steamer has been running between St. John and Boston, the Boston steamer did not stop at Lubec on the way. Instead, the captain sent word ashore that the steamer was loaded with Canadian potatoes and other farm produce now admitted to the United States free of duty, and that it could take no Lubec freight to Boston. On the Lubec wharves were several thousand cases of sardines waiting shipment on rush orders, and standing around were several scores of laborers waiting the $3.00 that would come to each as his payment for loading.

"A small matter, no doubt, but it has loomed pretty big in the general conversation of Eastern Maine for the past few days, and there are other communities that will understand the significance of the incident. Of course, other steamers will bring the sardines later and the delay will probably work no harm. But how about the cargo of Canadian potatoes and other produce? Does it mean lower prices in the Boston market? What housewife sees the difference? Yet in theory there should be a sudden drop of 25 cents a bushel in the price of potatoes, for that was the duty now removed."—Boston Morning Herald.

OATS MARKET SITUATION.

Reduced Prices, Amounting to Two and Four Cents a Bushel During the Month of October.

We regret to see that the market for oats declined during the month of October, 1913.

The cash quotation for oats at St. Louis on August 30th was 41 to 41½ cents a bushel; on September 30th the price was 42½ cents, and on October 31st the price was 40 to 40½ cents. That is, taking the figures from month to month on the last day of each month.

We left the December option quoted at Chicago, September 30th, at 42⅝ cents, and on October 31st, at the close of the market, we find the price is reduced to 38⅝ cents, a clear loss during the month of October of four cents a bushel.

We left the quotation of the May, 1914, option at 45⅞ cents on September 30th, and find by October 31st that the price has been reduced to 42½ cents, a reduction of 3⅜ cents a bushel. We take no notice of the fluctuations during the month, which consist of many ups and downs, and stick to the monthly record as the one to keep for reference.

Herewith we append the simple statement showing at a glance the closing oats option figures at Chicago from May 31st, 1913:

Oats Option Quotations.

1913.			1914.
	Sept.	Dec.	May.
May 31	38⅝	39⅞	....
June 30	42⅜	43⅞	....
July 31	41	43⅛	45⅜
August 30	41	43⅞	41
September 30	41½	42⅝	42½
October 31		38⅝	42½

Our views upon the subject of oats are well known. We consider fifty cents a bushel in market the lowest price to give the farmer fair remuneration. The market prices are made from sale of a small fraction of the crop. Not over a third of the crop ever reaches the channels of trade. Immense profits are made on oats that enter into the trade for human consumption, and yet we see that the market is declining.

What We Buy Abroad.

"There will be no panic because of the new tariff; on that every one is now agreed. We are not going to get excited about the new conditions. Manufacturers will simply accept it as it comes. What is sent to this country from abroad under the new rates we simply will not manufacture here. How many those goods will be and how many men it will throw out of work are questions that are for future determination. But one thing is certain, and that is, what we buy already made abroad we will not have to make here."—Cedar Rapids (Iowa) Republican.

"A good word is an easy obligation; but not to speak ill requires only our silence, which costs us nothing."—Tillotson.

CAUTION!

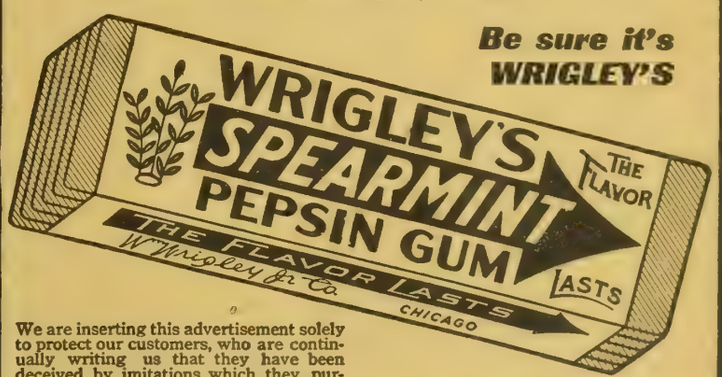
The great popularity of ***the clean, pure, healthful***

WRIGLEY'S SPEARMINT

is causing unscrupulous persons to wrap rank imitations that are not even real chewing gum so they resemble genuine WRIGLEY'S SPEARMINT. The better class of stores will not try to fool you with these imitations. They will be offered to you principally by street fakirs, peddlers and the candy departments of some 5 and 10 cent stores. These rank imitations cost dealers one cent a package or even less and are sold to careless people for almost any price.

If you want *Wrigley's* look before you buy. *Get what you pay for.*

Be sure it's WRIGLEY'S



We are inserting this advertisement solely to protect our customers, who are continually writing us that they have been deceived by imitations which they purchased thinking they were WRIGLEY'S.

FAIRS, ANCIENT AND MODERN.

With Something About the National Corn Exposition.

Fairs are not new, but they hold entirely new features from old or ancient days.

As known to the Egyptians, Fairs were gala days for the upper classes, where racing, wrestling and other feats of strength held the center of the outdoor stage.

The amusement of the multitude seemed to be the whole purpose of these ancient festive gatherings, and to the extent they attained this object they were a success.

In time these outdoor carnivals grew into Street Fairs, which took on the nature of a trade mart, where people brought their wares to trade or sell, and after disposing of their goods joined in the general festivities, chatted with their neighbors from far and near and went home feeling that the day had been well spent.

Street Fairs grew into County Fairs, then State Fairs, these last-named dignified by state aid and controlled by state authorities. Cheap side shows and betting fakirs were gradually driven out, higher class attractions took their places and educational exhibits from Agricultural Colleges, Experiment Stations and other sources formed a small part of the exhibitions.

Agricultural education from various sources has grown into popularity, until to-day educational features form the main item of Fairs and is the axis of activity around which the old-time entertainments revolve as remnants. Fair Directors, realizing that the old adage, "All work and no play makes Jack a dull boy," also Jill a dull girl, is as true to-day as in the olden times. But the entertainment is of a class fitting an educational institution, and the term Fair is not so frequently used as a screen to hide gambling establishments and fakir resorts, as has been done in comparatively recent times.

All these agencies for Agricultural Development Fairs, Agricultural Colleges and Experiment Stations, Government Farm Demonstration Work, Boys' and Girls' Corn and Canning Clubs, Industrial Congress, Farmers' Congress and Unions, have worked together to pave the way for a great National Agricultural Exposition, which retains all the educational advantages of the local agencies and offers still wider opportunities for agricultural education and advancement.

At this Greater Sixth National Exposition, to be held in Dallas, Texas, February 10th to 24th, 1914, will be offered the greatest opportunity for states and sections to legitimately advertise themselves through an undisputable display of their natural resources. Their development can be truthfully and legitimately shown through their exhibitions.

In a limited sense, Fairs are the barometers of business, indicating by their displays and attendance whether it has been a good or bad year, in the agricultural papers, and as that goes so goes the rest of the business circles. The money market goes up and down with every rise and fall of crop conditions. Fairs act and react on the atmosphere of the whole business world. They stimulate to better and more crops, and these in turn make a good Fair possible, which is in itself a pretty good sign of business prosperity.

At this National Exposition the trades of the world may temptingly display their goods to the most intelligent buyers, farmers who realize that better implements make possible better methods of farming, and bigger and better crops, at the least cost.

Through the co-operation of the several states and the United States government it is possible to show modern methods of farming on a much larger scale at this national exhibition than would be feasible at a smaller Fair.

For instance, there will be a display of silos to show the operation of building and conducting these almost indispensable store houses and feed bins of the successful dairy farmer. The silo is of especial value to the farmer in the West and Southwest to tide over periods of drouth. When conditions prevail which cut short the forage supply, the farmer is brought face to face with a shortage of forage, which in a large number of cases necessitates the selling of some of the live stock, which cannot well be spared from the farm. A man who has one hundred and sixty acres of land could better afford to maintain a silo and cultivate intensely not more than forty acres, raising sufficient to fill the silo and thereby tide his stock over shortage periods. The rest of the one hundred and sixty acres could well be sacrificed or used for pasturage during times when sufficient moisture was present to cause the growth of vegetation.

Another department of the Exposition of vital importance to the consumer as well as the producer of milk will be the dairy exhibition, where the latest devices and means of handling milk in a most sanitary manner will be shown side by side with one that is a menace to the health and progress of any community. We are sorry to say that too many of the latter sort are furnishing the milk supply of our towns and cities.

Not any interest of the farm will be neglected, and the man who misses the opportunity to learn the most scientific principles of farming, get up-to-date and advance in his profession, will be left behind his progressive neighbor who is determined to get there.

The betterment of agriculture has become a world necessity, and the Sixth National Corn Exposition will be one of the great agencies for the uplift of the farming profession.

This is the slogan of the Exposition around which all else must revolve, but there will be entertainment features, too, for those who want to be rested and amused.

There will be much of value to every man, woman and child who may attend.—C. P. Bull, Manager National Corn Exposition.

St. Louis Root Quotations.

Towards the end of October the following prices were paid at St. Louis for country shipments of roots: Quote by the pound: Golden Seal, $4.55; Lady Slipper, 17c.; Seneca, 54c.; Pink, 34c.; Black, 8½ to 9c.; May Apple, 5¾c.; Snake, 32c.; Blacksnake (Echinacea), 10 to 11c.—split, half price; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 5c.; Wafer Ash bark, 6c.; Blood, 5½c.; Blueflag, 2½c.; Sassafras—Bark of root, 5c.; Wild Ginger, 7c.; Spikenard, 3c.; Skullcap leaves—Bright, 9c.; dark, less; Wild Ginseng, $7.70 to $7.90; transplanted, $5.00 to $6.00; cultivated, $2.50 to $5.50.

At the sale of Guernsey cattle held at Canandaigua, N.Y., by F.G.Benham & Sons, Miranda of Edgewater, daughter of Miranda of Mapleton, champion long-distance butter cow of all breeds, sold to F. M. Warburg, of White Plains, N. Y., for $2,500. Three other Guernsey females sold at $1,200, $1,700 and $2,025, respectively.

Enrich Yourself

Supplying a Great Demand

The price of beef is steadily rising, due to the shortage of beef cattle. It is no longer profitable to raise cattle on ranges. That was a wasteful method, and with the passing of free pasturage the costs are too great to leave a profit. Yet people need beef and are willing to pay good prices to get it. That is the demand you may profit by supplying.

Search all over this continent and you will find no section in which cattle do as well or can be raised as cheaply as on the plains of northwest Texas. It is the natural home of the steer. Here great herds roamed in the early days. They fed on the luxurious grasses and went to market without grain. Latterly their weights and the owners' profits have been increased by grain-feeding near to the slaughtering market. But that is now too expensive, considering the high price of corn.

It has been found that the steer can be fed and finished here on ensilage and milo and kafir grain. The cost of feeding is reduced — the quality of the meat improved — a better price is secured and once again beef cattle are money-makers.

The territory available for this work is the millions of acres of northwest Texas, where the rainfall is less than twenty inches a year. It is too dry for corn, but milo and kafir thrive under dry-farming methods.

Herefords are graded up to nearly pure blood and they are the most profitable animal to feed. Weanlings can be brought up to 1,400-pound steers in less than three years, and this young beef sells well, saving a year's time, interest and feed.

Hogs thrive on the same feed. This is their climate, too, as there are no diseases in the high, dry air.

Lately it has been found that upward of one million acres of this fertile prairie is underlaid with an inexhaustible supply of pure water, near enough to the surface to be economically pumped and used for irrigation. This water makes the production of tremendous crops of feed easy and certain. With water, 50 bushels of wheat, 100 bushels of oats and 80 bushels of kafir are not unusual yields, and a small acreage of the irrigated land with a larger area of the dry land forms an ideal stock farm. Irrigation here means stock-feed insurance and is a guarantee of your profit.

The opportunity here is described in detail in a new folder just issued by the Santa Fe entitled "The Shallow Water Country of Northwest Texas." I would like every stock-grower in the country to read it as well as our leaflet, "Letters from Farmers." Then, if you are interested in following the matter further, I will be glad to place at your service the faculties of this department to assist you in finding the location best adapted to your needs.

The interest of the Santa Fe in settlers along its lines does not cease with helping them to select a location. We have a corps of agricultural demonstrators, who are employed by the railroad to help settlers to learn as quickly as possible the best crops and methods of handling for any given section. The assistance of these men will be yours without cost, and the enthusiastic letters from settlers already here will show you that their advice means a large increase of profit to those who have taken advantage of it.

Drop me a postal for this "Northwest Texas" folder and leaflet.
C. L. Seagraves, General Colonization Agent, A. T. & S. F. Ry,
2516 Railway Exchange, Chicago.

Instruction For Farmers.

The College of Agriculture of the University of Missouri has arranged to give branch short courses this winter for the farmers who are unable to attend the University. These courses are given at any place in Missouri where the local interest is sufficient to insure a good attendance and a successful course.

During the winter of 1911-12 eleven such courses were held in the following counties: Clark, Grundy, Harrison, Lewis, Lincoln, Macon, Newton, Nodaway, Pettis, Pike and St. Charles. Eight hundred and sixty-two farmers received the benefit of these courses. This year the University desires to extend the work over the entire state. A large number of applications for information regarding branch short courses is expected by the College of Agriculture at Columbia, Mo.

"The Conqueror is regarded with awe; the Wise Man commands our esteem; but it is the Benevolent Man who wins our affections."—From the French.

PLANS FOR THE FARM.

Arrangements First to be Made—Trees Known by Location After Labels Disappear — Frame the Plan and Keep It in Sight.

There was a time when plans for the farm were of little value. That was in the early days, when farms were far separated and the amount of land in each farm was large, and when no "modern improvements" were to be found on any farm.

With the increase of demand for farm improvements has come an increased demand for farm plans showing all parts of the farm. Before erecting the buildings on any farm, plans should be carefully laid and as carefully worked over to find out all the objections to them, so they may be remedied before money is laid out in accordance with the work they indicate.

One of the greatest mistakes is to permit large quantities of tile to go into the ground without an exact plan being retained of just where the mains and laterals are. Yet too often the farmer depends on his memory, and when he dies no one can tell anything about them.

When it becomes necessary to extend the laterals or place new and additional laterals on the mains the farmer must spend much useless money trying to find out where the old tiles are. If the farm changes hands, the problem of managing the tile drains is so much harder. Doubtless the time will come when new purchasers will demand a plan of all tile drainage just as certainly as they now demand an abstract of the transfers of the property.

Every time a plantation of any kind is put out, every object should be marked on a plan that can be kept. The writer has found this of great importance. Many years ago he planted a lot of plum trees of different varieties. A plan was made and every tree was marked on the plat. Many times since, when the name of a variety had been forgotten, reference has been made to the plan. There were originally labels on each tree, but these all disappeared in a few years or the names became so dim that no one could read them. The plan of this plum orchard is nailed up in one of the outbuildings, where it can always be seen. The same was done to a plantation of grapes of different varieties and proved useful. The same thing was remembered when the rose bushes were set out, and in a few years this plan of the rose bushes became the only means of surely identifying the different varieties.

It is surprising how soon one forgets the names of trees and shrubs that have been put out. It is therefore the more necessary that there be a complete plan of the farm, embracing all the sub-plans on which all these things can be shown in detail.

A plan to be valuable must be always in evidence. To make a plan and file it away somewhere is to place it out of use. One will forget where the plan is, or it will take too much time to hunt it up. It can aways be tacked up somewhere where its location will be known. It is always well, however, to have an extra plan to be filed away out of sight. The building may be burned were one plan is and the other will then be needed, or the one tacked up in the outbuilding may become dusty and dirty or soiled with age and need to be replaced.

When new trees or shrubs are put in place of those that have died out, a new label can be pasted over the old notation, and this should be done on both plans.

Protect Your Hogs From Disease!

I'll Help You Prevent Your Losses
I'll Get Rid of the Worms in Your Stock
I'll Prove It Sixty Days Before You Pay

NOW is The Time for you to get rid of the deadly stomach and free intestinal worms—the pests that sap the strength and vitality of your farm animals, making them easy victims of cholera and other diseases.

Read these Letters. They prove that "a stitch in time saves nine."

"A lot of hogs died in this county from swine plague or cholera. Some of them were within three miles of me, but I have been feeding Sal-Vet and have not lost a single hog."—D. A. ROSS, Kingman, Kans., Breeder of Pure Bred Poland Chinas.

"As the hog cholera is prevalent all through this section, I have been feeding Sal-Vet to my hogs. Since then, I never saw them in better condition, in spite of the fact that all around me the cholera is carrying them off by the hundreds."—W. J. BROOKS, Diggs, Va.

Hogs ***free from worms*** are best protected against Cholera and Swine Plague and most apt to recover when attacked. Read the letters in the next column. ***Worms are your greatest enemies*** — worse than cholera — they are everlastingly stealing your stock profits — weakening your farm animals and keeping them from putting on flesh. And worst of all in times like this when cholera breaks out in your neighborhood, you may lose hundreds of dollars in a few days just because your animals have been robbed of their fighting strength and vitality by ***worms.***

TRADE MARK
SAL-VET
REG. U.S. PAT. OFF.

The Great Worm Destroyer and Conditioner

will drive out these pests quick. I'll prove it on your own farm with the money in ***your pocket.*** Worms can't live where Sal-Vet is used. It is the best kind of cholera insurance you can find. It will put every animal on your place in a thrifty condition. They'll gain faster—grow into money quicker, make you more profit. Read my offer.

Don't Send Any Money—Just Send This Coupon

Sidney R. Feil, Pres., The S. R. Feil Co., Cleveland, O.

Ship me enough "Sal-Vet" to last my stock 60 days. I will pay the freight charges when it arrives, agreeing to report results promptly in 60 days and at that time pay for it if it does what you claim. If it does not, you are to cancel the charge.

Name .....

P. O. .....

Shipping Sta. ..... State .....

Number of Sheep .....

Hogs .....

Cattle .....

Horses .....

NSFG 11-13

S. R. FEIL Pres.

I'll Feed Your Stock 60 Days Before You Pay

If you will fill out the coupon below—tell me how many head of stock you have—mail it to me, I will ship you enough Sal-Vet to last them 60 days. You simply pay the small freight charge when it arrives. Let your stock run to it freely according to directions and at the end of 60 days, report results. If Sal-Vet does not do what I claim, I'll cancel the charge. You won't owe me a cent.

SIDNEY R. FEIL, President
THE S. R. FEIL COMPANY, Mfg. Chemists
(111) **Dept. NSFG — Cleveland, Ohio**

Read How SAL-VET Stops Losses Among Farm Animals

"Hog cholera has been all around me and I have not had one sick hog. I cannot praise "Sal-Vet" too highly, and I do not hesitate to recommend it to all hog raisers."

A. O. Kellogg, Troy, Grove, Ill

"Last year I lost all of my hogs from cholera. This fall and winter I have been feeding "Sal-Vet" and lost none."

Cleveland Rice, Scort, Ohio

"My neighbors, who have NOT fed "Sal-Vet" have all kinds of trouble with their hogs—many of them getting lame and stiff, and would not eat. I think "Sal-Vet" is great stuff."

Harry E. Townley,
Cambridge, Springs, Pa.

"I have fed "Sal-Vet" to my sick hogs and found it very beneficial. Before your remedy arrived nine of my hogs died. Since feeding the preparation I lost but one more and the balance are in fine hearty condition."

(Signed) Joseph Walter,
Route No. 2, Box 33, A.
Freeburg, Ill.

I have just finished feeding the 200 pound barrel of "Sal-Vet." My hogs are the only ones left in this immediate locality. I haven't lost one."

James F. Martin,
Little York, Ill.

"I did not for a minute expect such results as I obtained from your SAL-VET. It expelled more worms from my hogs than it would take to fill the keg it came in. I will order more soon for it is a great preparation."

Geo. B. Coffinbarger,
Shepherdstown, W. Va.

"When I received your SAL VET my hogs were very unthrifty—but they did not stay that way long after feeding SAL-VET. I never had pigs do so well. They were soon in top condition. My horses also improved on it fine. It sure does get rid of the worms. Please send me another barrel at once."

D. P. Copp, Carrel, Iowa.

"I had a lot of sick hogs and I lost five of them. I began feeding them SAL-VET, my losses stopped and the hogs soon got into a fine, healthy condition.

"SAL-VET did the same for my sheep and horses and several of my neighbors have had the same experience with it."

V. P. Underwood,
Roachdale, Ind.

MR. SIDNEY R. FEIL
Pres. The S. R. Feil Co.

is a practical Pharmacist, registered under the Ohio State Pharmacy Law, a graduate of the Cleveland School of Pharmacy and of the National Institute of Pharmacy. He has been engaged in laboratory work for more than twenty-five years and was formerly assistant to Dr. Nathan Resewater, former Chemist of the Ohio State Dairy and Food Commission. Try genuine SAL-VET 60 days before you pay. Take no substitute.

PRICES 40 lbs., $2.25; 100 lbs., $5.00; 200 lbs., $9.00; 300 lbs., $13.00; 500 lbs., $21.12.
Special discount for large quantities.

No order filled for less than 40 lbs. on 60 days offer. Never sold in bulk; only in Trade-Marked "Sal-Vet" Packages.
60 day trial shipments are based on 1 lb. of Sal-Vet for each hog or sheep and 4 lbs. for each horse or head of cattle as near as we can come without breaking regular packages.

THE NATIONAL FARMER and Stock Grower of AMERICA.

(Title Registered in U. S. Patent Office.)

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FARM AND STOCK NOTES.

According to census office reports, 1,151,626 pounds of beef were imported into the United States; also 70,311 pounds of mutton and 5,715 pounds of pork. That was in August, before meat was admitted free of duty.

There is one thing that Congress cannot deprive the farmer of, and that is the ever-increasing population.

We have very little regard for a tariff law that protects many industries and at the same time has taken away the little protection the farmer had.

Lands in Canada are worth considerable since the markets of the United States have been opened to Canadian farm products free of duty.

Lower Than the High Time.

The idea that high prices are now being paid for cattle on the hoof may just as well be exploded. The market prices being paid on the great cattle markets at the opening of November, 1913, are practically two cents a pound lower than during the high time. Retail meat prices have been kept up in the face of reduced cattle prices. Heavy fat cattle, such as used to top all cattle markets, are now selling 50 cents a hundred pounds less than yearling steers that average less than a thousand pounds. On October 30th, heavy cattle sold up to $9.05, and during the week the highest price was $9.30 for the best heavy cattle on sale during the entire week. It is not long ago since such cattle sold at $11.30 per 100 pounds.

Canadian Cattle at Buffalo.

On Monday, October 27th, at East Buffalo, a load of Canadian grass steers, weighing the magnificent average of 1,463 pounds, were sold on the market by Clay, Robinson & Company at the record price of $8.25 per 100 pounds.

Seeding to Grass and Clover.

Bulletin No. 3, issued by the Agricultural Service Bureau of the American Agricultural Chemical Company, is by Dr. H. J. Wheeler, and is a convincing demonstration of the value of thorough tillage and the use of commercial fertilizer. It did not reach us in time to be mentioned in our earlier editions at the most seasonable time, but it contains such valuable instruction in regard to fall and winter work we advise our readers to send for it. The chapter upon the kinds of seeds and rates per acre is alone worth obtaining the bulletin for. A copy of this Bulletin No. 3, entitled "Seeding to Grass and Clover," can be had by writing to the Empire Carbon Works, 421 Locust street, St. Louis, Mo., that establishment being a branch of the American Agricultural Chemical Company.

CHICAGO INTERNATIONAL.

The Greatest and Best Live Stock Show and the Most Glorious Entertainment Each Evening of the Week.

This year the Chicago International Live Stock Exposition opens on Saturday, November 29th, and continues until Saturday, December 6th. At the Exposition there will be four public sales of pure-bred cattle, the dates being advertised on the first page of this paper. There are many good features to this wonderful Exposition, and every year more are added in matters of exhibits, prizes, classes, conventions, etc.

This is the Fourteenth Show, and it is also the fourteenth year of The National Farmer and Stock Grower. We therefore take more than a passing interest in the International Live Stock Exposition, and we cannot see how any stockman can deny himself the pleasure and instruction to be obtained by attending the show.

The exhibit of fat cattle, hogs, sheep and horses are alone a revelation. The stockman who has seen the grand champions of the International is himself become a competent judge of live stock, and, no matter where he goes thereafter, he carries with him the sense of quality and condition that is perfection in domestic live stock raising, and no one can take it away.

The car-load lots appeal to the practical feeder as nothing else will. Chicago is no experimental establishment, but the consensus of judgment is found there and the offerings are superlative, being the leading champions after they have been sorted over and over again at other great Shows and Expositions.

With a seat in the grand pavilion night after night you can review all the creme de la creme of horse perfection. The entire cattle exhibit is paraded before you. Some one else is doing the work, not for profit, but for the benefit of the greatest live stock country, and in going to the International Live Stock Exposition and supporting it, in addition to the education and pleasure experienced, there is also the consciousness of a duty well done because it is just as much the duty of the stock grower to attend the show as it is for the managers to keep up and improve upon the performances of former years. Do not fail to attend the International. You will never regret it.

HERCULES STUMP PULLER.

Many Subscribers Testify to the Value and Usefulness of the Invention.

For several years the Hercules Stump Puller has been advertised in these columns. Last spring a number of those who bought them sent letters commending the Hercules as being all that is claimed for it. The last one we received was dated Pleasant Hill, N. C., April 18, 1893, was signed R. A. Moore, and he said:

"Yours received some time ago and I am sorry I have neglected to answer giving the desired information. Yes, I am glad to say I own a Hercules Stump Puller and it has given entire satisfaction. It has done work that it wasn't recommended to do. I have pulled stumps of a much larger size than this No. 2 double power machine was said to be able to pull. I happened with the luck to break a piece of this machine. I wrote the factory and it was replaced free of cost, except freight. I can fully recommend a Hercules to anyone that has stumps in the way. It's a sure way of ridding your field of such pests." See page 21 and answer the advertisement.

Cattle to Come From Brazil.

Richard Walsh, for many years manager of the Adair Ranch, in the Panhandle of Texas, and who is now establishing a ranch in South America, being interviewed at Kansas City on the subject of the beef supply, gave it as his opinion that the two great sources of beef supply of the future will be Brazil, in South America, and Rhodesia, South Africa. He said: "In five years millions of beeves will come from Brazil. None of the packers of America has a dollar invested in Brazil or Rhodesia, and companies which are establishing ranches and packing houses there will compete with the packers of the United States."

The Farmers' and Shippers' Directory of Business Interests.

A NEW PUBLICATION BY THE HALE PUBLISHING CO., OF ST. LOUIS, MO.—CORRECTED, ENLARGED AND ISSUED FREQUENTLY —PRICE ONLY 50 CENTS A COPY.

NEW EDITION, DATED OCTOBER 1st, NOW READY AND MAILED IMMEDIATELY ON RECEIPT OF ORDER.

THE FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS is designed to contain the name, occupation and business address of all the firms engaged in such business, that their names, address and line of goods manufactured or handled may be of value to general grain farmers, stock raisers, ranchmen, dairymen, fruit and vegetable growers, poultry and bee keepers, and all others engaged in agricultural pursuits or in handling farm products. The book is arranged by states and all the names and addresses are in alphabetical order.

INDUSTRIES INCLUDED IN THE BOOK.

The list includes an alphabetical arrangement of names, addresses and occupations of individuals and firms representing the following industries:

Agricultural Books and Charts—Agricultural Implements—Arms and Ammunition—Auctioneers, Live Stock—Beekeepers' Supplies—Building and Construction—Cattle Troughs, Self-feeders—Cisterns and Tanks—Colonization Companies—Commission Agents, Cotton and Wool—Commission Agents, Dressed Meats—Commission Agents, Cattle, Hog and Sheep—Commission Agents, Hay, Grain and Seed—Commission Salesmen, Butter, Cheese, Eggs, Poultry and Produce—Commission Agents, Horse and Mule—Co-operative Associations—Cotton-ginning Machinery—Creameries and Dairy Distributers—Dairy Apparatus—Dynamite and Blasting Powders—Electric Farm Appliances—Engines For Farms—Experts, Farm Specialties—Farm Chemicals and Sprays—Farm Books and Papers—Farm Tools and Hardware—Fencing, Farm and Ranch—Fertilizer Manufacturers—Fruit Specialists—Grain Elevators and Graders—Harness and Saddles—Horse Goods—Horse and Mule Dealers—Incubators and Brooders—Irrigation Plants and Machinery—Live Stock Dealers—Merchants, Farm Goods—Motor Cars and Trucks—Nurserymen and Florists—Packers, Abattoirs and Wholesale Butchers—Paints and Varnish—Poultry Supplies—Printers, Fruit and Package Labels—Purchasing Agents, Cattle, Hogs and Sheep—Road Machines—Roofing—Sale Stables—Seed Growers and Dealers—Sheep Dips and Specialties—Stock Foods and Tonics—Stock Yards and Markets—Stump Pullers—Swine Breeders' Goods—Tractors, Farm—Trade Publications—Vegetable and Fruit Packages—Vehicles and Harness—Veterinary Appliances—Water Engines and Powers—Water Systems—Well-drilling Tools—Windmills and Engines—and all other industries having business connections with the farm interests of the country.

WHAT THE OCTOBER EDITION DOES CONTAIN.

The October Edition contains by actual count Three Thousand Seven Hundred and Seven (3,707) such names and addresses, with particulars following, stating their occupation. Fifty-two pages are devoted to the State Lists. SEND US FIFTY (50) CENTS FOR A COPY OF THE OCTOBER NUMBER, or you can get the book as a subscription premium.

Special Note.—We will furnish our monthly NATIONAL FARMER AND STOCK GROWER for two years and one copy of the FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS for one dollar.

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Here is a Subscription Blank.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen:—Herewith please find One Dollar to pay for two-years' subscription to THE NATIONAL FARMER AND STOCK GROWER, for which please give me credit. You will please send me as a subscription premium a copy of the FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS, postage paid, safe delivery guaranteed.

Name.....

Address.....

FARM AND RANCH LANDS.

ALABAMA.—Fertile prairie land near railroad town. Good for all kinds of farming and finest of stock countries. Buy from owner and save commission. State number acres wanted. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—Look on page 18 for the advertisement of the lands on the Cotton Belt Route. The land of peanuts and pork. Simple agriculture that pays the way and earns the money with which to purchase and build comfortable homes. Write to **E. W. LaBeaume,** G. P. A., 1709 Pierce Building, St. Louis, Mo., and ask for the Arkansas Booklet.

ARKANSAS LAND FREE.—500,000 acres government land now open to settlement. Guide Book with lists, laws, etc., 25c. Township map of state 25c. additional. **L. E. Moore, Little Rock, Ark.**

ARKANSAS.—For cheap lands in healthy, well-watered districts, no swamps or rocks, where we grow most everything. One eighty-acre farm, fifty acres in cultivation, four-room house, six-stall barn, 700 young bearing peach trees. Price, $1,200 cash for quick sale. Also 160 acres, unimproved, much small, good timber, only one mile from station; good investment; no trading; $8.00 per acre. **A. P. Dyke,** Hope, Ark. Note.—Hope is in Hempstead county, at the junction of four railroads.

CANADIAN FARMS.—Canada offers to working farmers great advantages for settlement. Get your Canadian Home from the Canadian Pacific. Long time loans are made to enable you to pay for land and improvements. Lands near the Canadian Pacific are unsurpassed in fertility. Write for illustrated booklets. Address, **C. M. Thornton,** Colonization Agent, 112 West Adams street, Chicago, Ill.

MICHIGAN.—WE SELL OCEANA FARMS—Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

NEW YORK.—150 acres level, rich loam; good buildings; adjoins village. $9,750, including stock, crops, tools. Only $1,500 down. Catalogue free. **Geneva Farm Co.,** Geneva, N. Y.

TEXAS.—Northwest Texas, the shallow-water country, that can easily be irrigated. See the story on page 5 and send to **C. L. Seagraves,** 2516 Railway Exchange, Chicago, Ill., and ask for the "Northwest Texas" Folder.

TEXAS.—Lands on the Cotton Belt Route in Texas are highly productive, in law-abiding communities, made rich by fruit and vegetable farming and stock raising. Good lands yet to be had cheap, but not for long, for prices are advancing. Write to **E. W. LaBeaume,** G. P. A., 1709 Pierce Building, St. Louis, Mo., and ask for Texas Booklet of Low-rate Excursions.

VIRGINIA.—CATTLE CAN GRAZE IN VIRGINIA almost every day in the year. Little snow; abundant rainfall. Ideal climate for dairying, stock, fruit or general farming. Good farm lands $15 an acre up. Write for information. **F. H. LaBaume,** Agl. Agt., Norfolk & Western Ry., Room 257, N. & W. Bldg., Roanoke, Va.

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Bldg., Chicago.**

FLORIDA EAST COAST.

Own A Florida Home

Thousands of persons are *dreaming* and *planning* to own a *little farm* some day. Are *you* one of them? A *home* with a grove, truck farm, and poultry yard in *Florida* means *independence.* Success is easier than failure. Let us help you locate right. Illustrated booklets and **"Facts about Florida," FREE.**

FLORIDA EAST COAST RY. (1)

J. E. INGRAHAM, V.-Pres., Room 101 City Bldg., St. Augustine, Fla. or LOUIS LARSON, Northwestern Agent, Room 101 109 West Adams Street, Chicago, Ill

COMING EVENTS.

Important Meetings and Public Sales to Which Attention is Invited.

The Breeders' Horse Sale, conducted by C. W. Hurt, Manager, and D. Augstin, President, at Bloomington, Ill., will be held January 27th to 30th, 1914, when 450 horses will be sold at auction. This sale is patronized by many of the leading breeders of Illinois, and includes imported draft horses brought over specially for the sale. Anyone who desires to include horses in the sale should address C. W. Hurt, Manager, Arrowsmith, Ill.

Mr. W. F. Shade, Cape Girardeau, Mo., breeder of jacks and jennets, has requested us to mention the date for his annual sale, which will take place Tuesday, February 11th, 1914.

The annual sale of imported Shire mares by Trumans' Pioneer Stud Farm will be held at Bushnell, Ill., on December 11th, 1913. This is one of the most important sales of draft horses held during the year.

At the International Live Stock Exposition at Chicago, Ill., this year, on Tuesday, December 2d, at 1 p. m., fifty head of choice Galloway cattle will be sold at auction. For catalogues of these fine Galloways and full particulars concerning them address R. W. Brown, Carrollton, Mo.

Mr. Charles Gray, Secretary of the American Aberdeen-Angus Cattle Association, Union Stock Yards, Chicago, Ill., will be glad to send catalogues of the cattle to be sold at Chicago on December 3d, when fifty high-class Aberdeen-Angus cattle will be sold at auction. This is a very important sale and the offerings will be an exhibition of themselves.

Fifty head of pure-bred and registered Shorthorn cattle will be sold at auction on December 4th, during the International Live Stock Exposition at Chicago, Ill. The sale will be held under the auspices of the Shorthorn Cattle Breeders' Association, and catalogues can be had in advance of the sale by writing to Abram Renick, Union Stock Yards, Chicago, Ill.

Prof. R. J. Kinzer, 1012 Baltimore avenue, Kansas City, Mo., will be glad to send catalogues of the Hereford cattle sale to be held at the International Live Stock Exposition, Chicago, Ill., on Friday, December 5th, 1913. This sale will include a magnificent offering of Herefords, and should be largely attended.

The Poultry Show of the Mississippi Valley Poultry Association will be held at the Coliseum, St. Louis, Mo., Thanksgiving week, from November 25th to December 1st. Henry Steinmesch, Secretary, expects 3,500 birds on display, for which $5,000 in prizes are offered. Prof. Rice, of Cornell University, the highest authority on poultry raising in the United States, will be the principal lecturer at the show. R. C. Lawry, of the Yesterlaid Egg Farm; George Beuoy, a specialist in caponizing; and T. E. Quisenberry, of Mountain Grove, Mo., Secretary of the State Poultry Board, also will lecture. Mr. Quisenberry will show by moving pictures the experimental farm conducted by the state at Mountain Grove, and will show views of poultry plants in California, Oregon and Washington.

POLAND-CHINA PUBLIC SALE.

An Important Event Set For November 22d at Marmaduke, Greene County, Arkansas.

Especial attention is invited to the public sale of eighty Poland-China hogs and two stallions to be sold by Wilder Carpenter at Marmaduke, Ark., on Saturday, November 22d.

The Poland-Chinas to be sold are of families that have kept the Poland-China hog to the front of the useful breeds that help a stock farmer to obtain the top price whenever they are sold at the big markets. Hog improvement pays more than any other improvement on the farm. Common hogs weighing two hundred pounds, as large and as fat as they can grow in eighteen months, will sell for $7.50 per 100 pounds, where grade Poland-Chinas of heavier weight, less than nine months old, and weighing 250 pounds, will sell at $8.50 and top the market, and when they are driven to the scales and to the slaughter house the people point at them, saying: "These are the kind to make buyers run after them." With an experience of twenty years as a live stock reporter the writer of this article never saw a fine load of grade Poland-Chinas that did not sell way up in market prices, and especially at times when common hogs are selling very low.

The hogs to be offered at public sale at Marmaduke, Ark., would be looked on with favor at sales in Illinois and Iowa, and that is the highest praise.

In his own breeding Mr. Carpenter always went to the top to buy a boar. His Carpenter's Master Meddler was bred by Frank D. Winn, of Randolph, Mo., and is a direct descendant from the Meddler that was grand champion at the St. Louis World's Fair. At eight months Carpenter's Master Meddler actually weighed 290 pounds in breeding condition; measured fifty-one inches heart and flank and eight-inch bone. The dams of the pigs offered for sale are of equally superior breding and sired by S. and S. Perfection, Missouri Perfection, Carpenter's Perfection, Foster's Challenger, Warrior, Comptroller and others.

Another boar, sire of pigs to be sold, is Orion, a grandson of Keepsake and Blood Royal, sired by Orient. Orient sired Chas. E. Keller's great show boar, Orient Keep On. Orion is much like his sire and has sired some of the best show hogs the world has ever known. J. E. Meharry paid $320 for Orient, 2d, out of Orient and Blood Royal's sister. Link Lukens, a great hog breeder, thinks this is the greatest strain of hogs that ever lived. The dams of these hogs are those big, mellow kind that weigh 400 to 500 pounds and sired by such boars as Dreadnaught, Dreamer, Achievement, Banker and Electrifier. All of these pigs were sired by this boar Orion.

In recent years Arkansas has been coming to the front as a breeding state, and a few swine breeders of Greene county caused much of this improvement. Just now we all know that there is a shortage in meat. In beef we may have competition from Argentine and from Australia, but we have no expectation that there will be any importations of either salt or fresh pork that will disturb anybody raising hogs. We must therefore raise hogs and raise them of good quality so that they can be matured early, raised cheaply and fattened quickly, thereby turning our feed into money at the earliest possible moment.

Greatest

Cream Separator Offer

Genuine Melotte Cream Separator—famous French-Belgium machine prize winner all over Europe, now offered in America for first time. On a simply staggering offer no manufacturer ever dared make before. Tariff reduction means lowest price ever made on this machine. The machine with the self-balanced bowl overhead machinery inside of bowl made of white enamel. One machine in factory at Remicourt has run an equivalent of 65 years of farm work. Write at once for the big offer.

World's Greatest Prize Winner

Free Trial!

An absolutely genuine free trial. Sent to you without a penny down. Test the Melotte and compare it with any other American or foreign machine. Keep it 30 days without paying us a cent. Then if you don't like it send it back at our expense—that's all. A liberal open-handed offer with no "ifs" or "buts". And remember, we don't want anything out of you first.

Sent Without a Penny Down

Write Today for the valuable book, "Profitable Dairying," sent free—also our beautiful, new catalog describing the Melotte and giving details of this sensational offer.

H. B. BABSON, Agent in U. S.
Dept. 3618 19th & California Ave., Chicago

THE MELOTTE

Elgin Butter Quotation.

The first Elgin butter quotation in November was 31 cents a pound, against 30¾ cents the previous week; 31 cents a year ago; 32 cents two years ago; and 31 cents three years ago. The Elgin quotation is for fancy creamery butter.

Top Butter Scores.

At the National Dairy Show, in the Whole-milk Class, the butter exhibit of O. N. Peterson, Rapidan, Minn., scored 96.83; and the exhibit of Alfred Camp, Owatonna, Minn., scored 96.50. In the Gathered-cream Class, W. H. Anderson, Algona, Iowa, scored 96.50; and R. P. Calwell, River Falls, Wis., secured a score of 96.

SOUTHERN LANDS.

Don't Pay Rent

Buy Southern Land—buy all you can—prices now extremely low—natural increase will return your money in a few years—well farmed, annual profits will run even more. Dairying, livestock, poultry, fruit and truck—these are a few of the big money-making lines. Along the Southern Ry., M. & O. and G. S. & F. Ry. are many openings. Write now for "Southern Field" magazine and land lists. M. V. RICHARDS, Land and Ind. Agt., Room 11 So Ry. Washington, D.C.

The grapevine premiums offered on page 21 constitute a fine collection. We get them from the most famous grape nursery in New York state.

WESTERN CANADA.

YOUR OPPORTUNITY
is NOW in the Province of
SASKATCHEWAN
Western Canada

160 ACRE FARMS IN WESTERN CANADA FREE

Do you desire to get a Free Homestead of 160 Acres of that well known Wheat Land? The area is becoming more limited but no less valuable.

New Districts have recently been opened up for settlement, and into these railroads are now being built. The day will soon come when there will be no Free Homesteading land left.

A Swift Current, Saskatchewan farmer writes:—"I came here on my homestead, March, 1906, with about $1000 worth of horses and machinery, and just $35 in cash. Today I have 900 acres of wheat, 300 acres of oats, and 50 acres of flax." Not bad for six years, but only an instance of what may be done in Western Canada, in Manitoba, Saskatchewan or Alberta.

Send at once for Literature, Maps, Railway Rates, etc., to

Canadian Government Agent,
125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
Room 412, 112 W. Adams St., Chicago, Ill.

or Address, Superintendent of Immigration Ottawa, Ont., Canada

Barb Wire FENCING $1.29 PER REEL AND UP

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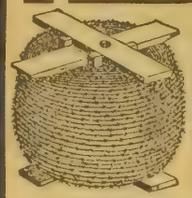

We have just bought 5,000 Reels **New Gal'v. Barbed Wire Fencing** at an exceptionally low price. Made of the best Bessemer steel—Full guage and size—Well galvanized (not the painted kind)—No seconds or poor stuff; all new and first class wire.

80 Rods in Reel

2—Point Cattle 2—Point Hog
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Save 20% to 40%

In the recent flood it was under water a few days—not damaged 5%—A wonderful bargain. Take our word for it. Order a sample reel for inspection. You take no risk. Quick shipments—Don't delay.

A. J. Child & Sons Merc. Co.
Established 1874
517 N. Main Street St. Louis, Mo.

Signs of Pregnancy in Animals.

It is sometimes of considerable importance to a farmer to know whether or not a mate cow or sow is pregnant, since her greatest care and value may depend upon this point.

There are certain signs evidenced by pregnant animals that may be observed with more or less satisfaction. One of the earliest of these is the cessation of heat, although some pregnant females may continue to show estrum at regular periods for months after conception. Most females become tranquil, tend to fatten, the abdomen enlarges and cows giving milk tend to give less. In animals pregnant the first time the udder enlarges soon after conception, loses its wrinkles, becomes firm to the teat, and the teats become more visible.

In the last weeks of pregnancy, there forms at the opening of the teat a white opaque substance called wax. Numerous tests have been invented for determination of pregnancy, but few of them are reliable.

After the third month of gestation, pregnancy may be certainly diagnosed by palpitation through the walls of the rectum. This should only be done, however, by some one perfectly familiar with the procedure, since very severe accidents have resulted from manipulations at the hands of untrained persons.

The following method is said to have been practiced in India for ages. A drop of milk from the animal under consideration is dropped from a clean straw into a tumbler of water. If the cow is not with calf, the milk at once mixes with the water with a flocculent cloudiness. If she is pregnant, the drop falls to the bottom of the glass, hardly mixing.

Manipulations through the walls of the abdomen to ascertain the presence of the fetus do not yield equally certain results in all domestic animals. In small species, such as a dog and cat, this method is very effective from the middle period of gestation onwards. In larger animals the results are not so satisfactory.

In the cow, after the fifth or sixth month, the presence of the fetus can be readily ascertained by pressing the hand into the right side, permitting the fetus to swing and gently strike the hand. After the fifth or sixth month, movements of the foal may be seen by watching the left side of the mare. The pulse of the fetus can only be heard by the aid of a very sensitive instrument.—H. E. Kingman, Veterinary Department, Colorado Agricultural College.

DANGEROUS FEEDING.

Turning Cattle Into Fields With Standing Corn Stalks, Which Should Be Cut, Cured and Fed in the Barnyard.

Farmers in the corn belt, especially in the middle and upper Mississippi Valley, have at various periods experienced loss of cattle pastured on standing corn stalks after the corn has been harvested in the autumn.

An element of mystery has surrounded the death of cattle in these instances. The disease is characterized by a very rapid course; in fact, very commonly there are no premonitory symptoms and it is not unusual for the owner upon visiting the field in the morning to find one or more fat cattle dead which on the previous evening were apparently in excellent health.

Another peculiarity of the disease is that losses may occur on one farm or in one field while cattle on an adjoining farm or in an adjacent field may be free from the affection.

Various investigators in the past have attempted to discover some germ or organism or some toxic substance which might be determined as the cause of this condition, but thus far the cause of the disease has not been established.

As death of stock from this affection is generally sudden and there is little opportunity for treatment, animals should not be turned into a field with standing stalks.

As a matter of fact, the disease may be actually prevented by cutting the stalks early and only feeding them after they have been carefully cured and removed from the field. Losses from feeding on standing corn stalks emphasize the economic value of cutting the corn and feeding the stalks in the barnyard or corral; or, better still, shredding the dry stalks, under which condition they may be fed with the least possible waste.

The so-called corn-stalk disease should not be confused with poisoning from eating sorghum. Deaths among stock from eating sorghum have been traced to prussic acid poisoning, which poison the sorghum under certain conditions of growth has been found to contain in combination.—The foregoing article is from the Office of Information, United States Department of Agriculture.

Healthy Feet are Happy Feet

One great concern of the careful parent is the choice of healthful shoes for little growing feet. "Why didn't they take better care of my feet" will never be said of parents who bring up their children in

NINE O'CLOCK SCHOOL SHOES

They are made, first, over natural foot-form lasts that give right guidance to the position of the feet and ankles in standing, walking or running.

Then there is increased length of wear on account of extra precautions taken in building them, which make Nine O'clock the most economical shoes you can get.

Nine O'clock Coupons get School Flags.

Mikado Shoes
for young men are like the sequel to a good story—they're the same neat, durable shoes for young men that *Nine O'clock School Shoes* are for boys.

Milady Shoes
Our special line of stylish, well made shoes for young women, are certain to give satisfaction.

There are other grades of **Dittmann Shoes** for dress and work.

There is a Dittmann Dealer in your locality. If you do not know him, write us. Enclose two cents, and we will send the little ones, FREE, a valuable history of our flag, illustrated in colors. Write TODAY.

It pays to trade with Dittmann Dealers

Dittmann Shoe Co.
MANUFACTURERS ST LOUIS

MEXICAN CATTLE

Cost Just as Much Money After the Duty Was Removed—The Mexicans Put Up the Price.

The high cost of living will not be reduced by the cattle that were admitted from Mexico when the duty was removed by the law. Many thousands of cattle had been on the border awaiting the time when they could be admitted duty free. They were held in Mexico, and when the duty was removed they crossed over the border; but the market for Mexican cattle was higher, and those who held them in Mexico simply put up the price; and the duty that was taken off in order to cheapen meat in the big cities of the United States cost the buyer just the same as formerly. Congress presented the duty to the holders of Mexican cattle and not to the so-called consumer in the United States. Mexico will not sell cheaper cattle to the United States. Like the Brazilian speculators and coffee growers absorbed the duty on coffee, so did the Mexican holders of cattle absorb the duties that formerly went to the support of the United States government.

Government Beef Figures.

The slaughter of beef under government inspection, which covers more than half of the total slaughter of the country, shows a steady falling off since 1910, the total decline amounting to over 800,000 carcasses, equivalent to about 450,000,000 pounds of dressed beef. Applying the ratio of federally-inspected slaughter to total slaughter according to the census figures for 1909, this means a falling off of 1,419,000 cattle, or approximately 780,000,000 pounds of beef in the entire slaughter of the country from 1910 to 1913.

When these figures are thoroughly understood by ranchmen and stock farmers they will quietly go on with their business of cattle raising and cattle feeding and produce as much beef as they possibly can. It will be a long time before the beloved consumer gets any retail reductions in the cost of living by reason of any abundance of cheap meats. The Argentine packers raised the price of hides to absorb the 15 per cent. that they were presented with by Congress, and no doubt they can do the the same with beef. The Argentine people are just as smart as the Mexicans, who have raised the price of cattle since the American buyer has no duty to pay.

"Books, like friends, should be few and well chosen."—Joineriana.

"Where boasting ends there dignity begins."—Young.

Detroit Kerosene Engine
Saves Time, Trouble, Expense

The Detroit Kerosene Engine is the simplest and most powerful engine you ever saw or heard of. Direct transmission of power with 3 moving parts only—no useless cams, gears or valves to take up power or get out of order. No trouble—no extra expense. Starts without cranking.

Runs on Cheap Kerosene

Will run on distillate and gasoline; but kerosene costs less than half as much as gasoline. Besides, kerosene contains more heat units than gasoline. Result—more power—another power—at one-half the expense of fuel. Comes to you all ready to run feed grinders, separators, pumps, saws, electric light plants etc. All sizes in stock ready to ship.

GUARANTEE—6 YEARS—Sent on trial direct from our factory at lowest factory prices. Don't buy an engine until you have seen the "Detroit." Write today for catalog and agent's special introductory price on first order from your territory. (183)

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

A REAL GUN

L. C. SMITH NEW DESIGN
with HUNTER ONE TRIGGER

Above illustration is IDEAL grade. Price with two triggers $37.50 net. With Automatic Ejector $49.00 net. With Automatic Ejector and Hunter One Trigger, $69.00 net. Write for New Catalog of New Designs. Prices $25 to $1000 net.

HUNTER ARMS CO.
MAKERS 11—22 Hub St.
FULTON, N.Y.

MILK-HOUSE PROBLEMS.

Exclusive Milk Houses—Best Arrangement For Storing Milk—Temperature Requirements.

As the writer has traveled around among farms devoted to milk production, he has not failed to note the large increase from year to year of milk houses especially constructed for that purpose. Makeshifts are giving way to small houses built for the keeping of milk and for nothing else.

In the great dairy districts these houses, many of them, have running water as a part of their equipment, the water coming either from an artesian well or from a raised tank, giving sufficient fall to cause a constant change of the water.

The separate building is by far the best of any of the arrangements for storing milk, as it gets it away from all odors of the barns or stables. Even the house cellar is not so good, for the reason that many kinds of vegetables are stored in cellars and these often have a strong odor, or decay, and produce still more objectionable smells.

As is well known, milk easily and continually absorbs odors, which reappear later in the cream and butter. The absence of these odors is what makes a good-flavored butter. Therefore, to get away from all odors is a very important step. The separate milk house does this. Since it is to be built by itself, it should be placed as far from other structures as possible, except the neighboring edifice be the family residence. Even then it should be so placed that it will not get the odors from the kitchen.

Cement is the substance now being everywhere used for milk-house floors. It is the only thing that can be thoroughly cleaned with hot water and not deteriorate. Even then the cement must be of good quality, not to crumble under the effect of the acids of the milk and the hot water. But keeping it absolutely clean is a necessity. Wood would rot, and therefore should not be used for floors or any part of the milk house that is frequently wet.

Ventilation is generally perfect, as this is a necessity, and the size of the building is so small that the ventilation is easily secured. The light is quite important, but not so much as the ventilation. An abundance of light helps to dry out the floors and washed parts, and light is a germicide.

So far as the writer notices, few of these milk houses have screens, but screens are being prescribd by some of the rules of the big establishments that buy milk and by some of the regulations issued by State Boards of Health. In fly time the screen is very important. The milk is uncovered when being aerated, and if flies are about, dangerous disease germs may be left by them where they will get into the milk. Sometimes a fly loaded with germs drops into a can of milk. In one milk-bottling establishment connected with a dairy, where no screens are used, the writer noticed several flies drop into the milk and go into milk in bottles. The disease germs carried by those flies, if there were any, would have a fine medium in which to multiply before they were taken into the stomachs of the people.

Every milk house should have connected with it a well at least fifty feet deep, to insure it a supply of water at 55 degrees or below. About that temperature of water can be obtained from wells fifty to one hundred feet deep in most localities on a parallel with Northern Missouri. Farther north the ground temperature below twenty feet from the surfaces will be still lower.

BOWSHER

FEED MILLS
GIVE BEST RESULTS

Handy to operate, lightest running. Crush ear corn (with or without shucks) and grind all kinds of small grain and Head Kaffir.
10 sizes 2 to 25 H. P., capacity 6 to 200 bushels. Conical shaped grinders — different from all others. Investigate.

Write for Catalog
that tells all about them, with free folder about values of different feeds and manures

L. H. P. BOWSHER CO.
South Bend, Ind.

DAIRY AND CREAMERY.

During the month of August, 1913, 3,725,431 pounds of cheese were imported; also 60,825 pounds of butter and 216,222 gallons of cream. All paid duty under the old tariff law.

Not for some time will there be any great increase of butter importations on account of the reduced import duty, yet preparations are being made for shipments to the United States from other countries, and that will require increased refrigerator space yet to be provided.

The speedometer attachment of the cream separator was exhibited by the Stewart, Warner Speedometer Corporation at the National Dairy Show.

One hundred and nine different exhibitors had displays of implements, apparatus or products at the National Dairy Show.

At the Illinois State Fair the butter exhibit of J. Spohn, of Morrison, Whiteside county, scored the highest, 95.16, with S. Collins, of Round Grove, 94.66, and O. W. Albright, of Scales Mound, 93.66. Two-thirds of the thirty-seven exhibits classed as "extra first."

The National Dairy Show opened on the evening of Thursday, October 23d, with a good attendance and magnificent display of cattle and machinery.

Fifty-one herds of cattle were represented at the National Dairy Show, and the largest number were Guernseys.

The milking machines were being demonstrated daily at the National Dairy Show—the B. L. K., the Sharples and the Empire, the latter for the first time at a national show. The Hinman Milking Machine Company, of Oneida, N. Y., and the Hazlewood Company, of Spokane, Wash., also exhibited milkers.

The average composition of the butter exhibited at the Illinois State Fair was: Moisture, 12.99; fat, 83.99; salt, 2.15; curd, 1.03. Moisture varied from 10.93 to 15.49 per cent.

Eight bulls averaged $87.50 and sixty-eight females averaged $199.70. This was at South Charleston, Ohio, where, on September 25th, R. M. Roberts & Sons held a sale of Holstein cattle.

Clip the Udder.

It is not uncommon among dairy cows to find the udder covered with a dense growth of long hair, which, although they may be of some protection of the udder, nevertheless, from the standpoint of sanitation and comfort to the cow during milking, are a detriment. Under ordinary farm conditions they are generally covered with filth, and even in the best kept dairies, unless clipped, collect some dust and filth. Furthermore, because of their location, it is highly probable that some of them will find their way into the milk-pail during milking. In order that such conditions may not occur these hairs should be clipped close once or twice each year, thereby preventing collection of filth and permitting greater ease in washing the udder.

"It has been my experience that 'kickers' are also developed when breaking heifers to milk because of these long hairs. When the milker grasps the teat during milking, the surrounding hair is included, and with each stream drawn the hairs are given a good, vigorous pull. Is it any wonder that the heifer kicks you, pail and all, into the gutters?

"A common pair of horse-clippers are best suited for the clipping of the hair. If a large herd is to be clipped, a hand-power machine should be provided. The clipping should extend over the flank and thigh on the right side, as this will make it easier to keep the side above the milk-pail clean. In the production of special or certified milk, this precaution should always be observed in addition to the customary washing of udders. In ordinary milk production it will help to eliminate much filth, which means better milk, and better milk eventually means better prices."—By H. K. Dvorachek, Colorado Agricultural College, Fort Collins, Colo.

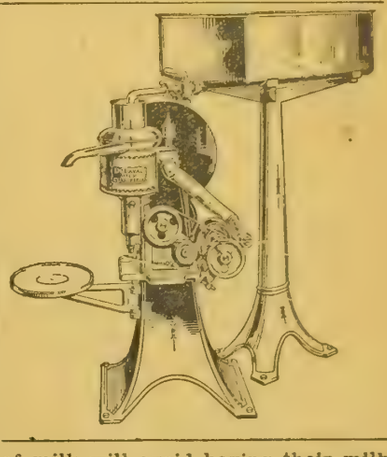
Holstein Cow's Record.

"I am advised by preliminary reports that the Holstein-Friesian cow Crown Princess Maxie DeKol, 2d, 118,991, has broken the record for fat production in the senior four-year class of the thirty-day division, by producing in thirty consecutive days 113.8 pounds fat from 2,588.4 pounds milk. She freshened on September 5th, at the age of four years, ten months, twenty-three days. Her sire is Royalton Johanna DeKol, 44,596; her dam, Crown Princess Maxie DeKol, 90,415. She was bred by Mr. J. S. Clifton, Alvordton, Ohio, and she is now owned by Mr. G. W. Rising, Fayette, Ohio. She displaces Agatha Pontiac,99,818, whose record for thirty days is 112.081 pounds fat from 2,365.5 pounds milk.—Malcolm H. Gardner, Superintendent Advanced Registry."

The DeLaval Milk Clarifier.

A recent invention of considerable value and importance is the milk clarifier placed on the market by the DeLaval Separator Company. It was subject of demonstration at the National Dairy Show and many who looked on were surprised to see how thoroughly it did its work. The action is different (say the opposite) of the cream separator.

The DeLaval Centrifugal Milk Clarifier thoroughly cleanses the milk of all objectionable matter, no matter when or how it found its way into the milk, thereby causing the milk to keep sweet and marketable longer than it would without being clarified. By cooling to such temperature as farmers can control with well or spring water, and by purifying the milk by the clarifier, shippers



of milk will avoid having their milk turn sour before reaching market. The big distributers of milk are putting in power clarifiers as fast as they can get them and hand-driven machines with capacity of 100 to 1,000 pounds per hour are available for farmers and smaller milk dealers. We strongly advise our readers who are interested in milk production to write to the De Laval Cream Separator Company, 165 Broadway, New York, and ask for a catalogue of the farm sizes of milk clarifiers recommended by The National Farmer and Stock Grower.

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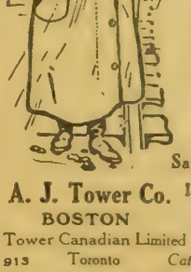

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KANSAS GRASSHOPPERS.

After Fight of Seventeen Years, Dr. S. J. Hunter, State Entomologist, Predicts the End of Them.

After a study of seventeen years on the Kansas grasshopper problem, Dr. S. J. Hunter, State Entomologist, and head of the University of Kansas, Department of Entomology, was able to-day to forecast a victory over the pests. Within two years the native grasshopper will be reduced to a harmless quantity in the southern half of the state, the section under Dr. Hunter's charge.

Discing the ground in the spring to destroy the eggs and distributing poison in the summer to kill the insects is the dual programme outlined for the campaign. Poison used since July on Southern Kansas farms cut down three out of every four hoppers by actual count.

The final war of extermination was made possible by the Board of Administration of Educational Institutions, which approved Dr. Hunter's plan last June and appropriated funds to see him through to the end. The Board recognized the fact that the elimination of the pest would mean a saving of millions to the farming interests of Kansas, and it was anxious to use the State University machinery in this work of salvage.

With the approval of the Board the University opened fire by sending F. W. Classen, H. T. Emery, H. B. Hungerford, E. W. Mellory and D. Isely, Assistant Entomologists, to the various counties to have the commissioners authorize the purchase of poison for use in their district. The majority readily co-operated.

Observation since 1896 had convinced Dr. Hunter and his assistants that the grasshoppers that were injuring Kansas crops did not migrate, so the attack centered on the one idea that the farmer who killed the insects on his own farm would be safe for all time.

"The grasshoppers that do the damage are native," says Dr. Hunter. "That is, they develop and perpetuate themselves on one farm; they do not move about. Of course, no one should confuse these native grasshoppers with the hordes of small red ones that used to sweep down from the north in armies. The latter, raised in arid land, are forced to migrate to obtain food."

In the counties that provided the materials, poison was spread on the farm. The formula used was the following, obtained after years of experimenting: No. 1—2½ pounds Paris green or white arsenic; 50 pounds bran (mix these dry). No. 2—Six oranges or lemons, chopped up fine, rind and all; four quarts syrup; five gallons water (mix these three together thoroughly; mix No. 1 and No. 2, then add sufficient water to make a wet mash).

The lemon and orange in the mixture attracted the grasshoppers, which found it irresistible and deadly. A scientific count completed this month of the insects on the farms that had used poison showed that from two-thirds to three-quarters had been killed; that is, there were from two to three times as many on farms where poison was not used.

The activity of the University will continue until every farm in the south half of the state has used the poison. Two seasons will be enough to eradicate the pest, according to Dr. Hunter.

"If the hoppers are found now attacking the young wheat or the fall growing alfalfa, the bran mash should be used as directed," Dr. Hunter advises. "Every female grasshopper killed now means 100 grasshoppers less next year.

"The alfalfa should be disced and cross harrowed early in the spring as soon as the frost leaves the ground. This throws out the eggs of the grasshoppers to be destroyed by the weather and eaten by the birds. This method of culture, first advocated by the University of Kansas, not only lessens the number of grasshoppers, but also has been proven to increase the yield of the alfalfa fully one-third.

"Scatter the poison, disc the field and say 'Good-bye' to the Kansas grasshopper."

Shipping Sand as Feed.

The United States Department of Agriculture announces the seizure of two shipments of corn chop made on September 27th from Kansas City, Mo., one shipment consisting of 223 bags. This stock feed contained sand as an adulterant.

Snow's Crop Report.

Snow's November report makes the acreage of corn entirely abandoned so far as production of grain in any form is concerned 4,833,000 acres, leaving 102,970,000 acres on which some corn was produced. The yield per acre on the area producing some corn is reported at 23.1 bushels, making a total crop of 2,337,000,000 bushels. The government report indicated a crop of 2,251,000,000 bushels.

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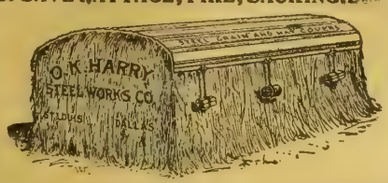

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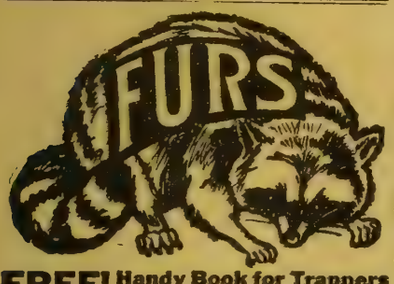
Fur Market at St. Louis.

St. Louis dealers anticipate large shipments of furs later on, especially so for the reason that the United States has transferred the sale of the government skins, pelts and furs from London to St. Louis, and which has served to advertise St. Louis to a remarkable extent.

Lower prices than last season's are anticipated, however, by the trade, but not enough marketable skins selling as yet upon which to base quotations. The following summary shows the price changes on American raw furs at the London sales finished recently: Declines—Muskrat (all kinds), 25 per cent.; raccoon, 20 per cent.; skunk, 20 per cent.; civet, 15 per cent.; opossum, 15 per cent.; mink, 25 per cent.; marten, 30 per cent.; gray fox, 25 per cent.; red fox, 10 per cent.; otter, 25 per cent.; lynx, 30 per cent.; fisher, 20 per cent.; bear, 30 per cent.; beaver, 15 per cent.; ermine, 25 per cent.; wild cat, 30 per cent.; house cat, 20 per cent. Advances—Wolf, 20 per cent.; cross fox, 150 per cent.; silver fox, 40 per cent.; badger and blue and white fox showed no change. At the seal sale Northwest coast and Cape Horn were 25 per cent. higher. Cape of Good Hope, large sizes, 20 per cent. higher; while small sizes were 50 per cent. lower.



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IN BUSINESS SINCE 1867. Cincinnati, O.

VEGETABLES AT ST. LOUIS.

Prices Paid to Farmers and Shippers in the Wholesale Market, October 31st.

Quote by the bushel:

Potatoes.—Northern growth, basis sacked on track, at 77 to 78c. for fair to 80c. for good Burbank and Rural—strictly fancy stock held higher; Red River Early Ohio at 88 to 90c. for good to fancy; Western Rural (Idaho mainly) at 90c., delivered, for fancy stock; frost damaged, immature or otherwise inferior less than foregoing quotations.

Onions.—Sacked Red Globe at $1.90 to $2.00 to $2.07 per 100 pounds, delivered—top for extra fancy; sacked white at $3.50 to $3.75 per 100 pounds, delivered.

Spanish Onions.—At $1.20 per crate.

Beets.—Home-grown at 25c. per dozen bunches and at 50c. per bushel box loose.

Brussells Sprouts.—New York at 17½c. per quart.

Butter Beans.—Home-grown at $1.50 per peck basket.

Cabbage.—Bulk Holland Seed at $21 track and $22 to $23, delivered, per ton; bulk red cabbage at 1¾ to 2c. per pound, delivered.

Carrots.—Sacked Northern at 90c. and fancy sacked Eastern at $1.10 per 100 pounds, delivered. Home-grown at 15 to 25c. per dozen bunches and 40c. per bushel loose.

Cauliflower.—New York (Buffalo) crate at 75c. to $1.00, delivered, and barrels at $2.00, delivered.

Celery.—Michigan fancy bunched at 40c., delivered, for xxx; 35c. for xx; and 25c. for x; Colorado crates (five to seven dozen), in jobbing way, at $2.75 to $3.00, delivered; Michigan, in the rough (six to ten dozen), at $2.00 to $2.50, delivered; square boxes (1½ to 2½ dozen), at 25 to 50c., and small Kalamazoo in barrels and boxes at 7½ to 10c. per bunch. Celery roots at 30 to 40c. per dozen.

Cucumbers.—Florida at $2.25 per hamper; Boston hothouse at $1.35 per dozen.

Eggplant.—Home-grown offerings all of poor quality—dull at 40 to 75c. per bushel loose. Fancy Florida at $2.75 for 1½-bushel crate for large, and $2.00 for small.

Gumbo.—New Orleans hampers at $1.25 to $1.50.

Horseradish. — Home-grown at $4.75 to $5.00 per barrel loose from wagons.

Lettuce.—Home-grown at 25 to 50c. per bushel loose.

Mustard Greens and Kale.—Home-grown at 10c. per bushel loose.

Parsnips. — Home-grown washed at 60 to 75c. per bushel box loose.

Peppers.—Home-grown at 40 to 75c. per bushel loose. Alabama and Mississippi hampers at 60 to 75c.

Pickling Onions.—Chicago boxes at $1.30.

Pumpkins.—Home-grown at 40 to 45c. per 100 pounds from wagons.

Rutabagas.—In bulk at 35 to 37c. per bushel, delivered.

Spinach.—Home-grown at 15 to 20c. per bushel loose.

String Beans.—Alabama hampers at $2.00. Home-grown offerings rough, spotted and inferior—dull at 50 to 75c. per bushel loose.

Sweet Potatoes.—Eastern shore (Virginia) yellow steady, selling in jobbing way at $1.80 to $1.85 per barrel, delivered. Home-grown Bermudas at 40 to 50c.; and red and yellow Nansemond at 65 to 75c. per bushel box loose.

Tomatoes.—Fancy ripe California salable at $2.00 per four-basket crate. Home-grown in free offering but mostly of green and inferior quality—best ripes sell at 50c. to $1.00, and green at 15c. per bushel loose.

Turnips.—Home-grown unwashed at 40 to 50c., and washed at 65c. per bushel loose.

Sauerkraut.—New city make in jobbing way, delivered: Kegs, 85c.; half barrels, $2.65; barrels, $5.00; casks, $8.00.

A Dull Wool Market.

The wool market of St. Louis was dull and sales on a low basis at the opening of November. Prices were as follows: Near-by growth at from 16c. for low to 19c. for choice; fine at from 11c. for heavy to 14½c. for light; lambs at 15 to 16c.; burry at from 9c. for hard to 15c. for slight; Southwestern at from 8 to 10c. for hard burry up to 16 to 17c. for clear; medium loose at from 15 to 16c.; fine at from 8 to 10c. for heavy sandy to 13 to 15c. for light; Northern and Western at from 15 to 16½c. for dark to 18c. for bright medium; fine at from 10c. for burry to 15c. for light; burry at from 9c. for heavy to 15c. for slight; tub-washed at from 15 to 20c. for burry to 28c. for No. 1.

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The American Swineherd.

We have been requested by our patrons and friends to arrange a club whereby we can offer them a swine raiser's paper as a premium with The National Farmer and Stock Grower, and we have succeeded in doing so. **The American Swineherd** is published monthly, and is usually a seventy-two-page, three-column paper, splendidly edited from practical standards and always interesting from the very beginning to the end. It is a satisfactory paper, and all who subscribe are very much pleased with it. We have entered into a co-operative arrangement with the publishers of **The American Swineherd,** whereby we can offer for a limited time The National Farmer and Stock Grower and **The American Swineherd,** both papers, for the price of one. Anyone who will send us a money order for fifty (50) cents in answer to this proposition will be supplied with both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

SWINE RAISING.

Sows and Their Litters—Early Maturity Pushed Too Far—Excessive Feeding of Corn—Exercise Desirable.

For the last fifty years the early maturity of swine has been pushed to the front in feeding operations, while other things connected with the production of the pigs have been largely overlooked. In some breeds the time of maturing has been continually shortened, while the size of litters has decreased. So the gain in early maturity has been in some extent offset by the decrease in number of pigs to be matured.

The litters have in some cases become so small that breeders are alarmed and are taking measures to get a larger producing power. It is hard to tell how this can be brought about, if not by a kind of feeding that will cause the pigs to lay on fat less readily.

It is generally noticed that overfatness means lessened breeding power and sometimes no breeding power at all. Several years ago it was declared in a convention of swine men that boars and sows that had been overfattened for exhibition purposes were thereafter of no value for breeding.

If too much fat means too little breeding power, then it is certain that our breeding swine must be fed in a way that will result in only a moderate growth being made. There must be a distinction between the feeding operations for the breeding stock and the feeding arrangements for the swine being fattened for market. This is no new suggestion for our experienced breeders, but is for those that have not made a study of cause and effect in feeding when it is related to breeding.

Probably nothing in the corn belt has been more detrimental to the breeding power of swine than the excessive feeding of corn. This has gone on for so many hog generations that it has induced qualities tending to the laying on of fat at the expense of bone, muscle and breeding power.

More food, such as clover, must be fed and more exercise must be given. Even then it is going to take a long time to get back to the place where each sow will produce ten or more pigs to the six or seven she is producing now. In fact, the sows that are now producing small litters are not likely ever to produce large ones, but their granddaughters may.

A greater variety of food should be fed the brood sows than is generally given. The rations should be so varied that they will give an abundance of the qualities needed in body building. The too-limited ration is the cause of sows having abnormal appetites at the time their pigs are born. Often this has resulted in the sow eating some of her pigs.

One great fault in the handling of the sows and litters is the persistent tendency to give too little chance for exercise, especially in the fall and winter. The Southern razorbacks, which have the run of great plantations, or, at least, great wood lots, produce big litters, and the amount of exercise they have to take to get their food is probably responsible in part for their large ability to produce. Moreover, they do not get a great quantity of starchy food at one time, but a small quantity of food rich in nitrogen.

Points in Favor of Hogs.

"There is no live stock on the farm that can compare with the hog as a money maker. From a bushel of corn a hog will make twice as many pounds of pork as the steer will of beef. Again, the hog will make an annual increase of 500 to 2,000 per cent., while sheep and cattle will run from 60 to 100 per cent. It takes two years for the steer to reach market; a hog gets there in eight months, and sometimes shortens this up to six months, and the hog's economical propensities in converting feed that could not be saved in any other manner places the hog in the front rank as the farmer's money maker."—American Swineherd.

Hog Cholera Report.

The Cincinnati Price Current says that the hog cholera epidemic is severe, one county in Iowa reporting 90 per cent. loss; many 40 and 50 per cent., and the average considerably above 20 per cent. The heaviest percentage of loss seems to be in Iowa, South Dakota and Nebraska. Wisconsin, Kansas and Oklahoma report very small losses. Total slaughterings of hogs in the West from March 1 to date were 15,255,000, compared with 15,175,444 for the corresponding period last year.

Newly-farrowed Sow.

"The condition of the weather will govern the length of time it will be necessary to keep a newly-farrowed sow in close quarters, but she should not be denied access to the open air. Pigs should not be allowed in a cold rain or where they will receive the shock of cold winds. Where they can do so without danger they should be out in the sun within twenty-four hours after birth, and after that the best practice is to let them run in and out at will. Neither the sow nor very young pigs should be permitted to run in pasture early in the morning if the grass is tall and wet with rain or heavy dew.—From Coburn's "Swine in America."

Coburn and Swine.

"In the corn belt most farmers find their abundant and inexpensive corn a feed which cannot be avoided or ignored, nor should it be; but while its use need not by any means be omitted, it should be moderate and as a part of a reasonably balanced ration. Sows kept for breeding should not herd with fattening hogs kept on corn, but be in pasture and given a supply of slop, such as equal parts of shorts, corn meal and wheat bran. Feeds which furnish considerable bulk are preferable, and those tending to prevent constipation are important."—From Coburn's "Swine in America."

First Duty-free Cattle.

On Monday, October 20th, the Chicago market received the first consignment of cattle from Alberta, British Columbia, since the duty was taken off. The shipment was consigned by E. H. Maunsell, of McLeod, Alberta, and 223 head, averaging 1,384 pounds, sold at $8.15 per 100 pounds, a string of ninety heifers, weighing 1,295 pounds, making $7.40 per 100 pounds. Chas. O. Robinson, of Clay, Robinson & Co., sold the cattle.

At a sale of Holstein-Friesian cattle held by Thos. M. Anderson at Leland, Ill., October 14th, the average was $122 for thirty-nine head.

E. Myers, President, E. Myers Lye Company

$26,500,000.00
Hog Cholera Losses In 6 Months

The above is a conservative estimate of the stupendous sum lost by American farmers during the first six months of 1912 from hog cholera alone! (Not including the **enormous loss from hog worms.**)

Now, men, let's make a mighty, united effort to put an end to this terrific slaughter—this awful waste of money. We can do it if we work together. I **know** we can do it. I have the remedy that **has been proved will prevent** hog cholera, put your weak hogs on their feed, **rid them of worms,** make them strong, hearty, fat and healthy. My remedy,

Merry War Powdered Lye,

is very simple and inexpensive to use and results have been **proven.**

In an interview, which was so important that it was given a full column on the front page of the Fort Dodge, Ia., Messenger, on November 7th, 1912, Mr. Collie Bowers, a prominent hog raiser in that section, says: "Last Fall I had lost twenty-six young pigs, when I was told to get some MERRY WAR POWDERED LYE and feed it with swill. Every one of the eight or nine pigs that were then sick recovered and I had no more trouble. This Fall the same sickness started after I began feeding this year's crop. I started the Merry War Lye treatment and the pigs got well. My brother used the Lye with his pigs and saved all the sick ones. Earnest Stromberg heard about the treatment and came to our house in the night to learn how to use it. We told him and he drove to Fort Dodge in the night and got a grocer up to get the MERRY WAR POWDERED LYE. His pigs all got well."

You can easily prevent an outbreak of cholera among **your** hogs, for again I say to you that MERRY WAR POWDERED LYE is the **safe preventive** of that dread swine disease. You can tell your neighbors about it just as Mr. Bowers in this interview is telling his farmer friends about it. You can in this way help to put an end to this needless and enormous money loss. Will you do it?

There Are No Substitutes

Go to your nearest dealer today and get a few cans of MERRY WAR POWDERED LYE. Don't accept an ordinary, old-fashioned lye as a substitute. To use such a lye would be but a doubtful and perhaps a **dangerous** experiment. MERRY WAR POWDERED LYE is the specially prepared lye that is **safe** to feed to hogs—that is **not** an experiment. **Insist** on the genuine.

Its wonderful merit has been **proved by experience.** Price only 10c per can **(120 feeds).** It is convenient to buy in case lots, 4 doz. cans, $4.80. If your grocer, druggist or feed dealer can't supply you, write us stating their names. We will see that you are supplied; also send you, **free,** a valuable booklet **"How to Get the Biggest Profits From Hog Raising."**

Order direct from us in case lots 4 doz. cans, $4.80, if your dealers won't supply you.

Which Kind Do You Want?

E. MYERS LYE COMPANY
Dept. 22 St. Louis, Mo.

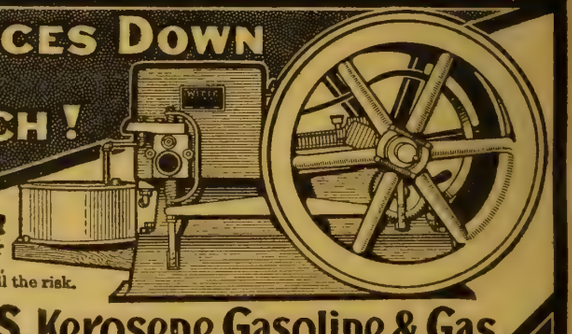
ENGINE PRICES DOWN ANOTHER NOTCH!

Look at these Prices!

2 H-P, $39.45; 4 H-P, $75.50; 6 H-P, $99.35; 8 H-P, $149.90; 11 H-P, $218.90; Other sizes, up to 40 H-P, proportionally low.

Direct from Factory to User!

Why pay two prices for a good engine, or take chances on a poor, or an unknown engine, when the "WITTE" costs so little, and saves you all the risk.



WITTE ENGINES, Kerosene, Gasoline & Gas

Stationary, Portable and Sawrig Styles. **60 DAYS' FREE TRIAL** **CASH OR EASY TERMS.**

LET ME send you a "WITTE" engine to earn its own cost while you pay for it. It's cheaper than doing without one. I have proved that to thousands who are now WITTE users. Ed. H. Witte.

GET your engine from an engine specialist. All my life I have done nothing but make engines. **The success of my customers and nothing else, makes my success.** I've simply got to sell better engines. I can't lose money on an engine and make back the loss on something else. My factory is the only one, that started in the engine business 27 years ago, which has come through successfully under the same management with which it started. Only WITTE engine-quality has made that possible. You know, when you get a "WITTE," that its **5-year guarantee** will be good in the **fifth** year, as well as in the first year, and that the engine will give life-time service.

It is cheaper and easier to own a "WITTE" engine than to do without one. My New Offer makes it easier to get the work done by machinery than by muscle or brute power. No need now to get along without a "WITTE." **New Book Free** My New Book—the finest in the whole engine business—explains all. It tells you how to be sure in your selection, even if you don't pick a "WITTE." Send me your address today, so I can send you this book FREE with my New Offer.

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1724 Oakland Ave., Kansas City, Mo.

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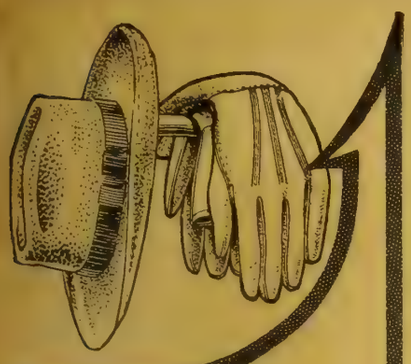
READ THIS BOOK BEFORE YOU BUY ANY ENGINE IT IS SENT FREE FOR THE ASKING.



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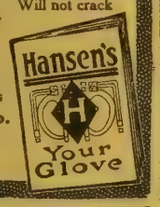

SOUTH AMERICAN MEAT.

Representative of the Department of Agriculture Returns From Tour of Inspection.

The stock-raising and meat industries of South America are well developed and have large possibilities for future extension, according to Dr. A. D. Melvin, Chief of the Bureau of Animal Industry, who has returned from a tour of investigation made by direction of the Secretary of Agriculture.

Dr. Melvin's trip included Argentine, Uruguay and Brazil. In Argentine he inspected all of the establishments preparing beef for export with the exception of one which was not in operation at the time, and visited several large ranches. He also attended the stock shows at Bosario and Palermo, where many very fine animals were exhibited. In Uruguay he visited one of the two large establishments, the other not being in operation. In Brazil he visited Sao Paulo and Rio de Janeiro, where a fine municipal abattoir has recently been completed, at which all of the slaughtering for that city is done. From Sao Paulo he went into the interior country.

Argentine and Uruguay are large exporters of beef and mutton, for which Great Britain is at present their principal customer. Brazil, however, exports no refrigerated beef, although it supplies Central America and Cuba with a considerable quantity of cured beef known as "tasajo" or "jerked beef."

While statistics show that Argentine is already slaughtering up to the limit of its present stock of cattle, Dr. Melvin was impressed with the great resources of that country for cattle raising and believes it will be possible for the stock raisers to bring about a large increase in the meat output if present prices are maintained.

The cattle slaughtered for export in Argentine, Dr. Melvin says, are fed no grain whatever, but are raised and fattened entirely on alfalfa pastures. For the most part the cattle are high-grade stock, the predominating breed being the Durham, with the Hereford ranking second and the Polled Angus third in number. The alfalfa pastures are capable of supporting many more cattle than are the native "camps" or unbroken country. In a general way the cattle raisers estimate on two and one-half acres of pasture per head for growing cattle, and three to three and one-half acres for fattening cattle. These pastures support the cattle the year round without any further feeding except in occasional times of drouth or invasion of locusts.

Alfalfa, he says, is not being grown nearly as extensively as it could be. The extension of its growth he thinks will depend very largely upon the prices that the cattle raisers receive for their cattle. Because of present satisfactory prices the tendency is to convert the grain lands into alfalfa pastures. As cattle raising is a much more certain enterprise than grain growing, the people prefer to raise cattle when the prices are remunerative.

"At the time of my visit," says Dr. Melvin, "cattle that dressed 820 pounds were sold for $74.80 gold. This grade of Argentine beef, which is of a very high quality, is selling in England for from eight to nine cents a pound wholesale. Besides the price received for the meat there is a considerable return from the hide and the offal, and since the entrance of American packers into the South American trade these by-products are being carefully prepared and utilized.

"A very high quality of mutton is also produced in Argentine, but at the time of my visit shipments were scarce, on account of the floods, which were prevalent in the Province of Buenos Ayres and farther south.

"Argentine for many years has been importing the best breeding cattle and sheep from Great Britain and to-day has some of the finest types in the world. Uruguay has a good grade of live stock, but they are not equal to the cattle in the alfalfa region of Argentine."

Dr. Melvin reports that the federal governments of both Argentine and Uruguay maintain veterinary inspection at all of the establishments exporting fresh beef. These establishments are known as "frigorificos." United States packing firms own four of the large plants in these two countries, and the competition between them and the native firms is keen. English capital is also invested in several of the establishments.

Municipal abattoirs with official inspection are maintained very generally at all of the South American cities of any improtance, and in this respect these countries are ahead of the United States. Usually these abattoirs are owned by the municipalities, which conduct the slaughtering and provide the inspectors, charging fees for the service.

The cattle of Brazil, Dr. Melvin says, are not of such good quality as those of Argentine and Uruguay, and the stock is largely mixed with the zebu or East Indian cattle. This strain of blood is very readily seen in most of the Brazilian cattle.

"My Father Put Up That Fence"
—Years Ago.
"SQUARE DEAL FENCE LASTS." Many a young man can look back to the time when his father put up a "SQUARE DEAL" FENCE. They are in evidence today on hundreds of farms. SQUARE DEAL Fences are time-tried and time-tested. They have proven that the SQUARE DEAL LOCK, the one-piece Stay Wires, and the Wavy Strand Wires produce lasting qualities unknown in other fences. We make the wire and we make the fence. We know that it will pay you to investigate SQUARE DEAL Fence, and find out how it is made and why it will cost you less.
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—because of its unusual construction. The SQUARE DEAL Lock grips the stay wires above and below each strand wire. The wavy strand wires keep the fence trim and tight summer or winter. The Stay Wires prevent sagging or bagging. They cannot spread. Hogs or pigs cannot lift SQUARE DEAL Fence and crawl under. Any sudden pressure or impact is distributed over a large surface. Knots are smooth and cannot hold water or gather rust. In every rod of SQUARE DEAL Fence there are 33 up-right stay wires six inches apart, extending from top to bottom of fence and each stay wire acts as a post. Costs less for posts. Fence lasts much longer, looks better. Stock cannot break through or get under.
FREE—To every farmer or land owner who wants to learn more about SQUARE DEAL Fence, we will send our SQUARE DEAL catalog and dealer's name and ROPP'S NEW CALCULATOR—worth its weight in gold FREE. Ropp's Calculator will give you the answer to any business problem that arises on the farm. Full of information that will interest. Write today for these free books.
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KEYSTONE STEEL & WIRE CO.
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County Cattle Exchange.

In the Press Bulletin of the University of Wisconsin, October 28th, 1913, we find the following:

"Owing to the fact that many farmers and stock raisers have not been able to find a ready sale for bred-for-production bulls for breeding purposes, surplus animals of this sort too frequently have been sacrificed to butchers at beef prices. To counteract this tendency and to provide a market for superior sires, Agricultural Representative F. D. Otis, of Barron county, is urging the organization of a local Live Stock Exchange and is offering the use of his office as the center of sales or a clearing house.

"He states that had there been such an exchange in Barron county the past summer many valuable animals might have been saved. The plan as outlined by Mr. Otis meets the hearty approval of George C. Humphrey, of the College of Agriculture of the University of Wisconsin, who adds that the scheme might be extended in order to include offices of the county representatives, the offices of the various secretaries of community breeders' associations and the office of the secretary of the Wisconsin Live Stock Breeders' Association as well. Only by carefully selecting the best sires and keeping them for breeding purposes can the true type, quality and production of any breed of cattle be maintained. Listing the animals for sale in a Central Exchange would thus do away with the loss that always results when an animal worth from $150 to $200 or more is sold for beef."

FARMERS' AND SHIPPERS' DIRECTORY OF BUSINESS INTERESTS.

October Edition, 1913.

The Directory is fully advertised on page 27 and is a most business-like proposition. It contains by actual count and arranged alphabetically in state lists three thousand seven hundred and seven names of business firms who are all engaged in doing business with the farmer. It is a useful book on any farm, in any state. It is not a complete book, but each name has been collected with the purpose of showing farmers and shippers of farm products a whole lot of valuable information. The booklet also contains about fifty advertisements which simply set forth with greater fullness the occupation of the advertisers.

To Freshen Furs.

To freshen a fur piece that has become flat and worthless, brush it the wrong way with a moist hair brush, continuing this until the fur is entirely dried out again, then beat lightly with a flat beater, never with a rod. Light-colored furs are often benefited by rubbing very thoroughly with dry corn meal, rubbed well in, then carefully brushed and beaten out.

WESTERN RANGE HORSE SALES.

Horsemen East and West are advised that the great market for Western Range Horses is at St.Louis. The announcement is made that the Twelfth and Last Range Horse Sale of the season of 1913 is approaching. These sales are held at the St.Louis National Stock Yards and conducted by

Campbell & Reid and Western Sale Stables Co.

At each of these sales Horses will be offered in suitable lots and sold at auction for the high dollar without reserve. The offerings are always selected with the utmost care from the very best Horse Ranches of the Western and Northern country. The best Horses now being sold in the domestic sale ring were originally well-bred Range Horses. The next sale will be held on

Thursday, November 13,

which is the last sale of the season. The demand is good, especially for well-bred Mares and Geldings in fine condition. We will also hold the usual series of sales in the year 1914.

Please address

J. J. SEARCY, Sale Manager,
NATIONAL STOCK YARDS, ILL.

FARM FENCE
41 INCHES HIGH
100 other styles of Farm, Poultry and Lawn Fencing direct from factory at save-the-dealer's-profit-prices. Our large catalog is free.
21 CENTS A ROD
KITSELMAN BROS. Box 281 Muncie, Ind

FARM FENCE FROM FACTORY TO FARM

26-inch Hog Fence.....14c.
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WE PAY THE FREIGHT
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Strongest, most durable made. Basic open hearth wire. *Double galvanized.* Compare our quality and prices with others.
Bargain Prices—Direct From Factory
150 Styles—13 Cents Per Rod Up
We pay freight anywhere. Write now for free fence book and sample to test.
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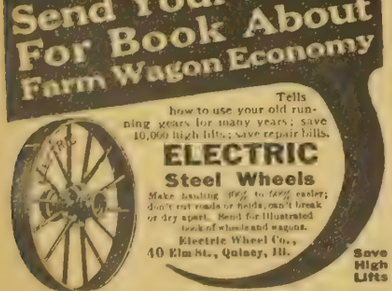
Send Your Name For Book About Farm Wagon Economy



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ELECTRIC Steel Wheels
Make hauling 33⅓ to 50% easier; don't cut roads or fields, can't break or dry apart. Send for illustrated book of facts and wagons.
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Save High Lifts

FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK
Weber Imp. & Auto Co., 1900 Locust st., St. Louis

Best Market—Great Salesmen.

The remarkable success of the Monday and Tuesday auctions of horses at the St. Louis National Stock Yards was in evidence when for the first sale in November the arrivals of horses and mules were 2,100 head. These Monday and Tuesday sales are conducted with lightning rapidity, and the auction ring is kept full of buyers. Holland, Nugent & Maxwell Bros. conduct these sales and also keep busy selling mules. Any shipper of horses to any other market can better his average net results by getting into communication with T. H. Holland, care of Holland, Nugent & Maxwell Bros. Commission Company, National Stock Yards, Ill.

Fat Mohair Goats.

In the reports of the St. Louis markets as published by the National Live Stock Reporter, we find that on October 30th G. A. Wahl marketed from his farm at Warrenton, Mo., two loads of good, fat goats that weighed ninety-three pounds and sold at $4.25 per 100 pounds. These goats were well-bred Angoras. Mr. Wahl went to Texas some time ago and secured 3,000 of these goats to clean up the brush on his place. They come from stock imported a few years ago at a cost of several hundred dollars per head. Mr. Wahl was highly pleased with the price he received for his goats, and he was fortunate for the reason that the highest-priced mutton that day was $4.65 per 100 pounds.

HAY MARKET AT ST. LOUIS.

Being a Statement of Actual Sales at the Beginning of November.

Sales on St. Louis Side: Clover—Part car common threshed at $10; one car and part car common heavy mixed at $13; two cars and part car (stained) No. 2 heavy mixed at $14; one car No. 2 do. at $14.50; one car No. 1 heavy mixed at $15; one car part heavy clover mixed and part timothy at $15; four cars No. 2 light mixed at $16; three do. do. at $16.50; three cars No. 1 light mixed at $17; two do. at $17.50; one do. do. at $18.

Timothy—One car threshed at $11; part car No. 3 at $14.50; one car common No. 2 at $15; one car No. 2 at $17; one car scant No. 1 at $18; one do. do. at $18.50; two cars No. 1 at $19; part car do. at $19.50; two do. at $20; one car good No. 1 at $21; one car choice at $21.50.

Prairie.—One car common Nebraka at $12; No. 1 to choice Western salable at $18 to $20.

Clover.—One car common No. 2 at $12; No. 1 to choice quotable at $15.50 to $17.

Alfalfa.—Two cars scant No. 2 at $12.50; one car No. 2 at $13.50; two do. at $14; one good No. 2 at $15; three cars No. 1 at $17; one car do. at $18; one car high No. 1 to choice at $19.50.

On East Side: One car No. 2 light clover mixed at $18, delivered to St. Louis. Timothy.—One car No. 1 at $20, delivered to St. Louis; one car choice at $22, do.

Straw.—Sales of two cars wheat straw at $6.75.

A Trotting World Record.

The feature of the Lexington, Ky., meeting was the performance of Peter Volo, which won the two-year-old division of the Kentucky Futurity, and in the second heat placed the world's record for two-year-olds at 2:04½. The day was right for record-breaking and so was the young son of Peter the Great. Murphy waited for the second heat to turn the trick and drove the youngster's well-rated mile. He was at the quarter in 31¼ seconds, and to the half in 1:02½. It was at this part of the mile that the good filly, Lady Wanetka, got into the game and she forced the colt to trot the next quarter in 30½ seconds, the three-quarters being reached in 1:33. In the last 100 yards the colt drew away from Lady Wanetka and went under the wire in 2:04½—the fastest mile ever trotted by a trotter of his age. Four years ago Murphy set the trotting horse world in a whirl when he piloted the two-year-old filly, Native Belle, a mile in 2:07¾—a record which had stood until Peter Volo went his mile in 2:06¼ at Columbus.

Horse Market Quotations.

Horses are bought to sell again, and quotations of horse prices are simply averages in their classes. The quotations at the St. Louis National Stock Yards, October 31st, were as follows: Heavy draft, extra, $240 to $275; heavy draft, fair to good, $175 to $200; Eastern chunks, extra quality, $160 to $225; Eastern chunks, plain, $100 to $135; Southern horses, extra quality, $125 to $150; Southern horses, plain to good, $50 to $95; choice drivers, with speed, $175 to $275; saddlers, $150 to $250; plugs, $15 to $45.

Retal Prices of Fruits.

A St. Louis paper, the Star, has the following to report about retail prices:

"Apples of all varieties will remain high, and the fancy grades of the fruit are higher than ever before known. The prevailing prices are: Washington Stark, 80 cents to $2.20 a dozen; Black Calmar, $1.25 a dozen; Arkansas Black, 75 cents to $1.00 a dozen; Spitzenberger, 75 cents to $1.00 a dozen; Aristo Black, 75 cents to $1.00 a dozen; Jonathan, 40 to 50 cents a dozen; Grimes' Golden, 50 cents a dozen; York Imperial, 60 cents a peck; and Ben Davis, 25 cents a peck.

"A few peaches are yet to be had at 50 cents a dozen. French Endines are 40 cents a pound; new Turkish figs, 15 to 30 cents a pound; Persian dates, 10 to 15 cents a pound; pecans, 50 cents a pound, and getting cheaper; hazelnuts, 10, 15 and 20 cents a pound; Malaga grapes, 25 cents a pound; pomogranates, 10 cents each; grape fruit, 10 to 25 cents; chestnuts, 12 cents a pound; Japanese persimmons, 10 cents each; Concord grapes, 10 cents a basket.

"Cranberries are more plentiful than usual, and the Cape Cod variety of good quality is selling at 8 cents a quart. Pumpkins are plentiful at 1½ to 2 cents a pound. Pickled pears are 5 cents apiece."

New Jersey Horse Breeding.

The state of New Jersey owns thirteen stallions in public service in farming communities, and three hundred mares were mated during the year, the service fee being $10. The stallions are moved from a given section wherever privately-owned stallions of equal merit are available on reasonable terms.

Northwest Texas.

Northwest Texas is a great country and the Santa Fe Railway has considerable mileage there. That country can only be filled up once, and they are fortunate farmers who first get a foothold. See page 6 under the title "Enrich Yourself."

"World's Best Workshoe"
1914 Model
Will Save Millions for Workers

FREE
By Parcels Post
10-Day Try-on

I Just Spent $50,000 To Improve My "Steels"

I know and every wearer of my steels knows they always have been the "World's Best Workshoe"—the best shoe for every farmer, mechanic, laborer, miner, hunter—man or boy. Thousands have been pleased—you will be more than pleased with my new, improved, better-fitting, better-feeling, better service 1914 Model "Steels".

Leather work shoes are heavy, clumsy, shapeless, as compared with my "steels". My "steels" never get sloppy or out of shape. You pay less for my "steels"—then they outwear 3 to 6 pairs of leather shoes and save $10 to $20 on your yearly shoe bills.

Health—Comfort—Economy

My "steels" are good health shoes. They are waterproof. Stop colds, pneumonia, rheumatism and other "wet-foot" troubles. Stop corns, bunions, callouses, blisters, flat-foot, broken arch and the like. My "steels" are firm, restful, light, damp-proof. They keep your feet in best condition. I can and will prove all this to your satisfaction. My "steels" are an absolute necessity to any out-door man.

Write For Free Book

It describes my "Steels"—tells why they are lighter, better, more comfortable, safe and economical for you than any other work-shoe—why they outwear 3 to 6 pairs of the best all-leather shoes—why "Ruthstein's Steels" save your feet, your health, your money.

N.M.RUTHSTEIN, The Steel Shoe Man, 135 Racine St., Racine, Wis.

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Tag your stock—best and cheapest means of identification. Name, address and number stamped on tags. Only $1.00 per hundred and up. Catalogue and samples free on request.
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STUART'S PLAPAO-PADS are different from the truss, being medicine applicators made self-adhesive purposely to hold the parts securely in place. No straps, buckles or springs attached—cannot slip, so cannot chafe or press against the bone. Thousands have successfully treated themselves at home without hindrance from work—most obstinate cases cured. Soft as velvet—easy to apply—inexpensive. Awarded Gold Medal. Process of recovery is natural, so afterwards no further use for trusses. We prove it by sending you Trial of Plapao absolutely FREE. Write TODAY.
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Coughs, Distemper, Indigestion.
NEWTON'S 50c, $1.00 per can. Large for Heaves. At druggists' or sent postpaid.
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LOSSES SURELY PREVENTED by Cutter's Blackleg Pills. Low-priced, always fresh and reliable, they are used by over 80 per cent of California and Western stockmen, because they protect where other vaccines fail. Write for booklet and testimonials.

10-dose pkge Blackleg Pills.....$1.00
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Cutter's Blackleg Pill Injector... 1.50

Pills may be used in any injector, but Cutter's is simplest, strongest and easiest to use.

Every package dated, unused pills returnable for free exchange for fresh after date on package. Do not use old vaccine, or of uncertain age (ours or any other) as it affords less protection than fresh.
Discounts: 250 doses, 10 p.ct.; 500 doses, 20 p.ct.
Insist on Cutter's. If druggist doesn't stock, order from Laboratory, giving address plainly. We prepay charges and ship promptly. Send personal check or M. O.
THE CUTTER LABORATORY, BERKELEY, CAL. OR CHICAGO, ILL.

10,000 MEN WANTED

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Clipping the Horse.

"The subject of clipping the horse is a matter of considerable discussion at this time of the year. The following suggestions may be of benefit to those who are contemplating clipping their horses: In the first place, never clip a horse that has a fine coat of hair, as it will then be necessary to clip it every spring and fall thereafter. The only horses that should be clipped are those with heavy coats, that can be cared for during the winter, such as blanketing warmly in the stable and covering with a canvas sheet during severe storms while at work. The advantage in clipping a horse is that the long-haired horse, after sweating profusely, will not dry off during the night. This condition will cause the horse to take cold, the inflammation being located in the nose, throat or lungs. It would not be a good policy to clip a horse and then turn it out to a straw pile for the winter. Clipped horses should never be allowed to stand uncovered, as they chill quickly. A clipped horse dries off readily, mud is easily removed from the legs, and there is no disagreeable hair flying during the period of shedding. In the fall, clip as soon as the flies do not bite the animal; while in the spring, clip before the horse begins to shed."—C. H. Barnes, Colorado Agricultural College, Fort Collins, Colorada.

Hog Prices October 31st.

At the St. Louis National Stock Yards, October 31st, the top of the market was $8.20 per 100 pounds for choice hogs weighing 220 to 300 pounds. Hogs with plenty of quality and weight went to the shippers and butchers at $8.05 to $8.15, while the packers purchased a pretty good class of hogs at $7.85 to $8.10, and fair grades at $7.60 to $7.85, and the rough, throw-out, heavy packers at $7.60 to $7.75. A good grade of light-weights under 165 pounds sold at $7.75 to $8.00; fair grades went at $7.35 to $7.65; best quality pigs weighing less than 125 pounds sold at $7.25 to $7.50; fair to medium grades brought $6.50 to $7.25; and the poorer kinds, $5.50 to $6.25 per 100 pounds.

The Top Sheep and Lambs.

J. T. Rigsby, a regular shipper to the St. Louis market for many years from Macoupin county, Ill., had in seventy-eight head of lambs that sold at $7.75 per 100 pounds, which was the top of the market and the only lambs to bring the price in several weeks. He also marketed sheep at $4.65, which was the top on sheep. This was on the last day of October.

Marketing of Live Stock.

On October 31st, the end of ten-months' business of the year 1913, the National Live Stock Reporter said: "Since January 1st of this year cattle receipts at five principal leading markets of the West total 5,919,999 head, a gain of 2,000 head over the same period in 1912. Hog receipts at five markets since January 1st total 13,696,000, a loss of 415,000 head from a year ago. Sheep receipts since January 1st at five markets total 10,624,000 head, a loss of 91,000 head from a year ago."

Sheep and Lambs at St. Louis.

At the St. Louis National Stock Yards, during the last week in October, strictly good lambs sold as high as $7.75 per 100 pounds for the first time in a good many years, while other good ones brought $7.50 to $7.65, and fair to medium grades went at $7.00 to $7.40; poor grades, $6.35 to $6.85; and the culls, $4.50 to $6.00. Most of the mutton sheep went to the slaughterers at $4.65 per 100 pounds; choppers and stockers sold at $3.35 to $3.85; fair stockers, $2.60 to $3.25; old cull sheep, $2.00 to $2.50; and bucks at $3.50 to $3.75, most of them at the latter price—all quotations being at the price stated per 100 pounds.

Top Hogs at St. Louis.

On October 31st, at the St. Louis National Stock Yards, T. M. Erskine, one of the most prominent shippers living in the Des Moines Valley, Iowa, had in hogs that averaged 300 pounds and sold at $8.20 per 100 pounds: and W. M. Fry, one of the regular Iowa shippers, was on the market with hogs that averaged 276 pounds and sold at $8.20; J. F. Hendrix, of Carroll county, Missouri, also sold hogs that topped the market at $8.20 per 100 pounds.

Native Cattle Prices.

During the last week in October, at the St. Louis National Stock Yards, in the market for native cattle, a bunch of 1,100-pound steers sold at $9.35 per 100 pounds, the highest price paid during the week. The bulk of the native beef cattle sold at $7.50 to $8.90 per 100 pounds, and the proportion of cattle sold above $9.00 per 100 pounds was very small.

Range Horse Sales.

The twelfth and last range horse sale of the season of 1913 will be held on Thursday, November 13th, at the St. Louis National Stock Yards. Some mighty good material is promised for the sale. These sales are the most important of any held in farming districts and have practically stocked up the country tributary to St. Louis with a magnificent, healthy, well-bred lot of range horses, fit for any purpose, according to breeding. Horses have sold well and every price paid was in competitive bidding. The sales are ably conducted by Campbell & Reid and Western Sale Stables Company at the St. Louis National Stock Yards, with J. J. Searcy, Manager of the sales. Remember the date—November 13th, on Thursday.

Oklahoma Steers at $8.10.

Towards the end of October, on the St. Louis market, J. A. Dobbin, of Craig county, Okla., marketed a consignment of steers that brought him the top of the market, and were the highest-priced bunch of steers in the quarantine division since the latter part of July this year. Mr. Dobbin's steers were thirty-two in number, averaging 1,275 pounds, and were bought by Armour & Co. for $8.10 per 100 pounds.

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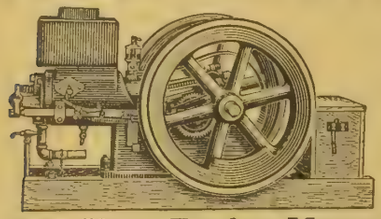

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MISSOURI NATIONAL CONTEST.

Egg Laying at Mountain Grove, Mo. —Individual and Pen Records.

Report of First Ten and a Half Months—Seventy Pens, Ten Hens to Pen—700 Birds in All.

On October 1st, after ten and a half months, the manager of the Missouri National Egg-laying Contest reported that already a higher egg-laying average had been gained than in the first contest, with forty-six days yet to be heard from.

The English Single Comb White Leghorns from Tom Barron, of Catforth, England, seem certain to win. There has not been a month during the year that this pen has not been among the ten highest pens for that month. The highest individual hen so far is No. 860, a Buff Wyandotte from Vermont. This hen has laid 249 eggs and has forty-six days yet to lay. It is not probable that the individual record will be as high as that of Lady Show You of last year, which was 282 eggs.

The Ten Best Pens.

The following ten pens have made the highest pen record thus far:

	Eggs.
Single Comb Leghorns, England.	1,984
Silver Wyandottes, Iowa	1,692
Buff Wyandottes, Missouri	1,691
Anconas, Missouri	1,670
Single Comb Leghorns, California.	1,652
Black Minorcas, Iowa	1,643
Rose Comb Leghorns, Missouri.	1,618
White Wyandottes, Arkansas.	1,609
Buff Wyandottes, Vermont	1,597
Black Langshans, Missouri	1,555

Leading Pens For September.

No very high records were made for September, as the hens are in the midst of the moult and have not fully recovered from the hot weather of July and August. The following is the monthly record of the ten highest pens:

	Eggs.
Buff Wyandottes, Missouri	157
Black Minorcas, New York	154
Single Comb Leghorns, England.	154
Rose Comb Leghorns, Missouri.	147
Buff Wyandottes, Missouri	146
Single Comb Leghorns, California.	137
Silver Wyandottes, Iowa	133
Silver Wyandottes, Illinois	131
Anconas, Missouri	129
Barred Plymouth Rocks, Iowa.	124
Black Minorcas, Missouri	124

The 200-egg Layers.

The hens that have laid 200 eggs or over are as follows:

	Eggs.
Buff Wyandotte, Vermont	249
Single Comb Leghorn, England.	246
Buff Wyandotte, Missouri	245
Single Comb Leghorn, Missouri.	239
Rose Comb Leghorn, Missouri.	233
Ancona, Missouri	232
Single Comb Leghorn, England.	231
Single Comb Leghorn, England.	219
Ancona, Missouri	218
New York Method	218
Black Langshan, Missouri	215
Single Comb Leghorn, England.	215
Black Minorca, Iowa	214
Black Orpington, Canada	213
New York Method	212
Silver Wyandotte, Iowa	210
Single Comb Leghorn, California.	208
Barred Plymouth Rock, Illinois.	208
Single Comb Leghorn, England.	207
Silver Wyandotte, Illinois	204
White Orpington, Illinois	204
Silver Wyandotte, Iowa	203
White Orpington, Kentucky	203
Single Comb Leghorn, England.	203
Maine Method	202
Single Comb Buff Leghorn, New York	201
Buff Orpington, Missouri	201

We have now gone ten and a half months with this contest. The reports are issued each month, but before our December edition is issued we hope to have the complete report, with comparisons with the first contest.

Up to September 30th there had been a grand total of 94,188 eggs laid to date. The record for September was 6,424 eggs. Pen No. 26, Buff Wyandottes, from Eagleville, Mo., won the silver cup for the highest record for September.

Another Great Winning.

Dr. LeGear's White Rocks have again demonstrated their superiority over all others by their great winning at the Missouri State Fair, just past (September 27th to October 3d, 1913). They had strong competition, but never lost a ribbon. Won every prize competed for. Made a clean sweep, and also grand champion bird of the whole show.

There were only three prizes offered in each class. We entered one cock, eight cockerels, four hens, four pullets and two pens, and won first, cock; first, second and third, cockerel; first, second and third, hen; first, second and third, pullet; first and second, pen; and the grand champion sweepstakes bird of the whole show, all breeds competing. What more could be desired if you are looking for the best White Rocks in the country?

"Lady Ideal," our one-year-old White Rock hen, which was the champion bird of the whole show, was the admiration of all visitors to the Missouri State Fair. She has snow-white plumage; beautiful yellow legs; a long, broad back; low, well-spread tail; and is an ideal White Rock in every way. By being the best bird in the show she won the useful Poultry Journal silver loving cup offered for the champion bird in the State Fair Show. She will be mated to the blue-ribbon cockerel at the Missouri State Fair, and this mating is bound to bring prize winners.

We showed "Lady Ideal" last year as a pullet, and she won everywhere shown.

All our birds are absolutely our own raising. We have cockerels hatched in March that weigh eight pounds, and pullets the same age that weigh six pounds.

Bred and owned by Dr. L. D. LeGear, 713 Howard street, St. Louis, Mo. Farm at Kirkwood, Mo.

Concerning Lady Show You.

Mr. John G. Poorman, owner of Lady Show You, the hen that laid 282 eggs at the Missouri Contest last year, writes to Mr. T. E. Quisenberry, saying: "Regarding Lady Show You, will state that she is the most remarkable hen I ever saw. She never has been in good plumage, has not gone broody and has been laying right along. I hatched 101 chicks from 112 of her eggs. She is laying now an egg every other day. She has laid over 170. She has not been sick a day. It seems as though she delights in being alone. She is continually on the go from morning until night. Yours Truly, (Signed) John G. Poorman, Tinley Park, Ill.

POULTRY NEWS AND ITEMS.

The entries at the next Missouri National Egg-laying Contest consist of six pens from New Zealand, three from Australia, two from Vancouver Island, two from Canada, three from England, one from Germany and one from South Africa. The American pens entered number sixty-six.

Do not forget November 24th to 29th at the Coliseum, St. Louis.

"There is a time for all things; a time to lay, a time to hatch, a time to moult, a time to exhibit, and a time to advertise; but the best time to advertise is all the time."—American Poultryman.

Greene county, Missouri, with Springfield as the shipping center, shipped out in one year 8,102,460 dozen of eggs, 3,620,295 pounds of dressed poultry and 5,552,214 pounds of live poultry.

"Be a specialist: that is, do one thing and do it a little better than anybody else."—American Poultryman.

The correct idea in running an incubator is to carefully follow the instructions of the manufacturer, and, when in doubt, read over once more the instructions of the manufacturer.

The Missouri State Poultry Association and the Kansas City Association have combined and will hold a joint show in Kansas City's big Convention Hall, December 11th to 16th.

"The early-hatched pullets, going into maturity earlier, can be used for breeding the following spring, which is not desirable with late-hatched pullets."—New Jersey State Agricultural College Report.

Experiments in New Jersey egg production developed the fact that three-year-old hens lay very few eggs except in the spring months. White Leghorns and R. I. Reds led the egg-laying procession.

A hen at the Oregon Agricultural College has recently raised the year's egg-laying record from 282 to 283. She laid ninety-nine eggs in a hundred days, which looks like a standing record.

The Grading of Corn.

In regard to the grading of corn, as proposed by the Department of Agriculture and discussed at the recent meeting of grain dealers at New Orleans, the resolutions passed by the meeting say in part: The grades of No. 1 corn and No. 2 corn as proposed by the Department shall be agreed to, but that the grades proposed by the Department as No. 3 corn, with a maximum moisture content of 17.5 per cent., shall have for its name "standard corn," and hat the remaining three grades proposed by the Department as Nos. 4, 5 and 6 be numbered 3, 4 and 5.

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The Fruitman and Gardener.

We have made arrangements with the publisher of **The Fruitman and Gardener** whereby we can furnish both papers for the price of one. It is a limited arrangement on the co-operative plan that we help each other, giving our efforts towards increasing each other's business. **The Fruitman and Gardener** is all right in every respect, with a special talent in adapting articles for all climates. No better paper is published for the money, and we have selected it as the best of several that have been offered. Anyone who will send us the usual fifty (50) cents for one-year's subscription to The National Farmer and Stock Grower can select **The Fruitman and Gardener** for one year as a subscription premium. This offer will not last long, for the reason that the number we can accept on this half-price arrangement is small. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

TALK ON APPLE ORCHARDS.

Ideal Locations—What Apples Have Done in One Year—High Lands and the Hills—Water and Timber Advantages.

We do not have to go west of the Rocky Mountains to find apple orchards that in some years have produced enormous crops and made for their owners large sums of money. Here and there are well-handled apple orchards that have averaged per acre in some years more than $300. Some orchards in the Mississippi Valley have paid with a single crop the entire cost of the farms on which they were located.

Generally it will be found that these orchards are located in places suitable for apple growing and that the soil under them is of a kind recognized as apple tree soil.

Many of the most successful orchards are located on high ridges with valleys on each side. The soil is frequently found to be timber clay. The location s responsible for the trees escaping killing frosts at blooming time, when orchards lower down have had their bloom destroyed. Often the difference in temperature is but a few degrees, but those few degrees made all the difference in the world between a crop and no crop.

Strange as it may seem, a bleak hill top is less cold than the valley below it. This is because the coldest air settles to the bottom, leaving air a little warmer in the strata above it. The same reason exists for the killing of corn in the low places when higher up the corn is untouched by the frost.

The hill top gives what is known as air drainage, which now is regarded as very important in all localities where frosts come late in the spring or where the temperature drops to a very low point in the winter.

Fortunately, perhaps there are many ridge tops and hill tops all over the country that are suitable for no kind of agriculture but that connected with the growing of trees. Since these high localities are the best possible places in which to grow orchards, certainly they should be utilized to the uttermost. It will be found that in a wild state all such ridges and hill tops are covered with trees, and are more often clayey in nature than is true of valley situations where sand and loam soils are more common. This is because hill tops are not formed from such easily-moved elements as loam and sand.

If we look into the topography of any famous apple-growing section we will find that the high land and the hills have played a great part in the development of the apple-growing industry.

In the colder states, the proximity of a body of water is greatly to be desired. Often orchards on the shores of lakes escape frost injury, while orchards farther away suffer. Even small lakes of only a few acres in extent exercise a beneficial influence, especially if they lie between the orchard and the point of the compass from which the cold winds come.

Timber near an orchard is a protection from cold winds, as it tends to turn them aside. Timber also throws the wind up and over the orchard, which saves the trees from being badly shaken when they are laden with fruit. But timber also harbors insects to such an extent that the spraying for insects is often neutralized.

Ways With Grapes.

Many complain that grapes are only good when fresh; that they would not give a fig for the canned products. And yet there are several ways in which these same critics will eventually find them an agreeable relish.

One woman who has several little folks to provide with school lunches depends largely upon her fruit jellies for "spreads." One day they are given a dark jelly made by cooking the skins and straining. The next, it is a light, clear jelly, made from the pulp, which is easily freed from the skin by slipping the latter off with the finger pressed at the stem end of the fruit. After the jelly has been drained, she puts the residue through a colander and removes the seeds, cooking the rest into an appetizing grape butter, good variety for another day.

She always cans several cans of grapes for pies. The skins are removed after the fruit is washed, and these are kept separate from the pulp. The latter is passed through a colander and the seeds removed. The skins are then added to the pulp, with sugar to taste, and spices, if preferred. Cook until the skins are tender, and can. This is fine either for pies or sauce, and the doctor's objection that eating grapes courts appendicitis can here have no weight, since the seeds have all been removed.

Grapes are most wholesome, and the juice, canned and bottled, makes an agreeable drink for sick or well. Some prefer to wash the grapes and put them into cans, then pour over them a hot syrup, allowing a cupful of sugar to a quart of fruit. Place the cans in a boiler of water and cook until thoroughly heated through, then seal. They have in this way the fresh taste so highly appreciated. Of course, there should be a rack or clothes in the bottom of the boiler to prevent breaking cans. —Bessie L. Putnam.

Foreign Meat in London.

From a report just received at the State Department from the American Consul General at London, it appears that almost the whole of the foreign supply of beef imported into the United Kingdom is now derived from Argentine and Australia; whereas in 1908 the quantity of fresh and refrigerated beef received from the United States was 162,000,000 pounds; in 1912 it dwindled to 685,000 pounds, and this quantity was distributed throughout the United Kingdom. In consequence there is no quotation for American beef (that is, from the United States) recorded in the weekly wholesale market reports, nor has there been during the current year.

The following were the prices during the week ended September 24th, 1913, for imported beef in London per hundredweight of 112 pounds: Argentine frozen hindquarters, $9.08; forequarters, $6.53; chilled hindquarters, $11.92; forequarters, $7.66; Australian frozen hindquarters, $9.08; forequarters, $6.53.

In the Central Meat Market, London, on September 29th, foreign beef realized the following prices per hundredweight: Argentine chilled hindquarters, $9.65; forequarters, $6.35 to $7.38; River Plate, frozen, hindquarters, $9.08 to $9.36; forequarters, $7.38. The retail prices to consumers vary slightly in different districts in London. A fair average per pound in cents is: Sirloin, 19; wing rib, 18; silver side, 16 to 17; steaks, 24 to 28.

Australian Sheep and Wool.

Since we are to admit foreign wools free of duty sheep raisers will be interested in the following from United States Consul W. C. Magelssen at Melbourne, Australia, who says that the census returns of stock show that as a result of the drouth sheep figures in Victoria declined from 14,000,000 at the end of 1911 to 13,000,000 at the end of 1912. The total losses of grown sheep in the whole of Australia for this period are estimated at 10,000,000 head. In Victoria and South Australia the clip was good, the wool being sound and well grown, while in Western Australia the clip showed the effect of the drouth, most of the production being poorly grown, thin, hunger-fine, and much more wasty than usual. Considering that most of the sheep existed for about half the year on scrub it is surprising that the Western Australian clip was no worse.

Of wool produced in this district the United States took from South Australia $87,082 worth and from Victoria $2,290,934. No Western Australian wool was shipped direct to the United States. Germany is Australia's best customer for wool, and of growing markets Japan and China appear the most promising. Although India is one of the smallest of Australia's customers, there are signs of an expanding trade there also.

While the fears of a very considerable shortage in the clip were confirmed, the effects were mitigated by a higher range of prices than last season. The wool season in Australia is reckoned from July 1st to June 30th. Shearing goes on practically the whole year round, starting in Queensland in February and finishing in November in Tasmania.

SHEEP AND WOOL NOTES.

There is a substantial protective duty on woolen goods, but raw wool is now admitted into this country free of duty. We refer to the law that was recently enacted by Congress.

The Twenty-fourth Annual Meeting of the American Hampshire Sheep Association is called to meet at the Live Stock Exchange Building, Union Stock Yards, Chicago, Ill., on Wednesday evening, December 3d, 1913, for the purpose of electing a full official board to serve for the year 1914, and such other business as may properly come before the meeting. Matters of great importance to the American sheep breeder are to be discussed.

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Cement Workers' Handbook.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, doors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the **Cement Workers' Handbook.** Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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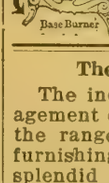

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Send postal today for large free catalog and prices. HOOSIER STOVE CO. 247 State St., Marion, Ind

Base Burner

The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal,** both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Is always the best way. Sudden freezes, icy, slippery roads have no terror for the farmer whose horses wear

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All Roads are Good Roads. His horse is as sure-footed as on bare macadam.

RED TIP CALKS

Are easy to adjust and are so made that they wear sharper with use. They will hold a horse up on any road, however slippery, and will give him courage and self-reliance. One trial will convince you.

Send for Booklet G.

NEVERSLIP MNFG. CO.,
NEW BRUNSWICK, N. J.
INSIST UPON THE RED TIP.

PUBLIC AUCTION SALE.

PRIZE-WINNING POLAND-CHINAS.

Notice is hereby given that on SATURDAY, NOVEMBER 22d, 1913, there will be sold at Auction forty (40) head of highly-bred Poland-China Hogs, bred and raised by WILDER CARPENTER, of Grandview Breeding Farm at Marmaduke, Ark., and forty (40) head splendid Poland-Chinas from the celebrated herd of Sheehy Bros., one of the best bred, raised and exhibited herds in the fine stock-breeding state of Missouri.

EIGHTY (80) HEAD IN ALL.

The offerings will consist of Spring Males and Gilts, bred Gilts and bred Sows; also one and two-year-old Boars. The Auctioneers will be H. O. Correll, of Taylorville, Ill.; W. O. Irby, of Pigott, Ark.; and W. S. Whetstone, of Rector, Ark. In addition to the Poland-Chinas there will be sold at Auction the BLACK WALNUT STALLION, 1,802, and JEFF. DAVID, 3,029.

Send for Catalogue at once and get a line on the magnificent breeding of the Poland-Chinas and make a note of the date of the sale. The sale will take place at MARMADUKE, ARK., on the St. Louis and Southwestern Railway, just above Paragould, which is the junction of the Iron Mountain and other roads.

Finer stock was never offered at a Public Auction; the Stallions are first-class; and the Hogs are from illustrious Sires and meritorious Dams that are grand prize winners wherever exhibited.

Come to the sale. Most magnificent Poland-Chinas and excellent recorded Stallions.

WILDER CARPENTER,
—Breeder of—
Prize-winning Poland-Chinas,
MARMADUKE, ARK.

FOREIGN BEEF COMPETITION.

What the American Cattle Raiser May and May Not Expect—A Bureau of Animal Industry View of the Subject.

Prof. James M. Pickens, of the United States Bureau of Animal Industry, has the following to say on the subject of meat imports:

"While future imports may afford some measure of relief (from meat shortage), too much reliance should not be placed upon this source of supply. A study of the statistical situation in other countries does not disclose where we are likely to obtain any large quantity of beef for an extended period. Besides our nearest neighbors, Canada and Mexico, the sources of imports are practically limited to South America (especially Argentine) and Australia. New Zealand exports large quantities of mutton but very little beef. Canada and Mexico do not at present give promise of substantial assistance. The number of beef cattle in Canada is only about one-ninth of that in the United States, and shows a steady decrease, amounting to over 11 per cent. in the last five years. Recently thousands of cattle have been brought in from Canada, mainly because of poor pasturage and partial failure of the hay crop there. This movement may continue for a time, but it will naturally have the effect of further reducing Canada's stock of cattle. The unsettled conditions in Mexico make it unlikely that any considerable number of cattle can be expected from that country for at least a few years. Argentine and Australia are already supplying most of the British imports, and have been called upon to make up the loss in the supply formerly furnished by the United States. The Australian colonies, however, are sheep rather than cattle countries and export probably four times as much mutton and lamb (by weight) as beef. Argentine is a large producer and exporter of beef, but has apparently reached the limit of her present cattle resources. The number of cattle in that country showed a decrease at the last census (1911) as compared with the preceding one (1908). The report from Buenos Ayres that 7,262,000 cattle were killed in 1912 out of a total stock of 29,000,000 indicates that Argentine is drawing on its reserve.

"It appears that England alone could probably take all of the foreign beef available for export, to say nothing of the new markets which have already been found in other European countries. We shall therefore have to bid against England and other purchasers of foreign beef, and this competition will tend to keep up prices. It must be remembered, too, that this foreign beef is not up to the standard of quality of our corn-fed beef.

"In view of the present meat situation at home and abroad, it is unlikely that our cattle raisers will have much to fear from foreign beef."

Horse and Mule Receipts.

During the month of October the St. Louis market received 16,942 horses and mules, which is an increase of 1,806 head over the same month last year. Chicago received 4,976 head, a decrease of 1,148, as compared with last year.

Wool Market in the Dumps.

There will be very little satisfaction in the wool trade until it has found bottom; probably the bottom has been reached, but it will require some time to find it out. Foreign wools are now admitted free of duty, but there is a duty on woolen goods.

Money in Sausage.

There is plenty of money in making and selling sausage. Farmers can sell millions of pounds of it, providing it is made right, and to make it right, all that is necessary is the Enterprise Sausage Stuffer. See page 25.

The Farmers' and Shippers' Directory of Business Interests advertised on page 8 is a very useful work for farmers to have on a farm.

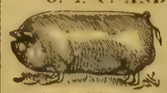
LIVE STOCK BREEDERS' CARDS.

POLAND CHINAS — Out of stretchy Sows and 1,000-lb. Boars. Buy them and win. Angus cattle. **J.P.Vissering, Box 1, Alton, Ill.**

POLAND-CHINA SWINE.

Spring Pigs that can't be beat at $20 and $25; Fall Pigs at $15. Come and see them or write.
D. F. BEAUCHAMP, Meredosia, Ill.

O. I. C. AND CHESTER WHITES.



February, March, April and May Boars and Gilts; Fall Pigs; no kin. Bred Sows, prolific, large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Chickens for sale.
RAYMOND RUEBUSH, Sciota, Ill.

TRUMANS' PIONEER STUD FARM.

America's Largest and Oldest.

Importers of
SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for Catalogue.

Address,
J. G. TRUMAN, Manager, Bushnell, Ill.

SALE OF HOLSTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.

250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

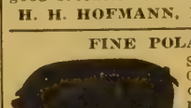
Can fill any order from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your wants.

JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

DUROC-JERSEY SWINE.

Have some splendid Spring Boars ready for service; also one good Yearling Boar, a good breeder. Prices reasonable.
H. H. HOFMANN, R. R. 1, Belleville, Ill.

FINE POLAND-CHINA HOGS.



Spring Pigs, Boars and Gilts with size and quality at $15 and $20, ready for service. Pedigree free. Come and see them or write.
WM. REULECKE, R. R. 2, Assumption, Ill.

"THE PINES" HERD OF HOLSTEINS.

Breeder and shipper of high-grade
HOLSTEIN CALVES.
Prices reasonable.
J. W. FARRELL, Prop., R.F.D. 3, Elgin, Ill.

BIG TYPE POLAND-CHINAS.

Open and bred Gilts, serviceable Boars and Fall Pigs at farmers' prices. Have sold such men as J. P. Vissering Herd Boars.
S. K. GRIGG, Proprietor,
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BLUE GRASS FLOCK OF SHROPSHIRES.

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.
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Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.
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WANTED.—Fifty (50) high-quality, thoroughbred Aberdeen-Angus Cows. State fully what you have and prices.
T. W. GRAHAM, Myrtle, Miss.

KENTUCKY JACK AND PERCHERON FARMS (Successors to the Cook Farms and the Cloverdale Jack and Percheron Farm).

We have the best herd of big-bone Kentucky Mammoth Jacks in the country, and a splendid lot of Percheron Stallions and Mares. Also a few nice Saddlers and Drivers. We will make special prices to those who buy this fall. Catalog ready November 1st. Write or visit our farms.
J. F. COOK & H.T. BROWN, Proprietors, LEXINGTON, KY.

TAMWORTH BOARS, Gilts and Fall Pigs in pairs, not related, from large mature parents.
W. J. WHITE, R. R. 2, Butler, Mo.

Registered Large Yorkshires.

Boars make splendid cross on lard-type Sows. Increases size of Litter and Pigs. Earliest to mature; healthy, gentle, good grazers. Fine lot healthy Spring Pigs. Dam of these Pigs has record of nineteen Pigs in one Litter.
Write for descriptive booklet,
T. C. KIMBER,
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THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. **J. H. DUNLAP, Box 373, - Williamsport, Ohio.**

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THOS. H. EZELL, Proprietor,

Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks). A written guarantee. Send for catalog.
R. F. D. 7, - NASHVILLE, TENN.
Long Distance Phone, Main 1326.

Buy Jerseys

Dollar for dollar invested, the Jersey will earn back the amount paid for her quicker than other breeds because her product brings a higher price per quart or per pound. For the home she is unsurpassed, and her low cost of keep makes her most desirable. Write now for Jersey facts. No charge.

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324 W. 23d St., New York

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A Splendid Magazine One Year—Universal Magazine — National Farmer and Stock Grower One Year—Eight Standard Grapevines —All For One Dollar.

The UNIVERSAL MAGAZINE is our own publication. It is seven years old. It is a nice, clean, interesting, illustrated magazine that is increasing in circulation every month upon its own merits. During the coming year it will be exactly the same size as THE NATIONAL FARMER AND STOCK GROWER

The National Farmer and Stock Grower is a monthly paper; contains practical information, clean-cut, instructive, up-to-date news of markets and instructive matter concerning general farming, stock raising, dairy poultry keeping and all the especial features that keep a farmer posted on his own interests in dealing with the world of business.

The subscription offer includes a magnificent collection of Eight Two-year Standard Grapevines. These grapevines are ready for planting. They are two-year-old vines from the best Chautauqua vineyards. The collection consists of **Moore's Early**, a black grape; **Catawba**, dark red when fully ripe; **Diamond**, a large white; **Concord**, black early; **Agawam**, red or maroon; **Niagara**, large and handsome white; **Delaware**, compact red; and **Worden**, a large black grape. We offered this premium last year with great success. The vines are taken up in the fall and held in storage for spring planting. A booklet giving complete directions for planting, pruning, etc., is sent with each set of grapevines.

Our proposition is that we will send you the UNIVERSAL MAGAZINE for one year; THE NATIONAL FARMER AND STOCK GROWER one year; and the COLLECTION OF GRAPEVINES, nicely packed, postage paid—all for one dollar.

We have word from the Nursery that they can ship the plants on receipt of order.

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Gentlemen:—Herewith please find One Dollar ($1.00), for which send me the UNIVERSAL MAGAZINE one year; THE NATIONAL FARMER AND STOCK GROWER one year; and the EIGHT TWO-YEAR-OLD STANDARD GRAPEVINES as advertised.

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An "International" Investment.

Contrary to the generally-accepted belief the exhibitions of live stock in the United States are the greatest in the world. Not only are the displays of animal excellence themselves superior to all others, but the equipment for the staging of the shows and the accommodation of the visiting public is far better and more comprehensive than in any other country. Vast improvements have been made the past year in the setting of the International Live Stock Exposition, which will this year be held from November 29th to December 6th. Concentrated, though safe and sanitary stabling and display of the animals, commodious lecture halls, a magnificent exhibition arena, together with all necessary comforts for visitors—all, as it might be said, beneath one roof—form a combination not hitherto contemplated in connection with any live stock show.

In no other country is the show yard so closely associated with the national educational system, in none is the whole scheme and plan of exhibition arranged so that each season's prize winners may be brought before a court of last resort for final alignment, as at the "International," which will this year be held from November 29th to December 6th. Here alone of all the great world's shows may the best of all useful breeds of farm animals be seen in their foremost estate in one grand display.

In the United States we have the best, and the best of the best may be seen each year at the "International." Many foreign countries have great individual exhibitions, but by common consent of all the world's highest authorities, the "International" is an easy leader. At this show may be seen the pick of the foremost foreign breeds massed together well nigh beneath a single roof.

Gathered in their thousands at the greatest railway center in the world, the animals at the "International" offer a liberal education in themselves to all who care to study them. Here all of our master breeders, and many from foreign climes, take post-graduate courses. Money paid out in attending the show is regarded by them as the most profitable, sound and remunerative investment they can make.

To keep up with the trend of live stock breeding, the farmer and stockman must needs attend the "International." He must study the work of the judges, and if he cares to, and goes the right way about it, he may learn from the lips of these judges their reasons which governed their awards.

It is a show by the people, for the people, of the people. Its guiding principle is the greatest good to the greatest number. It offers a matchless opportunity to study, to learn, to meet and know the master minds in live stock circles. Any farmer who fails to attend the "International" deliberately deprives himself of an asset—a valuable asset which in after years would have bulked large in his store of knowledge and beyond peradventure in his bank account also.

BLOODED STOCK NOTES.

On the front page of the October number of The National Farmer and Stock Grower we published a picture of Iowa's Delight, grand champion Chester White sow, owned by Mr. Thos. F. Kent, R. F. D. 2, Walnut, Iowa. We made a mistake, however, by saying she was grand champion sow at the Minnesota State Fair, whereas we should have had it the Nebraska State Fair. The grand champion Chester White sow at the Minnesota State Fair was the magnificent young sow Bess, a senior yearling, exhibited by C. A. Andrews & Sons, of Sheffield, Ill.

Mr. Wm. Reulecke, of R. R. 2, Assumption, Christian county, Ill., on the Illinois Central Railroad, just north of Pana, is advertising Poland-Chinas of his own raising. He has fifty head of gilts and boars for sale by his great boar Big Chief. Read his card, which is located on page 20, with other breeders.

Get My Low Price On The Hercules Stump Puller

SEND me your name if you have stumpy land, or even a few stumps in your fields. I want to make you a price that will save you at least 50% on the regular price of the famous Hercules! This is the best chance that you have ever had, to get rid of the stumps in the quickest, cheapest and best way.

Pull Out The Stumps!

All Steel Triple Power 3-Year Guarantee

Stump land is *loafer* land, *robber* land, *failure* land. You can't afford to keep stumps. They cost too much money. They take away half the realty value of your land—and they rob you of *big crops that you don't get!* Let me quote you my price on the world's best machine for clearing land.

You Take No Risk

I'll send the Hercules on 30 days free trial—you to try it in your own way, on the stumps in your fields. If you keep it, you are still further protected by any unqualified 3-year guarantee which insures the free replacement of all broken castings for 3 full years, whether the broken castings are *your* fault or the fault of the machine!

Write Quick For Big Free Book

You will be glad you wrote. You'll be pleased with the photographs, letters and facts about the Hercules construction. My price will make it easy for you to own a Hercules. Nothing to be gained by waiting—much to be lost. Write me now while my special price offer holds good. Address me personally,

B. A. FULLER, President.

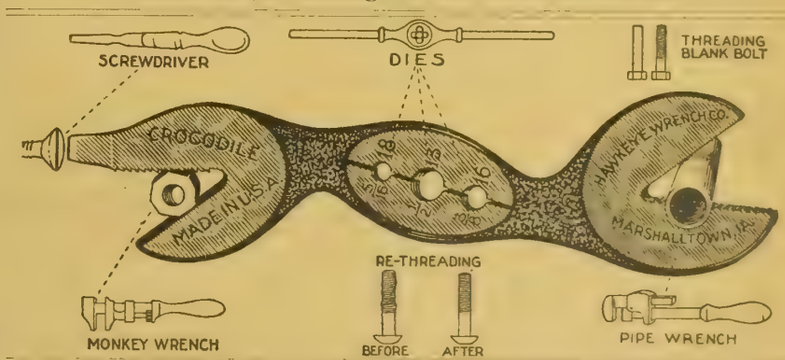
HERCULES MFG. COMPANY,
340 22nd St., Centerville, Iowa.

St. Louis Poultry Prices.

On November 1st the following were the prices paid for shipments arriving at the St. Louis market: Chickens, 10½c.; broilers, 13c.; fowls (hens), 9½c.; cocks, 8c. Turkeys, 15c.; culls, 10c. Geese, 10½c. Ducks, 12½c. Guinea chickens—Old, per dozen, $2.75; spring (1½ pounds and over), $5.00; spring light), $3.00.

AN ABSOLUTE NECESSITY ON A FARM.

Every Farm Ought to Have an Extra Wrench or Two, Especially When That Wrench is the Crocodile Wrench Premium—Actually Six Handy Farm Tools in One—A Pipe Wrench, a Nut Wrench, Three Dies For Cleaning or Cutting Threads and a Screwdriver.



Drop-forged from the best tool steel, scientifically tempered. Requires no adjustment. Simple and always ready for use. Nothing to get out of order. Dies will fit threads on all standard farm machinery. Light, strong and durable. No farmer can afford to be without it.

SPECIAL INDUCEMENTS.

Our Subscription Proposition: Send us One Dollar and we will send you THE NATIONAL FARMER AND STOCK GROWER for two years, and we will send you, postage paid, safe delivery guaranteed, ONE CROCODILE WRENCH. We also agree to refund money and pay return postage to anyone who is not satisfied with the bargain. Address,

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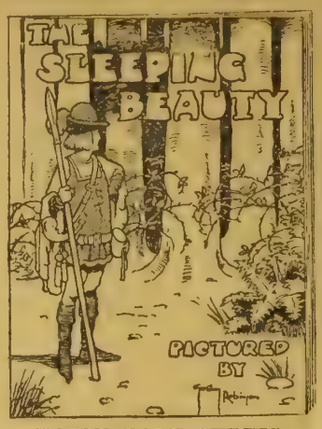
A Premium That Will Delight the Hearts of the Little Ones. Four Fine, Beautifully Colored Toy Books.



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The Universal Magazine

PUBLISHED MONTHLY.

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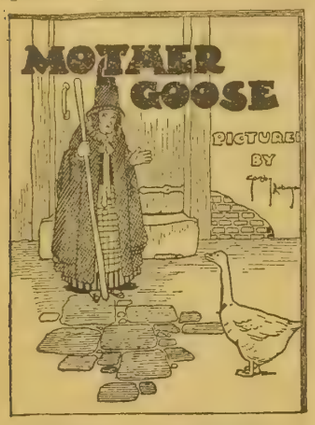
THE UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of **sixty-four** pages, **two** columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 25 cents we will send the UNIVERSAL MAGAZINE for one year, and we will send as a subscription premium any four of the beautiful, colored Toy Books for children. Send us your orders. Order each book by number.



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No. 120—Railway A B C.
No. 121—Dainty Darlings A B C.
No. 122—Nurseryland A B C.

The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

Some Facts About Mushrooms.

Warmth and moisture are the ideal combination for the varied forms of mushrooms, and in the autumn months they may be usually found in abundance; yet scarcely a season passes without some fatality being recorded as a result of indulgence along this line. The old distinction between a mushroom and a toadstool was, that if it killed the one eating it, it was a toadstool; if it proved harmless, it was a mushroom. Botanically speaking, both kinds now belong in the same class; but for the common people there is still scarcely a better distinction between edible and non-edible mushrooms than the old rule.

That there are many more good than poisonous species does not in the least mitigate the virulence of the latter when eaten. One volunteers to gather a basketful for those unfamiliar with them; another begs the recipient of this service to refrain from taking the risk of eating them; and certainly this is a small thing to do when we take into consideration the many dainties incurring no possible danger which may be had.

Yet scientists and epicures alike affirm that the mushroom is a most appetizing and nourishing food; consequently human interest will continue, as it has done for many generations. Those who know the edible sorts will continue in their use; others will try to learn the distinctions, and a fatal blunder will sometimes be made.

There are plenty of rules for distinguishing between good and bad, and an abundance of exceptions with which to prove the rules. State Botanist Peck, of New York, called attention some years ago to the rule "Avoid all that have white gills and a hollow stem;" yet he shows that many excellent sorts have these peculiarities in common with the deadly Amanitas. Another authority would have us discard all mushrooms that have a warty cap or a membraneous sheath at the bottom of the stem;" yet some of the harmless species would by this rule be thrown aside. Some think that all having a meal-like flavor are edible, though the facts do not verify this rule. The cook who used the test of the silver spoon in cooking long ago lost her place through the death of her victims of misplaced confidence, and many more of the popular tests have been proved of no avail. In short, Prof. Peck sums up the only safe and reasonable way is "to learn to recognize each species by its own peculiar specific characters."

It is evident that those who are now restricted to one or at most two or three species might easily extend their field very materially by a more thorough knowledge of the family. It is equally patent that the familiarity which breeds carelessness might work sad havoc. There are scientific treatises on the subject which so carefully describe each species that the botanist will scarcely go astray in identification, even though the forms are new. But for the ordinary person, even the most careful description may be as misleading as have been some of the rules above quoted. There is no safe way unless it be the guidance of one entirely conversant with the subject. The study of the forms direct is the only reliable way for popular distinction, and even this is not always reliable.

If you are a lover of mushrooms, resolve never to eat one that is not of a kind which you absolutely know to be good. Take no chances on uncertainty. Increase your own list as you are able; but do it only on authority of unquestionable value. Always select specimens which have not commenced to decay. Insects are prone to attack certain kinds, and when they appear in the stem, even though the upper part seems unharmed, the quality is impaired. Caution, extreme caution, should be the constant watchword in their use. —Bessie L. Putnam.

The Dusting Cap.

In doing the ordinary morning work more or less dust is bound to find lodgment in the hair, no matter how careful we may be. The dusting cap has come to be a most convenient article, and if made of the same material as the apron it is quite becoming to the wearer. Or it can be made of light calico or percale, using a left-over for which there may be no other use. Enough of these little caps, so that a clean one may always be available when doing dusting, sweeping or any work in which there is dust will prove quite a help in keeping the hair and scalp clean.

Cut out a circular piece of cloth eighteen inches in diameter and gather three-quarters of the way around. Make a double band of a straight piece of the same goods three inches wide and eighteen inches long and sew upon the gathered edge of the crown. Cut the remaining part off square with the cloth, allowing half an inch to turn in for hem. Hem this part and run through it a piece of elastic just long enough that when it is fastened the gathered portion, together with the straight band previously sewed on, will fit neatly around the head. Of course, after cutting the circle paper pattern, one may cut it off square on the one quarter and thus save cloth.

If the cloth used is blue and white gingham a dainty finish for the edge of the straight strip is a narrow band of plain blue stitched along the outer edge When finished, turn this strip back, so that it will be only an inch and a half wide as worn, and double. If a white percale is chosen, the binding should be of the same color as the small figure in the cloth. It is well to leave a place open at the ends where the rubber is put in, so that it can be easily removed before washing. Some dainty housewives like to wear caps similar but of sheer, lace-like material, when cooking and doing other work about the house.—Bessie L. Putnam.

Write for "Betty"

That's the name of the beautiful girl on the

Coca-Cola 1914 Calendar

(Size, 13 X 32 inches)

Send your name and address and a 2c stamp (it pays part of the postage) and we'll send you **Free** and postpaid this beautifully lithographed and perfect reproduction of the oil painting "Betty," painted especially for us. 1914 calendar is attached.

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Coca-Cola booklet enclosed.

THE COCA-COLA CO.
Atlanta, Ga.

Beautiful Apron Premium.

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron stamped on fine white lawn, including piece for pocket and strings, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for all the family, thirty-two pages, etc., all for only thirty cents. Send stamps or coin at once. Don't miss this great offer, because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Requested Her to Stay.

James H. Walls, "the fly man of Boise," has made Idaho the most sanitary and the most fly-proof state in the Union. Mr. Walls, discussing his success, laughed and said:

"I have succeeded in eradicating the fly by making all Idaho hate the fly, even as poor old Dan Carson hated his wife.

"Poor old Dan lay dying. His wife, melting a little for once, said to him:

"'You're going, Dan?'

"Dan, his eyes closed, made no answer. His wife, then repeated, with a sigh:

"'Dan, you're going, but I'll soon follow you.'

"Upon this Dan's glassy orbs opened, and he said in a hollow voice:

"'You stay here as long as you can.'"—New Orleans Daily States.

Detailed reports from correspondents on the winter wheat condition and acreage indicate excellent soil condition and growth, with notable increase in acreage. Farmers are disposed to hold their corn and oats at present prices.

Edwards Patent
STEEL Shingles Beat WOOD

Never Rot, Rust or Burn
Cost Less Than Wood Shingles

Steel Shingles are so far ahead of common wood shingles that there's simply no comparison. They last four times longer than wood shingles—are ten times easier to put on—and make a roof that will NEVER rot, rust, leak or catch fire. An Edwards Roof gives wonderful

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Each Edwards Steel Shingle is galvanized all over. Edges are dipped in MOLTEN ZINC. No chance for rust to get in its work. Our patent Interlocking Device makes all joints water tight and takes care of expansion and contraction.

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We sell direct from factory. We pay the freight and give $10,000 untarantee against lightning loss.

Join hands with over 100,000 owners of Edwards Roofs to save money, time and trouble.

WRITE! Send postal, at once, for world's greatest Roof Book, No. 1157, and Special Factory Prices on Edwards Steel Shingles. If possible, give dimensions of your roof, so we can quote prices on the complete job.

THE EDWARDS MANUFACTURING COMPANY
1107-1157 Lock Street Cincinnati, Ohio
Largest Makers of Sheet Metal Products in the World

THRESHING PEAS AND BEANS.

The Operation Directly From the Vines Without Splitting the Seed.

Farmers almost in all sections of the country are experimenting more or less with the raising of beans and peas both for seed and for fodder.

In the pea-growing sections of the country the saving of the seed has not been attempted as much as the value of the seed should seem to merit, but the reason for that appears to be that there has been no adequate machinery for the purpose of harvesting and threshing.

Beans, of course, are grown extensively in some states, and there are regular threshermen with special machinery traveling around the country doing jobs of threshing these crops; but in other parts of the country, where the growing is not so extensive, the threshing has been left to common grain threshers or has been attempted by hand, which is very wasteful in either event.

It is a mighty hard thing to thresh beans and peas successfully without injuring a great percentage of the seed or without leaving a great percentage of the seed with the vines and pods. Therefore special machinery is necessary in order to do this, and it has been conclusively proven that it requires two cylinders to successfully do the work.

We have in our columns for the last several months carried the advertisement of the J. L. Owens Company, who manufacture, in fact are the only manufacturers, of a full line of bean and pea threshers. These people are manufacturing machines that can be operated with a two-horse-power gasoline engine to big machines for traction power. These sizes will fit the small grower who cares only for a machine for his individual use as well as for the medium and large grower and thresherman.

The machines are absolutely guaranteed to thresh all varieties of beans and peas directly from the vines without splitting the seed and without losing any of the seed in the vines.

We ask our readers who are interested in the pea and bean-growing proposition to write the J. L. Owens Company and ask for one of their complete catalogues, which, in addition to a full description and illustration of their full line of threshers, also contains some valuable information as to the soil, feed and market value of these crops. They also will furnish you with actual facts and figures based upon actual experiences of growers in different parts of the country, and to what extent it is possible to accomplish in real profits from growing these crops with proper handling. Kindly mention this paper and address J. L. Owens Company, Chamber of Commerce, Minneapolis, Minn. See illustration of bean and pea thresher on this page.

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather, or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Weeds That Are Traveling.

The most of our worst weeds have gone from east to west, some of them having crossed the Atlantic to reach us. But there are a few which have reversed their direction; and in either case it is wise to be ready to meet them and to give to each the reception deserved.

For years we have had rumors of the habits of the orange hawkweed in the dairy regions of Eastern New York; but it is now thoroughly at home in many parts of Pennsylvania and working westward, largely through the medium of newly-seeded meadows. It is also locally known as "Devil's Paintbrush," a name peculiarly applicable both from its habits and form. The flowers are of a bright orange or scarlet and the entire plant is clothed with black hairs. Its spreads rapidly from root multiplication and from seed, and its first appearance in a neighborhood should be the signal for a persistent fight. Someone has recently said that by scattering salt freely upon the plants when the dew is on will soon destroy it. The plan is well worth the trial.

The wild carrot, or "Queen Anne's Lace," an interesting plant until we see how completely it takes possession of a field, is really not so formidable as its habits would indicate. It is a biennial, blossoming and forming seed the second year. Cultivation will soon destroy it, for, unlike the white daisy, which is only multiplied by any but the most persistent hoeing and cutting, this plant lives only two years at most, and if the seedlings are destroyed its hold upon the land is lost.

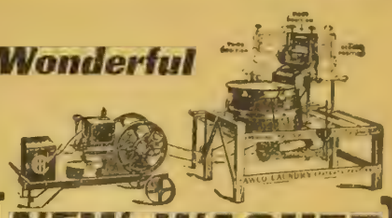
We have noticed in many newly-seeded meadows stalks of the beautiful, bright blue succory. Its charming appearance may at first excite no suspicion, but it is a troublesome weed, and if you happen to come upon it for the first time, just make it a point to pull out the few plants which have this season appeared. It will save future trouble.

It is a very good plan not to rest if at any time you see some new plant. Notice its habits; if it seems inclined to increase too rapidly. If you cannot find out in your neighborhood the name and nature of the plant, box up a specimen, showing flower, foliage, seeds and root formation, if possible, and send to the State Botanist or to the Department of Agriculture, writing them at the same time for information regarding it. They are always glad to answer these queries, sometimes gaining information as to the location of certain pests which is of value to them.

It is easy to sound false alarms, but far better to do this than to allow a pest to get thoroughly established in a community, when by a little trouble now it can be stamped out on the start. For instance, in a locality where the yellow clovers have never before been seen, a certain farmer was surprised to see in several places on his farm the yellow clover Trifolium agrarium, growing freely. How it came there is a mystery, as it was not on ground recently reseeded. Several neighbors visited the new plant with doubt if not positive alarm.

In this age of the world, with new plant and insect pests constantly striving for the ascendancy, it pays well to keep a sharp look-out for them. The man who asks questions about these new things, too, is the one who stands the best chance to get rid of unpleasant ones. But to make a practice of pulling up every plant that is strange would be as foolish as laborious. Test first and treat them according to what they deserve.—Bessie L. Putnam.

Wonderful



NEW WASHER

The great new model Awco is now ready. Thousands of people have been inquiring anxiously for this announcement. **At last it is here. The final achievement in washing machine manufacturing after 20 years.**

The Awco Whole Laundry In 4 ft. Square

Here are some of the great exclusive features of the Awco Washer:

The Klatch-Katch which puts you in instant command of the washer, makes wringer finger-pinching impossible, prevents all clogging and won't allow buttons to be torn off.

The new three-positien wringer attachment which enables the clothes to move from washing machine to basket almost automatically.

The new four foot square outfit on which you have a whole laundry and which may be pushed out of the way into a corner.

Arrangement whereby all lifting and moving of heavy tubs positively done away with.

Find out about these things before you buy another washer. If you want absolutely the latest features in washing machines, here they are.

Write Today for Free Book

All the secrets of French dry cleaning fully explained in this book. Find out how to clean woolens, mixed goods, cotton goods. Learn how to clean velvets, draperies, laces, leather, linens, etc. Find out how to remove stains of all kinds. The book explains. Write today and give full address, state, county, etc.

American Washer Co., Dept. 3618 **118 Sidney St. St. Louis, Mo.**

ROOFING SALE More than $325,000 worth of every make and kind of brand new, dependable roofing now being offered at such remarkably low prices, that we ask all in need or who contemplate buying to hesitate placing orders until they get these remarkable

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Prices. This lot consists of every known make of roofing—Galvanized, 2¾c per sq. ft.; Corrugated Steel, 1¾c per sq. ft.; Rubber Surfaced Ajax Roofing 62c per square, etc. We now own the Chicago House Wrecking Company and incorporated for $10,000,000; this tremendous purchase is the first result—nothing like it ever before attempted by anyone. Every dollar's worth of the roofing guaranteed brand new. Every quality. Write for free samples and remarkable prices.

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The Owens Bean and Pea Thresher.

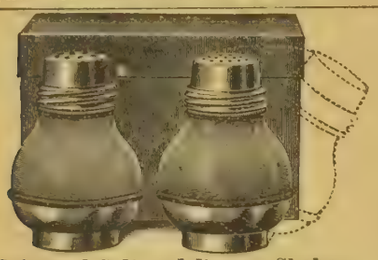
SALT AND PEPPER SHAKERS.

The Best Subscription Premium Ever Offered With the Universal Magazine.

The UNIVERSAL MAGAZINE ought to be known by everybody for the reason that it is a nice, bright, cheerful, illustrated monthly magazine of sixty-four pages, two columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

When we send out the UNIVERSAL MAGAZINE we also like to send out a useful and meritorious subscription premium with it.

To this end we have adopted a pair of ALUMINUM SALT AND



Universal Salt and Pepper Shakers—Reduced Size.

PEPPER SHAKERS, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents by mail in response to this advertisement we will send the UNIVERSAL MAGAZINE for ten months, and we will send the pair of ALUMINUM SALT AND PEPPER SHAKERS as a premium, postage paid, safe delivery and satisfaction guaranteed. Send in your orders to

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Quilt Patterns

Every quilter should have our book of **450 designs**, containing the prettiest, queerest, scarcest, most grotesque patterns, from old log cabin to stars and puzzle designs; also crazy stitches and Cat. All postpaid, for six 2 ct. stamps (or silver dime); 3 for 25c.

LADIES' ART CO., Block 126, St. Louis, Mo.

"MY CORN'S GONE!"

"I used SMILO." A little piece on corn instantly stops pain; corn quickly dies, loosens and comes out whole. SMILO looks like court plaster—not hunglesome bandages or pads, nor mussy salves. One piece treats over 20 corns—only 15c. Send stamps or money TODAY. Agents wanted.

SMILO SALES CO., 2030 E. Prairie Ave., ST. LOUIS, MO.

The Genuine Navajo Ruby Doublet.

A subscription premium with the UNIVERSAL MAGAZINE. The Navajo Ruby is found by the Navajo Indians of New Mexico, and, being cut and polished by them, is a most delightful little gem. When mounted in rings or pins there is

nothing more beautiful. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated magazine, containing home reading, stories, patterns, fashions and poetry—a splendid publication. The subscription price is 25 cents a year. Send us 50 cents and we will send you the UNIVERSAL MAGAZINE for two years, and we will also send by mail, prepaid, one Genuine Navajo Ruby Doublet as a premium. We guarantee satisfaction or money refunded. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

WORK OF THE FROST.

Devastation in Warm Zones and Benefit in Others Where Compensations Exceed Losses.

In the temperate zones, the farmers have an ally that is unknown in the warm zones of the earth, and that ally is the frost. When the frost appears at all in the warmer zones it is an agent of destruction, leaving disaster in its wake. More than once, orange groves of great value have been destroyed by the frost in a single night, and there has been no compensating good. But in the two great temperate zones of the world the frost plays not only a savage role, but also a beneficial one, and the good far outweighs the bad.

It is without doubt largely the frost that gives us the sod, which is such a factor in clothing our pastures and making our lawns. It is said that sod is seldom found in the warmer parts of the South, and that it is extremely difficult to build a lawn under any system of agriculture.

But in the cooler zones the frost pulverizes the soil below the grass roots every winter and so loosens the ground that the grass roots naturally permeate it everywhere and form that delightful carpet of green of so much importance to us in many ways.

The frost is eternally helping us to make our clay land suitable for agricultural purposes. It lays hold of every particle of moisture in the clay soil within its reach and swells the size of that particle of moisture. As the same work is done with every other particle of moisture, the clay particles are pushed away from each other, and in the spring when the frost has gone out of the ground the clay particles are so far apart that the air can get in between them, and this air furnishes the elements to support bacterial life that is operating for the elaboration of plant food from the latent food elements in the soil. This is of great importance.

For the above reason, the draining of clay soil is important, as it lowers the level of the water and lets the frost penetrate it just so much more. Many a farmer will testify that when he has dug through a piece of wet clay land and has tiled it, the clay above the drain has become more porous than it was before, and the same is true of the ground on each side, as far as the influence of the drain is felt.

One great use of the frost is to kill cutworms and other insects Where these insects become troublesome, fall plowing will go far to destroy them. The turning up of the furrows lets the frost into the soil so deep that the worms are destroyed.

But the good work of the frost must not alone engage our attention. There is a reverse side. Many of our fruit trees have tender roots that will not stand a high degree of frost. In such cases the roots should never be rendered more exposed by fall cultivation of the ground around the trees, and the same is true of grapevines. Not only should the soil be left as hard packed as possible, but various kinds of covering may be put on to reduce the depth to which the frost will go.

Golf Course Costs Money.

"What are you working so hard for?"

"I want to provide for my boy's future," replied Farmer Corntossel. "I want to lay by enough wealth so that I can leave Josh this farm for a golf course."—Washington Star.

Kitchen Set Premium.

Read about the National Kitchen Set Premium. Three pieces. We send it by parcel post. We used to send such sets by express, but the cost of transportation was greater than the cost of the set. See page 25.

PRINCESS TAMBON HER SISTER and BROTHER.

Three Indian Dolls For 30 Cents and One-year's Subscription to a Splendid Magazine.

INSTRUCTIVE AND AMUSING.

This is the Greatest Combination Ever Offered in the Form of a Subscription Premium.

These Dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—the PRINCESS TOMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in

PRINCESS TAMBON. Sixteen Inches High.

four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. Directly one order is filled a dozen more follow. It is actually a startling success.

THE MAGAZINE.

The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated

HER BROTHER—KOSHPOP. Six Inches High.

magazine of sixty-four pages, two columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid magazine.

HER SISTER—PRINCESS YIMINY. Six Inches High.

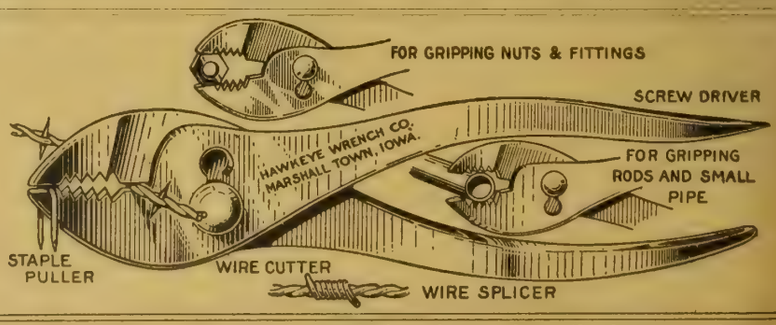
THE PROPOSITION.

Send us thirty (30) cents for one-year's subscription to the UNIVERSAL MAGAZINE and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed.

Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

HAWKEYE COMBINATION FENCE PLIER.

This Plier will work in closer quarters than any wrench. No farmer can afford to be without one. It will cut and splice wire, pull staples, grip pipe rods and nuts, and has a screwdriver attachment. There are hundreds of uses for this little tool. It also makes a handy household tool.



This Plier is full nickel-plated, drop-forged from the best open-hearth steel and case-hardened. It is light, compact and easily carried in the pocket.

Send us sixty (60) cents and we will send you THE NATIONAL FARMER AND STOCK GROWER for one year, and we will mail to you, postage paid, safe delivery guaranteed, ONE HAWKEYE COMBINATION FENCE PLIER.

STERLING SILVER THIMBLE.

Given as a Premium With That Nice Family Publication, the Universal Magazine.

Every woman, whether she sews much or little, should have a Silver Thimble. No need to use a rusty steel or dangerous brass thimble, when a Solid Silver Thimble can be had for the cost of packing and mailing.

If you are not now a subscriber to the UNIVERSAL MAGAZINE you are missing one of the most delightful publications, and as a trial offer we will send the UNIVERSAL MAGAZINE for a year and one of these Thimbles for thirty cents in stamps or coin. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, three columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication. The sizes of the Thimble are 7, 8, 9 and 10; order by size. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

This Beautiful 20 Year Watch $3.75

Elegantly engraved THIN MODEL, GOLD FINISHED double Hunting case, 7 jewel American lever movement, stem wind and stem set. 20 year guarantee sent with each watch. Long gold finished chain for Ladies, fob or vest chain for Gents Free.

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EXAMINATION FREE. Let us send it C.O.D. to your express office, after you examine it, if you think it is a bargain and equal to any $15.00 watch, pay the express agent our Special price $3.75. Mention Ladies' Man's or Boy's size.

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GENUINE MEXICAN OPALS

offered as a subscription premium with the UNIVERSAL MAGAZINE. Mexican Opals are lucky stones and are discovered by the Indians and cut and polished by them, ready for mounting. They are sold to us in quantity, far less than they would cost at a jeweler's. The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money—25 cents a year. To anyone who will send us a money order for 50 cents we will send the UNIVERSAL MAGAZINE for two years, and we will send as a subscription premium one Genuine Mexican Opal by mail, satisfaction guaranteed or money refunded. Address, **THE HALE PUB. CO., 3550 Vista Ave., St. Louis, Mo.**

Willys-Overland Autos.

Do not forget to read and study carefully the points of superiority set forth on page 32 of the Willys-Overland cars. Superior quality and the lowest cost consistent with it. At the Automobile Show recently held in St. Louis the Willys-Overland car was a great attraction, fully proving the assertion that the 1914 model was a better car for less money.

THE KITCHEN GARDEN

Requires Large Quantities of Manure — Fall Work — Provide For Drainage—How to Lay It Out.

The kitchen garden should receive more attention on our Western farms than it generally does. The Eastern farmer that comes West is astonished to find many farms where no attention is paid to the garden that should provide supplies for the table. On the farms of the East the habit of garden making has come down from the times of the Pilgrims.

For many years now there has been an agitation in favor of a kitchen garden on every farm, and it is probable that this agitation has borne some fruit, and that the percentage of farms having such gardens is much greater than formerly; but it is even yet too small.

The kitchen garden should be begun in the fall. If it is a new garden the soil should be broken up now and heavily manured. If the ground does not freeze up before the sod has rotted, there should be another plowing this fall to incorporate the manure with the soil and get the land in the best possible condition for the work in the early spring.

During the winter much rotting of the manure will take place, and this rotting is absolutely necessary for the well-being of the early vegetables, such as lettuce and radishes. The manure applied early in the spring will rot in time to stimulate the growth of the vegetables to be used in early and late summer.

One thing should be kept in mind, and that is, that success with the garden requires the application of a large amount of manure. The quantity put on this fall should be much greater than is usually applied to land for field crops. If a large quantity of manure is incororated with the soil this fall the supply of plant food in the ground next spring will be so great that the early vegetables will grow rapidly. Rapidity of growth is necessary if the vegetables are to be crisp and succulent. Slow-growing lettuce and radishes are very unsatisfactory.

In plowing the garden in the fall frequent dead furrows should be left, so that the water will drain off quickly in the spring and the ground become warm at the earliest possible moment. Also these dead furrows, if deep, will enable the frost to strike deep and so pulverize the soil to a good depth, which also will be a help to the condition of the soil in the spring.

In laying out a new garden, make it long and narrow. This will make it possible to use a horse in cultivating. One of the great objections urged by the Western farmer against the kitchen garden is, that he has not time to look after it and cultivate it, for such work is often hand work on account of the location or shape of the garden. Too often the garden is of such shape that horse work is not profitable. But all students of this matter now advise a shape that will facilitate work with the horse cultivator.

In setting out such plants as asparagus have them in one long row, rather than in several short ones, for the reasons stated above. This suggestion should also be followed in the setting out of all perennial fruit-producing plants.

A Mixed Item.

F. E. Wall, Chairman of the Selectmen of Bar Harbor, laughed at the story that he proposed to abolish the turkey trot and bunny hug in the houses of the Bar Harbor cottagers.

"There is a little truth in the story," he said, "for we do intend to supervise our public dances, but to say we would penetrate with our rules and regulations into the drawing rooms of our cottagers — ridiculous!

"Why, this mixture of truth and absurdity reminds me of a newspaper paragraph I saw in a country paper the other day. It was an obituary paragraph, but a fire story had got mixed with it, just as absurdity has got mixed with our dance regulations, and the paragraph ran thus:

"'The pall-bearers lowered the body into the grave. It was consigned to the flames. There were few if any regrets, for the old wreck had been an eyesore to the village for years. Of course, there was some slight individual loss, but this was fully covered by insurance. 'Good riddance' seemed to be the universal sentiment."

Money in Sausage

The demand for good country sausage, such as you can make, is always greater than the supply and you can get good prices. Do your own killing this fall and see how much more profitable it is than to ship. You will need an

ENTERPRISE

Sausage Stuffer and Lard Press

the one machine that stuffs sausage so that it will keep. **Cylinder bored true.** The corrugated spout, our patented improvement, does it—fills the casings solid.

No air bubbles get in to spoil the meat. This is also the perfect lard and fruit press.

With an Enterprise Meat AND Food Chopper you are completely equipped. The one chopper made to chop meat, and chops everything else as well. **Go to your dealer. He has the Enterprise line.** Send us 4c for our new recipe book, "The Enterprising Housekeeper." 200 economical, tasty dishes.

2, 4, 6 or 8 quarts.

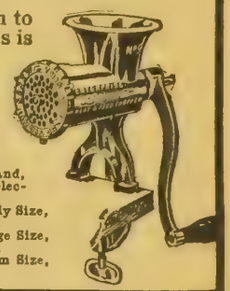
4-quart, Japanned, $5.50.

Tinned and Japanned.

THE ENTERPRISE MFG. CO. of PA.

Manufacturers of Enterprise Food Choppers, Presses, Coffee Grinders, Bone Mills, Seeders, Sad Irons, etc., all the best of their kind and all stamped Enterprise.

Dept. 87, Philadelphia, Pa.



All sizes, hand, steam and electric power.

No. 5, Family Size, $1.75.

No. 10, Large Size, $2.50.

No. 22, Farm Size, $4.00.

98 cents

5 YEAR GUARANTEE

Railroad Watch

To advertise our business, make new friends and introduce our catalogue of Elgin Watches we will send this elegant Railroad watch by mail post paid for ONLY 98 CENTS. Gentlemen's size, full nickel silver plated case, locomotive on dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. Send this advertisement to us with 98 CENTS and watch will be sent by return mail post paid. Satisfaction guaranteed or money refunded. Send 98c today. Address

R. E. CHALMERS & CO., 538 So. Dearborn St., CHICAGO.

Bring It Within Reach.

"Optimists are all right, provided they are not unreasoning and excessive," said Norman Hapgood, the Fushion leader at a Fushion luncheon in New York.

"The optimism of our opponents," he went on, "reminds me of Smith. A druggist said to Smith one night at the lodge:

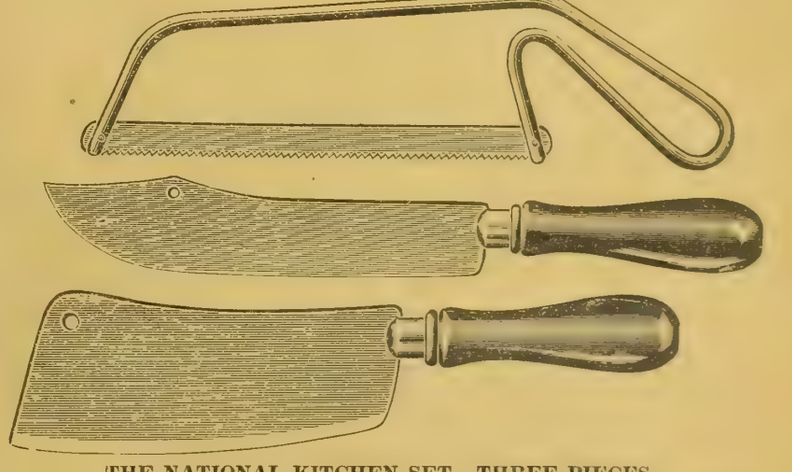
"'There's a movement on foot to make drugs cheaper.'

"'Good!' said Smith. 'Good! That will bring sickness within the reach of all!'"

THE NATIONAL KITCHEN SET

Given as a Free Premium With the Best Farm Publication, The National Farmer and Stock Grower.

In this Kitchen Set we offer the three articles which every housekeeper will recognize as these most useful. The Meat Saw is twelve inches long, made entirely from metal, and is therefore easy to keep clean. The House Knife is thirteen inches long, has a splendid cutting edge, and is adapted to all general kitchen use. The Cleaver is eleven and a half inches long, and good weight, being made from heavy-gauge crucible steel.



THE NATIONAL KITCHEN SET—THREE PIECES.

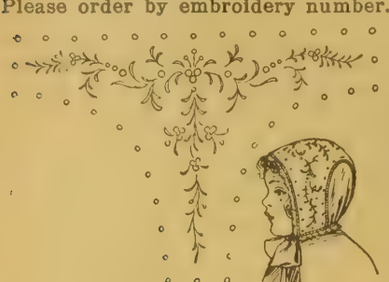
THE NATIONAL FARMER AND STOCK GROWER TWO YEARS AND THIS KITCHEN SET FOR ONLY ONE DOLLAR.

Send us $1.00 and we will enter your subscription to the sterling farm monthly, THE NATIONAL FARMER AND STOCK GROWER, two full years, and immediately forward you by parcel post this KITCHEN SET as a free premium. Safe delivery and satisfaction guaranteed. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

MAY MANTON EMBROIDERY.

These paper patterns require only a hot iron to insure a perfect transfer on cloth. The way to do it is to lay the material to be stamped on a padded ironing board or table, place the pattern over it with the printed side down and press over the entire surface of the paper with a hot iron, when a perfect transfer will result. Please order by embroidery number.

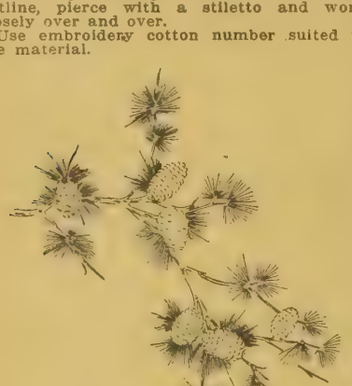


A Child's Cap.

No. 760.—A Design For a Child's Cap. The leaves, flowers and dots can all be worked solidly with the stems outlined, or the leaves and flowers can be worked solidly with the dots as eyelets.

To make solid embroidery, pad the stamped figures by darning backward and forward, lengthwise, and then cover closely with over and over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the dots as eyelets, first encircle by running a thread around the outline, pierce with a stiletto and work closely over and over.

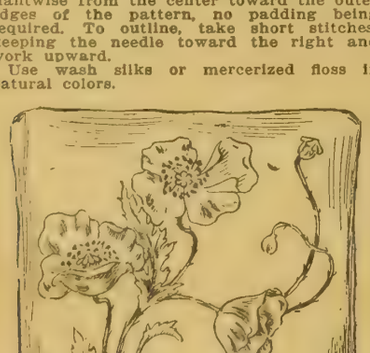
Use embroidery cotton number suited to the material.



For Cushion or Pillow.

No. 763.—A Design For Embroidering a Cover For a Cushion or Pillow Twenty-four Inches Wide by Eighteen Inches Deep. The cones and the pine needles are to be worked in outline stitch, the stems in outline, or in long and short stitch. For long and short stitch, take irregular stitches, working slantwise from the center toward the outer edges of the pattern, no padding being required. To outline, take short stitches, keeping the needle toward the right and work upward.

Use wash silks or mercerized floss in natural colors.

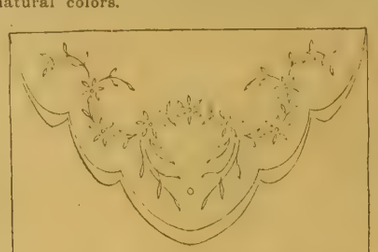


A Splendid Pillow.

No. 765.—A Design For Embroidering a Cover For a Pillow or Cushion Twenty-two Inches Square. The flowers and leaves are designed to be worked in long and short stitch or to be simply outlined. The seed pods are to be worked in solid embroidery, the stems and veins are to be outlined and the stamens worked in French knots.

To work long and short stitch, take irregular stitches close together, working slantwise from the center toward the outer edge of the pattern; no padding is required. For solid embroidery, first pad by darning backward and forward, lengthwise, then cover closely with over and over stitches, keeping the needle to the right and work upward. To make French knots, bring the threaded needle up through the goods, twist the thread round the needle several times, and then, holding the thread tightly in the left hand, insert the needle near the starting point and slowly draw the thread through. To outline, take short stitches, keeping the needle toward the right and work upward.

Use wash silk or mercerized floss in the natural colors.



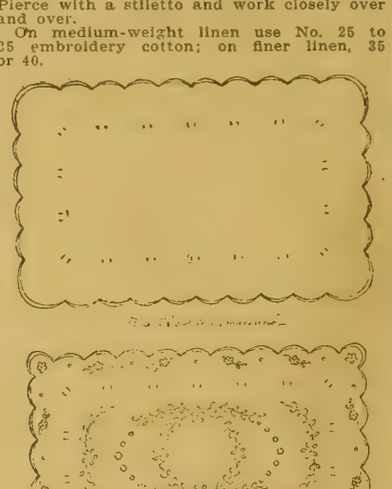
Handkerchief Case.

No. 764.—A Design For Embroidering a Handkerchief Case in Envelope Shape. The scalloped edges are designed to be padded and buttonholed; the sprays of leaves worked either in solid embroidery or as eyelets; the stems to be outlined, and the round dots in solid work or as eyelets.

Cut a strip of material thirteen inches long by ten and a half inches wide, stamp the flap on one end and fold to form the case illustrated.

To pad the scallops rapidly and effectively, cut a skein of thread, apply two or more strands over the center of the stamped pattern, keeping within the lines; tack here and there in couching style, gathering the threads closely together at each point of the scallops, then proceed to buttonhole closely over this foundation. When making solid embroidery, first pad the stamped figures by darning backward and forward, lengthwise, and then cover closely with over and over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the dots as eyelets, first encircle by running a thread around the outline. Pierce with a stiletto and work closely over and over.

On medium-weight linen use No. 25 to 35 embroidery cotton; on finer linen, 35 or 40.



A Cover For Pin Cushion.

No. 762.—A Design For Embroidering a Cover For a Pin Cushion Four Inches Wide, Eight Inches Long, Having Scalloped Edges. Patterns for stamping the outer and under portions are given and the two are to be laced together. The leaves, dots and flowers all can be embroidered as eyelets or some as eyelets, some solidly, as preferred; the stems are to be outlined; the scalloped edges are to be padded and buttonholed; the slits for the ribbon are to be made as eyelets.

To make the leaves of solid embroidery, pad the stamped figure by darning backward and forward, lengthwise, and then cover closely with over and over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward. To make the leaves and flower petals as eyelets, first run a thread around the stamped figure, then cut a slight slit lengthwise, then crosswise, push back the material and work closely over and over. To make the dots as eyelets, run a thread round the outline, pierce with a stiletto and work closely over and over. When padding the continuous scallop of the edges, cut a skein of thread, apply two or three strands over the center of the stamped pattern, keeping within the lines, tack here and there in couching fashion, gather the threads closely at each point of the scallops; or work chain stitch within the lines, heavier at the centers, lighter at the points. Buttonhole closely over the foundation. Make the eyelet slits the same as the flowers.

Use 35 to 40 embroidery cotton when working on sheer materials; 25 to 30 for heavier linen.

Beautiful Small Sprays.

No. 761.—A Design For Embroidering Small Sprays of Forget-me-nots. Four transfers of each spray are given.

The flowers and leaves are designed to be worked in solid embroidery, the stems to be outlined.

When making solid embroidery, first pad the stamped figure by darning backward and forward, lengthwise, then cover closely with over and over stitches worked in the opposite direction from the padding. To outline the stems, take short stitches, keeping the needle toward the right and work upward.

Use No. 30 to 45 embroidery cotton on sheer materials, such as lawn, nainsook or handkerchief linen, and No. 25 or 30 cotton for heavier fabrics.

Each embroidery pattern is 10 cents, and is well worth the money.

Please send all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Made-over Room.

If a girl is longing for a set of new furniture for her room but cannot afford it, let her be comforted by the example of another girl. A new house, looked forward to for ten years, had been completed on the farm and newly furnished in part. Each of the girls had her own room and took much pride with it. Elizabeth is a trained nurse and so she usually has more cash on hand than Margaret, who has always stayed at home and invests her money in poultry, fruit trees, books or some farm improvement. Elizabeth spent over a hundred dollars on the furnishings of her room. The result was a heavy brass bed, a green velvet rug with pink roses in it, a bird'seye-maple dresser and rocker, all against a background of yellow. It was just such a room as may be found in any city flat where a woman has little individuality but a fair amount of money to spend.

Margaret led me next to her room with the remark: "I didn't have much money to spend on my room, but I love it. Really I like it better than Elizabeth's, and it cost me only a couple of dollars besides the work."

The room drew forth an exclamation of delight. No disappointment here. It was all beautifully simple and bespoke the individuality of its owner. The old-fashioned walnut dresser, bedstead, washstand and chairs, which had done service for thirty years, had been enameled white. Half a dozen braided and crocheted blue and white rugs lay on the floor. Several good pictures were on the blue-tinted walls. White muslin curtains were looped back from the windows. It was the kind of a room that rests you as soon as you enter and makes you long to linger.—Janet Thomas Van Osdel.

Correcting Her Watch.

Hubby was in a bad temper. He was late in getting up, and then he cut himself while shaving. So he reached the breakfast table scowling blackly.

"Look here, Mary," he said crossly to his wife, "you've made me late again, and I asked you specially to wake me up at eight."

"And I did call you at eight by my watch," said Mary calmly.

"Then your watch must be slow."

"Well, I can't help that. I asked you what time it was when you came home last night. My watch said it was two o'clock, but you said it was only midnight. So I set my watch right by you!"

"Actions, looks, words, steps, form the alphabet by which you may spell character."—Lavater.

Pick Out the Dyspeptic

You Can Tell Them Anywhere and Especially if You See One Eat.

A Stuart's Dyspepsia Tablet Will Digest Any Meal.

One of the saddest sights at a royally rich dinner is to see a man or a woman unable to eat because of dyspepsia.

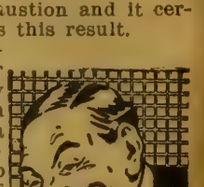
It is really a crime to continue this martyrdom when all one has to do is to eat a little Stuart's Dyspepsia Tablet.

"Too Bad."

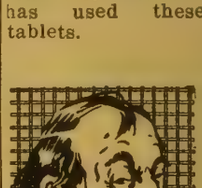
Just carry a tablet in your purse and after each meal eat it as you would a peppermint. It will digest the meal and surely convince you that food will not hurt you.

One grain of the ingredients which compose a Stuart's Tablet will digest 3,000 grains of fish, soup, coffee, ice cream, meats, vegetables and pastries. The whole idea of this great natural digester is to aid nature to do her work without exhaustion and it certainly accomplishes this result.

Stuart's Dyspepsia Tablets are our best known remedy for all stomach and dyspepsia troubles. It is positively wonderful to see the way one of these little tablets will digest a meal. And no one can realize it until one has used these tablets.



"I Used to be Like Him."



"I Know I'll Be Sick."

Every drug store sells Stuart's Dyspepsia Tablets and sells them in huge quantities. No matter where you are located you may go to any druggist and buy a 50c. box that will last you a long time. Absolutely convince you dyspepsia can be prevented.

Many thousands of people use these tablets occasionally just to keep their digestion always perfect. If you stay up late or overeat then take a tablet before bedtime; there will be no horrible dreams or bad mouth taste. Go to your druggist now and buy a 50c. box and go armed against any kind of stomach trouble.

Not Her Mind.

Young Van Winkle waited nervously in the parlor for Julia to appear. He had been sitting there, twiddling his thumbs, for half an hour. Finally a step was heard in the hall and he rose to his feet expectantly.

But it was not Julia. It was her maid.

"Marie," said the impatient young man, "what keeps your mistress so long? Is she making up her mind whether she'll see me or not?"

"No, sir," answered the maid with a wise smirk. It isn't her mind she's making up."

"You may depend upon that he is a good man whose intimate friends are all good."—Lavater.

MAY MANTON PATTERNS.

Easily Made, Advance Styles, Fashion and Perfection—The Standard of the World.

This is the best pattern service, and we are very much pleased to obtain it for our friends and patrons. Each pattern is new and original In this edition we present for consideration very seasonable patterns absolutely up-to-date, with directions for ordering. The price of each pattern is 10 cents.

No. 7999.—Fancy Draped Coat. 34 to 42 bust.

No. 8019.—Tucked Blouse For Misses and Small Women. Sixteen and eighteen years. With or without revers, with long or three-quarter sleeves.

No. 8015.—Semi-Princesse Gown. 34 to 42 bust. With or without trimming portions, with long or short sleeves, with or without inverted pleats at sides.

No. 8014.—Two-piece Draped Skirt. 22 to 30 waist. With high or natural waist line.

No. 7812.—Child's Dress. Two to six years. With square, round or high neck, short or long sleeves, with or without shirring at long waist line and belt.

No. 7993 A.—Tucked Yoke Blouse. 34 to 42 bust. With plaited peplum, long or three-quarter sleeves.

No. 7779.—Plain Blouse or Shirt Waist. 34 to 44 bust. With rolled-over or straight cuffs.

No. 7953.—Belted Coat For Misses and Small Women. Fourteen, sixteen and eighteen years. With peplum that can be made with cutaway or straight front edge.

No. 7800.—Two or Four-piece Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With underlying side panels, with high or natural waist line.

No. 8010.—Deep-yoke Skirt For Misses and Small Women. Sixteen and eighteen years. With straight lower edge and draped portion that forms sash.

No. 7546.—Five-gored Skirt For Misses and Small Women. Fourteen, sixteen and eighteen years. With high or natural waist line, with panel or plain front.

No. 8000.—Fancy Cape. One size.

No. 8020.—One-piece Tucked Corset Cover. 34 to 42 bust. With yoke that can be used to give guimpe effect.

No. 6935.—Three-piece Adjustable Chemise. Small, 32 or 34; medium, 36 or 38; large, 40 or 42 bust.

No. 7233.—Child's Pajamas. Two to six years.

No. 7996.—Circular Closed Drawers. 22 to 32 waist.

No. 7969.—Tucked Blouse. 34 to 42 bust. With or without yoke on back, with rolled-over or straight cuffs.

A Fine Assortment of Aluminum Ware

As a Subscription Premium in Connection With The National Farmer and Stock Grower, the Best Monthly Farm Paper.

Aluminum utensils have no equal as sanitary cooking vessels, and their light weight makes their use a pleasure. They will not rust, tarnish or chip, and will last a lifetime.

The assortment we offer, as illustrated above, consists of the following: Egg Separator, Coffee Strainer, Funnel, Measuring Cup, Salt Dredge and Tea Strainer, all of high quality, and of practical use in every kitchen daily.

SEND US ONLY 60 CENTS

And we will send you THE NATIONAL FARMER AND STOCK GROWER, the reliable and practical farm monthly, for a full year, and send you postpaid this splendid assortment of aluminum ware as a premium by parcels post. Satisfaction and safe delivery guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

No. 7997.—Blouse in Balkan Style. 34 to 42 bust. With long or three-quarter sleeves, straight or diagonal closing, with or without draped or plain belt.

No. 8001.—House Gown. 34 to 42 bust. With three-piece skirt, three-quarter or long sleeves, curved or straight front edges, perforated for walking length.

No. 8022.—Three-piece Skirt. 22 to 30 waist. With high or natural waist line, with or without pockets and tabs.

No. 7877.—Two-piece Skirt. 22 to 32 waist. With high or natural waist line.

The above patterns will be mailed to any address by the Pattern Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Distinction in Dress.

The majority of women do not realize that it is by elimination rather than by addition that the distinctive note in dress is attained. Too often trimming is piled upon trimming with no thought as to its value from an artistic standpoint. Every added bit of fussiness costs money and its equivalent time. So those who have the least money should be the ones of all others to adopt the simplest styles. Quality should take the place of quantity. It is better to spend thirty dollars for a suit that will last three seasons than ten dollars for a new suit each year that will not look really well through one season. Only the best materials should be bought and they should be shrunk and sponged before they are made up. The garment should be made to suit the individual rather than to suit some freak of fashion. If the figure is short and broad, the gown should be so made as to accentuate the up and down lines; if it is tall and angular, a broad effect should be striven for. One of the sins against good taste is that of overloading a dress with trimming. Rows and rows of braid or dozens and dozens of buttons are not beautiful. Let the beauty lie in the texture of the goods and in the color and lines of the gown. Often a color needs a bit of some contrasting color to bring out its full beauty. But the color may be killed by a great quantity of the contrasting material.

In the matter of hats more than in any other article of dress is incongruous and inartistic trimming noticeable. But those who find it a difficult matter to know just how far to go in the addition or elimination of trimming, a good rule to follow is to add trimming only when there is a good reason for it and the hat or garment is vastly improved by it.

If they look nearly or quite as well without it, leave it off. There is little danger of violating good taste by undertrimming; there is every danger of violating it by overtrimming.—Janet Thomas Van Osdel.

Have a Berry Patch.

"A berry patch is almost a necessity to supply fruits and to tempt the appetite in the spring. Berries are wholesome fruit and farmers can ill afford to deny their families of these foods."—Toronto Sun.

MR. FARMER, Here's Foot Comfort and Economy For You!

At Last! A Thoroughly Practical Metal Sole Shoe; a shoe that is easy on your feet; keeps them warm and dry; is snag-proof and water-proof, and will outwear several leather sole pairs.

THE ALUMINUM SOLE SHOE

allows a buoyant, natural step. The bar on the sole does away with walking flat-footed. By all means learn about this shoe. It was brought out for your particular benefit. It will insure you foot comfort such as you have never enjoyed before and save you money. Hair-felt insole makes a soft cushion for the feet. The pliable grain leather top is made to wear. The bottom is indestructible. Injury to the feet is impossible.

Send For Free Booklet "Shoe Talk."

Be sure to get this book; it's shoe sense boiled down. It tells you all about this great work shoe; shows you how to cut your shoe expense and walk with pleasure. Write for it today. It's free.

RACINE ALUMINUM SHOE CO.
101 16th St., RACINE, WISC.

PREPARING A HOTBED.

Work of Preparation Should Begin in the Fall—Care Necessary in Seeing That Temperature is Right Before Seeding Takes Place.

Of the several types of hotbeds in general use, the sunken or pit type is, all things considered, the best for the raising of early plants from seed, says Rural New Yorker. This style of bed is constructed by excavating a pit six feet wide and two and one-half feet deep, and as long as necessary to accommodate the number of three-by-six-foot sash it is desired to use. The sides of the pit are boarded up with rough lumber nailed to posts which may be placed three feet or more apart. If some degree of permanency is desired, good material will need to be used. The sides of the pit should be raised above the surface of the ground twenty inches at the back and twelve inches in front; this will provide ample pitch to the sash for shedding rain and also be of sufficient angle for good construction of the sun's rays and heat; good sash should be used. Those with three rows of 10x12 double-strength glass are much preferred to those with smaller single-strength glass, as they are heavier and more rigid and are not so liable to damage in handling and by hail, besides they admit a larger volume of light and gather more heat from the sun than can possibly be secured with sash containing a greater number of rows of small glass.

The location of the hotbed should be chosen where the natural drainage is good, and if possible where there is a good wind-break at the north side. If a suitable sheltered spot is not available, then a tight board fence six feet high and extending several feet beyond each end of the hotbed should be erected to break off the cold north wind. Without such a wind-break it will be almost impossible to raise early plants successfully in the hotbed. The wind-break should be about five feet away from the north side of the frame.

The heating material for the hotbed should be horse manure fresh from the stable, to which should be added when accessible one-half its bulk of forest leaves. If these are not available, straw or hay may be used. The manure and added material is to be thoroughly mixed and formed into a conical heap to undergo fermentation. In the formation of this heap it should be trodden down in successive layers of a foot in depth until the heap is four feet or more in height; the base of the heap should be of sufficient diameter to insure good fermentation in the severest winter weather. All the material used for heating should be well dampened before putting it in the pile, or the fermentation will not be evenly distributed. Care must be taken that no frozen material is put in the heap, or fermentation will be slow and may greatly interfere with the operator's plans of an early sowing of seed.

A few days after the heap is formed a lively fermentation should take place. This will be indicated by the escaping steam. As soon as this is plainly noticeable the heap should be forked over, shaking out the material and reformed into another, but similar pile. In three or four days the second fermentation will take place, when it may be placed in the pit to the depth of two and one-half feet, spreading the material out evenly and beating it down with the back of the fork, also treading it to a medium compactness with the feet as the material is put in. Be sure to tread carefully around the edges to see that there are no uneven or loose soft spots. The whole bulk of heating material must be as near the same solidity in all its parts as possible, or the top level of the soil will be of uneven depth and temperature. After the heating material has been placed in the pit, the sash are to be placed on the frame and a thermometer plunged into the manure. If the work has been properly done, the heat will rise to about 100 degrees in a day or two. This is too hot for almost any vegetable growth; besides the strong steam emitted by the fermenting material should be allowed to pass off before the beginning of seed sowing. No seed must be sown until the violent heat recedes. Watch the thermometer in the manure and as soon as it goes down to about 90 degrees place five inches of soil on the manure. If it is desired to sow seed directly in the frame, this soil should be compost, made of two-thirds good garden loam and one-third well-rotted manure, composted the previous fall and placed under shelter to prevent freezing, so it will be available when wanted for use. When the soil has become warmed through, seed may be sown.

Texas Anti-monopoly Law.

Attorney-General Looney has notified every cotton-seed oil mill in Texas owning cotton gins that they must dispose of their gins at once, as such ownership is in violation of law and is not authorized by their charters. The Attorney-General states that the practice gives the oil mills an opportunity to unduly control the seed supply. The oil mills were further notified that they must must not deal in bagging and ties and must stop fixing the prices paid for cotton seed.

5 YEAR GUARANTEE

98 CENTS POST PAID

To advertise our business, make new friends and introduce our big catalogue of Elgin watches we will send this elegant watch postpaid for only 98 cents. Gent's size, high grade gold plate finish, lever escapement, stem wind and stem set, accurate time keeper, fully Guaranteed for 5 Years. Send 98 cents today and watch will be sent by return mail. Satisfaction guaranteed or money refunded. ARNOLD WATCH CO., Dept. 112b, CHICAGO, ILL.

Barbed Wire Bargains.

On page 10 will be found an advertisement of barbed wire bargains offered by A. J. Child & Sons Mercantile Co., 517 Main street, St. Louis, Mo. This wire was under water in a car, otherwise it is as good as new. Messrs. Child & Sons say that those who wish cheap wire had best get in at once.

The American Washer Company.

A voluntary word in favor of a St. Louis enterprise is in order. The Awco is a washer designed to lighten the household labor on the farm. It is illustrated on page 23. We recommend that the mechanical ingenuity of this invention be thoroughly investigated. Write to the American Washer Company, Dept. 3617, 118 Sidney street, St.Louis, Mo.

"The most manifest sign of wisdom is continued cheerfulness."—Montague.

Sunshine Lamp 300 Candle Power FREE

To Try In Your Own Home

Turns night into day. Gives better light than gas, electricity or 18 ordinary lamps at one-tenth the cost. For Homes, Stores, Halls Churches. A child can carry it. Makes its light from common gasoline. ABSOLUTELY SAFE.

COSTS 1 CENT A NIGHT

We want one person in each locality to whom we can refer new customers. Take advantage of our SPECIAL FREE TRIAL OFFER. Write today. AGENTS WANTED.

SUNSHINE SAFETY LAMP CO.
649 Factory Bldg., Kansas City, Mo.

Three Fine Golden Locks Dolls.

One Big Doll and Two Smaller Dolls, Beautifully Lithographed in Five Colors on Heavy Cloth —All Ready to Cut Out, Sew Up and Stuff.

The Big Doll, "GOLDEN LOCKS," is twenty-seven inches tall; so large that baby's own clothes will fit it. There is no more popular plaything parents can give their children or little friends than a pretty Doll, and it is with a great deal of pleasure that we offer these beautiful Dollies in connection with a subscription to the UNIVERSAL MAGAZINE.

How to Get These Three Dollies Free.

Just send us 30 cents for one-year's subscription to the UNIVERSAL MAGAZINE and say that you want GOLDEN LOCKS and her two little sisters, and the magazine will be sent you for one full year and these three lovely Dollies forwarded you as a free premium, postpaid. The

Universal Magazine

Is a bright, clean, illustrated monthly magazine of sixty-four pages, containing home reading, stories, patterns, fashions, poetry, etc., and will be enjoyed by every member of the household.

Remember, 30 cents brings you the magazine for one year, also the three beautiful Dolls, free.

If you want two sets of these Dolls, send us 50 cents for a two-year subscription. Safe delivery guaranteed.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Enclosed find.....cents for a.....year's subscription to the UNIVERSAL MAGAZINE and three Dolls free—GOLDEN LOCKS and her two little sisters.

Name.....

R. F. D..... Box..... P. O. and State.....

THE CROSSED FINGERS.

He swore that her kiss was the first he had had;
But his fingers were crossed!
He'd kissed but his mother, when he was a lad;
Yes, his fingers were crossed!
He vowed that not only he'd ne'er had a taste
Of quivering lips, but that no other waist
Had ever been clasped by his arm. Then in haste
His two fingers he crossed!

The sparkler he gave her he'd purchased that day—
But his fingers were crossed!
No previous maiden had worn it—nay, nay,
But his fingers were crossed!
And never, so long as his life should endure,
Would eye, cheek or lip of another maid lure—
He knew it—past every doubt he was sure—
But his fingers were crossed!

She listened to all of the buff he had said,
While his fingers were crossed!
She laid on his bosom her wise little head
While his fingers were crossed!
She answered so low that the famed "little bird"
Who peddles sweet secrets could scarcely have heard,
As she breathed: "Oh, my love, I believe every word!"
But her fingers were crossed!
—London Tit-Bits.

LOOK OUT FOR HIM.

A little wind creeps whining to my door;
I hear its feeble hand upon the latch,
But soon great Boreas, with angry roar,
Will come this way and leap upon my thatch.
Then down my smoking chimney he will shout,
He'll taunt me, and my cabin he will shake,
He'll dare me as a foeman to come out—
At his wild rage the poor are wont to quake.

For Boreas as cruel is as strong;
He'll do his best to stab you through and through;
He blows old winter's trumpet, and his song
He means shall fill with fear the heart of you;
Or else—beware!—he'll spread a mantle white
And deck you with his diamonds so brave;
He'll robe you like a king for his delight—
Then cast you in a glittering jeweled grave!

So, little wind, that's whining to get in,
Begone! Full well I know you are a spy,
For Boreas, who is crueler that sin,
Is prowling, slinking dangerously nigh.
Oh, wind! Go tease the sailor on the sea,
Hang clouds upon the bald pate of the moon—
Just run along and do not bother me;
You'll drive me to the coal man all too soon!
—Chicago News.

THE THINKER.

Back of the beating hammer
By which the steel is wrought,
Back of the workshop's clamor
The seeker may find the Thought,
The Thought is even Master
Of iron and steam and steel,
That rises above disaster
And tramples under heel!

The drudge may fret and tinker
Or labor with lusty blows,
But back of him stands the Thinker,
The clear-eyed man who knows;
For into each plow or sabre,
Each piece and part and whole,
Must go the brains of labor,
Which gives the work a soul!

Back of the motor's humming,
Back of the belts that sing,
Back of the hammer's drumming,
Back of the cranes that swing,
There is the eye that scans them,
Watching through stress and strain,
There is the Mind which plans them—
Back of the brawn, the Brain!

Might of the roaring boiler,
Force of the engine's thrust,
Strength of the sweating toiler,
Greatly in these we trust;
But back of them stands the schemer,
The Thinker who drives things through.
Back of the job—the Dreamer
Who's making the dream come true!
—Berton Braley, in American Magazine.

A THANKSGIVING DIARY.

At seven Maw says: "Get up, Ted!"
And I just jump right out of bed;
I know 't wud never, never pay
To cross my Maw Thanksgiving Day.
At eight I hear Paw sayin' grace
And I run up and take my place;
But you can bet I'm eatin' light,
Just sayin' up my appetite.
At nine I take a basket and
Run across the stubble land;
And as I dig the celery prime,
I kind of wish 't was dinner time.
At ten I get a glimpse of Maw
A-fixin' up the turkey raw;
She's pilin' in the stuffin' rich
And sealin' with a needle stitch.
Eleven! I hear the rollin'-pin,
And when Maw turns I just sneak in,
And crouch where I can smack my tongue
Each time the oven door is swung.
At twelve I run a mile or so
Until I feel my cheeks aglow;
And I could almost eat a bear
Fried on a spit with claws and hair.
At one Maw heads the table and
My Paw says grace, and we all stand;
I fail to bow—I see Maw frown—
And then at last we all sit down
At two—I just passed up my plate
The seventh time, and at this rate
I'll clean each dish, but Maw she knows,
(I'll eat it when the company goes).
At three they've all gone out but me
And I am as full as I can be;
Yet I can't help but climb a seat
And reach a pie and then retreat;
At four I'm awful, awful full,
And I can feel the threads of wool
A-stretchin' every time I rest—
A button just went off my vest!
At five I fall asleep and dream
I see a purple dragon team
Come rumblin' down a flaming trail
Where golden owls and red bats sail.
At six I feel a crampy pain,
And see those awful bats again;
Then some one gives a solemn sigh:
"The chances are the child will die."
At seven comes the med'cine and
I feel the doctor's steady hand;
The blanket's kicked up in a heap
An then I just fall off to sleep.
Next day! I'm up and well again;
It was an awful night of pain;
But I am game and I will say
I wish it was Thanksgiving Day.
—Puck.

CUPID'S DISABILITY.

One never feels quite certain whether
The lives that Cupid knits together
Will stand the wear and tear of travel,
Or whether they will soon unravel.
His so-called knots turn out mere hitches,
And frequently he drops the stitches.
Perhaps it is the part of kindness
To place the blame upon his blindness.
—George B. Morewood, in Judge.

Pets, Not Prisoners.

Baby likes pets; of course it does. It is human nature to be interested in life. And the more affectionately it handles them the more will its sympathetic nature be developed. But it is one thing to be delighted with the birds or animals, and quite another to so treat them that they will be happy.

The old hen and chickens make ideal pets for baby, because they are themselves entirely enjoying the domestic life. Even Polly Parrot, when given the liberty of the entire house and garden, may be said to be fairly well contented. And yet, how would baby, how would you yourself like to be an exile, with not one of your kin or race in sight or sound? Polly would no doubt enjoy life much more completely in her native wilds and with birds of her own kind.

The caged bird is only a prisoner. Let baby have bird pets in abundance—all the native birds that can be enticed about your home. Let it enjoy their most joyous songs, their nest building, their fleetness of wing. Some evergreen trees in the yard are an invitation to the earliest spring arrivals and to the winter lingerers. Crumbs scattered on the window sill, a piece of suet in the tree during the winter months, a drinking cup always filled with water in summer, these are a few of the ways to have pets. But prisoners in a gilded cage —these baby should have no use for.—Bessie L. Putnam.

ROPP'S COMMERCIAL CALCULATOR.

Free Book That Figures Your Farm Problems.

You don't have to "guess" about the worth of your hogs or steers, or how much wages to pay your help. Ropp's New Calculator will give you the answer to any problem that is liable to arise in your business or on your farm. It will save you hours of figuring and can be depended upon absolutely.

If you want to become an expert in figures you can do so. Ropp's New Calculator contains 160 pages, bound in cloth. The book sells regularly at 50 cents a copy, but is given free by the Keysone Steel and Wire Company, 5528 Industrial street, Peoria, Ill., in connection with their Square Deal Fence Catalogue. They will send both books free and postpaid to all who are interested in fence. See page 15.

DEFORMITIES CURED

CLUB FEET of any variety, and at any reasonable age, can be made straight, natural and useful. No plaster paris, no severe surgical operation, and the result is assured.

POTTS DISEASE when treated in time should result in no deformity; paralysis can be prevented and the growth not interfered with. Write for information and references.

SPINAL CURVATURE Recent cases usually make good recoveries and even those of long standing do well. No plaster paris, felt or leather jackets. Write for information and reference.

HIP DISEASE in the painful stage can be relieved and the inflammation permanently arrested. Shortening, deformity and loss of motion can often be corrected. No surgical operations or confinement.

INFANTILE PARALYSIS We can refer you to many responsible people all over the country, whose children, afflicted with Infantile Paralysis have been practically restored at this Sanitarium.

DEFORMED KNEES AND JOINTS of many varieties yield to our methods of treatment, and if interested you should know about it.

This is the only thoroughly equipped Sanitarium in the country devoted exclusively to the treatment of crippled and paralyzed conditions.

ILLUSTRATED BOOK FREE Write us for illustrated book which will be sent free on request to any address.

THE McLAIN ORTHOPEDIC SANITARIUM

916 Aubert Avenue **ST. LOUIS, MO.**

His Presence of Mind.

Everyone in the lounging room, with one exception, had been holding forth on his own personal bravery and presence of mind. Everybody with the same exception had recounted at least one hair-raising episode in which he figured as the embodiment of cool courage.

At last the silent exception was asked if he had never had cause to exert his presence of mind.

"Only once," he replied, yawning, "I had dropped into a circus to pass away a couple of hours. It was a bright little show and the performing elephants were particularly wonderful.

"Suddenly there was a shriek from the women. The biggest elephant had escaped from his keeper and was making for the most crowded part of the tent, where I happened to be sitting, by the way. There was a stampede of frightened people. The shrieks of women and children filled the air; strong men fainted and pandemonium reigned supreme."

The silent one's listeners gasped.

"But I am proud to say," continued that gentleman, "that I kept my head, and, in consequence, escaped unhurt."

"What on earth did you do?" somebody asked.

"I? Oh, I just kept on running behind the elephant!" — Post-Dispatch.

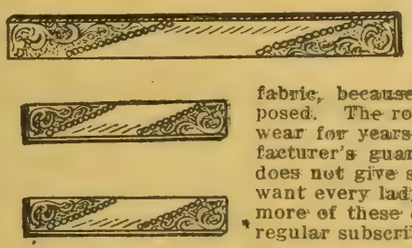
Elegance and Economy.

All our readers should send for the Fall Style Book issued by the National Cloak and Suit Company, advertised on page 3. By so doing you will insure elegance with economy. Sign and send in the coupon.

Rolled Gold Plate Waist Pins

Given as a Free Premium With the Charming Monthly Publication, the UNIVERSAL MAGAZINE.

This beautiful Pin Set, as illustrated, consists of a large Pin (2¼ inches long) and two smaller Collar or Cuff Pins. They are unbreakable, the back being formed of one piece, the rolled gold plate front then being rolled on, making the entire Pin practically one piece. They will not catch in the hair or fabric, because no sharp points or edges are exposed. The rolled gold plate front is warranted to wear for years without tarnishing, and the manufacturer's guarantee is with every Pin, and if it does not give satisfaction it will be replaced. We want every lady reader of this offer to have one or more of these dainty Waist Pins, also to become a regular subscriber to our



UNIVERSAL MAGAZINE.

This publication is a bright, clean, home monthly, containing sixty-four pages each issue of choice short stories, fashions, patterns, poetry and other matter interesting to the household. Send us 30 cents in stamps, money order or coin, and we will enter your subscription for one year to the UNIVERSAL MAGAZINE, and we will send you as a free premium either the one large Pin or the two smaller Pins, as you may select, postpaid; or, better still, send us 50 cents for a two-year subscription and we will send you the full set of three Pins as a free premium. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Watch Your Pimples Go Away

Then Feel the Ecstasy of Delight When Your Complexion Is Made Perfect By Stuart's Calcium Wafers.

Don't worry about your pimples. Stop that heart ache and regret. Just make up your mind that you are going to use Stuart's Calcium Wafers and make pimples vanish.

"I Don't Look Like I Did Since I Used Stuart's Calcium Wafers."

The pores of the skin are little mouths. Each has a sort of valve that opens into tiny canals connecting with the blood. These mouth-like pores become closed. When these canals fill up, the valve refuses to work and pimples, blotches, rash, tetter, liver spots, etc., appear.

Stuart's Calcium Wafers keep the pores open and the canals then carry off the waste matter the blood empties into them.

Don't use cosmetics. They will not hide pimples long, and then they clog the skin. You ought to know that the skin breathes in air almost like the lungs. The pores throw off impurities every minute of the day. To plaster the skin with paste, etc., is to actually prevent nature doing her work.

Stuart's Calcium Wafers will in a very short time cleanse the blood, open the pores and remove all blemishes so that your skin will become of a peach and cream kind so much desired.

Stuart's Calcium Wafers can be carried in purse or pocket. They are very pleasant to the taste and may be purchased anywhere at 50 cents a box.

Look at your pimples and unsightly skin in the right way as a disease of the blood and pores and use Stuart's Calcium Wafers to give you the complexion you want.

Great - Great - Grandmother Blake's Thanksgiving Dinner.

"To begin with," said Grandma, as she settled down to tell about great-great - grandmother's Thanksgiving dinner at the request of the younger generation, "Grandmother Blake had to start out her invitations many weeks ahead of the day set for the dinner. There were no trains in those days and so letters had to be dispatched by messengers on foot or horseback, depending on the distance. And of course there were no telephones. Nor did Thanksgiving Day extend through all the settled part of the country then as it does now. It was only in the New England States that the day was observed, and the reason Thursday was chosen to start on was because it gave the housewives a good three days to get ready for the feast and then two days to get things to rights before the Sabbath.

"Once her invitations were out, Grandmother Blake and her three daughters got down to business of starting to get ready for the dinner. I was little and had to do the running from cellar to attic. Remember that in those days everything was home-made. You couldn't run to town at the last minute and buy bread or cake or canned stuff or flour. You couldn't even buy yeast nor matches. So it took a day's work then where it takes an hour's now. I remember that a privileged task fell to my lot. It was that of feeding the Thanksgiving turkey for the last fortnight before the feast with rice that had been cooked in milk. This gave a whiteness and sweetness to the flesh that isn't found in a grain-fed fowl. Another task was that of seeding raisins, pounds and pounds of them, for the mincemeat and cakes. Then there was the chopping up of apples and meat for the mince meat.

"Of course, grandmother had no cook stove, but she had a splendid earthen oven that would turn out the best-tasting food ever was. The fire was built right back of the oven and left to burn for quite a while until the oven was well heated up. Then it was let go out, the ashes were cleaned away and the oven was ready for use. It took a long time to heat the oven, but it held the heat for an equally long time, and grandmother could do three bakings in it before it lost its heat. As I said before, there weren't any matches then, and so a spark of fire had to be treasured over night or else a light struck from a flint the next morning.

"Your Thanksgiving dinner is considerably different from what Grandmother Blake's was, even when you think you're serving a regular old-fashioned dinner. She made more of pies than you do. Why, I've known her to bake over a hundred at a baking, but of course this was partly because it was such a task to get the big oven to a baking heat. And then, too, it was such a difficult matter for company to come from any distance that they were likely to make some stay, and so it was well to be prepared for them. There were no lemon, cream or fancy custard pies, but pumpkin, mince, apple, cranberry and dried berry pies. It wasn't expected that this batch of pies would be eaten in a couple of days. Maybe half of the mince and fruit pies would be set out to freeze and then they were put away in a cold place until they were needed, maybe several weeks or a couple of months later, when they were heated and were almost as good as fresh baked pies. We generally had pudding as well as pie for dessert at the Thanksgiving dinner. For vegetables there were turnips, squash, onions and baked beans. No tomatoes were on the tables in those days, for the tomato was only a big, ornamental berry grown in with the flowers and considered poison if tasted. Nor was there corn or peas or any kind of canned vegetables. There was usually a piece of boiled meat or a baked ham to be served as a side meat with the turkey.

"After the dinner, when we gathered around the big fireplace in which whole logs snapped and crackled, the news of the past months was discussed while we drank cider, ate apples and cracked nuts. There were no newspapers circulating freely at that time and the important news was carried mostly by word of mouth. Those big gatherings were a rare treat and every bit of conversation was listened to with respect, for men and women went often for weeks without seeing the immediate members of their own families except when they attended church, and then secular matters were not discussed.

"All too soon came candle-lighting time. The candles, too, had been made by our own hands. Then we children were taken up into the big, freezing bedrooms that had no heat from early fall until spring.

"Yes, they were good old times that turned out strong men and women, but to my mind they were not one-hundredth part so comfortable as your own times, dearies. And it's my opinion that you women of to-day have a heap more to be thankful for than did your Great-great-grandmother Blake." — Janet Thomas Van Osdel.

The New House Cleaning.

House-cleaning time is again at hand, and amid all the new-fangled ways for doing things, perhaps after all there is no greater innovation than this. We used to beat and sweep and pound, anything to get the dust out. And now the process is quite the reverse, and all summed up in the single word, suction.

The advantages are several, some of them self-evident, and others requiring the use of the new machines before we really and fully appreciate their advantages. Of course, one can readily perceive how much more convenient it is to suck the dirt all into a little compartment, from which it can be removed and disposed of at leisure. But did you ever think how much danger from germs is thereby saved? Just a few days ago we read an article by Elbert Hubbard on the germ dangers of the Pullman, and the thought was brought out that the little whisk broom, for the using of which you pay the colored porter a generous tip, is a veritable scourge, which is bound to go before long; just a medium for scattering the germs which some one else may have left and giving you a share!

The ordinary house-cleaning process is likewise a scattering of dust and germs and what not! Some of them get drowned in your scrubbing process; some lodge and grin at your best efforts. But when they get in the wake of a strong suction power they come, be they just harmless dust, disease germs of moths and other insect pests. The latest is to use this same power as a fly destroyer! But when we stop to think that if we should go over the carpets every day or even once a week, the semi-annual cleaning would be a very much smaller matter, then the worth of the vacuum cleaner and what it may do for us comes into view. In the cities this is a regularly-adopted process of keeping the house in order. And we may rejoice that it is fast working into the country homes.—Bessie L. Putnam.

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekeepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

A Chester White Sow.

Pocket Piece, No. 20,015, Chester White sow, grand champion of the Illinois State Fair, 1913, was sold by J. W. Brendel, of Zionsville, Ind., to Chas. D. Ettinger, Maple Farm of Midlothian, Tinley Park, Ill., at the record price of $500.

More Vital Energy For You

MAGNETIC SHIELDS fill the system with MAGNETIC FORCE, which does what all the medicine on earth cannot do. It gives life, energy and tone to the blood and nerves, MAKING THE BLOOD CIRCULATE VIGOROUSLY, overcoming congestion, soreness and pain.

WE PROVE IT TO YOU POSITIVELY

Not in one case or a dozen cases, but in multitudes of cases, where people say they have been cured of Paralysis, Rheumatism, Lung Trouble, Kidney, Liver, Stomach and Bowel Troubles, Nervousness and most every other form of disease after medicine failed.

Our MAGNETIC ABDOMINAL AND KIDNEY VITALIZER for ladies and gentlemen, here illustrated, is only one of the many shields we make. IT IS A WONDERFUL INVENTION, scientifically constructed, and floods the system with magnetism, supplying LIFE, STRENGTH and VIGOR, to the BACK, KIDNEYS, STOMACH, LIVER, BOWELS and BLADDER, giving that buoyancy, tone and renewed vitality to the system that Magnetic force alone can supply. Your health depends upon a good circulation.

Fill Your System With This Magnetism

Write today for full information and free book, "PLAIN ROAD TO HEALTH," by C. I. Thacher, M. D. Describe your case fully, we advise you free how to apply MAGNETISM for treating any form of weakness or disease.

THACHER MAGNETIC SHIELD CO., Inc., Suite 515, 110 South Wabash Avenue, Chicago, Ill.

The Girl of the Longstone Lighthouse.

"Gracie, come from the window to your supper. The wind's blowed afore this if I remember rightly."

"Yes, mother," answered the girl as she gave a last look out the little window which showed only the dreary whinstone stretching away on all sides. Well did Grace know every bit of Longstone, to which her father had brought her when she was eleven years old at the time he was made keeper of the lighthouse on the lonely island. Before that she had lived on another of the Farne islands almost as dreary. That dark whinstone, instead of grassy meadows, had been her playground. The ropes of seaweed which the tides washed up into the dells were her flowers, for no green things grew upon the rocks. The screaming of the sea birds was the only bird music her little ears had ever heard.

"Yes, mother," repeated the girl, seating herself at the table. "There have been storms before, but I feel so different about this one. But father's at the light, so why should I fear?"

After the simple supper was over the girl ran up the stairs leading to the lamp to give her father a word of cheer. No neighbors lived on the island, and this little family must be all in all to one another.

"A wild storm, eh, girl?" said the father as Grace appeared." But this tempest's been wearing on you. Go to bed and come up early in the morning. I'll need a bit of rest then myself."

Though Grace obeyed her father, she could not sleep. Hour after hour passed and she lay listening to the storm. In the early morning she fell into a light sleep but was awakened by what seemed a cry for help. Hastily dressing, she sped to the tower and called for her father's spy-glass.

Already the man had seen the disaster. A ship had been broken upon the rocks and to the masts were clinging the forms of human beings.

"Can't you take out the boat, father?" cried Grace.

"It'll be but two more lives added to those out there, girl!" groaned the man. "Our boat couldn't live in such a sea!"

"We can but try, father," said the girl. Her brave pleading won, for he helped her launch the boat and sprang in beside her in spite of the weeping of his wife, who was sure she had seen the last of her dear ones.

Against the fearful sea the frail girl and the stalwart man fought, the boat tossing about like a chip on the current of a stream. It seemed impossible that their tiny efforts could win the battle, but the uplifted whispers for help were answered and the wreck was reached in time to save the nine persons still clinging to it. The rest of the crew, except for a few that escaped by boats, had already perished.

The home light never looked so dear to Grace and her father as on that return trip. They finally reached it worn to exhaustion. Even then the brave girl's work was not done. The sufferers must be cared for. Her own bed she gave to Mrs. Dawson, who was sick with pain and the grief of losing her children on the ship.

When the news of the rescue went out from the Farne islands Europe was aroused. Letters of thanks and praise, medals and money were showered upon the girl, who received them in astonishment, for Grace Darling laid no claim to being a heroine. "Why, what else was there to do?" she asked.—Janet Thomas Van Osdel.

How He Was Sold.

The favorite game of the Southern negro is "shooting craps." A negro will "shoot" away anything from the clothes on his back to the meat on his table, but "shooting" for prospects is a new phase.

A capitalist was the guest of a Southern hotel, and the first night he gave his waiter a fifty-cent tip. At breakfast the waiter could not do enough for him, and he tipped him another fifty cents. At lunch he had a new waiter. The capitalist said nothing, but when the same new waiter served him at dinner that evening he asked:

"Sam, where's the boy I had yesterday?"

Sam hung his head. "He ain't at dis table no mo,' boss."

"I know that, but why was he moved? I liked him."

Sam looked frightened, but he stood his ground. "It was like dis, boss. After breakfas' dis mornin' we shot craps for dat fust fifty cents you give him, and I won dat; den we shot for dat second fifty cents you give him, and I won dat; den when his money was all gone, we shot for to wait on you, and I won you.'—Dry Goods Magazine.

"Thank You!"

A child did some trifling thing for the mother and was rewarded with a pleasant "Thank you!" It took but a moment to say it, and yet the little one appreciated the words and went about its play rejoicing. We soon discovered that this was a habit with the mother, and in fact with the entire family. Any little act which could be done for another, no matter how trifling the service, instinctively brought forth the two little words.

In another home the mother was bewailing the fact that she never could teach her little girl to thank for things. She had given her many verbal lessons, had bribed and punished, and yet the child was not dependable when it came to this little rule of politeness. In the one case the lesson had been taught in a way never to be forgotten by the habit of practicing upon the two little words every time an opportunity offered. In the other a set rule had been given, and some children have the faculty of never remembering to apply a certain rule at the proper time, while others are led into the fault of willfully forgetting it. Which was the easier way?—Bessie L. Putnam.

May and December.

It was a clear case of unrequited affection; but, despite numerous setbacks, Blinks persisted in his calls. The lady's name was May, but her attitude toward him was December. Her ten-year-old brother, Billy, received poor Blinks the last time he dropped in.

"Is your sister at home?" asked the suitor.

"No, she's gone out."

"Ah! so I've come to the cage only to find the bird has flown."

"No, you ain't," retorted Billy. "But you're like the month of June."

"How's that?"

"Every time you come in May goes out!"—Post-Dispatch.

The Lady Policeman.

"What do you think? That lady cop tried to kiss me and when I refused her she arrested me."

"Arrested you! On what charge?"

"Resisting an officer."

FOUR BEAUTIFUL FERNS

To be Obtained as Subscription Premium in Connection With either Our NATIONAL FARMER AND STOCK GROWER, a Splendid Monthly Farm Paper, or With Our Monthly UNIVERSAL MAGAZINE, a Gem of a Story and Literary Publication.

NOW IS THE ACCEPTED TIME.

We wish to deliver WITHOUT COST to your door in good, healthy growing condition a valuable assortment of beautiful ferns. We have secured them from fern growers who boast of the fact that their plants are entirely free from all injurious insects or disease which destroy foliage plants of this type, and are assured each individual plant is one of the finest ever produced. There is nothing that will add more cheer to the home through long, dark winter months than a few well-chosen house decorative plants, and those we offer comprised the very best varieties in cultivation, and of a size and quality that will quickly develop into beautiful specimens. We give below a description of each variety:

ROOSEVELT FERN.—This fern is a new variety recently introduced and one of the finest for house decorative purposes grown. It is of compact, vigorous-growing habit, producing in great numbers wide, massive fronds of good length, beautifully tapered from base to tip, that droop gracefully over the pot, hiding it completely from view. The pinnae or leaves of this fern are distinctly undulated, giving the whole plant an attractive, wavy appearance, which adds materially to its beauty. Without an exception, ROOSEVELT has proved the strongest-growing variety ever produced and withstands better than any other variety unfavorable growing conditions of indoor culture found in the average home. A small plant requires but little care to quickly develop into a finished specimen of rare beauty.

BOSTON FERN.—This fern is one of the oldest and best known varieties grown, and in the long years of its cultivation has proven well worthy of a place in every home. It is known by some as the "Fountain Fern," which name it derived from its graceful drooping habit of growth, and until the recent production of the ROOSEVELT Fern was acknowledged the finest of its type. It is a very rapid grower, producing fronds of unusual length, frequently measuring from six to eight feet, and its freedom of growth without special care has made it popular with all who admire beautiful house plants.

THE ROOSEVELT FERN.

WHITMANI FERN.—This charming creation caused a real sensation among lovers of plants, each frond being as delicately and finely cut as the most perfect Ostrich Plume, by which name it is commonly known. It is a very vigorous grower, constantly unfolding new fronds of fine, feathery foliage, entirely distinct from any other variety, and which quickly grows to a width of from ten to twelve inches. The foliage is of good, substantial texture that withstands the abuse to which house plants are subjected, and so compact that each frond appears as one massive Ostrich Plume. WHITMANI is one of the few feathery foliage ferns with which everyone can succeed in growing to finished specimen plants under the average unfavorable growing conditions of the house.

ASPARAGUS PLUMOSUS.—A plant for all purposes, rapidly adapting itself to any conditions. Its rapid, sturdy growth, combined with its exquisite, lacy foliage makes it a plant of such airy grace and value as to be desired by everyone. The bright, rich, green fronds are as fine and delicate as the most beautiful lace, by reason of which it is given the name "Lace Fern."

OUR SUBSCRIPTION PROPOSITIONS.

We publish two papers. No. 1 is the monthly NATIONAL FARMER AND STOCK GROWER, the best farm publication in the United States. It furnishes good, instructive reading that will help farmers, stockmen, poultrymen, dairymen, fruit and vegetable growers in any state. The price is 50 cents a year, and anyone who will send us 50 cents to pay for one-year's subscription can select a set of ferns as a free premium, and we will send them fresh from the fernery, safe delivery in good order guaranteed.

Our second publication is the UNIVERSAL MAGAZINE, a bright, little pocket publication of sixty-four pages, two columns to the page. It contains good stories, poetry, fashions, embroideries, illustrations, and is well worth the price, which is 25 cents a year. Anyone who will send us 50 cents to pay for the UNIVERSAL MAGAZINE for two years can select our set of ferns as advertised, and we will send them at once as a premium, safe delivery and good condition guaranteed. Time is flying. Address at once **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

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Overland

$1075

With Gray & Davis electric starter and generator

Value up! Price down!

THE infinite advantages and manifest economies of large, unrestricted automobile production must be clear and evident even to those who have neither experience nor conception of what governs, controls and limits a manufacturing institution. It is a certain and established fact that the largest automobile producer can readily get his manufacturing costs far below the "average" and thus undersell the "market."

Each year Overland *value has increased*—

Each year Overland *prices have decreased*—

Each year the Overland *output has been enlarged*—and it is the greater production that makes feasible an *increased car value at a reduced price.*

Our output for 1914 is 50,000 cars, which is the world's largest production on this type of car.

And every Overland value increase is just as visible, just as conspicuous and just as actual as the material reduction of our selling price. While other manufacturers refer you to more comfort, more grace, sweeter running motors and other *invisible* and more or less *imaginary* incidentals, *we give you in addition to more comfort, grace and beauty, increased value that is substantial and tangible.*

Look at the newest Overland.

The wheelbase has been *increased* to 114 inches.

But the price is lower than ever.

The motor is *more powerful.* It has been *increased* to 35 horsepower.

But the price is lower than ever.

The tires are *larger*—33 x 4 in. Q. D.

But the price is lower than ever.

The equipment includes such *costly additions* as electric lights all around—head, side and tail—even under the dash.

But the price is lower than ever.

The body is designed with *full cowl dash* and finished in *Brewster green* with lighter green striping and trimmed in polished nickel and aluminum.

But the price is lower than ever.

Then there are Timken bearings; a $40 jeweled Stewart Speedometer (set so that it can be read from the driver's seat), an electric horn, deeper upholstery, and an 18-inch steering wheel.

But the price is lower than ever.

And so we could go on, almost indefinitely, giving new additional features—new value increases—one after the other.

You had better see this car before you buy. Any one of our dealers will be glad to give you full details and a thorough demonstration.

There is an Overland dealer right in your town. Look him up today. We advise prompt action for in seven days after our 1914 announcement we had immediate shipping orders for over 5,000 cars.

Handsome 1914 Catalogue on request. Please address Dept. 89.

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Electric head, side tail and dash lights

Storage battery

35 Horsepower motor

114-inch wheelbase

Timken bearings

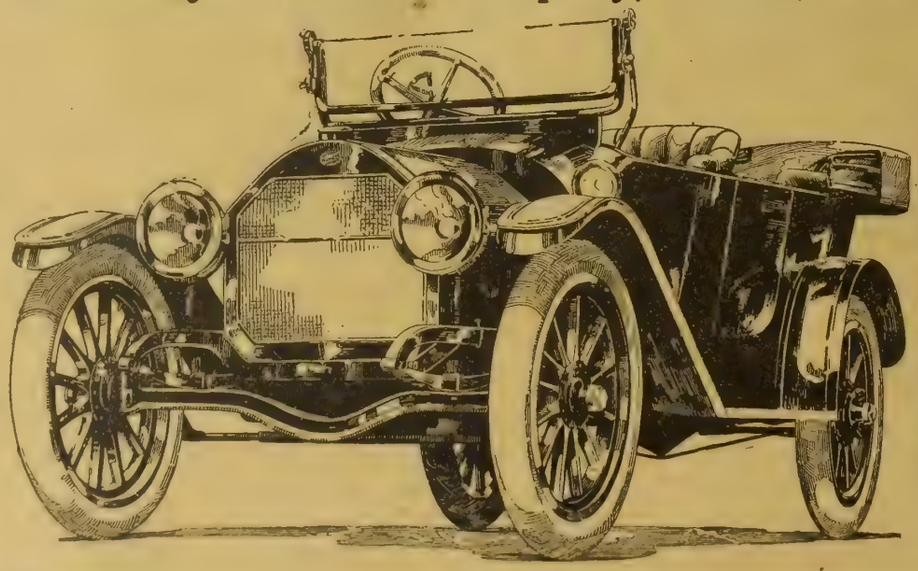
Splitdorf magneto

Model R Schebler carburetor

Three-quarter floating rear axle

33 x 4 Q. D. tires

Cowl dash



Brewster green body with light green striping, nickel and aluminum trimmings

Deeper upholstery

Mohair top, curtains and boot

Clear-vision windshield

Stewart speedometer

Electric horn

Flush U doors with concealed hinges

National FARMER

Vol. XXX. St. Louis, Mo., December, 1913. No. 6.

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The Book of Live Stock Champions.

Attention is invited to the card on page 14 advertising the Book of Live Stock Champions. The pictures in the book include a good many of the champions at the Chicago World's Fair, and a majority of them were obtained from the most famous winners at the Chicago International Live Stock Exposition, which was first held in the year 1901, and at all State and National Fairs, until the Book was issued in 1912. There is absolutely nothing else to compare with this great book. It is beautifully printed, elegantly bound in blue cloth; there are 352 pages. It contains seven hundred and fifty pictures, which represent in single animals, pairs, groups and teams a clean thousand champions. The price is practically nominal.

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and Stock GROWER

THIRTY YEARS AGO.

Incidents in Agriculture and Live Stock in the Year 1883, When Packing Houses Were Young and the High Cost of Living Had Not Yet Been Heard Of.

Thirty years ago the writer of this article was assistant editor of the Texas Live Stock Journal, and located at Fort Worth, where there was no live stock market, and the railroad terminus that had previously made Fort Worth a shipping point had gone beyond to Baird, to Abilene, to Colorado City, and finally to El Paso.

In agriculture, 1883 was not an eventful year. The corn crop was 1,551,667,000 bushels; wheat, 421,086.000 bushels; oats, 571,302,000 bushels; and hay, 46,864,000 tons, in fact, not far from half a total crop of the present day. As one of the items of note in the year 1883, the lowest wheat was 90 cents a bushel in October, and the highest price was $1.13 in June.

The year 1883 was in the period of transition from the trade in live cattle to the trade in dressed beef. At that time there was a contest going on. The live cattle shippers had the benefit of the railroad rebates, and the dressed-cattle operators were pushing forward.

Referring to the ocean business in meats, the London Mark Lane Express said: "The dead-meat traffic is beating the live-cattle trade in the United States, and it would beat it in the trans-Atlantic business if it had fair play."

During the year 1883 a good many Shorthorn cattle were sold at auction. On April 18th, R. Gibson, of Delaware, Ontario, Canada, and Rigdon, Huston & Son, sold Shorthorns at Dexter Park, Chicago, and thirty-two animals were sold for $33,645, an average of $1,114.35. The highest animal in the sale was the First Duchess of Hilldale, sold to Charles DeGraff, of Winona, Minn., for 6,000. In that year (1883) Roan Boy, Shorthorn steer, was champion of the American Fat Stock Show. Exhibited by C. M. Culbertson, of Newman, Ill., and the Allen Shorthorn Cattle Records were purchased by the American Shorthorn Breeders' Association for $25,000.

As a reminder to breeders of Hereford cattle, will state the famous bull The Grove, 3d, at nine years old, was sold by B. Rogers for $4,250, in England.

For poultry raisers it will be interesting to note that the Wyandotte breed of fowls received their name in this year. It was proposed by Mr. Houdlette, at Worcester, Mass. The breed was originated by Mr. John P. Ray, of Hemlock, N. Y., by a cross of a Sebright Bantam male with a yellow "Chitagong," which he named Sebright Cochins. Rev. A. S. Baker and Mr. Bexson also produced similar fowls.

Dairymen are reminded that in 1883 De Laval cream separators were introduced and sold in the United States. The best butter was then worth 36 to 37 cents a pound, and full cream cheese at 10½ to 12 cents. These figures representing quotations of November 30th. Live turkeys sold at Thanksgiving at 11 to 12 cents a pound, wholesale.

At St. Louis, during the month of November, William Childs, of Collinsville, Ill., marketed nineteen head of good steers, 1,384 pounds average, which were sold at $6.25 per 100 pounds by C. M. Keyes & Co. to Eastman. Another sale of good-weight cattle was by F. M. Mayes, of Mayesburg, Bates county, Mo., which shows that St. Louis at that early day was able to attract fine beef cattle from Kansas City. The Mayes cattle, thirty head, averaged 1,392 pounds, and sold at $6.05 per 100 pounds. A consignment of seventy-three steers, 1,220 pounds average, shipped by J. W. Byron, of Baldwin, Kas., sold at $5.90 per 100 pounds. These sales indicate what the native steer market was at that time. During the month of November, 1883, the highest Chicago quotation for heavy native cattle was $6.40 per 100 pounds.

In the quarantine cattle division the trade appeared to be quiet on account of the scarcity of cattle fit to kill. A sale of grass Indian steers, 916 pounds, at $4.10 per 100 pounds, indicated an average transaction, the top price being $4.25 per 100 pounds. During November, 1883, the Chisum Ranch, at Pecos River, New Mexico, sent in 283 steers that were classed as feeders, weighed 930 pounds average, and sold at $3.50 per 100 pounds.

Horsemen will be interested to know that this is the year of the birth of Ormonde, the celebrated thoroughbred. He was foaled at Eaton Hall, seat of the Duke of Westminster, in England. He died at Menlo Park, California, twenty-one years later. He started in sixteen races and won them all, including the English Derby, two thousand guineas, and St. Ledger. Wm. O'Brien McDonough, of California, paid $150,000 for him. He was a majestic bay, 16.1 hands, and considered to be the grandest thoroughbred of his day. This is also the year when the famous Jay-Eye-See trotted in 2:10¾ at Providence, R. I., establishing the world's gelding record. In 1883 the Southern horses sold at St. Louis from $60 to $100, and mules at $85 to $180. In this year (1883) the Percheron Horse Stud Book was established in France.

Sheep raisers were not rejoicing in 1883 any more than they are now. Prime muttons were quoted at $3.60 to $4.00 per 100 pounds. We noticed a sale of fat 102-pound sheep at $3.60 per 100 pounds. It was an advancing market for hogs, and the the top price of the month was $5.30 per 100 pounds. Butcher hogs, 225 pounds average, sold the best, and Yorkers were usually 30 cents below the top of the market.

The closing figures for cash corn in November, 1883, were 46¼ cents a bushel; oats at 29 cents, and wheat at $1.01 to $1.03. Prairie hay sold at $10 to $10.50; timothy at $10.50 to $14 a ton; potatoes at 35 to 40 cents a bushel; and onions at $1.40 to $1.50 a bushel.

Many of us are interested in these facts and reminiscences because we were actively engaged in farming or ranching at that time. Our office contains a stack of such information and it will be brought forth from time to time. In those days agricultural colleges were in their infancy; the tick was not known to be the cause of Southern cattle fever; there was no cotton-seed meal; St. Louis had never seen a ton of alfalfa; there was not a gasoline engine on a farm, and the disc plow had not been invented.

Corn From South America.

A telegram to the daily press dated November 10th stated that a cargo of 270,000 bushels of corn from the River Plate, South America, had arrived in New York.

First Corn Free of Duty.

From Galveston, Texas, it was reported that the French steamship Carol I. arrived on November 8th, bringing 192,000 bushels of corn from Buenos Ayres, consigned to an elevator company at Wichita Falls. This was the first corn imported into the United States under the new tariff and is the forerunner of heavy shipments.

Fortify Your Fertilizer

Did you see your fertilizer dealer and arrange to buy fertilizer containing at least as much

POTASH

as Phosphoric Acid? That is the real kind that pays you and the dealer. If you did not, you should at once ask your dealer to carry Potash Salts so that you may increase the Potash in the ordinary brands. To increase the Potash 1 percent, add 40 pounds Muriate or Sulphate of Potash to a ton of goods. A 200-pound bag will increase the Potash of a ton 5 percent.

Try it once and see how Potash Pays.

If your dealer will not carry Potash Salts, write us for Prices. We will sell any quantity from one 200-pound bag up.

GERMAN KALI WORKS, Inc., 42 Broadway, New York

Chicago, McCormick Block — New Orleans, Whitney Central Bank Bldg. — Atlanta, Empire Bldg.
San Francisco, 25 California Street — Savannah, Bank & Trust Bldg.

Menhaden Oil For Paints.

"The most permissible adulterant of linseed oil, and its best substitute, appears to be menhaden oil. The menhaden is a fish somewhat larger than the herring, and is found in vast numbers in the West Atlantic ocean. The oil obtained from it is sometimes simply called fish oil; but one should distinguish between menhaden oil and whale, porpoise or seal oil, which are often called fish oil, and are worthless for paints. Boiled linseed oil is the best of all drying oils, and also the highest-priced. Menhaden oil is a good drying oil, and is much cheaper than linseed oil. If properly prepared with a drier by the manufacturer, menhaden oil is to be recommended for use with linseed oil in paints. Three parts of menhaden oil with one part of boiled linseed oil make a serviceable, rapid-drying paint for exterior work. It is excellent for smoke-stacks, boiler-fronts and other heated objects, since it does not readily blister or peel. Such a paint is not, however, to be used for ordinary interior work, as it gives off unpleasant gases. A good quality of menhaden oil has little or no fishy smell. One should beware of a fish oil for paint that has a marked fishy smell. Menhaden oil may vary in quality, just as linseed oil does, but the manufacturers usually aim to prepare a high-grade product which is sure of a ready market. Whether one buys paints ready-mixed or mixes them for oneself, the fact that a particular brand of oil or paint is guaranteed to contain a definite amount of menhaden oil should not prejudice one against its use unless the price is abnormally high, or it is found to be unsatisfactory after making a thorough test." —C. H. Vail, Colorado Agricultural College.

His Criticism.

Robert Louis Stevenson once took an eccentric acquaintance of his to hear Sir Charles Halle play the piano at St. James' Hall, London. Sir Charles was a musician of the most correct and severe British type, though a German by birth. After the concert was over they walked as far as the Marble arch, neither having spoken. Arrived there, the friend stopped and delivered himself thus: "The manner of the elderly statesman at the piano was somewhat austere and chilling." And then they walked on.

-LOOK-
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AMERICAN-NATIONAL.

Call For Meeting at Denver, Colo., January 20th, 1914, to Continue Three Days.

Seventeenth Annual Convention of the American National Live Stock Association.

Addressed to Members and All Live Stock Associations and Live Stock Producers.

An official call is made for the Seventeenth Annual Convention of the American National Live Stock Association, to be held at the Broadway Theater, Denver, Colo., January 20, 21 and 22, 1914, convening at 10 o'clock a. m., on Tuesday, January 20.

During the same week, January 19-24, 1914, the Ninth Annual Western Stock Show will be held at the Stadium at the Stock Yards, and, in order to afford our members and visiting stockmen an opportunity to attend both our convention and the Stock Show, it has been arranged to hold the sessions of our convention only in the morning on the days indicated; but, if necessary to conclude our business, an afternoon session will be held on Thursday, January 22. This will allow plenty of time to see the Stock Show in the afternoon and the Horse Show in the evening.

The week previous to our convention the annual meeting of the National Wool Growers' Association will be held at Salt Lake City, Utah, on January 15, 16 and 17, 1914.

The new tariff bill, placing live stock on the free list, was signed October 3, 1913, and went into effect on the following day. We were able to secure a satisfactory amendment, providing for adequate inspection of all imported meats on substantially the same basis as now applies to our domestic production. The effect that free meats and free live stock will have on our home prices, the world supply of meat-food animals, live stock conditions in other surplus countries, and the probable volume of meat imports into this country, will be thoroughly discussed at our meeting by well-informed officials of the government and representative stockmen.

There has recently been some complaint from several states that the rigid enforcement of the regulations of the Bureau of Animal Industry on the mange question is causing an unnecessary expense and hardship to the stockmen. In order that the whole mange question and its eradication, and the regulations of the Bureau of Animal Industry pertaining thereto, may be thoroughly discussed by all concerned, a conference will be held, at the time of our meeting, between the representatives of the Bureau of Animal Industry, the representatives of the various State Sanitary Boards of the West, and a committee from this association. All interested stockmen are invited to attend and participate in said conference.

Prospects for the passage of a land-lease law at the next session of Congress are brighter than ever before. Many of the sheep growers have heretofore opposed such a law; now the majority of them favor it. The unsatisfactory conditions resulting from the unregulated use of the open ranges have contributed in no small measure to the decrease of live stock in the West. This can be corrected by a lease law such as this association has recommended. Congress seems to have finally awakened to a just appreciation of the importance of such a law and its bearing on our future meat supply. This question and the various land bills now pending in Congress will be considered at our meeting.

Officers of the Forest Service at Washington will be present at our convention to confer with the National Advisory Board appointed by this association regarding any needed changes in the regulations governing grazing on the national forests. If any stockmen have complaints as to the administration of grazing on the national forests, they should arrange to attend our convention and submit their grievance to the committee of our association for proper action.

There are many other questions which will come up for consideration at the convention, among them the following:

Elimination of valuation clause in live stock contracts of railroads; speed minimum for live stock; causes pending before the Interstate Commerce Commission involving rates on live stock; delay in furnishing stock cars; railway service; meat-inspection law; prohibitive tax on oleomargarine; advance in commission charges for sale of live stock; and many other subjects of national importance to the stockmen of the West. The discussion of these questions will not be confined to the members of this association; any stockmen in attendance will be allowed to take part.

The committee in charge of arrangements for the convention and the entertainment of visiting stockmen is: A. E. de Ricqles, George W. Ballantine, James Brennan, Isaac Baer, Charles Fletcher, Frank C. Goudy, C. A. Gebhard, M. H. Mark, John W. Springer, F. M. Taylor and John F. Vallery.

The railroads have promised to grant reduced rates to our convention. Members will be advised in ample time by circular letter of basis of fares agreed to.

All live stock producers are cordially invited to attend our convention.

By order of the Executive Committee. H. A. Jastro, President.
T. W. Tomlinson, Secretary.

Our Competitor, Argentine.

Argentine is a country that has a population of about six inhabitants to the square mile. There are 1,127,547 square miles and about 7,000,000 people.

According to the last census (1908) the live stock consisted of 29,000,000 cattle, 7,500,000 horses, 460,000 mules and 71,100,000 sheep and goats. As these figures were sent to the Department of Commerce by United States Consul General R. M. Bartleman at Buenos Ayres, it is probable that there is not much change at this time. In view of the admission of foreign meats free of duty, Argentine has come into prominence as the nearest country having a small population and a surplus of meats.

The Color of Soils.

"The color of soils is governed largely by the amount and kind of iron compounds and the percentages of organic matter which they contain. Iron may give the soils a red, blue, yellow or gray color, depending largely upon texture, aeration and moisture content. Organic matter when present in quantities tends to make soils either black or brown in color. The combination of colors formed by the iron compounds and organic matter give rise to a great many intermediate tints.

"As a rule, the dark color of soils is closely associated with the presence of organic matter, while a light color indicates its absence. Dark-colored soils are usually quite productive, while light-colored ones are generally unproductive. Soils uneven in color and somewhat mottled indicate lack of aeration and drainage, and are not in good physical condition."—James D. Marshall, Colorado Agricultural College.

We Buy It By The Box
—for Christmas!
—for 85 cents!
The clean, pure, healthful
WRIGLEY'S SPEARMINT
can now be had of most any dealer for 85 cents a box of twenty packages. Get this long-lasting goody that helps digest other goodies. It costs less than a cent a stick by the box!
Be SURE it's Wrigley's
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THE FLAVOR LASTS
CAUTION!
The great popularity of the clean, pure healthful Wrigley's SPEARMINT is causing unscrupulous persons to wrap rank imitations that are not even real chewing gum so they resemble genuine WRIGLEY'S. The better class of stores will not try to fool you with these imitations. They will be offered to you principally by street fakirs, peddlers and the candy departments of some 5 and 10 cent stores. These imitations cost dealers one cent a package or even less and are sold to careless people for almost any price. If you want Wrigley's look before you buy. Get what you pay for.
We are inserting the above caution solely to protect our customers, who are continually writing us that they have been deceived by imitations which they purchased thinking they were Wrigley's

Measuring Hay.

"Measuring hay in the stack is a common method of selling hay, but the methods and rules used are very varied. Very little actual experimental data has been obtained upon the accuracy of the different methods.

The United States Department of Farm Management has made some experiments and uses the following method to find the cubic feet content of the stack:

"Measure the length of the stack, then the width, then with a tape measure over the stack from the ground on one side to the ground on the other side. (This distance is called the over), multiply the width by the over and this by .31 (thirty-one hundredths of one). This will give the area of the cross section. Multiply this by the length and get total cubic feet contents. The factor .31 is variable according to the height, width and fullness of the stack, and may be as low as .24 in low stacks or as much as .38 in high stacks.

The number of cubic feet to allow for one ton varies with the kind of hay and length of time it has stood in the stack, and is usually determined according to local custom."—S. B. Nuckols, Colorado Agricultural College.

First One Qualified.

"Did you ever really love any girl before you met me?" asked the beautiful one.

"No," replied the titled foreigner, "you're the first girl I have ever known who had money in her own right."—Judge.

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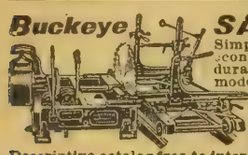
Electric Wheel Co., 40 Elm St., Quincy, Ill.

Save High Lifts

Buckeye SAW MILL



Simple in construction, economical in power, durable in every part and moderate in price. Guaranteed the Most Up-to-Date Saw Mill on the Market. ALSO, Engines & Boilers for Saw Mill work.

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Repainted and Ready For Delivery.

Buick, 2-cyl., delivery, open body	$ 350
Jackson, 4-cyl., 5-passenger	350
Hupmobile roadster, 1912, 4-cyl.	400
R. C. H. roadster, 4-cyl.	425
Mitchell delivery wagon, 4-cyl.	450
Studebaker "20," 5-pass., foredoors	450
Mitchell, 4-cyl., 4-pass.	500
Hupmobile coupe, 1911	550
R. C. H., 1913, roadster	600
Commerce Truck, panel body	600
Mitchell delivery wagon, panel body.	650
Mitchell, 4-cyl., 4-passenger	700
Studebaker "20," 4-cyl., 5-pass.	750
Chalmers, 7-pass., 4-cyl., foredoors	800
Marathon, 4-cyl., 5-pass.	850
Mitchell, 6-cyl., 7-pass.	950
Kline, 6-cyl., 5-pass, foredoors	950
Peerless, 4-cyl., 40 h. p.	1,150
Mitchell, 7-pass., 6-cyl., electric lights.	1,250
Buick, 4-cyl., 5-pass., 1912	1,300
Mitchell truck, solid tires, 1½ tons	1,350
Mitchell, 6-cyl., 7-pass, foredoors	1,600
Lozier, limousine, 6-cyl., 1913	3,250

Many others; subject to demonstration.

Terms: Cash payment; balance notes.

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10 h.-p. Springfield, direct flue	$ 200
12 h.-p. Jumbo, No. 1501, direct flue	250
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13 h.-p. Russell, direct flue	300
14 h.-p. Minneapolis, No. 1029, return flue.	575
14 h.-p. Robinson, direct flue	550
15 h.-p. Advance, No. 1351, direct flue.	575
15 h.-p. Gaar-Scott, No. 7959, direct flue	500
16 h.-p. Advance, direct flue	600
16 h.-p. Star, direct flue	750
16 h.-p. Double Star, No. 6972, direct flue.	1,000
16 h.-p. Buffalo-Pitts, return flue	575
16 h.-p. Heilman, No. 1205, direct flue.	375
16 h.-p. A. W. Stevens, No. 1881, direct flue.	250
16 h.-p. Minneapolis, direct flue	950
16-h.-p. Avery, No. 1117, return flue	600
16 h.-p. Russell Com., No. 11,244, direct flue	600
16 h.-p. Peerless, No. 2089, direct flue	325
16 h.-p. Russell, No. 9761, direct flue	700
18 h.-p. Minneapolis, No. 1170, return flue.	700
18 h.-p. Nichols & Shepard, return F. B.	575
18 h.-p. Kelly, direct flue	1,000
18 h.-p. Minneapolis, direct flue	1,000
18 h.-p. Geiser, No. 11,915, direct flue.	1,250
20 h.-p. Buffalo-Pitts, return F. F. B.	575
20 h.-p. Gaar-Scott, No. 8200, return flue	700
20 h.-p. Minneapolis, No. 4583, direct flue.	1,250
20 h.-p. Rumely, No. 3844, direct flue.	900
20 h. p. Minneapolis, direct flue	1,000
22 h.-p. Advance, No. 2400, direct flue.	825
22 h. p. Minneapolis, No. 1566, return flue	975
22 h.-p. Avery, No. 3953, direct flue	1,750

Terms:—A reasonable cash payment; balance to suit.

WEBER IMPLEMENT AND AUTO CO., 1900 Locust Street, St. Louis, Mo.

SAW YOUR WOOD

WITH a FOLDING SAWING MACHINE. 9 CORDS by ONE MAN in 10 hours. Send for Free catalog No. 148 showing low price and LATEST IMPROVEMENTS. First order secures agency.

Folding Sawing Mach. Co., 161 W. Harrison St., Chicago, Ill.

CORN MARKET SITUATION.

Values Maintained by the Deficient Crop, Which All the Balance of the World Cannot Make Up.

There is some satisfaction to a farmer who has corn to sell that the admission of foreign corn free of duty will not reduce prices very much, for the reason that the surplus corn in South America is not sufficient to make up the difference between a full crop and short one in the United States.

For the satisfaction of our readers we will now give them a tabulated statement of the price of cash corn at St. Louis on the last day of each month of the year 1913, as follows:

Cash Corn—St. Louis.

1913.	Range of Prices Per Bushel.		
Jan. 31	49	to	49½
Feb. 28	49½	to	50½
March 31	54	to	54¼
April 30	57½	to	58
May 31	58¼		
June 30	62½	to	63
July 31	67½		
Aug. 31	74½	to	74¾
Sept. 30	72		
Oct. 31	74½		
Nov. 30	77		

These monthly comparsions show distinctly that the decrease of the crop was no calamity to those who were fortunate and raised an average crop. On page 6 of this edition will be found the total of the crop of the United States for six years. The largest crop was in 1912, when the crop was 3,124,746,000 bushels; the smallest in 1913, when it was 2,463,017,000 bushels, and the average was 2,703,558,000 bushels.

Turning from the cash trade to the speculative we look to Chicago for the transactions and contracts for future delivery. The December corn option advanced from 56⅝ cents a bushel on May 31st to 70¼ cents on November 30th. The May, 1914, option advanced from 65 cents on July 31st to 70 cents on November 30th. The option that matures May 31st, 1914, is the great indicator of possible prices in the future, and next in significance is the July, 1914, option, which was quoted on November 30th at 69⅜ cents a bushel. For easy reference we submit herewith a statement of the option quotations month by month since last May, as follows:

Corn Option, Chicago Basis.

1913.	Sept.	Dec.	May. 1914.
May 31	58¼	56⅝	....
June 30	62¾	59½	....
July 31	66	63	65
Aug. 30	72¾	68⅝	70½
Sept. 30	....	70¼	71¼
Oct. 31	....	70¼	71¼
Nov. 30	....	70¼	70

Here we leave the corn market. In every issue of this paper appears a clear-cut statement of the past, the present and the future of the grain trade. Any farmer who will keep the paper on file will find that this feature alone is worth the subscription price.

OATS MARKET SITUATION.

Very Little Chage in Prices During the Month of November and a Probable Bottom Reached.

The oats market appears to be independent of either corn or wheat; in fact, all the grains seem to be acting independently of one another. The oats crop of 1913 of 1,222,139,000 bushels was the largest on record with exception of the previous year. Naturally, no high prices could be expected this year.

As we are approaching the end of the year we submit herewith a month-to-month statement of cash oats prices at St. Louis, so far in the year 1913, as follows:

Jan. 31	34		
Feb. 28	33	to	33½
March 31	32¾	to	33
April 30	35		
May 31	37½	to	38½
June 30	40	to	41
July 31	39½	to	41¼
Aug. 31	41	to	41½
Sept. 30	42		
Oct. 31	40	to	40½
Nov. 30	40½		

The scene now shifts to Chicago, where the grand trading is done in the contracting market. The so-called speculative market has a wider field than formerly, because every market in the world is involved, now that oats can enter the United States free of duty. In number of bushels (but not in weight) the oats crop of the world is the largest of all grains, and it would not be surprising if large arrivals of foreign oats were eventually recorded. But let us not anticipate anything that the trade has not discounted. We present herewith a statement of prices quoted at Chicago on the last day of the month since May 31st, as follows:

Oats Option Quotations.

1913.	Sept.	Dec.	1914. May.
May 31	38⅝	39⅞	....
June 30	42⅜	43⅞	....
July 31	41	43⅛	45⅜
Aug. 30	41	43⅞	41
Sept. 30	41½	42⅝	42½
Oct. 31	....	38⅝	42½
Nov. 30	....	37⅜	41½

There in simple evidence stands the December option, quoted as high as 43⅞ cents on August 30th, and reduced to 37⅜ cents by November. There is the May, 1914, option that does not mature for six long months quoted at 45⅜ cents on July 31st, and reduced to 41½ cents, and there is a July quotation on record at 41⅛ cents. All who are interested in grain growing will find it to their advantage to keep a file of The National Farmer and Stock Grower for the sake of these monthly reviews and records.

The Use of Potash.

The use of potash to the paying quantity is not always to be found in what are supposed to be complete fertilizers, therefore the German Kali Works on page 2 offers to sell potash direct to farmers in lots of 200-pound bags up. A letter to the German Kali Works will secure valuable information on the subject of the correct amount of potash to be used in furnishing plant foods for different crops.

Pea and Bean Threshing.

Our readers who are interested in pea and bean growing are advised to write the J. L. Owens Company, Chamber of Commerce Building, Minneapolis, Minn., and ask for one one of their complete catalogues, which, in addition to a full description and illustration of their full line of threshers, also contains some valuable information as to the soil, feed and market value of these crops. They also will furnish you with actual facts and figures based upon actual experiences of growers in different parts of the country, and to what extent it is possible to accomplish in real profits from growing these crops with proper handling. Kindly mention this paper and address J. L. Owens Company, Chamber of Commerce Building, Minneapolis, Minn.

In the movement from farm to final market the loss of eggs that are stale or spoiled in any way amounts from first to last to 17 per cent. That is the United States Department of Agriculture estimate.

BIG FOUR PROPOSITION.

Four of the Greatest and Best Monthly Farm and Stock Publications One Year For One Dollar.

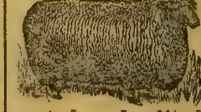
We have been requested by our readers to make a subscription club that will practically include every branch of agriculture at a fair price, and we have gone "one better" in that direction. We will furnish four sterling, practical, up-to-date farm papers at half price.

This is the season of the year when subscriptions are renewed, and it is the best time of the year to look up special offers. This offer has never been surpassed because either paper is worth considerably more than the full price. The papers are as follows:

The National Farmer and Stock Grower—issued monthly—a magnificent guide and counsellor in all branches of farming, grain growing, fruit growing, dairying, stock raising and feeding, markets, etc.

The American Swineherd—issued monthly—a leader in its class. The hog paper. the pig paper, the brood sow paper, and strictly first-class in teaching how to top the market by producing top hogs.

The Shepherds' Journal is devoted to sheep husbandry on the farm and on the range. It is equally valuable for the breeder as for the herdsman. It is issued monthly, printed on elegant paper, splendidly illustrated and edited by practical men.



The Reliable Poultry Journal—the best and most elegant poultry journal issued in the United States. Great on breeding points and splendid articles on raising, feeding and shipping poultry. **The Reliable Poultry Journal** is distinctly practical in all articles. The writers are thoroughly expert in their particular branches of poultry husbandry and retain the peculiar quality of being good instructors. You gain something every time you read **The Reliable Poultry Journal.**

The four papers above mentioned ought to be on every farm and ranch. Taken singly they cost $2.00 a year. By our co-operative clubbing arrangement we are enabled to offer all four papers one year for One Dollar. Address us at once without fail.

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The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.:

Gentlemen: — For One Dollar ($1.00) enclosed herewith please send us the Big Four Subscription Combination one year, consisting of **The National Farmer and Stock Grower, The American Swineherd, The Shepherds' Journal** and **The Reliable Poultry Journal.**

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CEMENT WORKERS' HAND BOOK.

Valuable Work That is Useful and Instructive on Any Farm.

This book is designed to teach anybody how to work with cement; how to mix mortars of all kinds for all concrete purposes; how to make building blocks; how to build walls, floors, ceilings, walks, joists, cisterns, troughs, tanks, etc. It gives estimates of the cost of all kinds of mortars and concretes and all methods of house construction. It is a cloth-bound book of 100 pages, and covers more than fifty most important subjects on cement and its uses and construction. This is a diamond of a book for wide-awake farmers. The price of the book alone is fifty (50) cents.

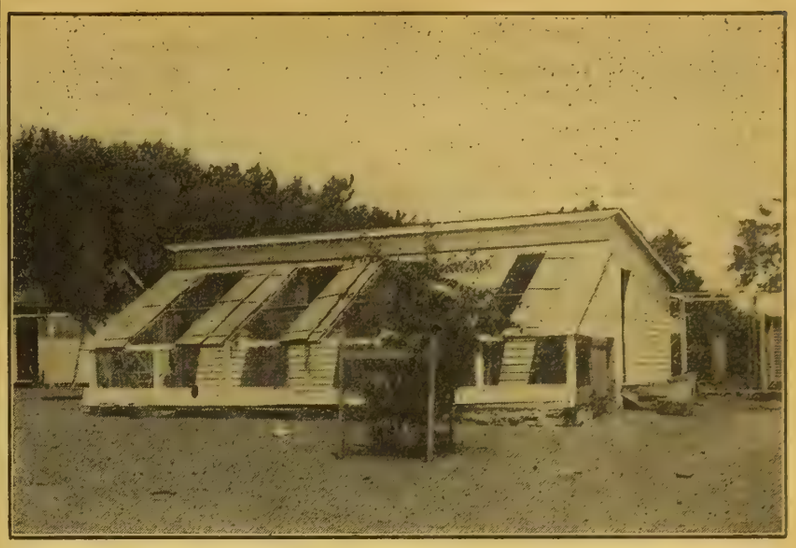
For sixty (60) cents we will credit one-year's subscription to The National Farmer and Stock Grower and send a copy of the Cement Workers' Handbook. Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

SALE OF JACKS AND JENNETS

Also Poland-China Swine at Jackson, Mo., February 10th, 1914, at Public Auction.

Mr. W. F. Schade, of Jackson, Mo., who is to hold an auction sale on the 10th of the coming February, has been breeding and handling jacks and jennets for twenty-four years, and there are but few establishments that equal his. In building up his herd he has always used the best jacks that money could buy. Twice he paid the highest prices on record for one-year-old colts. At one of the Monsees sales he first bought King Boy by Orphan, 696; the second purchase by paying $1,300 for the great yearling jack colt De Wolf Hopper, 3,720; he also by Orphan; dam, the noted jennet Belle of Waverly, 1,484; she is the dam of the State Fair champion; and the bunch of jennets offered in the sale are bred to the aforementioned jacks. Anyone who is looking for a good herd jack or a first-class mule jack will do well to attend the sale, for all stock is fully guaranteed. His purpose in breeding is size with quality. The reputation of Mr. Schade as a man and a breeder is fully established. He was for several years jack and jennet judge at the Missouri State Fair.

We must not forget the Poland-China swine to be offered at auction the same day. Mr. Schade is noted for his fancy registered Poland-Chinas, and the list will consist of bred sows, gilts and young boars, all of them to be bought at your own price by fair-bidding competition. Jackson is in Cape Girardeau county, just above Cape Girardeau, on the Iron Mountain Route. The proper thing to do is to write for catalogue, which will be sent you and furnish an opportunity to classify the offerings before you attend the sale.



MISSOURI POULTRY RAISING. Hinged doors on roof of scratching pen attached to hen house on La Cima Farm, owned by F. J. Banister, Hickman Mills, Mo. The main house is 14 by 30 feet, and the scratching pen is 10 feet wide by 30 feet long, the top, front and ends being covered with wire netting. In pleasant weather the doors are opened to admit light and air, but in stormy weather they can quickly be closed, making an open-front house.

Poultry, Butter and Eggs.

On December 1st egg receipts at St. Louis were of large proportion, but all offering keeping well cleaned up at steady prices. Current receipts—Firsts, including new cases, at 32c., in good second-hand cases at 31¾c., and cases returned at 31¼c.

Butter.—Receipts moderate, but weather unfavorably warm and demand quiet, with only business of consequence in extras. Packing stock and low grades of creamery dull. Current make: Creamery—Extra, 32c.; firsts, 27c.; seconds, 25½c.; and ladle-packed, 24c. Packing stock at 18½c. All country butter should be packed in tubs or pails.

Cheese.—On orders, per pound: Northern—Twins, 15½c.; Singles, 16c.; Long Horns, 16c.; Daisies, 16c.; Young Americas, 16c.; Prints, 16½c.; new Limburger, 14c.; Swiss, 19c. for No. 1 new; Brick, 16c.; all inferior quality less.

Live Poultry.—Steady, with receipts light. There was a fair to good inquiry for choice dressing turkeys, light springers, fat hens and ducks, but weather too warm for much activity. Geese in largest offering, but many of these carried over from last week, and were mainly of an unattractive appearance. Chickens, 12c.; broilers, 13½c.; fowls, hens, 10c.; cocks, 8c. Turkeys, 16c.; culls, 10c. Geese, 10½c.; thin and poor less. Ducks, 12½c. Guinea chickens, old, per per dozen, $2.75; spring, 1½ pounds and over, $6.00; spring, light $3.00.

Dressed Iced Poultry.—Firm; receipts lighter and demand fair. Chickens, 13c.; broilers, 14½c.; fowls (hens), 11c.; cocks, 2c. Turkeys, 17c. Geese, 11½c. Ducks, 13½c.

Rabbits.—Weak and nominal; continued spring-like weather has demoralized the market, and not enough good rabbits arriving on which to base a quotation. Bulk of the receipts would not bring charges, and health inspector on street condemning large quantities. Some dealers rejected their entire receipts for the day.

Pigeons and Squabs.—Live pigeons at 90c. per dozen. Squabs—Fancy homers, seven to eight pounds to the dozen, at $2.75 per dozen; large homers, nine to ten pounds to the dozen, at $3.25 per dozen; small at $1.50; common live squabs and dead pigeons at 60c. per dozen.

Farm Loans and Credits.

The Hon. Secretary of Agriculture in an address before the National Grange referred to farm loans and credits, and in his address he said:

> "One thing is clear, the schems that are multiplying which conceive the farmer to be a mendicant and a subject for unique and special legislation may be at once condemned. The American farmer does not need or desire to be classed with those foreign people who are just emerging from a condition of serfdom and tutelage. He asks no opportunity that is not afforded to every American citizen; he asks for no legislation which sahll give him credit on easier terms than his brother mechanic or his professional friend or his merchant may secure it. But he does ask to be assisted in creating conditions and machinery which shall enable him on a similar credit foundation to secure his money at the same rates as any other class in the community. This, and this alone, it seems to me, is all that he asks and is nothing less than he deserves."

The Secretary of Agriculture is right, perfectly right; but the farmer needs special legislation to give him equal credit with other interests. The United States government is receiving money as a banker and loaning that money out again to bankers; but it is not being loaned to farmers, nor to anyone who can or will lend it to farmers at fair rates on land security. And in a hundred years from now, unless there is some special legislation, the government will be receiving deposits and doing a banking business of hundreds of millions of dollars, and farmers will never get a long-time loan of a dollar. We believe that legislation should provide for loaning the deposits of the Postal Saving Banks to farmers. At present it is loaned to national bankers, and they are not allowed to make long-time loans to farmers.

PRINCESS, R., 10th—HEREFORD COW. Owned by Luce & Moxley, Shelbyville, Ky. Picture taken at the time of the Kentucky State Fair in 1912, where she was grand champion for the breed.

SIX-YEARS' GRAIN CROPS.

The Yield For the Country and the Average Per Acre For the United States — Calculation of Value Per Acre.

For convenience of our readers we show the grain crops of the United States for six years, including the year 1913, and on the right of the total crop we give the average yield per acre for each year. Such information can be cut out and carried in the pocketbook. We also give farm value per acre for the crop of 1913.

Wheat.		Per
Year.	Bushels.	Acre.
1908	664,602,000	14
1909	683,350,000	15.4
1910	635,121,000	13.9
1911	621,328,000	12.5
1812	730,267,000	15.9
1913	753,223,000	15

Corn.		Per
Year.	Bushels.	Acre.
1908	2,668,651,000	26.2
1909	2,552,190,000	28.5
1910	2,886,260,000	27.7
1911	2,531,488,000	23.9
1912	3,124,746,000	29.2
1913	2,463,017,000	23

Oats.		Per
Year.	Bushels.	Acre.
1908	807,156,000	25
1909	1,007,129,000	30.3
1910	1,186,341,000	31.6
1911	922,298,000	24.4
1912	1,418,337,000	37.4
1913	1,222,139,000	29

Barley.		Per
Year.	Bushels.	Acre.
1908	166,756,000	25.1
1909	173,321,000	22.5
1910	173,832,000	22.5
1911	160,240,000	21.0
1912	223,824,000	29.7
1913	173,301,000	24.0

Rye.		Per
Year.	Bushels.	Acre.
1908	31,851,000	16.4
1909	29,520,000	13.4
1910	34,897,000	16.0
1911	33,119,000	15.6
1912	35,664,000	16.8
1913	34,789,000	16.0

Buckwheat.		Per
Year.	Bushels.	Acre
1908	15,874,000	19.8
1909	17,438,000	16.3
1910	17,598,000	20.5
1911	17,549,000	21.1
1912	19,249,000	22.9
1913	14,455,000	17

Invoice of Value Per Acre.

15 bu. wheat,	77 c. per bu.	$11.55
23 bu. corn,	70.7c. per bu.	16.26
29 bu. oats,	37.9c. per bu.	10.99
24 bu. barley,	54.7c. per bu.	13.13
17 bu. rye,	63.2c. per bu.	10.11
17 bu. buckwheat,	75.5c. per bu.	12.83
Average value per acre		12.48

REX McDONALD DEAD.

Champion Saddle Stallion—By Many Good Judges and Enthusiasts Said to be the Greatest Saddle Stallion Ever Shown.

Rex McDonald died in November at the home of his owner, B. R. Middleton, of Mexico, Mo. Rex McDonald was recorded in the American Saddle Horse Breeders' Register, No. 833, as black stallion, 16 hands, bred by Joseph McDonald, Mexico, Mo., foaled 1890. Sire, Rex Denmark, 840, by Crigler's Denmark, by Washington Denmark, 64, by Gaines' Denmark, 61, by Denmark F. S.; dam, Lucy Mack, 2,459, by Black Squirrel, 581; second dam, Star, by Old Star Davis; third dam, Mollie, by Sam Martin's Farmer. His descent is traced back to Denmark F. S., the foundation sire of the American saddle horse, and through him to the English thoroughbreds Herod and Eclipse.

Rex McDonald appeared at St. Louis in the year 1894, owned by Col. Jno. T. Hughes, in competition with the famous chestnut mare Lou Chief, bred by J. M. Garrett, Fort Garrett, Ky., and foaled in 1887. The decision placing Rex McDonald champion was rendered by D. R. S. Carr, John R. Gentry and Joseph Maxwell, and was sharply criticised at the time, but has been vindicated a thousand times since. The greatest contest Rex McDonald ever had was in 1895, when his chief competitor was the mahogany bay, Kentucky-bred Thornton Star, and it was only by a hair, for the reason that Thornton Star was almost irresistible. Afterwards Rex McDonald was not approached by a dangerous rival and lived to be barred from all competitions.

The rest of the article on Rex McDonald we take from the Spirit of the West, published at Des Moines, Iowa, as follows:

"Rex McDonald has long since been known as the king of saddle stallions, and his great show-ring career was ended by him being barred from all the important shows and not by his age. As a sire, grandsire and great-grandsire he was without equal. He was held in high esteem by the best saddle horse breeders of the country. He was twenty-three years old at the time of his death, and despite this advanced age he retained the same fine lines and ease of activity he bore when he won his original title in Madison Square Garden, years ago.

"Rex McDonald was a large black horse of powerful and beautiful build, with the intelligence of a human being. And the most remarkable thing about this grand old champion was the way he kept his conformation. When we last saw him, which was only last August, when he headed the grand $1,500 saddle stake at the Mexico Fair, accompanied by a brass band, except for a circle of gray around his eyes, one would never suspect the one-time champion of champions was an old horse, as age goes in the equine world.

"Rex McDonald was foaled near Mexico Mo., and the late Joe McDonald, who bred him, we are told, did not profit by breeding the champion, but, nevertheless, knew that he had accomplished what he set out to do, some years prior when he laid the foundation for this great horse by breeding his dam. When Rex McDonald was a yearling his breeder, on account of ill health and old age, sold the colt to R. T. Freman for $105, who later sold him to Col. John T. Hughes, of Kentucky, for $3,000, which, we presume, was a record price for a saddle stallion at that time, and late in the fall of 1898, while being shown at the St. Louis Show, was sold to Col. Bleese, of Macon, Mo., for another record price of $5,000. Col. Bleese afterwards sold him for $6,500 to a St. Louis party, who reported that he refused $10,000 for the son of Rex Denmark and Lucy Mack. It was about 1905 that a stock company at Columbia, Mo., purchased Rex McDonald and he was then retired from the show rings, and for ten years prior to this time he had been the undefeated champion saddle stallion of America.

"About four years ago, B. R. Middleton, the well-known horseman and stockman, but more generally known as the owner of Rex McDonald, purchased him from the Columbia Company and was again transferred to Mexico. He has done more than any other one thing to advertise the town and especially among horsemen, and the town's pride in him was touching. His appearance at their recent County Fair precipitated the wildest enthusiasm, and no Presidential candidate ever met with a warmer reception than did old Rex when he appeared before the grand stand when leading the contestants into the show ring, as referred to above.

"While the loss of Rex McDonald is a great one to the saddle horse interests of the country in general, there is the consolation that he has left many good sons to take his place."

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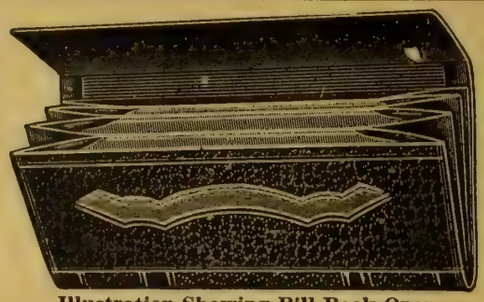
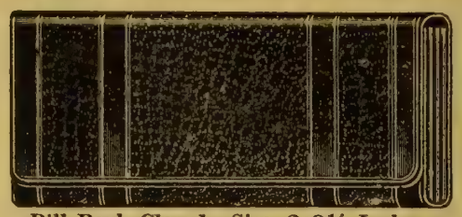


Illustration Showing Bill Book Open.



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is a nice, clean, ably-edited general farm publication, full of practical, interesting and instructive information. It contains good reading for all the family. It is very useful to general farmers, to dairymen, to vegetable and fruit growers, and especially so to cattle, hog and sheep raisers and feeders, to horse and mule raisers and dealers, and it contains more good poultry facts than most of the poultry papers. The best live stock illustrations appear in The National Farmer and Stock Grower. There are thirty-two pages, four columns to the page. It is published monthly.

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THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Meat-packing Industry.

In 1909 the total number of establishments in the slaughtering and meat-packing industry as a whole was 1,641; the number of persons engaged in the industry, 108,716, of whom 89,728 were wage earners; the capital invested was $383,249,170; the cost of materials, $1,202,827,784; and the value of products, $1,370,568,101. The sum of $71,698,677 was paid out in salaries and wages.—United States Census for 1910.

Explained.

Tom McNeal tells this one in his bouquet of Kansas Sunflowers: A Kansas man happened to be present at a meeting in an Eastern State, where the speaker was arguing against prohibition. "I have a letter here," said the speaker, "from a man who lived a long time in Kansas. He is a member of the church and he says he can prove that under prohibition there is more liquor drank than where they have no prohibition laws. If there is some man here from Kansas, I would like to have him explain this." The man from Kansas rose to his feet. "If the speaker will permit, I will explain. The church member who wrote that letter is a liar. That is all!"—Kansas City Journal.

OUR OUTPUT FROM THE SOIL.

Limit Not Reached by Any Means and Only Just Begun—Less Than Twelve Per Cent. of Farm Lands Producing Maximum Results.

In his address on "The Organization of American Agriculture," delivered by Hon. David F. Houston, Secretary of Agriculture, before the forty-seventh session of the National Grange of Patrons of Husbandry at Manchester, N. H., on Friday, November 14th, he referred to the subject of the present output from the soil as follows:

"A question frequently asked in Washington of those connected with agriculture is whether we have reached the limit of our supply of the necessaries of life and whether or not anything can be done to decrease the cost of living. I have systematically refused to deal off-hand with this vastly important problem, as so many of the interviewers expect. It is one of vast importance and complexity. There are many avenues of approach to it; many controlling factors and no simple remedy. But I am not one of the pessimists. I do not entertain the thought for a second that we have approximated the limit of our output from the soil. As a matter of fact, we have just begun to attack the problem. We have not even reached the end of the pioneering stage and have only in a very few localities developed conditions where maximum returns may be secured. But we have unmistakably reached the period where we must think and plan and work. We can no longer rely on the bounty of nature. There are evidences that Providence is ceasing its protective supervision of fools and Americans. Conditions are emerging which, if not fundamentally dealt with, will lead us into serious embarrassments. It is well for us to face the facts and get our bearings.

"With a population of less than ninety-five millions of people living on more than three millions of square miles, it is ridiculous to speak as if our territory had been more than pioneered. The production per square mile in the Union does not exceed thirty-one, and ranges from seven-tenths of one per cent. in Nevada to five hundred and eight in Rhode Island.

According to the best statistics available, it appears that the total arable land in the Union is approximately 935,000,000 acres; that only about 400,000,000 of this is included in farms and improved; that over 100,000,000 is unimproved and not included in farms; and the remainder is unimproved lands included in farms. According to the best guesses I can secure it appears that less than forty per cent. of the land is reasonably well cultivated, and less than twelve per cent. of it is yielding maximum returns.

"That we have practically reached the stage where we have ceased to be an exporting nation of food products and are becoming dependent on foreign nations for the necessaries of life is a sad commentary upon our use of the opportunities bountifully bestowed upon us. We had better frankly face the fact that we are relatively inefficient, take stock of the shortcomings and earnestly seek the remedy."

Another Argentine Packer.

From Kansas City, on November 13th, it was reported that Charles H. Hill, Jr., who for the last two years has been a cattle buyer for Sulzberger & Sons, packers at the Kansas City Stock Yards, was leaving for Buenos Ayres, South America, where he will buy cattle for the same firm. He was accompanied by Charles Campbell and A. E. Peterson, of Chicago. They sailed from New York.

Charles H. Hill, Sr., head buyer for the Sulzberger & Sons Company, said his company had recently leased a packing plant at Buenos Ayres, capacity 3,000 cattle weekly, and would begin the slaughter of cattle about the first of the year. They will ship the output of the plant to Continental Europe, England and the United States.

Armour & Co., and Swift & Co. have packing plants in Argentine, the latter company having started in business there in 1912, when Charles Coffman, head buyer for them in Kansas City, organized the buying force and was absent from Kansas City more than four months.

The Brazil Land, Packing, Cattle and Lumber Company, of San Paulo, Brazil, is building packing houses, railroads and raising cattle. This company has millions of acres of grazing land in the high plateau country. The capital invested there is French and English, but its operating department is headed by Murdo McKenzie, formerly of Trinidad, Colo., when he was manager of the Matador Cattle Company.

The cattleman who wishes to make the most money off the least feed and in the quickest time will produce the butter ball known generally as baby beef. Light weights are in fashion, but meaning perfection in feeding and quality in breeding.

REX McDONALD, 833—The World's Champion Saddle Stallion. Campaigned over ten years, challenging all comers, without defeat. A horse more widely known and beloved of saddle-horse admirers than any other that ever lived. He was the sire and grandsire and great-grandsire of champions. The grandest saddle stallion the world has known. Owned and ridden by B. R. Middleton, Mexico, Mo., and died in November, 1913.

S. R. FEIL, Pres.
Reg. Pharmacist

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If you will fill out the coupon below—tell me how many head of stock you have, I'll ship you enough Sal-Vet to last all your stock 60 days, without asking a single penny of pay in advance. All I ask is the privilege of proving to you right in your own barnyard what I have proved to thousands of other farmers. I want to show you how to rid your stock of worms—how to make all your farm animals grow faster, thrive better, keep healthier, put on more flesh on no more feed—make you more money.

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is a wonderful medicated salt which rids farm animals of their greatest enemies—the deadly stomach and intestinal worms. It kills and expels these blood-sucking, life-sapping parasites and greatly lessens the danger from hog cholera and many other diseases.

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Send no money—just tear off the coupon below, mark down the number of hogs, sheep, horses and cattle and mules you own, give your name and address and shipping station and I'll send you enough Sal-Vet to last all your stock 60 days. You simply pay the moderate freight charge when it arrives and at the end of 60 days report results. If it don't do what I claim—if it fails to rid your stock of the dangerous stomach and intestinal worms I'll cancel the charge—you won't owe me a penny.

SIDNEY R. FEIL, Pres.
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PRICES 40 lbs. $2.25; 100 lbs. $5.00, 200 lbs. $9.00; 300 lbs. $13.00; 500 lbs. $21.12. Special discount for large quantities. No order filled for less than 40 lbs. on 60 day offer. Never sold in bulk; only in Trade-Marked "Sal-Vet" Packages. 60 day trial shipments are based on 1 lb. of Sal-Vet for each hog or sheep and 4 lbs. for each horse or head of cattle.

PROOF

"'Sal-Vet' is a great remedy for sheep. It saved me ten times what I paid for it."—W. J. Neff, Millboro, Va.

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"Since feeding 'Sal-Vet' my stock have done better than they ever have before. I have had to give less feed, and my stock looks sleek and fine."—A. Ayers, Cedar Springs, Mich.

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Subscription Price in the United States, 50 cents a year, or three years for one dollar. Canada and foreign subscriptions 75 cents a year.

During the month of November, 1913, the St. Louis market received 220,600 pounds of wool, which is twice the amount recorded last year.

The Fern Premiums which are advertised in this edition as a subscription premium will not be advertised again this season. Next October we will begin to advertise them again.

THE FASHIONABLE CATTLE.

Young Beef Well Fattened and Weighing Less Than Twelve Hundred Pounds Will Usually Top the Market.

In most every line of business the times are getting harder and harder, but there is one great exception where requirements leading to success are getting easier. In the great cities competition in business is excessive in some lines, and in others there is no competition at all. In some lines the combinations control the output, and it is fruitless to establish business in opposition. In the farm-paper business, as an example, it is more difficult to get fifty cents a year for a weekly paper than it used to be to get two dollars. Publishers used to sell advertising at prices several times higher than the same service will command now.

We are not expecting to get any thanks or endorsement when we say that the production of high-priced cattle is easier now than it used to be. Nevertheless, what we say is proven daily, and all cattlemen in touch with the market will admit it.

Twenty years ago the heaviest cattle, quality being equal, brought the most money per pound. Colonel Gillett, of Illinois, the premier cattle feeder of his day, used to market Christmas beef by the car-load weighing 2,000 pounds average, and eight cents a pound for them was the usual price. To-day, if Colonel Gillett were living, he would produce fat young steers not over a thousand pounds in weight and he would be selling them at the top of the market, and yet in his lifetime such cattle would and did sell three cents a pound less than the heavy cattle of equal quality.

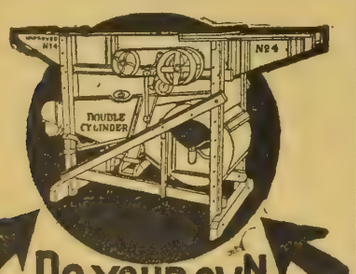
Notwithstanding his love for heavy cattle Colonel Gillett was the first to demonstrate that producing heavy cattle was a mistake. In his later life he was an advocate of producing lighter and younger cattle, but he did not live to see "baby beef," meaning yearlings, well bred and strictly fat, outsell heavy cattle, pound for pound, as we see before us every day.

The most remarkable thing in recent years is the position which fat, light-weight cattle hold on the market. Steers that ten years ago would sell three cents a pound below the high top of the market are now outselling top cattle of heavy weights by a half cent a pound. There is reason it it. People are paying high prices for meats and they buy light cuts. The butcher cannot sell the great prize steaks of former days, and they wish to have no gross meats or excessive fats left over. In other words, the trade has set the fashion in light, handy, fat cattle, and the stockman finds it to his advantage to produce and sell the fashionable kind.

Professor Henry, in his book, "Feeds and Feeding," gives many examples of the increased cost of gain in weight as cattle grow older, but we will only take one example to show our point. He said: "At the Fat Stock Show for 1882 the feed for 100 pounds of gain up to 12 months cost $4.03; and between 24 and 36 months the cost reached $12.54." No matter if it does cost more money to raise a yearling steer than formerly, the change in market conditions has amply compensated for the additional cost. Our idea is that production of heavy weights is the best way to reduce prices, and that the continual production of light-weight but fat cattle is a sure way to maintain prices for the benefit of stockmen.

The great significance of the changed condition is in the fact that it offers the entire country a premium on beef raising. So long as heavy cattle topped the market the production of top-priced beef was limited to the states where corn was abundant and cheap. To-day there is not a state in the Union where it is really difficult to produce what are now classed as top cattle. The beef type must be there, called Quality; that is in reach of anyone who will keep pure-bred bulls of the beef breeds. Raising the calf and then fattening until it weighs a thousand pounds is a simple matter in any state where corn and cotton-seed meal are available, and that means the entire South, where top cattle can be raised by anyone who has the enterprise and the ability to do it.

We think this simple statement of fact ought to be accepted as a good omen to beef raisers, whose task in raising beef cattle has been made lighter by the change in fashion.



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The grade Aberdeen-Angus steer Glencarnock Victor, II., calved September 26th, 1911, exhibited by Mr. James D. McGregor, of Brandon, British Columbia, is grand champion of the Chicago International Live Stock Exposition of 1913.

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ALABAMA.—Fertile prairie land near railroad town. Good for all kinds of farming and finest of stock countries. Buy from owner and save commission. State number acres wanted. **D. Vaughan,** Catherine, Ala.

ARKANSAS.—Look on page 18 for the advertisement of the lands on the Cotton Belt Route. The land of peanuts and pork. Simple agriculture that pays the way and earns the money with which to purchase and build comfortable homes. Write to **E. W. LaBeaume,** G. P. A., 1709 Pierce Building, St. Louis, Mo., and ask for the Arkansas Booklet.

ARKANSAS LAND FREE.—500,000 acres government land now open to settlement. Guide Book with lists, laws, etc., 25c. Township map of state 25c. additional. **L. E. Moore,** Little Rock, Ark.

MICHIGAN.—WE SELL OCEANA FARMS—Greatest Fruit county. Also Potato, Corn, Alfalfa, Stock. List free. **Hanson & Son,** Hart, Mich.

NEW YORK.—150 acres level, rich loam; good buildings; adjoins village. $9,750, including stock, crops, tools. Only $1,500 down. Catalogue free. **Geneva Farms Co.,** Geneva, N. Y.

OKLAHOMA.—Fertile Prairie Farms close to Muskogee, Oklahoma, a city of twenty-five thousand people; suitable for all kinds of grain, as well as an ideal stock country. Also Truck Farms adjoining the city limits at terms to suit. CRABTREE INVESTMENT COMPANY, 615 Barnes Building, Muskogee, Oklahoma.

TEXAS.—Northwest Texas, the shallow-water country, that can easily be irrigated. See the story on page 5 and send to C. L. Seagraves, 2516 Railway Exchange, Chicago, Ill., and ask for the "Northwest Texas" Folder.

TEXAS.—Lands on the Cotton Belt Route in Texas are highly productive, in law-abiding communities, made rich by fruit and vegetable farming and stock raising. Good lands yet to be had cheap, but not for long, for prices are advancing. Write to **E. W. LaBeaume,** G. P. A., 1709 Pierce Building, St. Louis, Mo., and ask for Texas Booklet of Low-rate Excursions.

TEXAS.—320 acres, Wharton county, Texas. All tillable. Black and dark sandy loam soil; about two-thirds prairie and one-third timber (live oak); well drained and free from crawfish holes or alkali spots. Running creek water. Good drainage and a rainfall of 42 inches. This is fine cotton, fruit and general farming land, and crop failures are unknown. Situated twelve miles east of Victoria. This is a real bargain at $30 per acre. Terms: One-third cash and balance to suit at 8 per cent. interest. **H. M. Thompson,** Owner, P. O. Box 66, San Antonio, Texas.

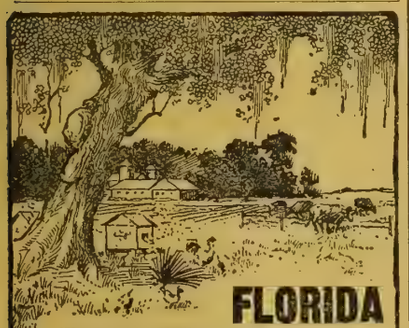
VIRGINIA.—CATTLE CAN GRAZE IN VIRGINIA almost every day in the year. Little snow; abundant rainfall. Ideal climate for dairying, stock, fruit or general farming. Good farm lands $5 an acre up. Write for information. **F. H. LaBaume,** Agl. Agt., Norfolk & Western Ry., Room 257, N. & W. Bldg., Roanoke, Va.

WANTED to hear from owner who has good farm for sale. Send description and price. **NORTHWESTERN BUSINESS AGENCY, Minneapolis, Minn.**

FARMS WANTED.—We have direct buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property FREE. **American Investment Association, 55 Palace Bldg., Minneapolis, Minn.**

CASH FOR YOUR FARM OR BUSINESS. I bring buyers and sellers together. If you want to buy, sell or trade any kind of property anywhere, write me. Established 1881. **FRANK P. CLEVELAND, 7910 Adams Express Bldg., Chicago.**

FLORIDA EAST COAST.



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FLORIDA EAST COAST RY. (3)

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THE MATTER OF FENCING.

The First Movement Towards the Improvement of Waste Lands and the Best General Improvement on a Farm.

Anyone who has had experience in raising live stock on the open range, the stock running on the commons, so to speak, will testify that at some time or another it results disastrously, and those who after raising live stock on the open range have handled stock in pasturage will be willing to take all the affidavits necessary to the effect that in the end an acre fenced is worth three that are unfenced.

Some ranch owners now living remember the changes that took place when the great Western country was open for the grazing of the new-comer, who would take his chances with possibility of raids by Indians; how at first the grasses were luxuriant until year after year the ranges became overstocked until the familiar estimate in the good grass country was ten acres to the steer. Now that this same country is fenced up and controlled by the owners the carrying capacity is easily four times greater.

But the possibilities of fencing do not end with simple enclosure. Subdivision of fencing has great advantages. In the Southen States, subdivision of pastures will surely enable the owner to clean his farm of cattle ticks. Then, again, by keeping stock in one pasture while grass is growing in another, the spring crop of grass obtains a stand that is impossible to secure while the hungry cattle are biting every blade of grass that tries to get a start. No matter what provision may be necessary to sustain the stock while grass is getting its first growth, that unchecked growth of grass is worth all that it costs. A stockman who had fenced pastures, and afterwards divided up into three, stated to the writer that by that simple act he added one-fourth more forage to his farm production. We do not pretend to go into particulars of facts that are of common knowledge, but we wish to say that in view of present conditions and the necessity of bringing every inch of land into usefulness and availability it is remarkable that so many farmers continue to have unfenced lands that are not producing a tenth of what can be secured from the same land fenced and improved.

We are gradually approaching the time when every little common dogie heifer will sell for more than it is worth and several times more than it will cost. Stockmen will have to scour the earth for females in order to produce more cattle. If finely-bred cattle are so high as to be out of sight, they will have to buy commoner cattle and make the best of them.

We do not advocate the raising of common cattle, but really the great advance in the price of stock cattle has lifted the common cattle from an unprofitable to a profitable basis, and the place to start the improvement of cattle is inside the fence, and not outside of it. Fencing is done mainly with wire. The price of wire has not advanced. The first extensive barbed-wire fencing was done at nine cents a pound. Ranch cattle inside the fences were then worth $10 to $15 a head. Since then cattle have gone up and fencing has gone down. We will be glad to hear from our readers who have experiences in the change from open range to fenced pastures.

GOOD BOOKS AND PAPERS.

HOLSTEIN-FRIESIAN HERD BOOK, Vol. XXI., containing a record of all Holstein-Friesian cattle approved and admitted for registry since Volume XX, consisting of bulls 95,236 to 111,599; cows, 178,946 to 205,896, and to May, 1913. It is published by the Holstein-Friesian Association of America, Frederick L. Houghton, Secretary, Brattleboro, Vermont. This volume shows by list of members, list of animals of owners, rules, regulations, proceedings of meetings, the grand strength of the Holstein cattle in America.

THE CORN CROPS.—This is one of the rural text books edited by Prof. L. H. Bailey, the recognized head of agricultural and horticultural instruction in the United States. The book is worked out by Prof. S. G. Montgomery, Professor of Farm Crops in New York State College of Agriculture. The publisher is The Macmillan Company, 66 Fifth avenue, New York, and the price is $1.60. It covers maize, Kaffirs and sorghums as grown in the United States. There are 350 pages, fully and interestingly illustrated and copiously indexed. The book is a wonder in comprehensive compilation, meeting the investigator half way and clearing his road as he reads. There are other corn books and other farm books, but no farm library is complete without this book entitled **"THE CORN CROPS."**

SOILS AND CROPS.—A new work that is a high school book for the purpose of teaching the principles and practices of agriculture. It is intended for use in agricultural, normal and other schools, and there is no school where it is of more value than the farm. To have evening studies for an hour or so with this book in hand would interest everybody on a farm, because it is simply written and amply illustrated. The book is by Thomas F. Hunt and Charles W. Burkett, and there are 550 pages. The price is $1.50 per copy, and it is published by Orange Judd Company, 315 Fourth avenue, New York City, N. Y.

BICKMORE'S FARM ACCOUNT BOOK.—For several years the Bickmore Gall Cure Company have made it a business to give away a Farm Account Book. Of course, it is for the purpose of reminding farmers of the Bickmore Gall Cure, but it does not detract from the value of the book or from the enterprising spirit of the giver. In addition to being an account book specially prepared for farmers' use it is also a book of information, containing tabulations that are useful in all kinds of emergencies. We advise our readers to write the Bickmore Gall Cure Company, Box 486, Old Town, Maine, and ask for a copy of the Farmers' Account Book.

THE MODERN GAS TRACTOR.—This book is published by Norman W. Henley Publishing Co., 132 Nassau street, New York, N. Y. The price is $3.00 per copy. It is a complete treatise, describing all types and sizes of gasoline, kerosene and oil tractors; considers designs and construction exhaustively; gives complete instruction for care, operation and repair; outlines all practical applications on the road and in the field. The best and latest work on farm tractors and tractor power plants. 480 pages; three folding plates; 264 illustrations.

Stop Losses From Worms.

Many years ago Dr. Detmers, a veterinary surgeon, was sent out by the United States Bureau of Animal Industry to investigate the diseases of live stock on the great ranches of the West, and more particularly the Southern cattle fever, which up to that time was not known to be caused by ticks. But in Northern Texas he became very busy examining sick hogs and sheep. The writer of this article went with him and many post-mortem examinations were made. The answer was worms, worms, worms. He then stated that eighty per cent. of all live stock diseases were caused by worms. Since then we have great respect for the worm destroyers in any shape or form they may be advertised, especially so when the remedy and the guarantee go together, as in the case of the S. R. Feil Company, advertising on page 7. The advertisement is worth reading.

St. Louis Wool Market.

On December 1st, the day for the admission of foreign wools free of duty, the trade was quoted as follows: Near-by growth at from 16c. for low to 19c. for choice; fine at from 11c. for heavy to 14½c. for light; lambs at 15 to 16c.; burry at from 9c. for hard to 15c. for slight; Southwestern at from 8 to 10c. for hard burry up to 16 to 17c. for clear; medium loose at from 15 to 16c.; fine at from 2 to 10c. for heavy sandy to 13 to 15c. for light; Northern and Western at from 15 to 16½c. for dark to 18c. for bright medium; fine at from 10c. for burry to 15c. for light; burry at from 9c. for heavy to 15c. for slight; tub-washed at from 15 to 20c. for burry to 28c. for No. 1; Angora goat at from 10 to 16c. for burry to 25c. for long lustrous.

Profitable Dairying

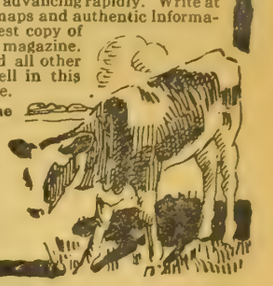
Short, mild winters, moderate summers, abundant rainfall, well distributed throughout the year—average 4 inches monthly in 1913—good, rich grass; cheap lands—**VIRGINIA** offers every advantage for dairying and stock-raising. Why work hard for a bare living when the same effort would make you rich here in a few years?

Good, well-watered farm lands, on railroad, can be bought today for as low as

$15 an acre on easy terms

but prices are advancing rapidly. Write at once for list, maps and authentic information, also latest copy of our illustrated magazine.

Alfalfa and all other crops grow well in this superb climate.



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Agl. Agent
Norfolk & Western Ry.
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Roanoke, Virginia.

SOUTHERN LANDS.

3 Crops Yearly

THAT'S what many Southern Farmers are making. Alfalfa yields 4 to 6 crops annually. Other hay crops do proportionately as well. It's the greatest dairy and livestock section of America.

GOOD LAND, $15 an Acre Up

Truck, poultry and fruits of all kinds make big profits. Seven to ten months growing season. Climate very healthful. Learn the facts, ask for "Southern Field" magazine and land lists.

M. V. Richards, Land & Ind. Agt.
Room 71,
Washington, D. C.

Southern Ry Mobile & Ohio. Ga. So. & Fla. Ry.

SALESMEN—SINCERE PLUGGERS MAKE GOOD.

Big, new, automatic combination, 12 tools in one. Sells to contractors, farmers, teamsters, fence builders, threshers, miners, etc. 24 pounds but lifts or pulls 3 tons. Stretches wire, pulls posts, hoists, etc. Write for the facts on this fast money maker. **HARRAH MANUFACTURING CO., Drawer O, Bloomfield, Ind.**

WESTERN CANADA.

Get A Canadian Home In Western Canada's Free Homestead Area

160 ACRE FARMS IN WESTERN CANADA FREE

The Province of **Manitoba** has several New Homestead Districts that afford rare opportunity to secure **160 Acres** of excellent agricultural land FREE.

For Grain Growing and Cattle Raising

this Province has no superior and in profitable agriculture shows an unbroken period of over a quarter of a century.

Perfect Climate; Good Markets; Railways Convenient; Soil the very best, and social conditions most desirable.

Vacant lands adjacent to Free Homesteads may be purchased and also in the older Districts lands may be bought at reasonable prices.

For Further Particulars, address

Canadian Government Agent
125 W. 9th St. Kansas City, Mo.

C. J. Broughton
Room 412, 112 W. Adams St. Chicago, Ill

or write Superintendent of Immigration, Ottawa, Canada.

LOCAL REPRESENTATIVE WANTED. No canvassing or soliciting required. Good income assured. Address National Co-Operative Realty Co., R-90 Marden Building, Washington, D. C.

Everybody Buying STEEL Shingles!

All over the country men are tearing off **wood, prepared paper, tin** and **galvanized** roofs. Nailing on "Tightcote" **S-T-E-E-L**. For only "Tightcote" STEEL can be **rot-proof, fire-proof** and **rust-proof**. It had to come, for this is the **Age of Steel.**

Cheaper, Too!

Curiously enough, **Steel** shingles, as we sell them, direct from factory to user, are now **cheaper than wood.**

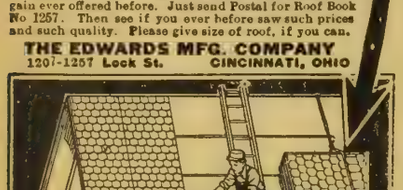
And easier put on. Instead of nailing one at a time, these shingles go on in big clusters—100 or more at once. No extras needed. No special tools. No expert workmen. No painting required. Yet **practically no wear-out** to an Edwards Steel Roof.

How Rust Was Done Away With

Ordinary metal roofing rusts. This doesn't. For we invented a method which, applied to Open Hearth Steel, absolutely prevents rust from getting started. Called **The "Edwards Tightcote Process."** It does the work like magic, as 125,000 users are glad to testify.

Edwards' Offer We not only sell direct, but **pay the freight.** No such roofing bargain ever offered before. Just send Postal for Roof Book No 1257. Then see if you ever before saw such prices and such quality. Please give size of roof, if you can.

THE EDWARDS MFG. COMPANY
1207-1257 Lock St. CINCINNATI, OHIO



Honors to Governor Hoard.

To have his friends charter a special train to carry him from his home in Fort Atkinson to Chicago, that they might express their appreciation of his services to one of the greatest of America's industries and that he might see the exhibits of dairy cattle and dairy machinery assembled at the Eighth National Dairy Show, was the experience of former Governor W. H. Hoard, who has done as much or more than anyone to advance dairying in this country.

Until ill-health prevented, Governor Hoard made it an invariable rule to attend not only this annual dairy cattle congress, but practically every important convention or meeting of dairymen held everywhere in the United States. While at the Dairy Show Governor Hoard was made the guest of honor at a banquet attended by a number of America's leading dairymen and dairy specialists.

A Milker Yet to Come.

"A demonstration was recently given in Sydney, New South Wales, Australia, of a new machine said to be capable of milking 100 cows in two hours. The machine is known as the A. R. W., and it is already being used in New Zealand. Two recommendations in favor of the A. R. W. are, that it is easily handled and controlled and works smoothly without in any way irritating the cows. The teat cup is designed in such a way as to permit free circulation of air, and there is always freedom for suction around the teat. The milk is conveyed from to cow to separator by automatic adjustment." — The Dairyman.

Advanced Register Guernseys.

A great deal of interest has been attached to the work of the Advanced Register Guernseys. Recently, at the sale at Edgewater Farms, Canandaigua, N. Y., of fifty-two head, was the first time when a public appreciation of such animals was measured. The mature animals were nearly all proven Advanced Register animals and a large portion of the young stock of Advanced Register parentage. The sale was the most successful public sale of the breed ever held. Fifty-two head sold for $25,215, an average of $484.90, surpassing any prior sale. Miranda of Edgewater, with a record of 14,617.00 pounds milk and 730.49 pounds fat, and a daughter of the famous Miranda of Mapleton, the greatest long-distance cow of any breed, was sold for $2,500, while two of her brothers sold for $800 and $500, respectively.

Accounts For Loss of Cream.

According to the press report of the Wisconsin Agricultural College, butter-fat and profit may be lost by being run into the skim-milk can if the separator is not properly adjusted. One Wisconsin creameryman has found by repeated tests that skimmed milk obtained upon farms where hand separators are used oftentimes contains large percentages of butter-fat, amounting in some instances to one-fifth of that produced by the farmers' cows.

Frank Swoboda, Agricultural Representative of the United States Department of Agriculture and the College of Agriculture of the University of Wisconsin for Langlade county, has found that many farmers in his section are losing money by running cream into the skimmed milk. His tests, made co-operatively with local creamerymen, showed losses which warranted him to carrying on a campaign for the more efficient use of farm separators.

C. E. Lee, of the University Dairy School, has assigned six causes for the loss of fat in milk. First, the separator may not be standing level upon a firm foundation; second, the bowl may be out of balance and vibrating too much when in operation; third, the bowl may not be operated at full speed (if the speed of the handle should be at 48 or 60, as is indicated by the book of instructions, it must be maintained at that rate during the separating, and if other than hand power is used the speed of the bowl must be the same); fourth, skimming milk that is too cold (milk should be separated immediately after each milking); fifth, the cream outlet may be partially stopped, due to improper cleaning of the separator; sixth, the bowl may be too low or too high. If too low, it is due to the parts being partially worn, or in removing the bottom parts for cleaning and not readjusting the height of the bowl to its original position.

The National Butter Exhibit.

According to the New York Produce Review and American Creamery there were 551 tubs of butter in competition at the National Creamery Buttermakers' Association at the National Dairy Show, and the prize winners were as follows:

O. N. Peterson, Rapidan, Minn.—Gold medal, highest in whole-milk class.

Alfred Camp, Owatonna, Minn.—Silver medal, second in whole-milk class.

W. H. Anderson, Algona, Iowa.—Gold medal, highest in gathered-cream class.

R. F. Colwell, River Falls, Wis.—Silver medal, second in gathered-cream class.

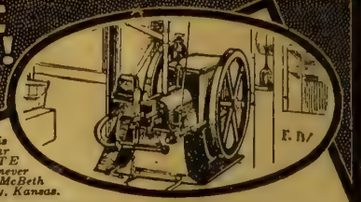
F. R. Palmer, Union, Ill.; Geo. T. Vetter, Eau Claire, Mich.; E. A. Paulson, Webster, S. D.; Ed. Huebschman, Lamar, Ind.—State cups, highest in each state having ten or more entries, but excluding winners of medals.

The State Banner was won by Minnesota, for highest average score.

The butter was auctioned by Frank Brown. Very few buyers were present and only two made bids. Howard Reynolds, of James Rowland & Co., New York, started the bidding at 29 cents and secured the entire lot of about 550 tubs at 30 cents f.o.b. Chicago. Later, Geo. W. Linn & Son, of Chicago, offered to take the lot at 30½ cents if the difference could go to the association, and Mr. Reynolds, upon learning of this offer, agreed to cancel the sale so that the association might get the highest obtainable price.

NOW, THESE PRICES IN EFFECT!

2 H.P. $39.45 4 H.P. $75.50
6 H.P. $99.35 8 H.P. $149.90
11 H.P. $218.90
OTHER SIZES PROPORTIONALLY LOW.



This 20-year old WITTE Engine has never failed its owners, McBeth & Dallas, Garden City, Kansas.

LET me send you a WITTE ENGINE to earn its cost while you pay for it. It's cheaper than doing without one. Ed. H. Witte.

CASH OR EASY TERMS

WITTE ENGINES
Kerosene, Gasoline & Gas

Sold Only Direct from Factory to User. No matter where you live or what work you have that can be hitched to a belt, you can own a WITTE to better advantage than any other engine. Sizes are 1½, 2, 4, 6, 8, 11, 12, 15, 20, 25, 30 and 40 H-P. Styles, **Stationary, Portable, Skidded and Sawrigs.** Over 27 years in the lead in engine-quality. Better now than ever, with prices that can't be beat. No need now to do without a good engine, or to take chances on a poor or unknown one, to get a low price. The WITTE fills the bill.

My Book Free I furnish highest standard engines for prices less than asked for rattle-traps. My Free Book explains the inside of engine selling as well as manufacturing. Write today for my Easy Terms Sales Plan.

Ed. H. Witte, Witte Iron Works Co., 1726 Oakland A., Kansas City, Mo.

60 DAYS' FREE TRIAL
5-YEAR GUARANTEE

Argentine and Siberian Butter.

In a Chicago market letter to the New York Produce Review and American Creamery, November 5th, the following was said:

"Samples of Argentine and Siberian butter were received on this market early last week. The butter from the South American republic impressed the trade very favorably as to its quality, but that from Siberia did not meet with as much favor as that from south of the equator. Bowman & Bull were responsible for the forwarding of the samples. Mr. Bull became greatly impressed with this butter while on a recent trip to New York. Mr. Bull said that they have contracted for a shipment of 1,400 boxes each, containing approximately 56 pounds, for shipment in December. This butter will arrive about the first or second week in January. He said: 'This butter from Argentine is good butter, but does not compare with our extras. This butter, I believe, will grade firsts.'"

The Efficiency of the Dairy Cow.

"The dairy cow can often be brought up to a high degree of efficiency by some very simple means. The persistency of the milker will pay well for all the extra time spent. Try to make the cow think she has not given enough and she will set about to make it up next time. A little milk left in the udder will make her think she is giving more than she is expected to, and at the next milking she will not have quite so much for you. There is a great difference in the per cent. of butter-fat in the first and the last milk drawn. The first will sometimes be as low as one per cent. and the last has been known to run as high as twelve per cent. It pays to work for the strippings. The manipulation of the udder will often result in the increase of a pound of milk. This is usually done, after the milker has secured all the milk he can, by taking the teat in the hand and pushing the udder up close against the body, repeating this about three times with each quarter. Then take each quarter, in turn, between the hands with the hands close to the body and rub down. The extra milk secured at a single milking may not pay for the time, but it will stimulate the cow to give that much more at the next milking without extra work. Here is where the profit will come in. We all know that a cow with which the calf is allowed to run will very soon adjust the flow of milk to the needs of the calf, and it is equally true that the dairy cow can and will increase the milk flow if encouraged by the milker. Get all the strippings. It will pay."—E. P. Clement, County Agriculturist, Prowers county, Colorado.

Like Old-time Hogs.

On November 19th, at the St. Louis National Stock Yards, John Fitzgibbons, a leading farmer and stockman of Saline county, Missouri, had in three loads of choice, heavy hogs, one of which weighed 313 pounds, and sold at $8.05 per 100 pounds; one that weighed 296 pounds, and brought $8.02½ per 100 pounds; and one that averaged 287 pounds, and sold at $8.00 per 100 pounds. This was an extra good string of heavy hogs, and they attracted considerable attention on a market where all the hogs do not average over 180 pounds.

Record Price For Shorthorn.

At Buenos Ayres, Argentine Republic, South America, the Shorthorn bull Americus, grand champion of the breed at the Palermo National Show, was sold at auction for a price equivalent in our money to $35,200. Another bull sold for $29,800, and a total of seventy-seven head were disposed of for $262,500, an average of $3.409 American coin. The wealthy ranchmen of Argentine have always been noted for enthusiasm in buying pure-bred bulls of the beef breeds.

POCKET BOOK FREE.

If you will order a $1.00 size bottle of Frazier's Distemper Cure, or cut the front from a $1.00 size carton, and return to us, we will send you a combination card and bill pocket book, absolutely free. This pocket book retails for 50 cents. We guarantee each bottle of "Frazier's" to give satisfaction in all cases of coughs, colds and distemper among horses, or your money refunded. Address, Binkley Medical Co., Dept. H, Nappanee, Ind.

If Your Hired Man Sat

behind the stove doing nothing one-quarter of the time, you would figure you were losing money.

Your horse works for his board and keep. He has to be cleaned and fed. Someone must be paid to take care of him. Every day he is idle

YOU LOSE MONEY.

Your horse need not be kept in the stable one hour on account of icy roads if you use

RED TIP CALKS.

Get them now and you are always ready for the road, night or day, rain or shine.

RED TIP CALKS

Save Time, Money and Worry.

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Neverslip Mnfg. Co., New Brunswick, N. J.

INSIST UPON THE RED TIP.

CARE OF MILK AND CREAM.

From the Agricultural College, New Mexico—Views For Beginners—Good Reading For Everybody.

The following article is from Prof. W. S. Cunningham, of the Agricultural College, New Mexico. It is intended for beginners, but will refresh all who read it if they are milking cows:

"Nearly all changes which occur in milk or its products are due to the action of bacteria. Bacteria are very small, microscopic, single-celled plants, which are found almost everywhere in nature. They are most abundant where there is dust and filth, and, if subjected to favorable condition, as warmth, food and moisture, multiply very rapidly, the resulting progeny of one bacterium often amounting to many million in twenty-four hours.

"Milk is an ideal medium in which bacteria can grow, and if it is kept warm they develop very rapidly, feeding on the milk sugar and converting it into lactic acid. The acid causes the milk to become sour and curdles or precipitates the curd or casein.

"Bacteria grow very slowly, or not at all, at low temperatures. Since all freshly-drawn milk contains bacteria, it is important that it should be cooled quickly to forty or fifty degrees, to prevent their development. Or, if the milk is separated, the cream should be cooled if it is desired to keep it sweet. Milk in the cow's udder usually contains some bacteria, but far the larger number get into milk through dust in the stable, hairs from the cows, an unclean milker, particles of manure that may fall into the milk, or unclean utensils. To limit the number of bacteria which get into milk, the cows should be milked in a clean, well-lighted and well-ventilated stable. The cows should be well groomed and their flanks and udders dampened before they are milked. The milker should wear a clean suit and have clean hands. The teats should never be wet while milking. To avoid dust in the stable, it is well to sprinkle the floor lightly and feed no hay until after the cows are milked.

"The milk should be removed from the stable as quickly as possible to milk room. This room should be light and airy and entirely separate from the stable. If the gravity method of separating the cream is used, the milk should be cooled quickly to forty or fifty degrees Fahrenheit. There are three different forms of the gravity system: The "shallow pan or crock," the "deep setting," and the "water dilution." The last-mentioned is not worthy of discussion, as it is wasteful and non-efficient.

"Of the other two methods, the "deep setting" is the more satisfactory. It consists of a deep, narrow can, sometimes called a shotgun can, which is set in cold water. When the cream rises it can be removed with a ladle or dipper. The cream rises in it more quickly and more thoroughly than in the "shallow-pan" system, which consists of putting milk into pans or crocks.

"For a person keeping five or more cows, it it is economy to own a hand separator. According to the Purdue Experiment Station, by using a cream separator there is a saving of $3.50 to $7.00 per cow per year over the gravity system. Besides a more thorough skimming, the centrifugal separator produces a better quality of cream and a more satisfactory thickness, removes many bacteria and other impurities and produces a skim milk in good condition for feeding. If separator is used, the milk should be separated while still warm, as the separator has its greatest efficiency if the milk has a temperature of ninety to ninety-five degrees Fahrenheit. If the cream is to be held for several days before churning, it should be kept in a can with a clean cloth tied over the top, to keep out the dust. It should not be subjected to odors of any kind, as cream and milk absorb odors very readily. If milk or cream is kept in the same compartment of a refrigerator with meat, vegetables or fruit, it will take on strong odors and tastes, which are often mistaken for a sour or impure product. No new cream should be added to the old until it has been thoroughly cooled.

"Oftentimes buckets, strainers and other utensils have crevices and corners in which milk and dirt may lodge and become the source of numberless bacteria and bad odors. This may be avoided by using only vessels which have no sharp corners and in which all crevices have been filled with solder. The cream separator, if not properly cleaned, is also a source of bacteria, though if properly cared for it will eliminate part of the bacteria from the milk and cream. It should be carefully washed and aired after each separation. In washing separators and other milk utensils, it is well to observe the following rules: First, rinse the parts in clear, lukewarm water, then wash in hot water, using washing powder. Rinse in warm water and sterilize by holding over live steam or dipping in boiling water. Set where the parts may drain well and dry by evaporation. Never wipe them dry with a cloth, as most drying cloths are infested with bacteria. If possible, put them where they will be exposed to the direct rays of sunlight, as sunlight is a great germicide."

BOWSHER FEED MILLS — **GROW HEALTHY STOCK**

Crush ear corn (with or without shucks) and grind all kinds of small grain and **Head Kaffir.**

Handy to operate—**lightest running.** 10 sizes: 2 to 25 h. p., capacity 6 to 200 bushels. Conical shape Grinders. Different from all others. Also make Sweep Grinders.

Write for Catalog and folder about the value of different feeds and manures.

L. N. P. BOWSHER CO.
South Bend, Ind.

DAIRY AND CREAMERY.

Rail receipts of milk at Boston during the first six months of 1913 totaled 55,904,609 quarts, compared with 50,138,187 quarts during the corresponding period of 1912, an increase of 5,766,422 quarts.

At the National Dairy Show the gold medal for best butter made from whole-milk cream was won by S. R. Miles, of Buchanan, Mich., with a score of 95.33. This was in the Dairy Show competition; not in the exhibit of the National Creamery Buttermakers' Association.

Many of our dairymen with large herds of cows are looking forward to the time when the milking machine will be so perfected that it can be used in every dairy. Up to the present time some of the obstacles to machine milking remain to be overcome.

The cleaning of the milking machine is the most colossal obstacle of all, for, of course, any such cleaning must be done with small expenditure of time and money. It is possible now to clean the machines, but the cost is too great to make it a thing that can profitably be done twice a day.

In general, it may be said that the bacterial content of machine-drawn milk is greater than of hand-drawn milk; but, on the other hand, some of these bacteria are not of a kind that have an influence on the milk. This is another element of uncertainty.

We not only need the milking machine adapted to the milking of many cows at one time, but to the milking of a single cow. Perhaps we will some day have a machine of that kind. If we do, it will revolutionize the business of dairying. At the present time the number of cows in a dairy is largely limited by the problem of getting them milked. Also, many familes that do not keep a cow would do so if the problem of milking could be solved.

Cow-testing associations have proved of great advantage to some communities and should prove so to all. It is possible through such associations to have the cows in a locality tested at small expense per cow. The elimination of the cows that are not making a profit means a reduction of cost of keeping them and of the time required to take care of them.

To start a cow-testing association, correspond with the State Experiment Station, from which will be obtained a statement of the ways by which such an association can be started. No general statement can be made, as each state differs in its facilities for doing this work.

The unprofitable cow is still one of the greatest factors in dairying. It is believed that about one-third of the cows in the farm dairies are not more than paying for their feed, while many of them are actually not doing that. It is safe to say that on American farms there are millions of cows that are so unprofitable that their loss would be the gain of their owners. Then why not lose them? The principal reason for not losing them is, that their identity is not known. They are kept with other cows, fed with other cows, milked with other cows, and no account is kept with each one separately. Therefore the farmer goes on from year to year doing the work of caring for them at a loss.

DE LAVAL CREAM SEPARATORS

MAKE FALL AND WINTER DAIRYING MORE PROFITABLE

There is surely no reason to delay the purchase of a separator or to continue the use of an inferior one. A De Laval Machine will save its cost by spring, and may be bought on such liberal terms if desired as to actually pay for itself meanwhile.

The De Laval Separator Co.

New York Chicago San Francisco

A testing machnne will cost but a few dollars, and a man can easily learn how to use it. It would pay to buy a milk-testing machine even if but one poor cow could be got rid of through the light it would give.

The owner of a single cow needs to study the science of dairying as certainly as other cow owners. Sometimes the one cow, if properly handled, represents a very profitable investment.

Pay No Tribute TO THE TRUSTS! Reduce Your Cost of Living

"A penny saved is a penny earned."

Why pay tribute to machinery and oil trusts? Have your farm work done by engines at factory prices—save money on your engine and on its operation. Kerosene is getting lower in price, gasoline is constantly advancing.

The Amazing Detroit Kerosene Engine

—sold to you at factory prices, is the engine which will help you beat the Trusts. It runs on cheap kerosene (coal oil), uses alcohol, distillate or gasoline also—runs in either direction—has only 3 moving parts—throttle governed—water cooled—speed controlled while running—sold on 5-year guarantee and 15 days' trial. Every engine tested and shipped ready to run.

NO Cams Gears Valves **NO** Sprockets Cranking Trouble

Engine pumps, saws, threshes, churns, separates cream, grinds feed, shells corn, does other farm work. Simplest engine in the world. Why pay trust prices when you can get Amazing Detroit at factory figures?

Cylinders cannot carbonize.

Write today for catalog and special introductory prices

Detroit Engine Works, 383 Bellevue Ave., Detroit, Mich.

Increased Production of Wheat, Barley and Oats in Europe.

A cablegram from the International Institute of Agriculture, Rome, Italy, has been received by the United States Department of Agriculture, containing the following information:

The total production this year in the principal producing countries of the Northern Hemisphere of wheat is 9.2 per cent. more: of barley, 7.5 per cent. more; and of oats, 0.8 per cent. more than produced in the same countries last year: Prussia, Belgium, Denmark, Spain, France, Great Britain and Ireland, Hungary, Italy, Luxemburg, Netherlands, Roumania, Russia in Europe (sixty-three governments), Switzerland, Canada, United States, India, Japan, Russia in Asia (ten governments), Algeria and Tunis.

For European Russia the preliminary figures of production this year are: All wheat, 838,000,000 bushels; barley, 550,000,000 bushels; oats, 1,101,000,000 bushels.

Don't forget the Book of Live Stock Champions advertised on page 14.

ALFALFA.

SHIELD BRAND, 98.6 Per Cent. Purity; Free From Dodder.

TIMOTHY, ALSIKE, CLOVER, RED TOP, BLUE GRASS, RAPE, RYE, WHEAT.

USE SCHISLER'S SHIELD BRAND PASTURE, HARDY, PERMANENT GRASS MIXTURE. Per 100 Pounds, $12.50.

TURNIP AND SPINACH, VEGETABLE AND FLOWER SEEDS.
EVERYTHING FOR THE GARDEN.

Send For GOLDEN ARROW Seed Catalogue.

WE ARE BUYERS OF TIMOTHY AND CLOVER SEED. SEND US SAMPLES.

A. W. SCHISLER GRAIN CO.,
708 and 710 N. Fourth St., ST. LOUIS, MO.

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Write for this beautifully illustrated book—full of information for fruit growers, farmers and gardeners. Lists and describes Allen's hardy, prolific, correctly grown berry plants—Strawberries, Raspberries, Blackberries, Grapes, Currants, etc.—all the best, new and standard varieties and guaranteed true-to-name.
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Best for windbreaks. Protect crops and stock. Keep house and barn warmer—save fuel—save feed. Hill's evergreens are hardy, nursery-grown—low priced. Get Hill's free illustrated evergreen book and list of Great Bargain Offers—from $4.50 up per Thousand. 56 years experience. World's largest growers. Write.
D. HILL NURSERY CO., Inc. Evergreen Specialists.
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WELL AND PROSPECTING DRILLING MACHINERY
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Save You From
Last year we added over 2000 new customers to our list; this year we want to add 5000. Send post-card today, ask for "WEBERS SPECIAL OFFERS."
In these collection offers we have made up collections suitable for almost every purpose, selecting only the best varieties in each collection.
Everyone ordering one or more of these "COLLECTIONS" will receive a copy of our 47th annual Catalog which will be issued in January, 1914. This describes and prices over 800 varieties of Trees, Shrubs, etc.; also gives valuable cultural hints. *Write to-day before you forget.* Address,
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Dept. G, Nursery, Mo.

WE PAY $36 A WEEK AND EXPENSES to men with rig to introduce poultry compound. Year's contract.
IMPERIAL MFG. CO., Dept. 38, Parsons, Kans.

GOVERNMENT Positions are easy to get. My free booklet X 1109 tells how. Write today—NOW.
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FULL LINE OF **Belting** AND LUBRICATING **Oils**
Ask for very low prices and our Free SUPPLY BOOK.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis

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FREE Hide Book "How to Care for Hides"
Get the book before you ship a hide or have a thing made out of your skins or furs. It gives you information which you positively must follow to get TOP PRICE FOR YOUR HIDES. We want you to understand we are a great big Hide, Fur and Tanning Company (probably the biggest in this western country) and we both buy your hides and furs and make them up for you. Before you send hides any place or have a bit of work done write to us first. Take a chance on losing even $5.00 by not getting the top prices and for free booklet today. NOW!
NATIONAL FUR & TANNING CO., Dept. 3619, Omaha, Neb.

WHEAT MARKET SITUATION.

Comparatively Little Change During the Month of November—A Ten to Fifteen-cent Decline During the Year.

On the last day of November, 1913, cash wheat at St. Louis sold on basis of No. 2 red at 93 to 93¾ cents a bushel, and No. 2 hard at 86 to 93 cents a bushel. The actual difference between these figures and the previous monthly closing quotations was very small. The following tabulated statement gives the quotations on the closing day of each month so far in the year 1913:

St. Louis Cash Wheat Quotations.

1913.	No. 2 Red Wheat.		
Jan. 31	$1.08	to	$1.12½
Feb. 28	1.06	to	1.09
March 31	1.05	to	1.07½
April 30	1.09	to	1.11
May 31	1.03	to	1.06½
June 30	89	to	91
July 31	83¾	to	85½
Aug. 31	89	to	92½
Sept. 30	92	to	95½
Oct. 31	95	to	96½
Nov. 30	93	to	93¾
1913.	No. 2 Hard Wheat.		
Jan. 31	90	to	94
Feb. 28	30	to	92
March 31	90	to	91
April 30	83	to	95½
May 31	93	to	94
June 30	89½	to	93
July 31	83¼	to	90
Aug. 31	85½	to	90
Sept. 30	87½	to	93
Oct. 31	86½	to	92
Nov. 30	86	to	93

For the actual trade in wheat covering contracts for future delivery we have to look to Chicago. The December option is now in the spot light, and there is plenty of time for new figures to develop between the 1st and 31st of December.

When we first began to notice the December option on May 31st, the quotation was 94⅛ cents a bushel. Since then the quotation has fluctuated until on December 30th the price was 86¼ cents. The next option of consequence and by far the most important option of the year is May. The first quotation we saw was 95⅛ cents a bushel on August 30th, and the last (November) quotation was 90¼ cents. We herewith submit the closing wheat options since and including May 31st, 1913:

Wheat Option Quotations.

1913.			1914.
	Sept.	Dec.	May.
May 31	91⅞	94⅛	....
June 30	90	93⅛	....
July 31	86	89⅞	95⅛
Aug. 30	85⅞	89⅝	94½
Sept. 30	85⅛	87⅝	92⅝
Oct. 31	....	86¼	90¾
Nov. 30	....	86¼	90¼

There is the wheat market situation in a way that is easy to understand. Nine months ago No. 2 red wheat shipped to the St. Louis market sold at $1.08 to $1.12 per bushel. On November 30th the No. 2 cash wheat at St. Louis sold at 93 to 93¼ cents a bushel, exhibiting decrease market valuation of 15 to 18¾ cents a bushel in the past eleven months.

Last May 31st, the December wheat option was quoted at 94⅛ cents a bushel, and on November 30th the quotation was 86¼ cents a bushel, a decrease of 7⅞ cents a bushel in six months.

Last July 31st, the May option of 1914 was quoted at 95⅛ cents a bushel, and on November 30th the quotation had declined to 90¼ cents, a loss of 4⅞ cents a bushel in four months.

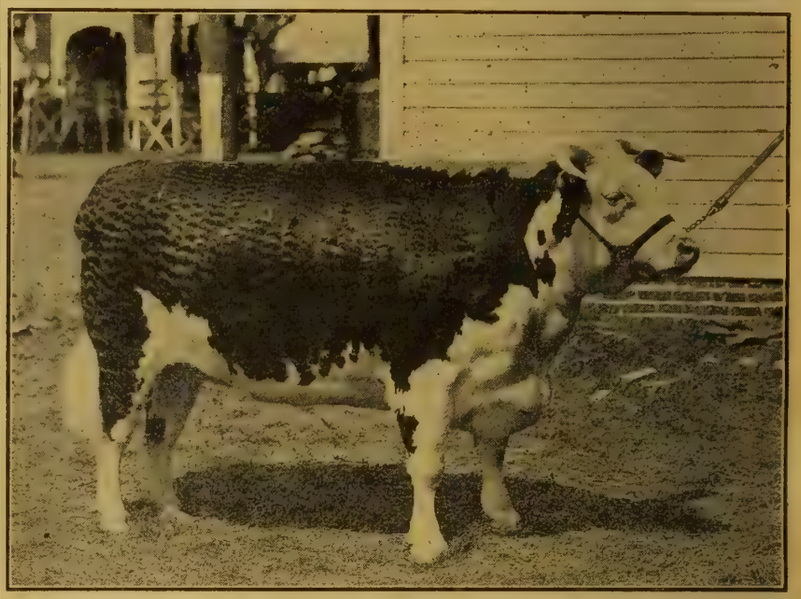
From the beginning of the year there has been no statistical reason for wheat to sell lower. The admission of foreign wheats free of duty was for the purpose of reducing the price of wheat in this country, and prices here have been gradually assuming the level of all other countries of the world, the ocean freights alone standing as the entire barrier of foreign wheat invasion. The shadow of the admission of foreign wheats has stood over the wheat market like a dark cloud, and in our opinion, in the year 1913 has caused an average loss to our own farmers of six cents a bushel, which on a fifteen-bushel average production per acre has cost the farmers ninety cents per acre, and on the entire crop of 750,000,000 bushels a loss of $45,000,000. If so far one American cent has been saved to the beloved consumer in buying bread we have not heard of it, for the "high cost of living" still goes on, notwithstanding the free-trade discrimination against the farmer.

Marketed Lambs at the Top.

On December 1st, at the St. Louis market, A. B. & A. C. Thorpe, of Moulton county, Iowa, marketed two loads of lambs that contained 102 head that averaged seventy-six pounds and sold at $7.75 per 100 pounds, the highest price of the day, and 127 head that weighed seventy pounds and sold at $7.65 per 100 pounds.

On December 1st, at St. Louis, the wholesale market for feathers was quoted as follows: Prime white live goose, 67c.; prime gray do., 48c.; old white, 36 to 38c.; x, 27 to 31c.; xx, 15 to 18c.; xxx, 7 to 10c.; xxxx, 3c.; tare, 10 per cent. on small sacks and 3 per cent. on large. Duck—White, 48c.; dark, 35c. Chicken—Prime dry-picked body, 3c.; wet, damp and quill-mixed, 2c. Turkey—Body, dry, 8c.; quill-mixed, 18c.

Silo Owners REMEMBER that proper cutting and filling are as important as the Silo itself.
The Dick Blizzard Ensilage Cutter, with very large capacity, works steadily, takes whatever is fed to it without a hitch, and outlasts any machine of its kind. It is the most profitable machine to buy and is fully guaranteed.
Free Catalog, with full information, on request.
Weber Imp. & Auto Co., 1900 Locust st., St. Louis.



PERFECTION LASS—Hereford cow. Highly representative of the best in the Hereford family of beef producers. A grand champion among grand champions. Exhibited by J. P. Cudahy, Kansas City, Mo. Another picture of PERFECTION LASS is on page 291 of our Book of Live Stock Champions advertised in this edition.

MISSOURI STOCK RAISING. The main stock barn on Prairie View Farm, owned by W. E. Files, near Lamonte, Mo. It is 58 by 60 feet. An open shed provides shelter for some young stock. Mr. Files is shown holding one of his Percheron stallions in front of barn. This barn, as well as all other buildings on the farm, is lighted by electricity from Mr. Files' private plant on the farm. The farm covers 240 acres.

TRAPPERS LET US PAY YOU MORE MONEY FOR **FURS**

St. Louis is the largest fur market in America and the biggest buyers in the world gather here. F. C. Taylor & Co. is the largest house in St. Louis, receiving more furs from trappers than any other house in the world and our enormous collections are always sold at top prices, which enables us to pay you more.

WE WILL TEACH YOU HOW TO TRAP

Trapping is not hard work if your outfit is complete. You need a few good traps, the best bait and your spare time morning and night. Our big new Supply Catalog and Book on Trapping is ready and you can have a copy FREE if you write today. The book tells you when and where to trap, kind of traps and bait to use, how best to remove and prepare skins, etc.; also contains trapping laws of every state. Price lists, shipping tags, etc., also free. Get busy at once—big money in it. Write for book on trapping today.

F. C. TAYLOR & CO., 315 Fur Exchange Bldg., ST. LOUIS, MO.
AMERICA'S GREATEST FUR HOUSE

COUGHS AND DISTEMPER

Are prevalent in the changeable fall weather, especially to those young colts on pasture. Three to six doses Frazier's Distemper Cure placed in ground feed or oats will prevent all cases. One bottle guaranteed to cure all forms of Distemper, Coughs and Influenza. $1 bottle holds three times the quantity of the 50c. size. Sold by all druggists. Write for "A Treatise on the Horse." This booklet is free.

BINKLEY MEDICAL CO., Dept. H, NAPPANEE, IND.

YOU HAVE MADE IT; WHY NOT SAVE IT?

By covering with our Steel Grain and Hay Covers, and storing in our Steel Grain Bins. SAVE RATTAGE, FIRE, SACKING, Etc.

Get our Thresher Tank for water.

O. K. HARRY STEEL CO., 2353 Papin St., St. Louis, Mo.

The St. Louis Apple Trade.

On December 1st, at St. Louis, apples at wholesale were selling as follows: Quote fancy cold-storage apples: Ben Davis at $3.00 to $3.75; Huntsman's at $3.50 to $4.00; Jonathan at $3.50 to $5.00; Grimes' Golden at $4.00 to $4.50; Winesap at $4.25 to $5.00; Willowtwig at $3.50 to $4.00; Virginia York Imperial at $4.50 to $4.75—No. 2 and inferior less. Quote current receipts: Ben Davis at $1.75 to $1.90 for No 2 to $2.50 to $2.75 for No. 1; Winesap at $2.25 to $4.00; Willowtwig at $1.75 to $2.25 for No. 2 to $3.25 to $3.75 for No. 1; other varieties accordingly; common, small and inferior fruit at $1.25 to $1.50. New York packed Baldwins at $3.50, delivered, for No. 1, and $2.50 for No. 2; Greenings at $3.75, delivered, for No. 1, and No. 2 at $2.75. Sales: One car No. 2 New York Baldwins at $2.50, delivered; one car No. 1 New York Greenings at $3.75, delivered; 100 barrels fancy Ben Davis (out of cooler, for shipment), at $3.75; sixty barrels Winesap (do.) at $5.00.

FIELD OF COWPEAS ON POOR LAND RENTED BY STATE NORMAL AT WARRENSBURG, MO., FOR USE IN THEIR AGRICULTURAL DEMONSTRATION WORK. There are 4½ acres in the plat, the rows being three feet two inches apart. In 1912 the Normal rented this land on a basis of one-third the crop, and put it in cowpeas, as shown here. The crop looked so good before time to harvest that the Farm Director, B. A. Pratt, offered the owner $30 cash as rental and release the one-third contract, which the owner gladly did, not expecting to get nearly so much for the use of his land. The school got thirty-three bushels of seed, which they sold at $2.50, making $82.50, and the ten tons of cowpea hay, which they fed but could have sold for $10 a ton, which made a total of $182.50 from the crop. This is not a large return on cowpeas generally, but considering the poor ground, they were well satisfied, and the ground is in better condition this year.

Cash Grain at St. Louis.

The following prices represent cash grain at St. Louis, November 29th, the closing day of the market for the month:

Wheat.—No. 2 red wheat, 93 to 93¾c.; No. 3 red, 90 to 91c.; No. 2 hard, 86 to 93c.; No. No. 3 hard, 85½ to 90c.

Corn.—No. 2 corn, old, 77c.; No. 3 new, 67½ to 68c.; No. 4 corn, new, 66½c.; No. 2 yellow, old, 77½c.; No. 3 yellow, new, 66½c.; No. 4 yellow, new, 66½ to 67c.; No. 2 white, old, 77c.; No. 3 white, new, 67½ to 68c.; No. 4 white, new, 66½c.

Oats.—No. 2 oats, 40½c.; No. 3 oats, 39½c.; No. 2 white, 42c.; standard, 41 to 41¼c.; No. 3 white, 40 to 41½c.; No. 4 white, 39c.; No. 2 rye, 61½c.

A Nursery Proposition.

On page 12 will be found a proposition by the H. J. Weber Nursery Company at Nursery, St. Louis county, Mo. This nursery was established in the year 1867, and is one of the best known in the trade. They grow fruit and ornamental trees, evergreens, shrubs, wholesale and retail. Our readers who deal with this firm will find Messrs. Weber will fill orders exactly and give perfect satisfaction.

Wiping Out Hog Cholera.

The day may come when hog cholera will be a thing of the past in the country—when it will be remembered as a horrid nightmare. But every farmer and hog raiser knows that that day is by no means here as yet, and that there is little chance of its appearing with the dawn of tomorrow. As a matter of fact, cholera has been unusually virulent during the past year. There is always danger in feeding hogs the soft and mouldy corn that a horse would not eat. Very often it causes one of the worst forms of indigestion and gives rise to a diseased condition which, in many of its symptoms, closely resembles cholera and which results in an enormous hog loss every year. As a correction and preventive the judicious use of Merry War Lye makes soft corn feeding safe because it is anti-fermentative and renders the feed easily digestible.

Merry War Powdered Lye is for sale at nearly all grocers, druggists and feed dealers. If not to be had from local dealers, write us and we will gladly tell you where it may be obtained or supply you direct, and will also send free a valuable booklet, "How to Get the Biggest Profits From Pork." E. Myers Lye Company, Dept. 22, St. Louis, Mo.

St. Louis Root Quotations.

Wholesale prices at St. Louis, December 1st. Quote by the pound: Golden Seal, $4.55; Lady Slipper, 17c.; Seneca, 54c.; Pink, 35c.; Black, 8 to 8½c.; May Apple, 6c.; Snake, 32c.; Blacksnake (Echinacea), 10 to 11c.—split, half price; Angelica, 5c.; Wahoo—Bark of root, 20c.; bark of tree, 5c.; Wafer Ash Bark, 6c.; Blueflag, 2½c.; Sassafras—Bark of root, 5c.; Wild Ginger, 7c.; Spikenard, 3c.; Skullcap leaves—Bright, 9c.; dark less; Wild Ginseng, $7.75 to $8.00; transplanted, $5.00 to $6.00; cultivated, $2.50 to $5.50.

In New York City, according to all accounts, the difference between wholesale and retail prices of eggs is about 35 cents a dozen.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use oil. He calls it powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 66 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

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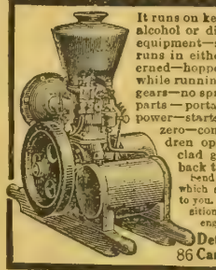
We pay highest prices for Furs and sell you Guns, Traps, Supplies, etc., **AT FACTORY COST.** Write for **FREE CATALOG, TRAPPERS' GUIDE,** and Fur Price List.
E. W. BIGGS & CO., 122 Biggs Building, **KANSAS CITY, MO.**

20 Reasons Why You Should Investigate the **SANDOW** Kerosene Stationary ENGINE



It runs on kerosene (coal oil), gasoline, alcohol or distillate without change of equipment—starts without cranking—runs in either direction—throttle governed—hopper-cooled—speed controlled while running—no cams—no valves—no gears—no sprockets—only three moving parts—portable—light weight—great power—starts easily at 40 degrees below zero—complete, ready to run—children operate them—5-year iron-clad guarantee—15-day money-back trial. Sizes 2 to 20 H. P. Send a postal today for free catalog, which shows how Sandow will be useful to you. Our special advertising proposition saves you one-half cost of first engine sold in your county. (167)

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Write today for our free Trappers' Book—tells you all about how to increase your catch, and inside facts about how to get the most money out of furs. Best book for trappers ever published. No up-to-date trappers can afford to be without it. Our confidential information is very valuable and will be sent to you monthly during the season—it means big money to trappers. All of the above free for the asking. Address

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RAW FURS BOUGHT— "Live Wire" PRICE BULLETIN **FREE** Write for it today

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An honest mill sold in an honest way. Try it. Triple-geared, Ball-bearing, Double-cut. Keep it if satisfied; if not, return it at my expense. No money down. I trust you. Fastest and best grinder made. Saves twice its cost every year. Get my free catalog. Also Make Gasoline Engine Belt Grinders.

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The American Swineherd.

We have been requested by our patrons and friends to arrange a club whereby we can offer them a swine raiser's paper as a premium with The National Farmer and Stock Grower, and we have succeeded in doing so. **The American Swineherd** is published monthly, and is usually a seventy-two-page, three-column paper, splendidly edited from practical standards and always interesting from the very beginning to the end. It is a satisfactory paper, and all who subscribe are very much pleased with it. We have entered into a co-operative arrangement with the publishers of **The American Swineherd,** whereby we can offer for a limited time The National Farmer and Stock Grower and **The American Swineherd.** both papers, for the price of one. Anyone who will send us a money order for fifty (50) cents in answer to this proposition will be supplied with both papers for one year. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

HEAVY EATING PIGS.

Most Economical Pork Producers—Shown by Tests in Oregon.

A most promising field for the development of a strain of pigs with a greater feeding capacity has been opened up at the Oregon Agricultural College as a result of the latest feeding tests made by Professor G. R. S. Samson, of the Animal Husbandry Department. It was shown in this test that the pigs that made the greatest profit were those which had the greatest capacity for consuming feed. In feeding 100 pigs similar to the best feeders for fifty-one days at present prices of hogs and feed, the owner would realize a profit of $297.80, not counting labor and investment. In feeding 100 pigs similar to the poorer eaters the profits would be but $115.65.

On September 1st, thirty pigs of different litters were divided into three lots of ten each, and all were fed a ration of 90 per cent. barley and 10 per cent. tankage for sixty-one days. Lot No. 1 was fed dry rations by hand. Lot No. 2 was fed by a self-feeder. Lot No. 3 was fed by hand rations that had been soaked for twelve hours previous to feeding. The three lots were divided evenly as in weight, sex and parentage. The litters were likewise divided evenly among the lots as nearly as possible.

Lot No. 1 consumed 463.5 pounds of feed for each 100 pounds of gain. Lot No. 2 consumed 418.2 pounds of feed for each 100 pounds of gain; and Lot No. 3 consumed 449.8 pounds of feed for each 100 pounds of gain.

The difference in daily gain among the litters of pigs was from 1.42 to 1.86 pounds. The difference between the lots varied only from 1.48 to 1.84 pounds. The poorest lot was better than the poorest litter, and the best lot was poorer than the best litter. That is, the variation among the lots was less than the variation among the litters.

The best individual pig gained 2.44 pounds daily for sixty-one days, while the poorest individual gained but one pound daily for the same time. The daily gain made by the individual litters was as follows: 1.42, 1.43, 1.47, 1.67, 1.85 and 1.88.

As to the value of the self-feeder, these tests confirm previous tests carried out at that Station and at others, that the self-feeders are economical means of pork production. The labor of feeding is cut down more than one-half by the use of the self-feeders, while the daily gains are more rapid, and also greater per 100 pounds of feed. No difficulty was experienced in getting the pigs accustomed to that method of feeding.

IMPORTANCE OF LEGUMES.

United States Agricultural Department Statement of Facts Prepared For the Use of Our Readers.

"Among various causes that have led to the abandonment of land once cultivated there is no doubt that the greatest single cause has been the failure to utilize legume crops. Without the rational use of legumes in a rotation, the depletion of nitrogen and the consequent falling off in productivity is certain to occur."

The above statement is made by the Department of Agriculture in connection with the use of legume crops in rotation methods of farming. It is rarely possible to keep up the supply of nitrogen from the humus derived from non-leguminous plants.

"There are sixteen important leguminous field crops used in the United States, namely: Red clover, alfalfa, cowpeas, alsike clover, crimson clover, white clover, soy beans, peanuts, Canada peas, hairy vetch, common vetch, velvet beans, Japan clover, sweet clover, bur clover and beggar weed.

"In comparatively few cases does it happen that one of the legumes can be used in place of another," continues the statement. "Cases in which there is a choice are red clover, alfalfa, alsike clover and sweet clover; cowpeas, soy beans, peanuts and Japan clover; crimson clover, hairy vetch and bur clover; velvet beans and beggar weed. The Department has been frequently asked by farmers, where there is a choice of legumes adapted to the same purpose, which one adds the most nitrogen in the soil.

"To some extent this is determined by the amount of nitrogen contained in the crop. Thus, of 1,000 pounds of green plants, cowpeas contain on the average 3.7 pounds; common vetch, 4.1 pounds; Canada peas, 4.3 pounds; Mammoth clover, 4.4 pounds; crimson clover, 4.6 pounds; velvet beans, 5.4 pounds; hairy vetch, 5.5 pounds; sweet clover, 5.8 pounds; alsike clover, 6 pounds; soy beans, 6.5 pounds; red clover, 6.9 pounds; alfalfa, 7.4 pounds; and bur clover, 8.5 pounds of nitrogen.

"Additional advantages considered more or less important in connection with green manuring are based on the root structure of the plant. Unquestionably, legumes with stout roots which penetrate the soil to considerable depths do have a somewhat similar effect to a subsoiler, and, furthermore, put vegetable matter at depths which shallow-rooted plants can not reach.

"Investigations prove the high value of the common legume crops, whether used in rotation or as green manure crops. Results obtained from their use are far more striking in poor soils than in rich soils. Perhaps the safest rule to apply where there is a choice of two legumes is to use the one which gives the largest total yield per acre, or, if these are about equal, to use the one whose seed is cheapest.

"The plowing under of green manure crops as a regular operation is seldom carried on except in orchards. In this case there can be but little doubt that the operation is highly profitable. With field crops the plowing under of a green manure crop is seldom justifiable except in the case of very poor lands, or at considerable intervals, because ordinarily it is far more profitable to utilize the crop for feed and then to return the manure to the soil."

Profit on Feeding Calves.

"On September 18, 1912, a farmer of Jessamine county, Kentucky, bought a bunch of thirty-three steer calves for $596. He fed them on the choicest feed and grass and sold the bunch November 5, 1913, for $1,970.30."—Farmers' Home Journal.

Mutton is selling low enough on foot to discourage sheep raising, and mutton at retail in cities is being sold at famine prices.

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"It is worthy of note, apart from a matter of comfort, how much more work can be done by a horse with properly fitting harness that is kept in good condition, than with any clumsy collar that seems to have just been thrown on and fits where it touches.

"Just imagine the discomfort to a small man having to wear a large man's clothes and work in them all day, or a large man working in a small man's clothes. It makes a great difference whether harness is kept soft and pliable, hard or rough, whether it fits snugly or not.

"There are more horses permanently injured by badly-fitting harness than most people are aware of. Harness should be kept in a dry place when it is finished with. Generally in the spring, when all the work seems to come on at once and all the horses available are required, some collars, etc., are brought out that were put away perhaps the previous autumn; if these were well cleaned and oiled before being put away, they will be found to be soft and pliable; but if not, and they are hard, rough and probably damp, it is nothing short of cruelty to put such like on any horse, let alone on a young one that is about to be hitched for the first time perhaps. The oily surface of the leather and the sweat from the animals cause the dust to adhere to it, and thus make it dry and uncomfortable. First wash all this off and then before really dry apply the oil and work it into the leather as much as possible.

"Neatsfoot oil answers this purpose well, but there are several excellent harness oils that are worth using, after which place the harness out of doors, and then when dry, rub clean. When harness has been unavoidably made wet it should be partly dried and rubbed over, then oiled before it has the chance to get hard; by doing this it will be found to last much longer."—Harness and Saddlery.

The Lodging Evil.

Lodging has sorely tried the philosophy of the most of us, and, to make matters worse, it shows in the best-looking crops, as well as in those obviously ill-nourished. In Europe, particularly France, where acre yields of forty to fifty bushels are common, ordinary salt is sometimes used as a preventive, but while it is effective to a limited extent, it is not a true plant food, and only too often checks lodging at the expense of the yield of grain. The best remedy against lodging is the strengthening of the stalk by applying potash to the land in available form.

The potash enforces the cellular structure of the straw, making it strong and resistant to blight and mildew, and to a considerable extent promotes the maturing of the crop.

On the rich deep soils of the Upper Mississippi Valley wheat lodging is so common that these crops are much restricted in area. This is chiefly due to the fact that the crops are strong foragers and find in these soils so much nitrogen that too rank a growth is made, which results in a poorly-filled out and matured grain, light in weight and low in grade. A German practice, which seems to be justified by the fact that it returns profitable results, is to broadcast potash salts on small grains.

Because of the failure of small grains in the rich valley soils, corn has become the chief grain crop, and as a result, the corn must be used in large part on the farm itself, and small grain farming has become subordinate to stock growing. Now, these conditions may be wholly altered by deeper plowing, spring rolling and the use of potash broadcasting to check lodging. The potash will not only be useful as a lodging remedy, but it will enable the rich soils of the valley to bring the grain production of the cereal up to the straw production.—Frank Ladd.

How to Tell the Age of Cattle.

"The calf when born has two pair of incisors, the other two pair appear during the first month. When a calf is eighteen months old it loses the middle pair of milk incisors, and grows a permanent pair. The next pair, one on each side, is replaced at twenty-seven months of age, the third pair at thirty-six months, the fourth or outside pair at forty-five months. The time of appearance of these incisors varies within rather narrow limits, so that we are able to tell the age of young cattle fairly accurately.

"The calf also has a temporary set of molars, which are later replaced with permanent ones, but they are not considered in estimating the age of the animal."—G. E. Morton, Colorado Agricultural College, Fort Collins, Colo.

Feeding the Farm Horse.

"The feed of the farm horse should be of as good quality as that given to higher-priced anmals used in the cities, or on the race track. The question of mode of feeding is an important factor in keeping the farm horse healthy. Most of the hay should be fed at night, when the horse has plenty of time to eat. The hay should be of good quality. All mouldy or musty hay should be rejected as unfit for feed. By selecting only good hay, the danger of heaves is avoided. The most natural grain for the horse is oats. The oats should be well matured and not mouldy. Bran has very little nourishment in it, but serves as a bowel regulator. If a quart of bran is fed each animal with the oats the danger of colic is lessened.

Whenever possible, one should make it a practice to feed the farm horse after it has had thirty minutes or an hour to rest, before trying to digest its concentrated food. In other words, let the farm horse eat a little hay while warm, and after it has entirely dried off, water and grain. During a resting period, feed more bran and less oats. Then there will be less danger of azotoria after the horse is put back to work.

A well-regulated barn of modern type is equipped with watering trough in the barn. If possible, all horses should have an opportunity of drinking pure water at any time while in the barn, if the horse is not too warm. Some ranchers find it a paying proposition to set a pail of water in for each horse before retiring. This gives the horse an opportunity to have water when it needs it the most, while eating the dry hay.

"So many horses have injunction colic from eating large quantities of straw during the winter. The horses keep in the shelter of the straw stacks and will not hunt water during severe weather."—C. L. Barnes, Colorado Agricultural College.

Notwithstanding the Missouri corn crop decreased from 32 bushels per acre in 1912 to 17.5 bushels in 1913, there remained 15,854,000 bushels on the farms on November 1st, 1913, against 4,618,000 bushels on same date last year.

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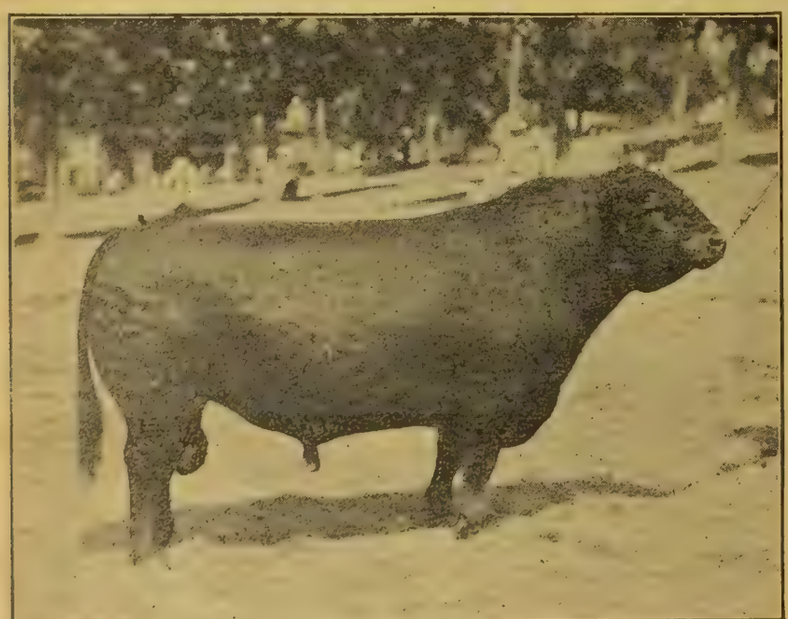

FEARNOT OF MAPLES—Famous Galloway bull. Exhibited at shows of 1913 and winner of grand championships. Owned by C. S. Hechtner, of Chariton, Iowa.

Beef Cargo Breaks Record.

On December 1st, at New York City, the steamer Zinal arrived from Buenos Ayres, Argentine Republic, with a consignment of beef that was estimated at one thousand tons or 2,000,000 pounds. It was surely the largest cargo of refrigerated beef thus far received at New York City free of duty. It consisted in part of 11,000 quarters of chilled beef, 1,000 quarters of frozen beef, fifty bags of ox hearts, fifty bags of ox tails, fifty cases of ox livers, twenty-five cases of tongues, and 300 bags of boneless chuck steak.

In this connection it is well to state that customs receipts of the United States government for November fell off about $4,500,000, compared to November, 1912. November was the first full month of operation for the new tariff, and if the month was a fair test of the bill's revenue-producing powers, the annual collections from this source will decline more than $50,000,000, which has to be made up by increased home taxation.

St. Louis Horse Market.

At the St. Louis National Stock Yards, in the month of November, 15,522 horses and mules were received, which is an increase of 5,508 over the previous year. The year's receipts so far amount to 138,101 head, with another month to be heard from. Mr. T. H. Holland, of Holland, Nugent & Maxwell Bros., holding Monday and Tuesday auctions each week, reports that an addition to usual receipts of ten to fifteen car-loads a week will help the sales by enabling more buyers to fill their orders. There is a splendid demand for small riding horses to good Southerners up to 1,100 pounds. Big horses are wanted, but not at fancy prices. Any shipper of horses who wishes to get in touch with the best, quickest and most economical horse market in regard to expenses, should write or ship to Holland, Nugent & Maxwell Bros., National Stock Yards, Ill.

St. Louis Hog Market.

On December 1st, at St. Louis, the top of the hog market was $8.00 per 100 pounds for strictly choice 243-pound hogs shipped by Wm. Criffy, of Carroll county, Missouri. There were several loads, 206 to 287 pounds, that sold at $7.95. The bulk of the offerings sold at $7.50 to $7.80 per 100 pounds, and light mixed sold largely at less than $7.50 per 100 pounds. The packers bought largely at $7.40 to $7.50 per 100 pounds. The best lights, 180 to 190 pounds, sold at $7.80 to $7.95 per 100 pounds.

Native Beef Cattle Prices.

The December market for native steers at St. Louis opened with a top load of 1,615-pound steers shipped by F. O. Link, of Calloway county, Missouri, that sold at $8.85 per 100 pounds to Armour. Other sales were fourteen head, 1,273 pounds, at $8.40; forty head, 1,201 pounds, at $8.40; twenty-one steers, 1,277 pounds, at $8.35; forty-six head, 1,272 pounds, at $8.35; nineteen head, 1,552 pounds, at $8.15; forty head, 1,162 pounds, at $7.90; eighteen head, 1,243 pounds, at $7.65; forty head, 1,019 pounds, at $7.15; twenty-eight head, 824 pounds, at $7.50; twenty-four head, 870 pounds, at $7.00; seventeen head, 785 pounds, at $6.15—all sales being at the price stated per 100 pounds.

Missouri Cattle on Feed.

On November 15th the Missouri State Board of Agriculture estimated the number of cattle on feed, as compared with an average year, 55 per cent.; stocker or feeder stuff, 68 per cent.; breeding cows, 79 per cent. As compared with cattle on farms one year ago, percentage shows: Fat cattle, 62; stocker or feeder stuff, 71; breeding cows, 78.

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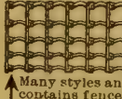

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13

St. Louis Mule Trade.

From the circular of Holland, Nugent & Maxwell Bros., horse and mule commission salesmen, National Stock Yards, Ill., December 1, 1913:

"The mule trade is about the same as it has been. Good, finished cotton mules are selling all right, and good miners and pit mules; but the plain, common class are hard to sell, and we have to peddle them from Monday morning to Saturday night in order to get them sold. We have, however, the best selling force on any market, and the more difficult the situation the better they handle it."

Chicago Live Stock.

On December 1st, which was Monday, the International Exposition was responsible for a large number of stockmen coming to the market that day, and many brought in cattle to defray expenses; the result was that 26,000 head were received. Top price was $9.60 for some choice yearlings selected out of the show cattle; most of the good yearlings sold at $9.00 to $9.50, with the good heavy steers mainly at $8.40 to $8.75; common light steers sold at $7.60 to $8.25; cows and heifers were generally steady, with the common to good selling at $5.50 to $6.50; and the fat heavy cows at $6.50 to $7.00; choice heifers went at $7.00 to $8.00; bulls ranged from $5.50 to $7.00, with the bolognas at $5.60 to $6.25; veal calves were 25 cents lower, selling at $10 to $11; stockers and feeders sold steady at $6.00 to $7.50. The hog receipts were 37,000 head; the market was generally five cents higher and quite active; top was $7.97½, with most of the good hogs at $7.80 to $7.95, and the bulk of the packing class at $7.50 to $7.65 per 100 pounds.

Quoted: Sheep receipts, 47,000 head; fair to good ewes at $4.00 to $4.50; good to choice wethers, $4.40 to $5.00; fat lambs, $7.00 to $7.50; feeding lambs, $6.25 to $6.75 per 100 pounds.

Kansas City Live Stock.

On December 1st Kansas City received 13,000 head of cattle, including 1,006 Southerners; steers steady; cows 10 to 15 cents higher; stockers and feeders strong. Prime-fed steers, $8.20 to $8.50; dressed beef steers, $7.00 to $8.00; Southern steers, $6.00 to $7.25; cows, $4.25 to $7.00; heifers, $5.50 to $8.50; stockers and feeders, $5.25 to $7.35; bulls, $4.75 to $6.65; calves, $6.50 to $10.

Hogs.—Receipts, 6,400 head; bulk of sales, $7.30 to $7.70; heavy, $7.60 to $7.77½; packers and butchers, $7.45 to $7.70; light, $7.30 to $7.60; pigs, $5.50 to $7.00.

Sheep.—Receipts, 9,000 head. Lambs, $7.00 to $7.05; yearlings, $5.50 to $6.25; wethers, $4.50 to $5.50; ewes, $4.00 to $4.60; stockers and feeders, $3.00 to $6.25—all quotations being at the price stated per 100 pounds.

Southern Cattle at St. Louis.

On the first day of December, on the St. Louis market, the Southern cattle supply consisted of sixty carloads. A string of Arkansas lightweight steers brought $5.35, and a bunch weighing slightly more went to stockers at $6.85. Two bunches of Mississippi steers went to stocker buyers at $5.75. A bunch of Oklahoma steers sold at $6.65. There was a sprinkling of fat cows that sold around $5.50, and bulk of the better grades of the stuff cleared upward of $4.85. Grown canners and cutters were steady, a range of $4.50 to $4.75 moving most of the cutters, and $4.25 to $4.40 catching the bulk of the cutters. The yearling trade was strong. Canner yearlings sold mostly at $4.25 to $4.40, while some of those able to catch stocker competition breasted $4.50. Vealers sold mostly at $5.50 to $8.50—all quotations being at the price stated per 100 pounds.

Keep Brood Sows Well Conditioned With Merry War POWDERED Lye

E. Myers, President, E. Myers Lye Company

Every hog raiser knows the importance of giving special care and attention to the health of his brood sows; for these animals are the pork producing plant of his farm. He knows he cannot expect strong, healthy litters from sickly, scrawny, poorly nourished brood sows. By feeding a small quantity of *Merry War POWDERED Lye* with the rations, the bowels are kept in normal condition, the blood at an even temperature, and at farrowing time fever will be allayed. The chances for a fine litter of healthy pigs will be greatly increased.

From weaning until marketing hogs should be kept on a *Merry War POWDERED Lye* diet—just a small quantity mixed with the feed. It *protects* hogs against cholera, destroys hog worms, keeps the hogs keen in appetite, adds weight—in short—*increases pork profits.* Don't experiment with ordinary lye. *It might prove dangerous. Merry War POWDERED Lye* is *specially* prepared and is a *safe* hog remedy and conditioner. The *experiences* of thousands of hog raisers *prove* my claims about *Merry War POWDERED Lye.* Here is a fair sample:

It Saved The Life of This Brood Sow

"I want you to know what Merry War Powdered Lye did for a valuable red Duroc Jersey sow of mine. When our sow took sick we did not know what was the matter with her. She looked just like the picture of the skinny hog in your ad., so we used a can of Merry War Powdered Lye and she was able to stand up in three days. When we began using Merry War Powdered Lye we expected to find her dead at any moment. She is now in good condition and I expect her to farrow at least 10 pigs the first of August."

MRS. A. P. SORENSEN, Otter Pond, Ky.

Prove this for yourself. Merry War POWDERED Lye is for sale at most dealers, 10c per can (*120 feeds*). It is convenient to buy in case lots—4 doz. cans, $4.80. ***Costs only 5c per hog, per month*** to feed regularly—by far the best and much the cheapest hog insurance you can buy. If your dealers can't supply you, write us, stating their names; we will see that you are supplied, also send you, free, a valuable booklet, ***"How To Get The Biggest Profits From Hog Raising."*** ***Order direct from us in case lots (4 dozen cans $4.80) if your dealers won't supply you.***

E. MYERS LYE COMPANY,
Dept. 22 St. Louis, Mo.

Which Kind Do You Want?

Native Stock Cattle.

At the St. Louis National Stock Yards, on December 1st, in the stock cattle and feeder trade, the best load of feeding steers, 870 pounds average, sold at $7.00. There was a good sprinkling of feeders that went in a range of $6.50 to $6.90. Stockers sold mostly at $5.75 to $6.45. A small bunch of Arkansas stockers sold at $5.30, and a couple of loads of Mississippi stockers brought $5.75—all quotations being at the price stated per 100 pounds

St. Louis Sheep Market.

On December 1st, at St. Louis, a load of lambs from Iowa brought $7.75, which was the top of the market, while other good lambs went at $7.50 to $7.65; fair to medium grades, $7.00 to $7.40; and the culls and poor kinds in general, $5.00 to $6.75. The best sheep on sale, shipped by D. R. Davie, of Union county, Illinois, averaged 101 pounds and sold at $4.50; and others that went to the slaughterers for mutton, $4.40. Some good stockers sold at $3.50 to $3.85; fair to medium grades, $3.75 to $3.35; old culls and canners, $2.25 to $2.65; and bucks, $3.75—all quotations being at the price stated per 100 pounds.

The Hercules Stump Puller.

Several years have passed since The National Farmer and Stock Grower received instructions to advertise the Triple-power Hercules Stump Puller, and each year we have had the opportunity to receive reports from those who purchased stump pullers through advertising in our paper. The reports were all about the same, saying: "The Hercules Stump Puller is all and more than is claimed for it; the terms of sale are reasonable, and the Hercules Company are first-class people to do business with." We take pleasure in inviting attention to page 32.

ABSORBINE

TRADE MARK. REG. U.S. PAT. OFF.

Reduces Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Boils, Swellings; Stops Lameness and allays pain. Heals Sores, Cuts, Bruises, Boot Chafes. It is an

ANTISEPTIC AND GERMICIDE

[NON-POISONOUS]

Does not blister or remove the hair and horse can be worked. Pleasant to use. $2.00 a bottle, delivered. Describe your case for special instructions and **Book 5 K free.**

ABSORBINE, JR., antiseptic liniment for mankind reduces Strains, Painful, Knotted, Swollen Veins, Milk Leg, Gout. Concentrated—only a few drops required at an application. Price $1 per bottle at dealers or delivered.

W. F. YOUNG, P. D. F., 106 Temple St., Springfield, Mass.

SAVE-THE-HORSE

Trade-Mark Registered

Over 118,000 Satisfied Users

A. S. Klingel, of Muscoutah, Ill., August 30-13, writes: Money Order enclosed for 3 bottles. Have used Save-The-Horse for over 10 years with most satisfactory results.

WE ORIGINATED the plan of treating horses Under Signed Contract to Return Money if Remedy fails. You risk nothing by writing; it will cost you nothing for advice and there will be no string to it.

OUR LATEST Save-The-Horse **BOOK** is our 18 Years' **Discoveries**—Treating Every Kind Ringbone—Thoropin—**SPAVIN**—and **ALL**—Shoulder, Knee, Ankle, Hoof and Tendon Disease—Tells How to Test for Spavin; how to locate and treat **58** forms of **LAMENESS—Illustrated.**

OUR CHARGES for Treatment ARE MODERATE. But write and we will send our—BOOK—Sample Contract and Advice—ALL FREE to (Horse Owners and Managers—Only).

TROY CHEMICAL CO., 62 Commerce Ave., Binghamton, N. Y.

Druggists everywhere sell Save-The-Horse WITH CONTRACT, or we send by Parcel Post or Express paid.

HORSE LAME?

Use KINDIG'S Famous OINTMENT. A sure cure for lame, hog, and bleed spavin, ringbone, curb, soft bunches, splint, etc. 50 cents, postpaid. E. Kindig, Jr., Remedy Co., 4825 Woodland Ave., Phila.

Best Conditioner Worm Expeller

Death to Heaves

"Guaranteed or Money Back." Coughs, Distemper, Indigestion.

NEWTON'S 50c, $1.00 per can. Large for Horses. At druggists or sent postpaid.

THE NEWTON REMEDY CO., TOLEDO, OHIO

Poultry and Farm Paper Club.

We are often asked which is the best poultry paper in the United States, and the answer is **The Reliable Poultry Journal.** There are other excellent poultry papers, but the one we take home to read and one the family is determined to read is **The Reliable Poultry Journal.** We have therefore made arrangements to furnish our subscribers with the **Reliable Poultry Journal** on the most advantageous terms, and we know that the publishers are getting out such a magnificent paper the arrangement cannot possibly last long. All who are interested in poultry raising should consult their own interest and subscribe at once. We will send The National Farmer and Stock Grower and **The Reliable Poultry Journal,** both papers, one year, for fifty cents. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Poultry in Winter.

The poultry house is the center of interest as the time comes for keeping the poultry indoors in localities where the ground is covered with snow during most of the cold season. Some of the poultry houses to be met with on our farms are anything but a credit to the farmers that own them. The writer has seen them where the wonder was that the fowls could do anything in the way of producing eggs.

The first thing is to keep out the drafts, though the drafts are not as objectionable as no ventilation. But on the bitterly cold nights these drafts may mean frosted combs and toes. It is easy enough to stop the cracks by tacking over them some cotton cloth. This will let the air through but not in the form of a draft.

One way to give good ventilation is to have apertures that are covered with coarse cotton cloth, which will permit the passage of air, but not so rapidly as to create a draft. At the Maine Station the fowls all sleep in great sleeping cabinets that are separated from the rest of the poultry house by great curtains of cloth porous enough to permit the air to pass through. The fowls are thus given more air, while the rest of the poultry house is flooded with pure air from the open windows. This is in Maine, where the mercury gets down a long distance below zero on many a night. Yet in the sleeping cabinets water seldom freezes and the fowls never suffer the loss of comb or toe.

In the use of cloth for ventilation it must be remembered that it must not be so placed that it will be saturated with the rain, else the wet cloth will freeze solid and prevent any passage of air. Under such conditions the fowls might suffer from lack of pure air, and in extreme cases might be suffocated.

Many poultrymen and farmers are now putting in scratching sheds on the south side of their poultry houses. Some leave them open to the air, while others cover them with glass, making them as tight as any conservatory. At the Cornell Station both kinds were tried, and it was found that the fowls did best in the open scratching sheds. It is without doubt better to give the fowls work in the open air, even during the coldest days in winter.

Clean out the poultry house often in winter, so that there may be no accumulation of droppings to ferment and throw off gas injurious to the health of the fowls. Often in winter the poultry owner lets the droppings lie, as most of the time they are frozen and doing no harm. But now and then warm days and nights come, and the smell of ammonia gas in the poultry house becomes almost unbearable. If a person can stand it for only a few moments, how about the fowls that are compelled to breathe that tainted air all night, depleting its supply of oxygen every minute!

If a good supply of dust is laid in at this time it can be placed upon the floor after each cleaning, and this will prevent the droppings from freezing to the floor. Sifted coal ashes are equally good and are more easily to obtain under many conditions.

Advantage of One Breed.

"Several consignments of live poultry were one day unloaded at a poultry dealer's, and one of the shipments received one cent a pound more than did the others. Asked why he paid more for one lot than he did for the others, the dealer replied that the lot that brought the best price was all of one kind (one of the well-known breeds) and would dress out better and sell for more when dressed. He was asked if it was because they were all of one color of plumage that made them more valuable. To this he answered that it was the feathers and color that indicated the breed, and that shape and meat were indicated by the knowledge he had of that breed."—New York Produce Review and American Creamery.

Decrease in Egg Laying.

In a Canadian bulletin on the subject of egg laying, the statement is made that there (as in the United States) in a large number of instances no system of selling off hens which have outlived their usefulness as layers is practiced. It is common knowledge among good poultrymen that a hen becomes less useful as an egg producer as she grows older. Mr. E. C. Elford, in his recent publication entitled "Farm Poultry," says: "Many such experiences have gone to prove that as each year a hen grows older her egg-laying ability decreases 25 per cent." Flocks containing a large proportion of hens three to five years old are quite common, and on many farms some hens are kept as long as they will live. For ordinary farm purposes hens older than two years should not be retained. A good plan is to leg-band all pullets. Place the bands on the left leg one year and on the right leg the following year, and so on, alternating each year. In this way there will be no difficulty in identifying the older fowl.

EGG-LAYING CONTEST.

Result of the Second Year Contest Compared With the First.

Time flies, and two years have passed since the Missouri Egg-laying Contest was inaugurated at Mountain Grove, Mo., and, like the good, old St. Louis Fair, the competition was open to the world.

In the first contest the individual winner was Lady Showyou, a White Plymouth Rock hen, that lay 281 eggs in twelve months. This year the winner (the best of 700 hens) was a Rose Comb White Leghorn, owned by John Gross, of Maryville, Mo., that lay 260 eggs in the 365 days.

Last year the best pen record was made by the pen of five (5) R. C. Rhode Island Reds, exhibited by D. E. Hall, of California, Mo., with 1,042 eggs; and this year the pen of ten (10) S. C. White Leghorns, owned by Tom Barron, of Catsforth, England, was first, with a record of 2,073 eggs.

Last year the average egg laying of 655 hens was 134 eggs per hen, and this year the average egg laying of 700 hens was 143 eggs per hen per year.

Last year the second winning hen was a R. C. Rhode Island Red, owned by D. E. Hall, of California, Mo., that lay 255 eggs during the year, and this year the second-prize winner was Tom Barron's English White Leghorn that lay 258 eggs during the year.

Last year the third hen was a Barred Plymouth Rock, owned by M. H. Baldwin, of Sioux City, Iowa, that lay 245 eggs in the year, and this year the third hen is a Buff Wyandotte, with 255 eggs, owned by J. H. Clark, of West Pawlett, Vt. We received the official report of the contest too late to publish it in this edition.

POULTRY NOTES.

The extreme hot weather and drouth of the summer of 1913 was the reason why the average of the Missouri Egg-laying Contest did not increase more than eleven eggs per pen over last year.

The Third Missouri International Egg-laying Contest at Mountain Grove, Mo., starts out December 1st with 1,000 pullets in the contest. Twenty odd states and seven foreign countries have entries.

Last year, in the Missouri Egg-laying Contest, the first three hens lay 781 eggs during the year, and the first three hens this year laid 773 eggs during the year.

Family poultry raising can be conducted with a setting hen, but poultry raising as a business requires the incubator. Several of the best and cheapest incubators are advertised in this paper. The incubator is the money maker in poultry.

HIGH-PRICED EGGS.

Coaxing the Hen to Lay Eggs When There is the Best Market For Them.

"A few years ago many farmers allowed their cows to go dry early in November and then freshen in April. The farm hen sometimes does the same thing—goes dry in October and begins to lay in March. This long dry spell cuts down the possible profits." This is the explanation given by James G. Halpin, Poultryman for the Wisconsin College of Agriculture, for the present scarcity of eggs.

Mr. Halpin thinks that many farm flocks are not getting quite the attention that they really deserve and as a consequence are not meeting the demand for freshly-laid eggs.

"Right now poultry houses should be deeply bedded with dry straw," declares Mr. Halpin, "and all the grain feed should be worked into this litter so that the hens may get good exercise and amusement hunting for it. If nothing of this kind is done, the flock will huddle in one corner of the poultry house or in or about one of the other farm buildings and will seem to lose all interest in life. If the flock gets into this lazy and indifferent habit at this time of the year, winter eggs will be few and hard to get. It is well to get the hens to exercising and singing as they work for their feed and then sell fifty-cent eggs to the city buyers who want the genuine article.

"The flock should be given as great a variety of grain as possible; some corn, wheat, oats and barley mixed together or fed alternately makes a satisfactory ration. If all of the grains are not produced on the farm, then feed those that are raised. On real cold nights take some ear corn into the house, thoroughly heat it upon the kitchen stove, then break into small pieces and scatter over the feeding floor an hour or more before dark. Arrange a mash box or trough with a little ground feed where the hens may have access to it. They can then go to the 'pantry' and get 'a bite' to eat when the grain is gone from the litter. A warm mash of moist, ground feed, table scraps, etc., fed so that all of the flock has access to it and only what they will eat greedily in fifteen minutes is good for laying hens.

"As insects are no longer available, skim milk should be fed liberally. If this is not obtainable, feed some ground green bone or meat, about an ounce to each hen three times a week. If unable to provide any of these, buy commercial meat scrap, for animal feed of some sort helps to fill the egg basket."

$100 a month net from 4½ acres.

You can go down into Arkansas and Texas now, buy a farm at $15 to $30 an acre that will grow 50 bu. corn crops; but after you have been there a while you will be raising truck, like your neighbors. Truck is not a "side issue" with farmers along the

Cotton Belt Route in Arkansas and Texas.

When you can put out cabbage plants the 1st of Feb. and get 10c a head early in April, as H. F. Kapp, of Camden, Ark. does, truck means a big source of profit. Mr. Kapp makes 60 bu. corn crops, too; but his truck pays him more.

The further south you go, the greater number of acres you will find in truck and fruit. F.L.Mims, of Jacksonville, Tex. says "We gathered and sold 1,700 crates of tomatoes from 4¾ acres, which sold at 97c a crate or $1,650." The total cost of crop was only $400—that's better than $100 a month net profit for the whole year. Mr. Mims got a high price per crate because his tomatoes reached the big northern markets long before "home grown".

You don't have to run a truck farm; but if you farm in Arkansas and East Texas, you can raise a crop of truck, then follow with corn on the same land; and double your profits without increasing your investment or your expenses. With good roads, schools, close markets, phones, rural delivery, churches, etc., you don't sacrifice any social advantage in Arkansas and East Texas.

Books by a farmer—free!

We got a practical farmer to travel all along the Cotton Belt Route and talk with the farmers themselves, get pictures of their farms and their personal statements. Because he was a farmer this man knew what you wanted to know about these sections and he tells you in these free books—showing scores of actual photograph pictures of the farms he visited. You must not miss seeing these books. Send me your name and address on a post card today.

E. W. LaBeaume, General Passenger Agent, 909 Pierce Bldg., St. Louis, Mo.

Low Fare Excursions via Cotton Belt Route on 1st and 3rd Tuesdays each month. Ask me about them, write!

COTTON BELT ROUTE

The Shepherds' Journal.

The inquiry in regard to the management of sheep on the farm and on the range can best be answered by furnishing our readers with a splendid paper that is devoted to Sheep Husbandry. We have therefore made arrangements whereby we can offer The National Farmer and Stock Grower and **The Shepherds' Journal**, both papers, for one year, for fifty cents. This is getting the producer close to the consumer without the help of the middleman. **The Shepherds' Journal** is a magnificent paper, issued monthly on superfine paper and adorned to the last degree with illustrations from life. The National Farmer and Stock Grower has some claims to be a good paper, and **The Shepherds' Journal** is doing something for us. We therefore offer that anyone sending fifty (50) cents to pay for The National Farmer and Stock Grower for one year can select **The Shepherds' Journal** for one year as a premium. We guarantee satisfaction. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Small Flocks Fatten Best.

That chickens intended for market should be divided into small flocks and should be fed heavily on fattening feeds while giving them range in a small grass enclosure is the belief of Prof. James G. Halpin, of the College of Agriculture of the University of Wisconsin. It has been found that, as a rule, the average farmer pays little or no attention to the fattening of his market fowls, taking them to market directly from the range.

A mixture of four parts of ground corn and one part of wheat bran mixed with enough sour skim milk to make it crumbly moist is the ration best adapted to small flocks, according to Prof. Halpin, who recommends that they be fed only such quantities of the feed as they will clean up in twenty minutes.

APPEARANCES DECEITFUL.

Can You Estimate the Farmer's Labor Income by Appearances?

It is hard to tell just where and how the survey work helps each man at the farm survey meetings that are being held in the different states, but one incident which happened not long ago may be worthy of mention in this paper.

After the men returned from their first-day's field experience several records were worked up. The labor incomes shown by these records were very unsatisfactory to one man in our party, who was quite familiar with local conditions. He suggested that we go with him the next morning to a farmer who he had visited previously, as he felt quite sure we would find this man making money. This farm did present a good outside appearance, with a fine large house set back from the road, in a large grove, a $5,000 barn, etc. These buildings lay in a valley, and back of them, gently rising to a level of perhaps one hundred feet, was a large pasture field. On the other side of the road, and rising gradually from the valley, is another large pasture, which extended to the large peach orchard on the hill. The man was picking peaches from trees that showed no sign of any recent pruning or spraying, and kindly consented to give us a record. A very different picture of that farm could have been painted after receiving this record. The farm was very large, only one cow was kept, and the equipment and labor were entirely inadequate for an investment of this size. The farmer kept no accounts, had a heavy mortgage on his farm, and received a minus labor income for his year's work.

This proprietor would apear to be a first-class business man. In fact, before we left he outlined a plan of how he would soon be supplying near-by cities with fresh poultry, eggs, cream, butter and fruit, using a large auto truck. When asked about the reorganization of his farm for the production of these products he thought it would be better to buy most of them from his neighbors and put his label on them. He was asked about raising clover, but said that he had never tried it, as seed had been so high the past few years.

In the afternoon another farm was visited near this first one. The man who had selected the good farm expressed the opinion before approaching the second farm that he hardly thought the proposition worth while. This farm really did not make a very strong impression by appearances. It extended back from the main pike road and was cut in two by a typical country road running parallel to the pike. The buildings were located on a country road and a lane connected them with the pike. The house was not large, but neat, set close to the road, and enclosed by an ordinary farm house fence. The other buildings were hardly as good as the average, and one's first impression of this proprietor might be that he would never set the world on fire.

To make a long story short, this man had a labor income of more than $1,000; gave nearly all the record from his books, as he was keeping account of all household and farm receipts and expenses; had an acre of alfalfa, half of which was limed and half left without liming. On the half acre limed he secured a fine stand of alfalfa, while on the other plot the alfalfa was not worth keeping. He was interested in finding out how to test his cows and was building up his herd as fast as he was able. When leaving this farm the man giving an opinion before the record was taken had changed his mind considerably, and assured this farmer he would see him again before a great while, as he was anxious to get a picture of his alfalfa plat and also wanted to talk over several other propositions with him. —H. M. Dixon.

How to Make Starch From Potato Culls.

The potato clubs which the Department of Agriculture has been organizing to teach the young people of America to grow potatoes were primarily intended for boys. Certain girls, however, became interested, enrolled, and have done particularly well, not only in management of crop, but in manufacturing home-made potato starch out of the unmarketable culls of the vegetable.

Each girl when she enrolls in this club work, which now is being taken up by 18,000 young people, is given a recipe for making home-made potato starch. The Office of Farm Management's specialist who is in charge of the potato-club work supplies each new girl member with a printed copy, which reads as follows:

Equipment Needed.—Two clean galvanized tubs, large dish pan, one cylindrical grater and plenty of water and wiping cloths.

Take five bushels of potato culls. Wash them thoroughly by the use of plenty of water and a small scrubbing brush.

Use one tub for cleaning potatoes and the other for the gratings. Seat yourself in a convenient place between the two tubs, with dish pan and grater in your lap.

Without removing the skin, grate your clean potatoes from right-hand tub into the dish pan, empty pan of gratings when necessary into the well-cleaned tub to your left; continue this operation until your left-hand tub is a trifle over half full. Pour clean water into tub upon the potato gratings until nearly full, stir well so as to saturate every particle of water.

Remove all peelings and floating material from top of water; allow tub to stand over night, so that starch will settle to bottom and all pulp and potato skin will rise to the top of the water.

Remove all water carefully from tub in the morning, as well as the dark formation and sediment on top of the layer of starch.

Pour a fresh supply of water over starch again; stir again so as to rinse all particles of starch well; allow to stand for about eight hours.

Remove water from the top, the layer of pulp, etc. In doing so be careful not to waste the starch.

Continue this process with new applications and careful stirring, letting it stand each time—as many times as it is necessary to effect a complete separation of starch from the pulp, peeling and sediment of the potatoes. It will usually take four or five washings.

Potato starch is a healthful food and can be used in at least a dozen different ways for food purposes in making puddings, salads, milk dishes, etc. It is both an easy and economical method of providing a valuable food product for the average home.

The potato water and wastes incident to the process can be easily utilized on the farm for hogs, poultry and stock.

The Market Grading of Sheep.

Few who are in the business thoroughly understand the difference there is seen by the trade in sheep and lambs as they appear in the market. In Chicago, possibly, there is a greater variety than is seen elsewhere, therefore we take a range of quotations on November 26th, as published in the Daily Live Stock World, as follows, all quotations being at the price stated per 100 pounds:

To butchers.—Lambs, good to prime, $7.60 to $7.80; lambs, fair to good, $7.25 to $7.60; lambs, common to fair, $6.50 to $7.25; lambs, culls and coarse bucks, $5.50 to $6.50.

To butchers.—Yearlings, good to choice handy, $6.25 to $6.75; yearlings, fair to choice heavy, $5.35 to $6.15; yearlings, feeders, $5.00 to $5.65; wethers, good to prime, $4.80 to $5.10; wethers, fair to good, $4.50 to $4.80.

To butchers.—Ewes, good to choice heavy, $4.15 to $4.50; ewes, good to choice handy, $4.25 to $4.65; ewes, medium to good, $3.85 to $4.15; ewes, culls, $2.75 to $3.50.

To stocker and feeder buyers.—Lambs, fair to best feeders, $6.25 to $6.90; wethers, feeders, $4.10 to $4.60; ewes, breeding, one to three years, $4.50 to $5.25; ewes, aged, solid mouths, $4.00 to $4.40; ewes, feeders, $3.15 to $3.75; bucks, fair to choice, $3.25 to $4.00.

In each class there is considerable range in prices according to quality and condition of the offerings or in advancing and declining markets during the day.

Let Us Send You a Genuine Edison Phonograph on Free Trial

right to your own home. Entertain your family and your friends. Send it back at our expense if you don't want to keep it. **$2 a month** now pays for a genuine Edison Phonograph at **Rock-Bottom prices** and without even interest on monthly payments. Send today for our beautiful **Free Edison Catalog.** A postal or a letter is enough. **But send it at once.** Write today.

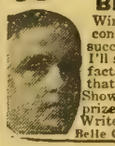
Edison Phonograph Distributors
3619 Edison Block Chicago, Illinois

$7.35 LOWEST PRICE YET BIG 155 EGG INCUBATOR

Set Up Ready For Use. Biggest and best for the money—hundreds of dead air cells—special construction—exclusive features. Price, $7.35, with brooder $9.85. Frt. prepaid E. of Rockies. Absolute guarantee. Order direct from this ad—or write for Big Free Book

Progressive Incubator Co., Box 194 Racine, Wis.

WRITE FOR MY PRICE On 8-Time World's Champion **BELLE CITY**



Winner in 20,000 hatch contests. Record of success *never equalled.* I'll send you Hatching facts, figures and proof that will interest you. Show you how to get prize winning hatches at lowest cost. Write me a postal *now.* Jim Rohan, Pres.

1, 2 or 3 Months Home Test Freight Prepaid

Belle City Incubator Co., Box 74, Racine, Wis.

POULTRY MONEY!

Poultry and egg prices *very high* for 1914. Cost of production *lower.* Get *your* share of the larger profits!

Cyphers Incubators and Brooders

together with Cyphers Company Service *insure success* for you. Write today for big new 244-page book "Profitable Poultry and Egg Production"—Free to any address.

Cyphers Incubator Co., Dept. 56 Buffalo, N. Y.

Motorcycle FREE

Hundreds of other prizes—bicycles, cameras, guns, watches, tool chests, gold rings, pocket knives, etc. Full information and big Premium List Free. Write me Today.

E. T. MEREDITH, 174 Success Bldg., Des Moines, Ia.

Interesting Poultry Lecture.

At the St. Louis Poultry Show large numbers attended the Coliseum Annex to see the moving pictures of the bird life at the State Poultry Experiment Station, Mountain Grove, Mo., and to hear the lecture of T. E. Quisenberry, Director of the Experiment Station, and his explanation of the results of the Second Egg-laying Contest.

ROOFING SALE More than $325,000 worth of every make and kind of brand new, dependable roofing now being offered at such remarkably low prices, that we ask all in need or who contemplate buying to hesitate placing orders until they get these remarkable

Bankrupt

Prices. This lot consists of every known make of roofing—Galvanized, 2¾c per sq. ft.; Corrugated Steel, 1¾c per sq. ft.; Rubber Surfaced Ajax Roofing 62c per square, etc. We now own the Chicago House Wrecking Company and incorporated for $10,000,000; this tremendous purchase is the first result—nothing like it ever before attempted by anyone. Every dollar's worth of the roofing guaranteed brand new. Every quality. Write for free samples and remarkable prices.

HARRIS BROS. COMPANY
Dept. BM-191, Chicago, Ill.

The Missouri Egg-laying Contest averaged 145 eggs per hen this year, against an average of 134 eggs per hen last year.

Deafness Positively Cured

Cure Yourself at Home.

Five Minute Treatment Will Convince the Most Skeptical. Head Noises Relieved from the First Trial.

You Won't Have to Strain to Hear.

Nature's Own Way Is the Best Cure. Send the Coupon.

The secret of how to use the mysterious and invisible nature forces for the cure of Deafness and Head Noises has at last been discovered. Deafness and Head Noises disappear as if by magic under the use of this new and wonderful discovery. Dr. L. C. Grains Co. (Physicians and Scientists) will send all who suffer from Deafness and Head Noises, full information how they can be cured, absolutely free, no matter how long they have been deaf, or what caused their deafness. This marvelous treatment is so simple, natural and certain that you will wonder why it was not discovered before. Investigators are astonished and cured patients themselves marvel at the quick results. Any deaf person can have full information how to be cured quickly and cured to stay cured at home without investing a cent. Write today, or send the coupon to Dr. L. C. Grains Co., 1192 Pulsifer Bldg., Chicago, Ill., and get full information of this new and wonderful discovery, absolutely free.

FREE Information Coupon

DR. L. C. GRAINS COMPANY
1192 Pulsifer Bldg., Chicago, Ill.

Please send me without cost or obligation on my part complete information concerning the new method for the treatment and cure of deafness or head noises. If I wish you to make a diagnosis of my case after hearing from you, you are to do so FREE OF CHARGE.

Name.....

Address.....

Town..... State.....

It costs 39 cents to distribute a dollar's worth of food in New York City.

EGGS AND POULTRY.

New York Market at Wholesale—All Grades Quoted.

The surplus goes to New York, therefore these figures representing the market there on December 1st will be interesting:

Live Poultry. — Unloaded were twenty-six cars. The market opened firm and with advices of moderate receipts due this week, chickens, fowls and roosters advanced one-half cent. Chickens — Western, 16½c.; fowls, prime, 16½c.; poor, 16c.; old roosters, 11½c.; turkeys, mixed hens and Toms, 20c.; ducks, Western, 16c.; geese, 14c.

Dressed Poultry.—Receipts, 3,644 packages. Trade was very quiet and price changes were of little importance. Fresh-killed turkeys, dry-packed, Western, small boxes, dry-picked, selected, fancy, 25c.; average best, 20 to 22c.; scalded, 23 to 24c.; poor, 16 to 18c.; iced, Western, dry-picked, selected, fancy, 24 to 25c.; average best, 21 to 22c.; fair to good, 19 to 20c.; poor, 16 to 18c.; scalded, selected, 22c.; old hens, 23c.; Toms, 20c.; broilers, dry-packed, twelve to box, milk-fed, fancy, eighteen to twenty-four pounds to dozen, 24½ to 25c.; twenty-five to twenty-nine pounds, 23c.; corn-fed, fancy, eighteen to twenty-four pounds, 22 to 23c.; prime, twenty-five to thirty pounds, 19 to 20c.; chickens, dry-packed, twelve to box, milk-fed, thirty-one to thirty-six pounds to dozen, 18 to 18½c.; thirty-seven to forty-two pounds, 18c.; forty-three to forty-seven pounds, 19c.; forty-eight pounds and over, 20c.; corn-fed, thirty-one to thirty-six pounds, 16c.; thirty-seven to forty-two pounds, 16c.; forty-eight pounds and over, 18c.; broilers, in barrels, Western, milk-fed, one and one-half to two pounds each, 23c.; corn-fed, dry-picked, one and one-half to two pounds, 17c.; scalded, one and one-half to two pounds, 16 to 16½c.; chickens, frying, five to six pounds to pair, Western, milk-fed, average, 16 to 16½c.; corn-fed, 14½c.; scalded, 13 to 13½c.; roasting, four pounds and over each, 17c.; corn-fed, dry-picked, fancy, 17c.; four pounds each, 16c.; scalded, 16c.; fowls, dry-packed, Western, boxes, sixty pounds per dozen, 18½c.; forty-eight to fifty-five pounds, 17c.; forty-three to forty-seven pounds, 16c.; thirty-six to forty-two pounds, 14c.; thirty to thirty-five pounds, 13 to 13½c.; under thirty pounds, 12 to 12½c.; barrels, iced, Western, dry-picked, four pounds each, 16c.; five pounds, 17c.; three and one-half pounds, 13½ to 14c.; three pounds and under, 12½ to 13c.; scalded, 13 to 14½c.; poor and small, 10 to 12c.; old roosters, 2c.; Western spring ducks, choice, 14 to 15c.; average, 12 to 13c.; squabs, prime white, ten pounds to dozen, $4.75; nine pounds, $4.25 to $4.50; eight pounds, $4.00; seven pounds, $3.25; six to six and one-half pounds, $2.75; dark, $1.75.

Eggs.—Receipts, 3,267 cases. The market opened strong in tone and at one time it looked as though prices would go higher. But as trade progressed buyers were taken care of on a basis of 44 to 45c. for extra firsts and at 42 to 43c. for firsts. Western-gathered, white, 40 to 53c.; brown hennery, 48 to 50c.; gathered, brown, mixed colors, 42 to 48c.; fresh-gathered, etras, 46 to 48c.; fresh-gathered extras, 46 to thirds, 28 to 35c.; dirties, No. 1, 25 to 28c.; checks, 23 to 25c.

ALFALFA FIELD NEAR WARRENSBURG, MO. C. M. Long, Fa... Adviser of Johnson county, Missouri, at left and C. H. Houx, Presiden... the Johnson County, Missouri, Bureau of Agriculture, on the right, in H... Brothers' ten-acre alfalfa field, on their Liberty Farm, in Blackwater To... ship. The seed was planted on September 15th, 1912, and the first cut... in 1913 yielded one and one-half tons per acre. Photograph taken on Ju... 6th, about a week before time for second cutting.

The Principal Vegetables.

On December 1st, at St. Louis, potatoes were arriving from Idaho and selling at 60 to 68 cents a bushel, with a few extra quality car lots at 75 to 76 cents; Wisconsin Rural at 60 to 68 cents. Red Globe onions were quoted at $1.75 to $2.00. Cabbage at $22 to $26 per ton. Sweet potatoes, 40 to 60 cents a bushel.

Wool Admitted Duty Free.

On December 1st there came into effect one of the provisions of the new Underwood tariff law which excited the most heated discussion while the measure was pending in Congress. This is the free raw wool clause, which exempts from duty ... wool of sheep, hair of the camel ... of like animals, all paper twine ... binding such products, all v... wastes, including noils, top, c... slabbing, roving, ring, yarn, ... thread and garnetted wastes, ... shoddies, mungo, flocks, wool extr... carbonized wool, carbonized n... and other wastes not specially ... vided. One month later the ... protective but reduced rates on w... manufactures provided by the Un... wood law will come into operat...

Read about the Book of Live St... Champions on page 14. It will ... you to do so.

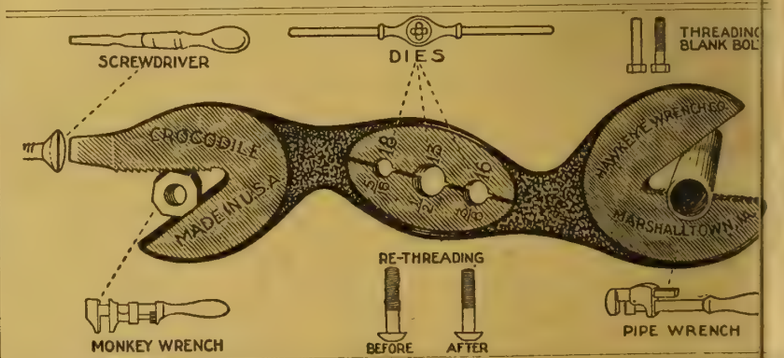
5 YEAR GUARANTEE

98 CENTS POST PA...

To advertise our business, make new friends and introduce our big cat... of Elgin watches we will send this elegant watch postpaid for only 98 ... Gent's size, high grade gold plate finish, lever escapement, stem wi... stem set, accurate time keeper, fully Guaranteed for 25 Years. S... cents today and watch will be sent by return mail. Satisfaction guaran... money refunded. ARNOLD WATCH CO., Dept. 1128, CHICAGO, I...

AN ABSOLUTE NECESSITY ON A FARM.

Every Farm Ought to Have an Extra Wrench or Two, Especially W... That Wrench is the Crocodile Wrench Premium—Actually Six Hand... Farm Tools in One—A Pipe Wrench, a Nut Wrench, Three Dies... For Cleaning or Cutting Threads and a Screwdriver.



Drop-forged from the best tool steel, scientifically tempered. Requ... no adjustment. Simple and always ready for use. Nothing to get ou... order. Dies will fit threads on all standard farm machinery. L... strong and durable. No farmer can afford to be without it.

SPECIAL INDUCEMENTS.

Our Subscription Proposition: Send us One Dollar and we will ... you THE NATIONAL FARMER AND STOCK GROWER for two y... and we will send you, postage paid, safe delivery guaranteed, ... CROCODILE WRENCH. We also agree to refund money and pay re... postage to anyone who is not satisfied with the bargain. Address,

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

PUBLIC SALE

(FIFTH ANNUAL SALE)

—of—

TWENTY-FIVE HEAD OF HIGH-CLASS, REGISTERED

Black Jacks and Jennets

and Fifteen Head of Registered

POLAND-CHINA HOGS

consisting of Bred Sows, Gilts and Young Boars,

—at—

JACKSON, MO.,

Tuesday, Feb. 10, 1914.

Every animal guaranteed to be as represented. Nothing priced or sold pivately after catalogued. If interested, write for catalogue and come to the sale. You will not be disappointed but highly pleased with the offerings. Catalogues will be ready to mail February 1st, 1914.

W. F. SCHADE,

Jackson, Cape Girardeau Co., Mo.

BLOODED STOCK NOTES.

Direct from triumphs at the Chicago International Live Stock Exposition the Shire mares of the richest breeding imported by Trumans' Pioneer Stud Farm will return to the farm at Bushnell, Ill., to be sold at auction on Thursday, December 11th. These include first, second and third-prize and championship winners at State Fairs. There will be thirty-five head offered, and of the best mares of the breed. There are also at Bushnell 125 head of Shire, Percheron, Belgian and Suffolk stallions—a splendid horse show for anyone to visit.

The Kirby Stock Farms of Marmaduke, Ark., are again represented in the advertising columns of this paper. Mr. J. W. Kirby is Manager, and the herd boars are Master Keep On and Likeness Corrector. Mr. Kirby will sell two good brood sows and a few pigs at a bargain.

Attention is invited to the card of Mr. J. E. Weller, of Faucett, Mo., proprietor of the Legal Tender Herd of Duroc-Jersey swine and Shorthorn cattle. Just now he has for sale some September pigs of both sexes; also a number of serviceable boars, weighing 179 to 225 pounds. These boars are lengthy; have heavy bone, and are good individuals, with the best of breeding. Mr. Weller is pricing the smaller ones at $25 and the larger ones at $30, if sold in December. He is offering a fine lot of gilts bred for spring farrow, weighing from 180 to 250 pounds, and priced at $30 to $35. These gilts are bred to fine registered boars and it will be safe to order from Mr. Weller, whose herd is above the average in quality. Prices quoted are good to January 1st.

In addition to his Poland-China hogs advertised in this paper, Mr. A. F. Siefker, of Defiance, Mo., has a fine lot of Plymouth Rock cockerels on sale. He has been fortunate in getting a start from a champion strain, which is doing well on his farm.

Messrs. Cook & Brown, of Lexington, Ky., have headquarters at the Union Stock Yards, which is very convenient for receiving and shipping. Their stock consists of mammoth jacks, Percheron horses, saddle horses, and large English black pigs. They have consolidated their great live stock breeding interests and can show a buyer some of the finest stock in the country.

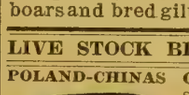
St. Louis Hay Sales.

On December 1st the following hay sales were made in St. Louis: Clover-mixed—Two cars No. 2 at $15; four cars No. 2 light mixed at $15.50; one car No.1 heavy mixed at $16; two cars No. 1 light mixed at $16.50; two cars do. at $17; one car high No. 1 light mixed at $17.50; one car part light clover-mixed at $17.50 and part timothy at $20. Timothy—One car thrashed at $12; two cars No. 3 at $13; two do. at $13.50; one car No. 2 at $15.50; one do. at $16; one do. at $17; two cars good No. 2 at $17.50, one switched; four cars ordinary No. 1 at $18; one do. at $18.50; one car No. 1 at $19; three No. 1 at $20—choice quotable at $21. Prairie—Two cars No. 2 Nebraska at $14, delivered; one car high No. 1 Nebraska at $16.50; two cars high No. 1 Kansas at $19. Clover—Part car No. 2 at $13.50; one car high No. 1 to choice at $17.50. Alfalfa—Three cars No. 2 at $13; two do. at $13.50; three do. at $14; two cars good No. 2 at $15, one switched; one car do. at $15.50, delivered; one car No. 1 at $16; two do. at $17; one car high No. 1 at $17.50; one do. do. at $18—choice (fine-stemmed and leafy) held at $19.

Mr. J. P. Vissering, of Alton, Ill., writes: "We have been practicing dry farming this year. Result—no corn, but plenty of fall pigs. To move these quickly I have reduced my regular prices until February 1st on these 75 to 100-pound and better fall pigs 25 per cent. Their express charges are light, and their winter keep until pasture comes is small. I also offer choice 200 to 225-pound, stretchy, serviceable boars and bred gilts at regular prices."

LIVE STOCK BREEDERS' CARDS.

POLAND-CHINAS OF NOTED STRAINS.



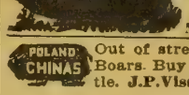
Some Poland-China Pigs and Brood Sows for sale. Write me.

J. W. KIRBY,
Marmaduke, Arkansas.

POLAND CHINAS

Out of stretchy Sows and 1,000-lb. Boars. Buy them and win. Angus cattle. **J.P.Vissering, Box 1, Alton, Ill.**

POLAND-CHINA SWINE.



Spring Pigs that can't be beat at $20 and $25; Fall Pigs at $15. Come and see them or write.

D. F. BEAUCHAMP, Meredosia, Ill.

O. I. C. AND CHESTER WHITES.

February, March, April and May Boars and Gilts; Fall Pigs; no kin. Bred Sows, prolific, large kind. Pedigrees furnished. Prices reasonable. Also S. C. White Orpington Chickens for sale.

RAYMOND RUEBUSH, Sciota, Ill.

TRUMANS' PIONEER STUD FARM.

America's Largest and Oldest.

Importers of

SHIRE, PERCHERON and HACKNEY STALLIONS.

Write for Catalogue.

Address,

J. G. TRUMAN, Manager, Bushnell, Ill.

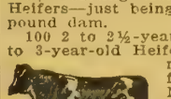
SALE OF HOLSTEIN CATTLE.

Cows, Heifers and Young Bulls.

I will sell the following high-grade Holsteins. They have plenty of quality and breeding and are in good condition.

50 Yearling Heifers and 50 1½-year-old Heifers—just being bred to a son of a 24-pound dam.

100 2 to 2½-year-old Heifers and 100 2½ to 3-year-old Heifers—bred to a high-class registered Bull; to freshen from December 1, 1912, to March 1, 1913.



250 Matured Cows, very heavy producers, springing up ready to freshen soon; most of them in calf from registered Bulls.

A number of high-colored, registered Bulls, ranging in age from six months up, out of heavy producing dams, and selected especially to head choice herds.

Can fill any order from one animal up. Have a small surplus of excellent registered Cows and Heifers I will dispose of. Write me concerning your wants.

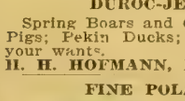
JAMES DORSEY, Dept. F. & S. G., Gilberts, Kane County, Illinois.

DUROC-JERSEY HOGS.

Spring Boars and Gilts bred or open; Fall Pigs; Pekin Ducks; Embden Geese. Write your wants.

H. H. HOFMANN, R. R. 1, Belleville, Ill.

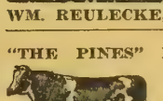
FINE POLAND-CHINA HOGS.



Spring Pigs, Boars and Gilts with size and quality at $15 and $20, ready for service. Pedigree free. Come and see them or write.

WM. REULECKE, R. R. 2, Assumption, Ill.

"THE PINES" HERD OF HOLSTEINS.



Breeder and shipper of high-grade

HOLSTEIN CALVES.

Prices reasonable.

J. W. FARRELL, Prop., R.F.D. 3, Elgin, Ill.

BIG TYPE POLAND-CHINAS.

Open and bred Gilts, serviceable Boars and Fall Pigs at farmers' prices. Have sold such men as J. P. Vissering Herd Boars.

S. R. GRIGG, Proprietor,
The Golden Ridge Farm, Mulberry Grove, Ill.

BLUE GRASS FLOCK OF SHROPSHIRES

Registered Rams and Ewes of best breeding and quality. Dense fleeces of good length. Animals that will improve any flock. Best imported Rams at head of flock. Prices reasonable.

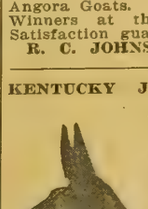
WILLARD MILLER, R.F.D. 2, Anita, Iowa.

PURE-BRED REGISTERED ANGORA GOATS,

Bred from the choicest strains of imported Angora Goats. Sweepstakes and First-prize Winners at the American Royal Show. Satisfaction guaranteed.

R. C. JOHNSTON, Lawrence, Kansas.

KENTUCKY JACK AND PERCHERON FARMS.



We have the best lot of big-bone, Kentucky Mammoth Jacks in this country, and also Percheron Stallions, Mares, Saddlers and Drivers. Special prices to parties buying in half-car or car-load lots. Write your wants or visit our farms.

COOK & BROWN,
Lexington, - Kentucky.

CHOICE DUROC-JERSEY SWINE for sale as follows: Pigs of September and October farrow, serviceable Boars, yearling Sows and Gilts bred for March and April farrow, all pedigreed and of the best blood lines. I am selling breeding stock in fifteen different states. Prices, $10 to $35. Write me your wants. **J. E. WELLER, Faucett, Mo.**

WANTED.—Fifty (50) high-quality, thoroughbred Aberdeen-Angus Cows. State fully what you have and prices.

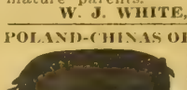
T. W. GRAHAM, Myrtle, Miss.

TAMWORTHS FOR SALE.—The Bacon Hog; the largest and most prolific breed; early to mature, economical feeders and unsurpassed as Range Hogs. Boars, Sows and Pigs not akin from best strains. My herd won over 100 ribbons at the State Fairs of the year 1912, including a bunch of championships. Imported stock owned by me were winners at Royal Show, London, England, 1907. Mature Sows will fatten from 600 to over 700 pounds; Boars, 1,000 to 1,200 pounds. **CHAS. FORD, Mortonsville, Woodford County, Kentucky.**

TAMWORTH BOARS, Gilts and Fall Pigs in pairs, not related, from large mature parents.

W. J. WHITE, R. R. 2, Butler, Mo.

POLAND-CHINAS OF THE BEST STRAINS.



Size and bone with quality. Open Spring Gilts by Longfellow's Special, 64,200, at $20 to $25 each. Gilts bred to Ott's Big Oranga, 2d, 68,131, $25 to $35 each. Fall Pigs by Longfellow's Special, 64,200, and Sensation Chief, 67,433, $16, crated, in December. Barred Plymouth Rock Cockerels, $2.00 each; also some by the Cockerel I got from E. B. Thompson, of New York, of his New York Prize-winning Thompson Ringlet Strain, $3.00 each.

A. F. SIEFKER, Defiance, Mo.

Registered Large Yorkshires.

Boars make splendid cross on lard-type Sows. Increases size of Litter and Pigs. Earliest to mature; healthy, gentle, good grazers. Fine lot healthy Spring Pigs. Dam of these Pigs has record of nineteen Pigs in one Litter.

Write for descriptive booklet,

T. C. KIMBER,
P. O. Box 1212, - St. Louis, Mo.

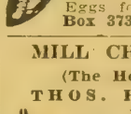
THE HARDY, PROLIFIC, MULE-FOOT HOG.

350 Big-Type, Mule-Foot Hogs of all ages for sale. They are the best and hardiest for the average farmer; also Shetland Ponies and White Leghorn Eggs for sale. **J. H. DUNLAP, Box 373, - Williamsport, Ohio.**

MILL CREEK STOCK FARM.

(The Home of the Starlights.)

THOS. H. EZELL, Proprietor,



Breeder and dealer in registered high-class Starlight Jacks and Jennets from four months to eight years old. (No partial Jacks). A written guarantee. Send for catalog.

R. F. D. 7, - NASHVILLE, TENN.
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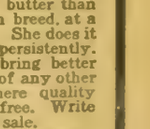
The Jersey

The Jersey gives richer milk and more butter than any other known breed, at a lower keeping cost. She does it continuously and persistently. Her milk and butter bring better prices than the product of any other dairy breed. That's where quality *does* count. Jersey facts free. Write now. We have no cows for sale.

AMERICAN JERSEY CATTLE CLUB
324 W. 23d Street, New York

Ear Tags FOR STOCK



Tag your stock—best and cheapest means of identification. Name, address and number stamped on tags. Only 65c per hundred and up. Catalogue and samples free on request.

F. S. Burch & Co., 83W. Illinois Street, Chicago

All our readers should send for the New Style Book issued free by the National Cloak and Suit Company, 280 West 24th street, New York, N. Y. By so doing you will insure elegance with economy and see all the new styles.

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PUBLISHED MONTHLY.

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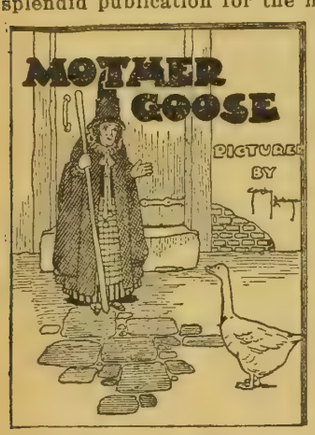
THE UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, four columns to the page, containing home reading, stories, fashions, patterns and poetry—a splendid publication for the money. To anyone who will send us a money order for 25 cents we will send the UNIVERSAL MAGAZINE for one year, and we will send as a subscription premium any four of the beautiful, colored Toy Books for children. Send us your orders. Order each book by number.



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The Hale Publishing Co., 3550 Vista Ave., St. Louis, Mo.

Reading For Winter Evenings.

One great objection to farm life on account of the isolation has been largely met by rural delivery. And the season is at hand when, if we would get the full benefit of it, the question of reading matter must be considered.

There are rich inducements for including several subscriptions in one order. Besides the reduced rates which combinations afford, the selection will be made in a much more systematic and economical manner than when one paper is ordered one month and a magazine in another place and of some other firm the next. The balanced ration is sure to be more easily attained.

Of course, there is no necessity of emphasizing the need of a farm paper. The progressive farmer now takes more than one, each specializing along a different line. Whatever your hobby in agricultural subjects may be, there is some publication which will fill it. The one published in your own state will have essentials to you which others may skip. And whatever your aspirations in future side lines of the main crop, some editor will be able to give you many times the subscription price in a year. If your farm paper does not pay, you have either failed to select the proper medium or to make use of it. The farm implement which is never used cannot be blamed for yielding no profit on the investment; and the farm paper is one of your implements, or should be, as surely as the cultivator or mower.

The housewife also needs some good trade matter in the form of a household magazine; and there should be plenty of reading matter for the children. There are now so many well-edited juvenile publications that there can be no excuse for children wasting—yes, more than wasting—their time over trash. You have not the time to oversee and select the reading material for them every time; possibly you feel incompetent to do this. By subscribing to some standard periodical for young pepole, something carefully edited, you are virtually placing before them the best reading without the labor of the personal sifting.

A good religious periodical is among the necessities, a source of constant inspiration to church work, and most of these contain general matter along various lines which is sure to be helpful. If possible, include some literary magazine of acknowleged merit. This need not necessarily be high-priced. While those usually rated as the very best from a literary point of view are somewhat expensive, there are a number of excellent ones within the reach of all. Each covers a slightly different line. Before selecting, make a careful study of all; and, having chosen, it is well to continue with the same one for more than a single year. In this way one gets familiar with their individual ways and methods, and this is a saving of time when reading. You know just where to look for each department. The special features of one may be missed if you transfer your patronage to another. Make up the list carefully, providing a special attraction for each member of the family and selecting for entertainment as well as profit.

Then there are some books which you will need. If near a good circulating library, the membership ticket will prove a good investment. If your own state has a special provision for library privileges, get your neighborhood awakened to the importance of gaining them. A school social may yield funds for the nucleus of a choice collection of books to be used by the patrons. And if you must depend entirely upon your own resources, do not omit some standard works. Some of these may surely be enjoyed by the whole family. Biography and history have special power in the building of character.

Choose some special phase of your own work and read exhaustively regarding it. You will accomplish more in the same time than by a promiscuous gathering of varied materials. Learn the vital points regarding the matter, the main facts, all that one needs to know for a thorough understanding of the subject. After thus finding out all that specialists have found out, you will be much better fitted for going on with the subject yourself.

It may be the subject of renewing worn-out land. We heard one man say recently that he could not longer make his farm pay. Something was wrong. Of course, he knew several things which needed remedying; and he knew in a general way what was needed. But when it came to the specific details he confessed his ignorance. And, said he: "I'm going to send my boy to the agricultural school to find out just what's the matter."

Not every man has a boy to send on such a mission; not everyone can afford it. But everyone can gradually widen out through study until he can afford these things and many others now quite beyond his reach. The national government is annually printing many bulletins for general distribution, which you can obtain for the asking of your home Congressman. Every state is furnishing similar matter for its residents which will help solve vital subjects. Are you making the most of these? And if not, why not? Insect life is more and more demanding our attention. Its relations to bird life bring a problem to our very door to be solved. To succeed best with any crop, one should know its life history, its chemical requirements.

No other life can be so broad as that of the farmer. The whole book of nature is spread out, and its pages daily beckon him to read. The mechanic and professional man are fortunate if they get two weeks in the year for the pleasure which is open to the farmer every day. Ye eyes and ears must be alert or the will miss the best of it. "The more you know of any subject," says a successful teacher, "the better you will like it." The more you know about farming, other people's experiences the latest results in different phases the better you will like it and the more profitable it may become.—Bessie L. Putnam.

Write for "Betty"

That's the name of the beautiful girl on the

Coca-Cola 1914 Calendar

(Size, 13 X 32 inches)

Send your name and address and a 2c stamp (it pays part of the postage) and we'll send you **Free** and postpaid this beautifully lithographed and perfect reproduction of the oil painting "Betty," painted especially for us. 1914 calendar is attached.

FREE

Coca-Cola booklet enclosed.

THE COCA-COLA CO.
Atlanta, Ga.

John Donovan Dies at St. Joseph.

John Donovan, Vice-President of the St. Joseph Stock Yards Company and President of the St. Joseph Street Railway Company, died on November 18th. He was stricken of hemorrhage of the brain. Mr. Donovan was the man that first thought of a live stock market in St. Joseph and through his efforts a company was organized and the yards built. He was also a great lover of horses and owned some fast trotting stock.

DON'T PAY TWO PRICES.
Save $8.00 to $22.00 on
Hoosier Heaters and Ranges

Why not buy the Best when you can buy them at such low unheard-of Factory Prices. Our new improvements absolutely surpass anything ever produced. Save enough on a single stove to buy your winter's fuel. Thirty Days Free Trial in your own home before you buy. **Send postal today for large free catalog and prices.** HOOSIER STOVE CO. 247 State St., Marion, Ind.

Beautiful Apron Premium

To introduce our splendid Universal Magazine we are offering a useful fancy apron as a premium. Hand-embroidered tea aprons are always in great demand among ladies and girls, and this is an article anyone would be proud to own. We offer this beautiful apron stamped on fine white lawn, including piece for pocket and string, also a year's subscription to our popular Universal Magazine, filled with choice stories, departments for the family, thirty-two pages, etc., all for only this 15 cents. Send stamps or coin at once. Don't miss this great offer because our supply will not last very long. Address, **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

THE SEWING AWL.

A Most Useful Premium For Subscribers to The National Farmer and Stock Grower.

It is surprising how useful this little implement is. It is the Myers Famous Lock Stitch Sewing Awl. It is the only sewing awl made with a groove running the full length of the needle and has what is known as a diamond point. In order to sew leather, or any heavy, thick material without breaking or cutting the thread it requires an awl with the groove running the full length of the needle. You might just as well have no groove in the needle as to have it only part of the way. With the Myers Awl you can sew old or new harness, saddles, carpets, canvas, tents, rugs, quilts, shoes, grain bags, and many other things. You can use any kind of thread in the Myers Awl, and it makes a lock stitch same as a sewing machine. It is very simple; a woman can use it as well as a man. It is one of the most practical devices ever invented. They are put up with two needles—one is straight and one curved—with a small screw-driver and wrench combined; also a reel of waxed thread with each awl ready for use. Every teamster and farmer should own a Myers Lock Stitch Sewing Awl, as there is use for one in almost every household. The Myers Awl is nicely finished, the metal parts are nickel-plated, the needles and wrench are kept in the hollow handle, which has a screw top. Anyone who will send one dollar cash to pay in advance for two-years' subscription to The National Farmer and Stock Grower can select one of Myers' Lock Stitch Sewing Awls, which we will send by mail, postage paid, as a free premium. Address, **HALE PUBLISHING CO., 3350 Vista Ave., St. Louis, Mo.**

Little Tot's Thousand Christmas Gifts.

Mehitable Jenkin Jones—that was her real name. And Mitty or Hitty are not much better. "Such a little tot!" exclaimed her father so often when he looked at her that at last she became known to everyone as Little Tot. Since those baby days when he had looked at her so kindly and called her such a little tot, her father had passed away and there were some hard times in the humble home.

It was when the Christmas season drew near that Tot felt the lack of money most. There was not even a piece bag such as most little girls can find in mother's sewing room and from which they can make such wonderful spectacle wipers for grandpa and such neat iron holders for mother. For in Little Tot's home the pieces had all been used for patching old garments, and then patching them again and again until even the patches needed patching.

One day when Tot was weary from running errands for the milliner around the corner and just a little bit blue because she had no Christmas gifts to give, she looked up from her corner in the store to see a pair of kind eyes and rosy lips smiling down at her.

"That's a beautiful smile. It's like a bit of sunshine," said the owner of the rosy lips.

A light came into Tot's eyes. "It'll be my Christmas gift," she cried. "I'll give one to everybody I love and to everyone that stops here. I'll try to pass them on a bit of sunshine, for sunshine's one of the loveliest things in all the world!"

And so Tot began to give out her Christmas gifts. She gave them to her loved ones; she gave them to people whom she had never seen before and whom she never expected to see again; she gave them to old, tired-looking men and women; she gave them to little children; she gave them wherever she thought they might be desired. The strained, tired look passed from care-worn faces, at least long enough for them to smile back. Tired mothers murmured: "Good bless you, dearie!" Crying children ceased their sobs and sent a misty smile in Tot's direction.

Some hours, when she was not very busy, Tot counted the number of presents she had given. So the day before Christmas, when she came to figure it up, she found that she had given a thousand smiles.

When Tess, the extra errand girl, called out: "Say, Tot, what do you think? I've got twenty-one Christmas presents ready to give. But I can't give mother a thing nor any of my money, either," Tot replied: "And I've already given a thousand Christmas presents and received nearly as many, for nearly every one of the thousand people that I gave a present to gave me one back."

"Why, Tot, you're surely fibbing," cried Tess. "I'd like to see even one of your thousand Christmas presents."

"I was just thinking that it's about time for me to give you yours with love and lots of good wishes," said Tot, flashing upon Tess a radiant smile of love and good-will.

"Do you call that a Christmas present?" asked Tess.

"It's all I've got to give," said Tot. "Mother has to have every penny I can give her and I want to remember other people in some way."

After Tot's mother had exclaimed and laughed and cried over the pair of shoes Tot had given her, she was told about the thousand Christmas gifts.

"Dear heart, what a beautiful thought!" she cried. "How pleased the one gave us Christmas must be!"

It was a couple of weeks later that Mrs. Simpson, the milliner, sent for Tot. Girls had been called to the head lady many times since Christmas and told that they need not come back. This thought pounded against Tot's brain as she hurried to Mrs. Simpson's room.

"Are you the girl that smiles?" asked Mrs. Simpson.

The question was so unexpected that Tot smiled one of her beautiful smiles.

"That answers me," said Mrs. Simpson. "I've been hearing about you from the customers and from the clerks for the last two weeks. Do you know that smile is worth something?"

"Yes, ma'am," answered Tot. "It gave nearly all my Christmas presents—about a thousand. Smiles are all I've got to give."

"Well, you're too valuable for just an errand girl. Miss Peters came to me to know if she could have the 'smily errand girl' for a model to try on hats for customers. Of course, models, good ones, are not as common as hickory nuts, so she'll put you on at ten dollars a week."

Tot could only gasp out a "Thank you," and then she rushed home to tell her mother the story that was more wonderful than any fairy tale she ever heard.—Janet Thomas Van Osdel.

Here's Foot Comfort and Economy For You!

Water-Proof
Snag-Proof

At last! A Thoroughly Practical Metal Sole Shoe, one that is easy on your feet, keeps them warm and dry at all times and allows you to walk with a free, buoyant, natural step. It does away with walking flat-footed. **The bar on the sole gives the foot the natural tilt,** letting the ankle work freely. I will insure you foot comfort you have never enjoyed before and save you money. It has practically no wear-out to it. By all means learn about this shoe. Buying leather sole shoes is a losing proposition when you consider the saving and satisfaction to be had in the

Gives Freedom From Sore Feet

Aluminum Sole Shoe

Outwears Several Leather Pairs

Lightest Metal Sole Shoe Made

The advantages of a metal sole shoe have long been seen, but there has been the drawback of the extra weight. This hindrance we have overcome, as aluminum is the lightest metal in existence and at the same time is extremely durable. The weight of a pair of these shoes is only 4 lbs.

Cut Down Your Shoe Bill

The Aluminum Sole Shoe will stand up under the hardest usage for several years, and will keep its shape. Think of the saving in your footwear. There's no need of buying new shoes every little while when you can get this practically indestructible shoe at a very reasonable price. Better give this a little thought before you buy any more shoes. The Aluminum Sole Shoe comes in all sizes and is provided with 6, 9, 12 and 16-inch tops.

Protect Your Health

Many kinds of sickness result from wet feet. By wearing old, leaky, leather sole shoes you are in constant danger of bringing on rheumatism, neuralgia, catarrh, colds, etc. This shoe will safeguard you under all conditions and keep the feet warm. Wear it in the Winter or Summer, anywhere, you are protected. A hair felt insole makes a soft cushion for the foot, gives added warmth and insures perfect comfort.

Send for Free Booklet "Shoe Talk"

We want you to get this little book. It's shoe sense boiled down. It tells you all about this wonderful work shoe, shows you how to cut your shoe expense, do away with corns, bunions and other soreness, avoid the unpleasantness of run-over heels, warped soles, cracked uppers and the other miseries of poorly made leather sole shoes. It tells you how to make walking a pleasure. Write for it today. **It's Free.**

Racine Aluminum Shoe Co., 101 Sixteenth St. RACINE, WISC.

Wild Horses in Canada.

The Minister of Agriculture for the Province of Alberta has urged upon the Dominion government the necessity of some steps being taken to put a stop to the depredations of wild horses in the Peace river country in Western Alberta and Eastern British Columbia, which has been one of the principal pioneering sections of this part of Canada during the past few years. He states that wild horses have made raids upon the ranches of the new settlers, killing many of the domestic horses and leading away a number of well-bred domestic mares, which have been imported at a considerable cost and which are one of the principal assets of the new settler.

According to Ottawa statistics, these horses are supposed to be descendants of horses abandoned during the gold rush to the Yukon Territory in 1897-98. From the Bow river westward these animals have raided the ranches of the settlers as far west as Kamloops, and the contractors on the Grand Trunk Pacific Railway have as well suffered losses of imported animals used on the construction work of the road.—Vice-Consul General G. C. Woodward, Vancouver, British Columbia.

New Way of Judging Races.

The Scientific American reports that an automatic photographic apparatus for judging races has proved successful in France, and will be used at the next Paris international race meeting. A camera is placed in line with the winning post, and the winning horse, by breaking a thread, releases the electrically-controlled shutter, and a photograph of the finish is taken. A similar device was used at the last Olympic games at Stockholm, but there the photographs were chiefly used as additional evidence in case of a disagreement between the judges.

The National Grange.

At Manchester, N. H., November 18th, Oliver Wilson, of Peoria, Ill., was re-elected Worthy Master of the National Grange. George W. F. Gant, of Mullica Hill, N. J., was elected National Lecturer; and W. H. Vary, Master of the New York Grange, was elected National Overseer.

Other officers elected were: Chaplain, A. P. Reardon, Kansas; Treasurer, Mrs. E. S. McDowell, Massachusetts; Secretary, C. M. Freeman, Ohio; Gatekeeper, C. L. Rice, Minnesota; Ceres; Mrs. Richard Pattee, New Hampshire; Pomona, Mrs. J. C. Ketcham, Michigan; Flora, Mrs. J. A. Peckham, Rhode Island; Lady Assistant Steward, Mrs. P. H. Harland, Idaho.

Top Prices For Cattle.

On Wednesday, November 26th, with 17,000 cattle on sale, the top price at the Chicago market for cattle was $9.50 per 100 pounds, paid for twenty-two yearlings weighing 1,174 pounds average. Prime heavy cattle, the top kind, 1,680 pounds average, sold at $9.00 per 100 pounds.

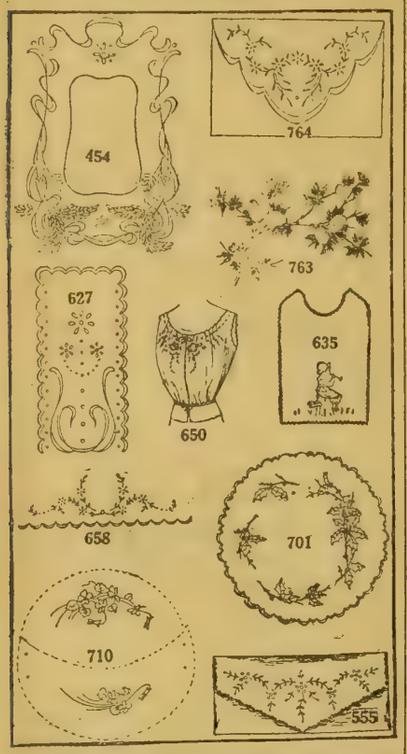
Argentine Corn For Distilling.

It was reported from Peoria, Ill., November 10th that a cargo analysis of Argentine corn by an expert revealed the fact that it must be bought 10 to 12 cents a bushel under the price of American corn for distilling purposes.

EMBROIDERY DESIGNS.

May Manton Service—By Far the Best—Your Choice of Purchasing the Stamped Goods and Materials or the Transfer Pattern Alone.

The May Manton embroidery service consists of two distinct departments. One provides the stamped goods and the materials to work with, and the other department simply furnishes the paper pattern so that it can be transferred by the purchaser to the cloth by pressure of the hot iron. For the goods and materials the special price is stated in each instance, but the transfer patterns always cost 10 cents. In sending orders, please mention the number and the price of each design. We cannot speak too highly of these goods and we can assure our readers of prompt service, the goods and patterns being shipped direct to the customer from the factory. All prices are very reasonable.



SEASONABLE DESIGNS FOR PRESENTS.

No. 454.—Photograph Frame. Stamped and tinted on gray linen, with mercerized floss to work. Price, 25 cents.

No. 764.—Handkerchief Case. Envelope style. Stamped on best white pure linen, mercerized floss to work. Price, 35 cents.

No. 763.—Cover For Cushion or Pillow. Stamped and tinted on crash, 17x22 inches, with back and mercerized floss to work. Price, 30 cents.

No. 627.—Hat Pin Holder. Stamped on best white pure linen, mercerized floss to work. Price, 25 cents.

No. 650.—Corset Cover.—Stamped on best quality nainsook, with mercerized floss to work. Price, 45 cents.

No. 635.—Child's Bib. Stamped on best white pure linen, with mercerized floss to work. Price, 30 cents.

No. 658.—Guest Towel. Stamped on superfine 24x15-inch pure linen white Huckaback, with mercerized floss to work. Price, 55 cents.

No. 701.—Centerpiece, 22 Inches in Diameter. Stamped on tinted gray linen and mercerized floss to work. Price, 55 cents.

No. 710.—Whisk Broom Holder. Samped and tinted on gray linen, with mercerized floss to work. Price, 25 cents.

No. 555.—Handkerchief Case. Stamped on best white pure linen, with mercerized floss to work. Price, 35 cents.

In ordering designs with stamped goods and materials, please remit the price stated or we will furnish transfer pattern of any design for 10 cents.

HANDKERCHIEF CASE.

No. 764.—A Design For Embroidering a Handkerchief Case in Envelope Shape. The scalloped edges are designed to be padded and buttonholed; the sprays of leaves worked either in solid embroidery or as eyelets; the stems to be outlined, and the round dots in solid work or as eyelets.

Stamped on best white pure linen, mercerized floss to work. Price, 35 cents, or transfer pattern for 10 cents.

TWENTY-TWO-INCH CUSHION.

No. 765.—A Design For Embroidering a Cover For a Pillow or Cushion Twenty-two Inches Square.

The flowers and leaves are designed to be worked in long and short stitch or to be simply outlined. The seed pods are to be worked in solid embroidery, the stems and veins are to be outlined and the stamens worked in French knots.

Tinted in fast colors on tan ticking, 22x22 inches, with green duck back and mercerized floss to work. Price, 40 cents, or transfer pattern for 10 cents.

MAGAZINE OR BOOK COVER.

No. 767.—A Design For Embroidering a Magazine or Book Cover.

The work can all be done in outline stitch, all solidly, all in long and short stitch, or in a combination of outline or solid work with long and short stitch, as the tulips and leaves in long and short stitch and the stems outlined with the circles in solid work.

Stamped and tinted on gray Linene, with mercerized floss to work. Price, 25 cents, or transfer pattern for 10 cents.

WORK-BAG DESIGN.

No. 768.—A Design For Embroidering a Slipper or Work Bag.

The work can be done in solid embroidery, all in outline or in a combination of solid embroidery with outline or of outline with long and short stitches.

Stamped and tinted on tan art ticking, with mercerized floss to work. Price, 40 cents, or transfer pattern for 10 cents.

ATTRACTIVE VEIL CASE.

No. 769.—A Design For Embroidering a Veil Case.

The sprays of the leaves can be worked in solid embroidery or as eyelets; the stems all to be outlined, and the round dots in solid work or as eyelets. The letters can be worked solidly or in outline.

Stamped on best white pure linen, mercerized floss to work. Price, 35 cents, or transfer pattern for 10 cents.

Please address all orders for these embroidery patterns by number to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

Fire Prevention.

The observance of Fire Prevention Day in many of the states brought forth some interesting statistics. From them we learn that the cost of fires each year in the United States is one-half that of all the new buildings erected throughout the year. The annual per capita fire waste in this country is $2.51, while in Europe it is 35 cents. Fire losses in the United States amount to $225,000,000 annually. The 90,000,000 people in this country use more matches than all the 900,000,000 in the rest of the world. More than 1,500 people are killed and 5,000 are injured annually as a result of fire. The fire loss in the United States for 1910 was greater than the annual expenditure for pensions or the annual cost of operating the postal service. If all the buildings burned last year were placed together on both sides of the street, an avenue of desolation would be made extending from Indianapolis to Key West.

Undoubtedly many of the fires are due to carelessness, such as the placing of a lantern in a position where the O'Leary cow could kick it over and thus start the burning of a great city. In the rural districts of Michigan, out of eighty-two fires twenty-three were due to defective chimneys. Because of lack of facilities for fighting fire in the out-of-town districts, several pails of water should be kept about the outbuildings and on each floor of the house. This is especially important in winter, when there is a possibility that the water supply may be frozen at the most urgent moment. The water will not freeze at temperatures above zero if a little more than two pounds of fused calcium chloride is added to each pail of water.—Janet Thomas Van Osdel.

Service and Style in Gloves.

Farmers and stockmen have always been particular about having serviceable and stylish boots, hats and gloves, particularly gloves. There is an elegance that belongs to the glove that is always satisfying to the rider or the driver who constantly wears gloves. O. C. Hansen Mfg. Co. are responsible for some of this pride in gloves because they make first for service but always for style. The Hansen gloves will not crack or peel, stiffen or harden. They are good for motoring, riding and driving, all styles, to suit all occasions. Write to O. C. Hansen Mfg. Co., 132 Detroit street, Milwaukee, Wis., and ask for Hansen's Glove Book. It will tell you where to buy Hansen gloves and a list and illustrations of all the styles.

Manure spreaders, tongueless disc harrows and cultivators are advertised by the American Harrow Company on page 2.

SALT AND PEPPER SHAKERS.

The Best Subscription Premium Ever Offered With the Universal Magazine.

The UNIVERSAL MAGAZINE ought to be known by everybody for the reason that it is a nice, bright, cheerful, illustrated monthly magazine of thirty-two pages, four columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid publication.

When we send out the UNIVERSAL MAGAZINE we also like to send out a useful and meritorious subscription premium with it.

To this end we have adopted a pair of ALUMINUM SALT AND

Universal Salt and Pepper Shakers—Reduced Size.

PEPPER SHAKERS, regulation size, 2¾ inches, mailing weight six ounces. They are artistic and elegant, and aluminum ware is always light, always bright, and will last a lifetime.

To anyone who will send us twenty-five (25) cents by mail in response to this advertisement we will send the UNIVERSAL MAGAZINE for ten months, and we will send the pair of ALUMINUM SALT AND PEPPER SHAKERS as a premium, postage paid, safe delivery and satisfaction guaranteed. Send in your orders to

THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

"MY CORN'S GONE!"

"I used SMILO." A little piece on corn instantly stops pain; corn quickly dies, loosens and comes out whole. SMILO looks like court plaster—not bunglesome bandages or pads nor mussy salves. One piece treats over 20 corns—only 15c. Send stamps or money TODAY. Agents wanted.

SMILO SALES CO., 2030 E. Prairie Ave., ST. LOUIS, MO

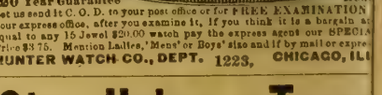
Shetland Pony FREE

Many other prizes—bicycles, cameras, watches, tool chests, gold rings, bracelets, pocket knives, etc. Full information and big premium list **Free.** Write me **Today.**

E. T. MEREDITH, 252 Success Bldg., Des Moines, Ia.

New 1914 Thin Model 20 YEAR Watch $3.75

Elegantly engraved, gold finished double hunting case, high grade Americ... lever movement, stem wind and stem set. 20 year guarantee sent with ea... watch. Long gold finished chain for Ladies, fob or vest chain for Gents fr...



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Address, PLAPAO CO., Block 1144, St. Louis, M...

The Giving Season.

A frequent question asked of children during the weeks preceding Christmas is, "What do you want for Christmas?" or "What shall we tell Santa Claus to bring you?" Consequently most children are placing far greater emphasis upon what they wish and expect to receive than upon what they expect to give. Christmas must be an unselfish time if the true Christmas spirit prevail. A help toward filling the little ones with this spirit lies in changing the question from "What are you going to get?" to "What are you going to give?" And the giving thought should include not only father, mother and other dear ones, but little children and old people who have no host of affectionate relatives to shower gifts upon them and who can give nothing in return. Such can be found in the homes for orphans, for crippled children, for defective children and for the aged; in the tenements of large cities and perhaps in some unfortunate homes in the very neighborhood.

The giving of shabby or cast-aside toys or garments does not show the true Christmas spirit. Such things may be disposed of at other times, but at Christmas the best is asked of us. It may do no harm to the recipient to accept cast-off things, but it will harm the giver unless it is the best he can do. It is the season of the year to emulate the Founder of Christmas—the Great Giver who gave His only and dearly-beloved son to a needy world.—Janet Thomas Van Osdel.

Farmers' Shoe Talk.

A good understanding is appreciated by all, and the farmers especially. For he has to be on his feet, in all kinds of weather and all character of soil. He walks on the pavements, in the road, on the sod, in the plowed field, in the barn-yard, and his ordinary work calls him into all the ways and byways of a country life.

He protects his health by good, dry shoes. Unless made of the right kind of material and in the right kind of shape, they are failures. There is a principle about the shoe for its ease. Very few men or women who have not suffered from a bad shoe. They may have paid a big price for them, but that does not always insure ease in walking. If it did, there would be far less corns to cause suffering. About every third person will admit that he has corns and every corn is made by a faulty shoe. It is not only a displeasure, but it is a positive injury to have your foot pinched with a bad fitting shoe.

Have you ever heard of the Aluminum sole shoe? It is a progressive shoe. It is a step in the right direction. It not only saves in cost because of its durability, but also in peace of mind because it protects your feet and gives you the natural flexibility required to give the foot perfect ease. No more half soling. No more wet feet. No more corns. No more pain in the feet and much less cost in the price. Look up the advertisement in this issue of the farmer's and working man's friendly shoe on page 23. It will greet you and prove to you its extra quality. It is advertised by Racine Aluminum Shoe Co., 101 Sixteenth street, Racine, Wis. They are all the go. Write them, mentioning The National Farmer and Stock Grower, for their little booklet illustrated and telling you of the great advantage and benefit of this shoe. —Advt.

Little Folks' Dress.

In those homes where strict economy must be observed, and there are several children to dress, the mother cannot afford to buy everything new for them; therefore she must learn to cut down and make over old garments; and there is no more praiseworthy economy. The first thing in order to keep children comfortable in school or out of school is to provide them with warm, comfortable underwear, and all of their underwear can be made from old material. When they wear Union suits, the pants wear out long before the waists, and a good way to renew them is to put a band, plenty large, of unbleached muslin around the bottom of the waist, then buy the ready-made pants only, stitch them onto the muslin band neatly and you have a nice Union suit again. Their school clothes should be as neat and pretty as your means will allow, for we should remember that to the economical mother it may be a trifle for the little girl to wear a faded or outgrown garment, but to a child it is a real affliction, and there are so many ways of economizing in children's clothing that they may be comfortably and nicely dressed and yet not have anything really new, unless it is good, stout shoes. The children should be carefully fitted in shoes, as shoes too small or too large for a growing child are apt to cause trouble with the feet, that will follow it through life, and their shoes should be kept soft by rubbing frequently with a little vaseline on a soft cloth. Their stockings should be changed twice as often in warm weather, as the perspiration absorbed by the thick hose produces a cold, clammy and disagreeable feeling; and if the feet are not comfortable, the whole body seems out of order.

All of their underwear and stockings can be made from old ones of a larger size, and in cutting children's garments from those of adults', have the sleeves and the legs of pants a good length, as the wrists and ankles are very susceptible to cold and should be well protected.

Children's underwear should be kept as soft as posible, and their stockings and flannels can be kept soft as long as they last by washing through suds made with borax soap chips, but the chips should be dissolved in hot water first and enough of this solution stirred in the warm, soft water to make a nice lather before putting in the garments. There is nothing better than warm suds made with the Twenty-mule Team Soap Chips for washing the fine, soft flannels worn by young children, and baby sacques and caps and sweaters of any color can be kept soft by washing through this suds; but to keep all such articles in good shape they must be kept pulled into shape while washing, drying and pressing. —A. M. H.

New Apple Cross.

It is reported that after years of tedious experiments, Prof. Paul Evans, Director of the Missouri Fruit Experiment Station at Mountain Grove, believes that his success in crossing the Ben Davis with the Jonathan apple will merit the award of the Wilder medal by the American Pomological Society.

The crossing of the two apples is expected to prove of great value to the orchardists of the Ozark country. The occasional failures of the apple crop in the Ozarks have been blamed not alone on weather conditions, but on the fact that few of the big producing varieties are hardy enough to withstand severe winter weather. It was with the view of giving to the Ozark country an apple that could withstand the cold of a severe winter that Prof. Evans set to work. The first step was taken when the trees were in blossom. The Ben Davis stamen was joined to the Jonathan petal. The feat had been regarded as impossible, but the cross-bred trees have produced fruit that has convinced Prof. Evans that his experiments have met with success.

Fixing the Blame.

"Auntie, when you were a young girl, were you very pretty?"

"Yes, my child, very pretty."

"Were you popular?"

"Oh, yes, very popular. I was the belle of the neighborhood."

"Didn't any young man ever come to call on you?"

"Oh, yes, my dear. Lots of them."

"Then, auntie, why is it that you never married?"

"Nobody ever proposed to me, my dear."

"Why not?"

"I don't know, but I've often thought it must have been the high cost of living that scared the young men off in those days."—Detroit Free Press.

Notice the advertisement of the Amercan Agricultural Chemical Company, which will be found in this publication on page 5.

Double Prices for Your Hogs

Why divide your hog money with the packers? You can do your own killing and get double the price on the hoof, and more. Many a farmer is making a comfortable income making delicious country sausage and rendering pure lard. The market is never fully supplied and prices are always good. Get an

ENTERPRISE

Sausage Stuffer and Lard Press

Does the work quickly and easily. **Cylinder bored true.** Each machine equipped with our patented corrugated spout—the only device that fills casings perfectly and without air bubbles. It makes sausage that keeps.

This machine is accurately made. When used as a lard press, the lard does not ooze over the top. It gets all the lard. Strong and durable.

2, 4, 6 and 8 quarts. 4-qt., Japanned, $5.50. Tinned and Japanned.

You will also want an Enterprise Meat AND Food Chopper—the one chopper made to chop meat. Is fast and light running. **Ask your dealer to show you the Enterprise machines and be satisfied with no other.** Send 4c for our new recipe book, "The Enterprising Housekeeper," for your wife. 200 practical, delicious recipes. A book she will like.

All sizes, hand, steam and electric power. No. 5, Family Size, $1.75. No. 10, Large Size, $2.50. No. 22, Farm Size, $4.00.

THE ENTERPRISE MFG. CO. of PA., Dept. 87 Philadelphia, Pa.

Enterprise Choppers, Presses, Coffee Grinders, Bone Mills, Raisin Seeders, Sad Irons, etc.

98 cents

5 YEAR GUARANTEE

Railroad Watch

To advertise our business, make new friends and introduce our catalogue of Elgin Watches we will send this elegant Railroad watch by mail post paid for **ONLY 98 CENTS.** Gentlemen's size, full nickel silver plated case, locomotive on dial, lever escapement, stem wind and stem set, a perfect timekeeper and fully guaranteed for 5 years. Send this advertisement to us with **98 CENTS** and watch will be sent by return mail post paid. Satisfaction guaranteed or money refunded. Send 98c today. Address

R. E. CHALMERS & CO., 538 So. Dearborn St., CHICAGO.

FOUR AYRSHIRE COWS—Best four Ayrshire cows in milk at the New York State Fair of 1913. Owned and exhibited by Ryanogue Farms, Brewster, N. Y.

If I Ate That I Would Die

You Will Never Fear Food If You Go to a Dinner Carrying One Little Stuart's Dyspepsia Tablet.

You needn't pass up all those savory dishes just because you are afraid of what the stomach will say to them. Armed with a box of Stuart's Dyspepsia Tablets you can bid defiance to the most cantankerous stomach and be assured that your food will be perfectly digested in spite of the stomach's objections.

"At Every Banquet You Will Always See Some Person Who Is Afraid of Food."

Stuart's Dyspepsia Tablets are a compound of pepsin, and those elements that must be secreted by the stomach if the food is to be digested. When the stomach fails to secrete enough of these digestive agencies, the only sane remedy is to supply a sufficient quantity of these elements to digest the food. This is the service for which Stuart's Dyspepsia Tablets were made and they are recommended by leading doctors and scientists. One or two of these tablets is sufficient to digest the largest dinner. They stop almost instantly all forms of indigestion, such as sour stomach, belching, heartburn, dizziness, brash and dysentery. Stuart's Dyspepsia Tablets contain digestive elements, a single grain of which is capable of digesting 3,000 grains of food, such as meats, eggs, grains, vegetables, starches and mineral matters of all kinds.

If your stomach is sluggish or worn out, let Stuart's Dyspepsia Tablets do your digesting for you until the stomach can recuperate. Give it a little vacation. It has a hard enough struggle at the best, with all you put in it. And even when your stomach is in perfect condition, you will occasionally need one after a big banquet or other social affair that taxes your stomach to the uttermost.

Make Stuart's Dyspepsia Tablets the ever-ready friend and assistant to your stomach. Get a 50c. box of your druggist today.

Closet Substitutes.

One of the great deficiencies in the old-fashioned farm house is the lack of closet room. Those who can neither afford to remodel so as to supply the need nor to buy the expensive wardrobe, can still find several substitutes which answer the purpose fairly well.

If you have even one good-sized closet, this can be made to serve the entire family, if it only happens to open into the hall, providing a different arrangement is made. Instead of the hooks which have served to hang the clothing upon, fasten a long rod so that it will project a few inches from the wall. Then provide coat and skirt hangers for each garment or suit. These can be obtained at five cents apiece or two for five at any of the five and ten-cent stores. And you can arrange the clothing in at least a quarter of the space which it previously occupied; each garment will be kept in shape, and you can easily get any one thing wanted without necessarily removing something else first. All are as neatly and compactly arranged as the coats or suits of the merchant, and in precisely the same way. The outlay at first may seem unwarranted, but it is cheap in the end.

For the little folks, a large packing box may be procured of the neighboring merchant for a trifle, having first sandpapered it smooth and then finished with paint or varnish. This will hold all of their garments, when each is fitted over a hanger. Boxes for shoes and rubbers and bags for the other accessories may find place on the sides. Finish the outside with sandpaper and varnish, paint or stain, first filling in any cracks or nail holes with prepared crack filler or sawdust and paste. If the top of the box has been saved, it may serve as a door; or a neat curtain will serve to keep much of the dust from the clothing. —Bessie L. Putnam.

Christmas Gifts.

Whatever you give, do not let it be a burden. The trifle from a willing heart is better than an expensive gift made grudgingly or with the feeling that it cannot be afforded; and yet it must be done, because the one to whom it goes made you a nice present last year. The Christmas giving, which is merely a barter, a "swapping" by guess, with the chances that both parties get something which they do not need, puts the matter too much on the same plane with the "grab bag." The plain, neat card with best wishes is really much more in taste.

While the tendency towards miscellaneous giving is being more and more discouraged, there are always a few of the most intimate friends to whom it is a real pleasure to give some material remembrance. I wonder how many of the farmers' wives and daughters who are now conjuring their brains to know what to send to the city cousins realize that the most acceptable things which they could supply are right at hand.

A plump chicken or duck, a basket of hand-picked apples, rosy-cheeked and of a quality which the city vender declares fancy, a dozen or two of eggs innocent of cold storage, a section of honey, or a small pail filled with home-made sausage or lard—these are among the suggestions which may appeal. A quart of popcorn will please the little folks, for the freshly-popped product is always better than any which the store offers.

If you prefer to do fancy work, one clever woman finds it better to confine her attention to a single article during the year. Thus, last year she gave pillows, and now she is meditating whether it be embroidered towels or crochet bags. She affirms that when she has once "got her hand in" to a certain line of work she can do it faster and better. Besides, getting the material in bulk is some advantage.

Her daughter is busy making pin cushions and needle books, the former being so small as to be convenient for the shopping bag or work basket. They are made by cutting two circles of pasteboard from one and one-half to two inches in diameter and fitting over one side of each a piece of dainty silk or linen. Overhand the two together. With mercerized thread of the same color or a pleasing contrast, crochet a cover for each side, done by commencing with a chain of three stitches and gradually widening to make a flat circle, in single crochet or trebles, until the piece is large enough to cover the pasteboard circles. Catch upon one side of this with thread of the same color. Finish the other side in the same way. Stick pins at equal distances along the outer edge.

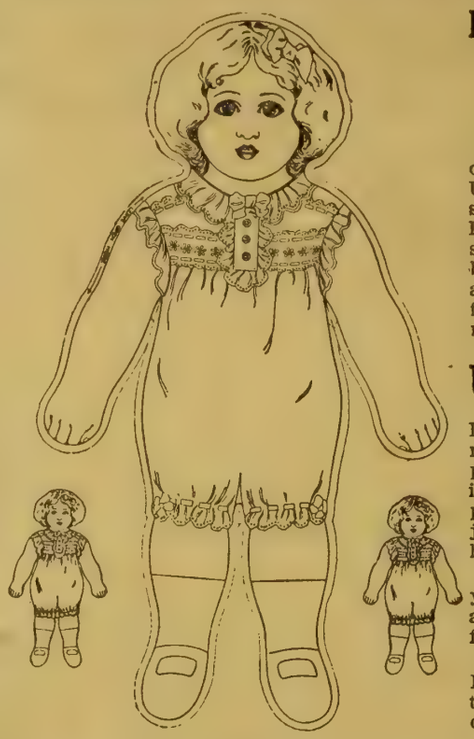
The needle book is made of a rose in Irish crochet, directions for making the medallion being familiar to all who do crochet work. The petals are in sixes, and four or five rows of them should be made. Cut foundation circles of flannel, buttonhole the edges, place between these two or three extra leaves of the flannel circles and tie with a small bit of ribbon. Upon the outside of the two outer leaves the rose pieces are neatly fastened. These cost very little cash outlay, as a five-cent spool of the silkoton will make several, and the bits of flannel or silk are so small that they are readily picked up about the house. Yet the convenience of these little articles is sure to render them popular. And if you are gathering up pieces for the Church Fair, do not forget them. It is the utility things which sell for a trifle that are most popular with buyers.

But whatever you do or don't do, remember not to work so persistently as to injure the eyes or shatter the nerves. The Christmas gifts which can be easily afforded, made at odd times, and thus not interfere really with any duty, are the ones which should alone be considered. Let them be as practical or as beautiful as possible, but never in any sense a burden to the giver or of such a nature as to place the receiver under a bond of obligation.—Bessie L. Putnam.

Three Fine Golden Locks Dolls.

One Big Doll and Two Smaller Dolls, Beautifully Lithographed in Five Colors on Heavy Cloth —All Ready to Cut Out, Sew Up and Stuff.

The Big Doll, "GOLDEN LOCKS," is twenty-seven inches tall; so large that baby's own clothes will fit it. There is no more popular plaything parents can give their children or little friends than a pretty Doll, and it is with a great deal of pleasure that we offer these beautiful Dollies in connection with a subscription to the UNIVERSAL MAGAZINE.



How to Get These Three Dollies Free.

Just send us 30 cents for one-year's subscription to the UNIVERSAL MAGAZINE and say that you want GOLDEN LOCKS and her two little sisters, and the magazine will be sent you for one full year and these three lovely Dollies forwarded you as a free premium, postpaid. The

Universal Magazine

Is a bright, clean, illustrated monthly magazine of thirty-two pages, containing home reading, stories, patterns, fashions, poetry, etc., and will be enjoyed by every member of the household

Remember, 30 cents brings you the magazine for one year, also the three beautiful Dolls, free.

If you want two sets of these Dolls, send us 50 cents for a two-year subscription. Safe delivery guaranteed.

HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.:

Enclosed find.....cents for a.....year's subscription to the UNIVERSAL MAGAZINE and three Dolls free—GOLDEN LOCKS and her two little sisters.

Name..... .....

R. F. D..... Box..... P. O. and State.....

Plant City, Florida, reported ripe strawberries on November 25th when two car-loads that netted farmers 75 cents a quart were shipped out to Chicago.

A Genuine Rupture Cure Sent On Trial To Prove It

Don't Wear a Truss Any Longer.

After Thirty Years' Experience I Have Produced An Appliance for Men, Women and Children That Actually Cures Rupture.

If you have tried most everything else, come to me. Where others fail is where I have my greatest success. Send attached coupon today and I will send you free my illustrated book on Rupture and its cure, showing my Appliance and giving you prices and names of many people who have tried it and were cured. It is instant relief when all others fail. Remember, I use no salves, no harness, no lies.

I send on trial to prove what I say is true. You are the judge and once having seen my illustrated book and read it you will be as enthusiastic as my hundreds of patients whose letters you can also read. Fill out free coupon below and mail today. It's well worth your time whether you try myAppliance or not.

The above is C. E. Brooks, inventor of the Appliance, who cured himself and who is now giving others the benefits of his experience. If ruptured, write him today, at Marshall, Mich.

Pennsylvania Man Thankful

Mr. C. E. Brooks,
Marshall, Mich.

Dear Sir:—

Perhaps it will interest you to know that I have been ruptured six years and have always had trouble with it till I got your Appliance. It is very easy to wear, fits neat and snug, and is not in the way at any time, day or night. In fact, at times I did not know I had it on; it just adapted itself to the shape of the body and seemed to be a part of the body, as it clung to the spot, no matter what position I was in.

It would be a veritable God-send to the unfortunate who suffer from rupture if all could procure the Brooks Rupture Appliance and wear it. They would certainly never regret it.

My rupture is now all healed up and nothing ever did it but your Appliance. Whenever the opportunity presents itself I will say a good word for your Appliance, and also the honorable way in which you deal with ruptured people. It is a pleasure to recommend a good thing among your friends or strangers. I am, Yours very sincerely,

JAMES A. BRITTON.
80 Spring St., Bethlehem, Pa.

Confederate Veteran Cured

Commerce, Ga., R. F. D. No. 11.
Mr. C. E. Brooks.

Dear Sir:—I am glad to tell you that I am now sound and well and can plough or do any heavy work. I can say your Appliance has effected a permanent cure. Before getting your Appliance I was in a terrible condition and had given up all hope of ever being any better. If it hadn't been for your Appliance I would never have been cured. I am sixty-eight years old and served three years in Eckle's Artillery, Oglethorpe Co. I hope God will reward you for the good you are doing for suffering humanity.

Yours sincerely,
H. D. BANKS.

Others Failed But the Appliance Cured

Mr. C. E. Brooks,
Marshall, Mich.

Dear Sir:—

Your Appliance did all you claim for the little boy and more, for it cured him sound and well. We let him wear it for about a year in all, although it cured him 3 months after he had begun to wear it. We had tried several other remedies and got no relief, and I shall certainly recommend it to friends, for we surely owe it to you. Yours respectfully,

WM. PATTERSON,
No. 717 S. Main St., Akron, O.

Cured at the Age of 76

Mr. C. E. Brooks, Marshall, Mich.

Dear Sir:—

I began using your Appliance for the cure of rupture (I had a pretty bad case) I think in May, 1905. On November 20, 1905, I quit using it. Since that time I have not needed or used it. I am well of rupture and rank myself among those cured by the Brooks Discovery, which, considering my age, 76 years, I regard as remarkable.

Very sincerely yours,
High Point, N. C. SAM A. HOOVER.

Child Cured In Four Months

21 Jansen St., Dubuque, Iowa.
Mr. C. E. Brooks, Marshall, Mich.

Dear Sir:—The baby's rupture is altogether cured, thanks to your Appliance, and we are so thankful to you. If we could only have known of it sooner our little boy would not have had to suffer near as much as he did. He wore your brace a little over four months and has not worn it now for six weeks.

Yours very truly,
ANDREW EGGENBERGER.

Ten Reasons Why You Should Send For Brooks Rupture Appliance

1. It is absolutely the only Appliance of the kind on the market today, and in it are embodied the principles that inventors have sought after for years.
2. The Appliance for retaining the rupture cannot be thrown out of position.
3. Being an air cushion of soft rubber it clings closely to the body, yet never blisters or causes irritation.
4. Unlike the ordinary so-called pads, used in other trusses, it is not cumbersome or ungainly.
5. It is small, soft and pliable, and positively cannot be detected through the clothing.
6. The soft, pliable bands holding the Appliance do not give one the unpleasant sensation of wearing a harness.
7. There is nothing about it to get foul, and when it becomes soiled it can be washed without injuring it in the least.
8. There are no metal springs in the Appliance to torture one by cutting and bruising the flesh.
9. All of the material of which the Appliances are made is of the very best that money can buy, making it a durable and safe Appliance to wear.
10. My reputation for honesty and fair dealing is so thoroughly established by an experience of over thirty years of dealing with the public, and my prices are so reasonable, my terms so fair, that there certainly should be no hesitancy in sending free coupon today.

Remember

I send my Appliance on trial to prove what I say is true. You are to be the judge. Fill out free coupon below and mail today.

Free Information Coupon

Mr. C. E. Brooks,
1730 A State St., Marshall, Mich.

Please send me by mail in plain wrapper your illustrated book and full information about your Appliance for the cure of rupture.

Name.....

City.....

R. F. D.....State.....

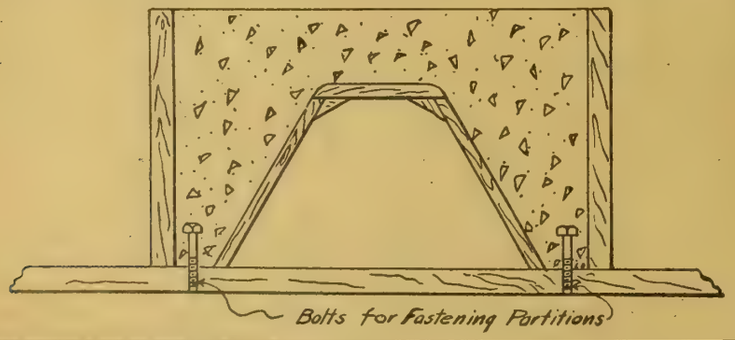
USEFUL AND PERMANENT.

Durable and Sanitary Feeding Troughs of Concrete.

A simple, sanitary and economical use of concrete is shown in the accompanying picture of a feeding trough for hogs. Nothing could be easier than to make troughs of this character for swine or poultry. Old lumber free from splits and knot-holes may be used. To procure an everlasting receptacle of this character simply means the nailing together of two boards in the shape of an inverted V. These are placed in a board platform or other even surface and surrounded with a board frame or form, which is then filled with concrete. The concrete is struck off while fresh to insure an even bottom. No special finish is required and very rude work will answer the purpose. The dimensions of the trough will, of course, depend upon the length and size of the board forms. Small troughs for chickens or large troughs for hogs may be made with equal facility.

Concrete Feeding Troughs For Hogs and Poultry.

Another simple method of making a small trough is to substitute for boards half of a drain tile or terra cotta pipe for the inside form. Where the boards are used it would be well to oil the surface coming in contact with the concrete. This makes the removal of the forms easy. A mixture of one part Portland cement, two parts sand and four parts crushed stone or gravel will make a concrete suitable for this purpose.



Bolts for Fastening Partitions

To prevent hogs from crowding or getting into the trough, cross pieces should be used as shown. To provide for bolting the cross pieces, holes should be bored in the platform at required intervals and the bolts set in with the thread end down. The bolts should go into the platform to a depth that will insure sufficient projection for the strap iron cross pieces and the nut. The concrete should be a "sloppy wet" mix and thoroughly puddled in the form. It should be kept in the form several days and protected from the hot sun and wind. When sufficiently hard on the exposed surface to resist indentation with the thumb-nail, the forms may be removed. The concrete should then be sprinkled twice a day for the period of a week.

The strength of a trough of this character will increase with age. It may be easily cleaned and will resist the hardest usage. The longer it is exposed to the weather the more durable it will become.

The Fur Trade.

At St. Louis the fur market is active in several ways, receiving, buying, selling, shipping and changing in values. Different values are set upon furs from Southern, Central and Northern districts, because of the difference in the quality of the furs. The right way for shippers to do is to send in to the fur receivers and receive quotations for the furs they have. On page 13 advertisements of fur dealers will be found, and some of them have been in business for many years. At present (December 1st) they are all contending against warm, sultry weather, which is unfavorable. These conditions may improve at any time.

Our readers will do well to read the advertisements of the incubator and brooder manufacturers advertised on page 19. The commercial success of the poultry business depends upon the incubator.

Some of the great and good friends of the farmer are giving evidence of their friendship in efforts to reduce the price of farm products.

FOUR BEAUTIFUL FERNS

To be Obtained as Subscription Premium in Connection With either Our NATIONAL FARMER AND STOCK GROWER, a Splendid Monthly Farm Paper, or With Our Monthly UNIVERSAL MAGAZINE, a Gem of a Story and Literary Publication.

NOW IS THE ACCEPTED TIME.

We wish to deliver WITHOUT COST to your door in good, healthy growing condition a valuable assortment of beautiful ferns. We have secured them from fern growers who boast of the fact that their plants are entirely free from all injurious insects or disease which destroy foliage plants of this type, and are assured each individual plant is one of the finest ever produced. There is nothing that will add more cheer to the home through long, dark winter months than a few well-chosen house decorative plants, and those we offer comprised the very best varieties in cultivation, and of a size and quality that will quickly develop into beautiful specimens. We give below a description of each variety:

ROOSEVELT FERN.—This fern is a new variety recently introduced and one of the finest for house decorative purposes grown. It is of compact, vigorous-growing habit, producing in great numbers wide, massive fronds of good length, beautifully tapered from base to tip, that droop gracefully over the pot, hiding it completely from view. The pinnae or leaves of this fern are distinctly undulated, giving the whole plant an attractive, wavy appearance, which adds materially to its beauty. Without an exception, ROOSEVELT has proved the strongest-growing variety ever produced and withstands better than any other variety unfavorable growing conditions of indoor culture found in the average home. A small plant requires but little care to quickly develop into a finished specimen of rare beauty.

BOSTON FERN.—This fern is one of the oldest and best known varieties grown, and in the long years of its cultivation has proven well worthy of a place in every home. It is known by some as the "Fountain Fern," which name it derived from its graceful drooping habit of growth, and until the recent production of the ROOSEVELT Fern was acknowledged the finest of its type. It is a very rapid grower, producing fronds of unusual length, frequently measuring from six to eight feet, and its freedom of growth without special care has made it popular with all who admire beautiful house plants.

THE ROOSEVELT FERN.

WHITMANI FERN.—This charming creation caused a real sensation among lovers of plants, each frond being as delicately and finely cut as the most perfect Ostrich Plume, by which name it is commonly known. It is a very vigorous grower, constantly unfolding new fronds of fine, feathery foliage, entirely distinct from any other variety, and which quickly grows to a width of from ten to twelve inches. The foliage is of good, substantial texture that withstands the abuse to which house plants are subjected, and so compact that each frond appears as one massive Ostrich Plume. WHITMANI is one of the few feathery foliage ferns with which everyone can succeed in growing to finished specimen plants under the average unfavorable growing conditions of the house.

ASPARAGUS PLUMOSUS.—A plant for all purposes, rapidly adapting itself to any conditions. Its rapid, sturdy growth, combined with its exquisite, lacy foliage makes it a plant of such airy grace and value as to be desired by everyone. The bright, rich, green fronds are as fine and delicate as the most beautiful lace, by reason of which it is given the name "Lace Fern."

OUR SUBSCRIPTION PROPOSITIONS.

We publish two papers. No. 1 is the monthly NATIONAL FARMER AND STOCK GROWER, the best farm publication in the United States. It furnishes good, instructive reading that will help farmers, stockmen, poultrymen, dairymen, fruit and vegetable growers in any state. The price is 50 cents a year, and anyone who will send us 50 cents to pay for one-year's subscription can select a set of ferns as a free premium, and we will send them fresh from the fernery, safe delivery in good order guaranteed.

Our second publication is the UNIVERSAL MAGAZINE, a bright, little publication of thirty-two pages, four columns to the page. It contains good stories, poetry, fashions, embroideries, illustrations, and is well worth the price, which is 25 cents a year. Anyone who will send us 50 cents to pay for the UNIVERSAL MAGAZINE for two years can select our set of ferns as advertised, and we will send them at once as a premium, safe delivery and good condition guaranteed. Time is flying. Address at once **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

MAY MANTON PATTERNS.

This is the best pattern service, and we re very much pleased to obtain it for our iends and patrons. Every pattern is new nd original. In this edition we present for onsideration very seasonable patterns bsolutely up-to-date, with directions for rdering.

LADIES' CUSTUMES.

No. 8057.—Fancy Blouse. 34 to 44 bust. Vith high or low neck, short or long leeves, with or without peplum.

No. 8048.—Fancy Blouse. 34 to 42 bust. Vith low or high neck, with or without ndersleeves.

No. 8061.—Draped Evening Coat For lisses and Small Women. Sixteen and ighteen years.

No. 8038.—Two-piece Skirt. 22 to 30 vaist. To be made of one or two materials, vith or without train.

No. 8047.—Two-piece Skirt. 22 to 32 vaist. With train in square or pointed out-ne, or in walking length, with or without unic, with high or natural waist line.

COATS AND SKIRTS.

No. 8039.—Coatee With Vest. 34 to 42 ust. With long or three-quarter sleeves. vith or without peplum and chemisette.

No. 7940.—Plain Blouse. 34 to 42 bust. With three-quarter or long sleeves.

No. 8033.—Semi-Princesse Gown. 34 to 42 bust. With slightly draped three-piece skirt, long or three-quarter sleeves, with or without trimming portions and chemisette.

No. 7784.—Four-gored Skirt. 22 to 34 waist. With high or natural waist line.

No. 7757.—Six-piece Skirt. 22 to 30 waist. With simulated tunic, high or natural waist line.

GIRLS' AND BOYS' CLOTHING.

No. 8035.—Girl's Low-belted Dress. Eight to twelve years. With straight skirt that can be plaited or gathered, with three-quarter or long sleeves, with or without shield.

No. 8054.—Girl's Low-belted Dress. Eight to twelve years. With kimono sleeves that can be left free or gathered into bands.

No. 8060.—Girl's Long-waisted Dress. Eight to twelve years. With long or short sleeves.

No. 8034.—Child's Coat. Four to eight years. With or without belt and cuffs.

No. 8027.—Child's One-piece Dress. Two to six years. With box plait at front and at back, long or three-quarter sleeves, high or low shield.

The above patterns will be mailed to any address by the Fashion Department of this paper on receipt of 10 cents for each.

Please address all pattern orders to the **HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

The Artist and the Bull.

The artist Whistler was once walking through a field, when suddenly he found that a huge bull was making straight toward him. He ran as he had never ran before. When he reached the other side of the fence he saw a farmer, the owner of the field, coolly watching the proceedings. Mr. Whistler was furious, and shaking his fist at the farmer, said: "What do you mean, sir, by letting a savage bull like that roam at large? Do you know who I am, sir? I'm Whistler." "Are you?" replied the farmer. "Then what's the good of telling me? Why didn't you tell the bull?"—London Evening Standard.

A Fence Catalogue.

Kitselman Brothers, fence manufacturers, of Muncie, Indiana, have just completed their large catalogue of fencing. Their prices are extremely low when you consider the high quality of their fencing. Prices range from 11½ cents a rod up. See their ad. in this issue and write them for free catalogue. Address, Kitselman Brothers, Box 261, Muncie, Indiana.

DEFORMITIES CURED

CLUB FEET of any variety, and at any reasonable age, can be made straight, natural and useful. No plaster paris, no severe surgical operation, and the result is assured.

POTTS DISEASE when treated in time should result in no deformity; paralysis can be prevented and the growth not interfered with. Write for information and references.

SPINAL CURVATURE Recent cases usually make good recoveries and even those of long standing do well. No plaster paris, felt or leather jackets. Write for information and reference.

HIP DISEASE in the painful stage can be relieved and the inflammation permanently arrested. Shortening, deformity and loss of motion can often be corrected. No surgical operations or confinement.

INFANTILE PARALYSIS We can refer you to many responsible people all over the country, whose children, afflicted with Infantile Paralysis have been practically restored at this Sanitarium.

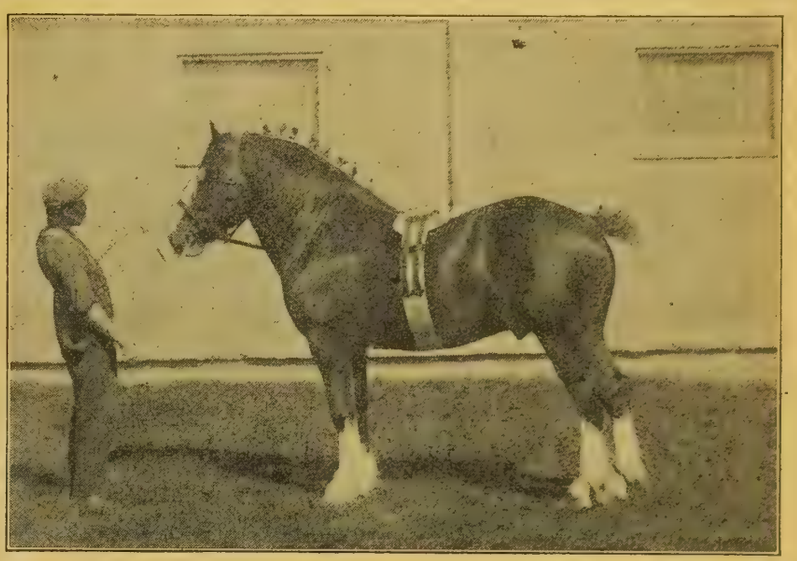
DEFORMED KNEES AND JOINTS of many varieties yield to our methods of treatment, and if interested you should know about it.

This is the only thoroughly equipped Sanitarium in the country devoted exclusively to the treatment of crippled and paralyzed conditions.

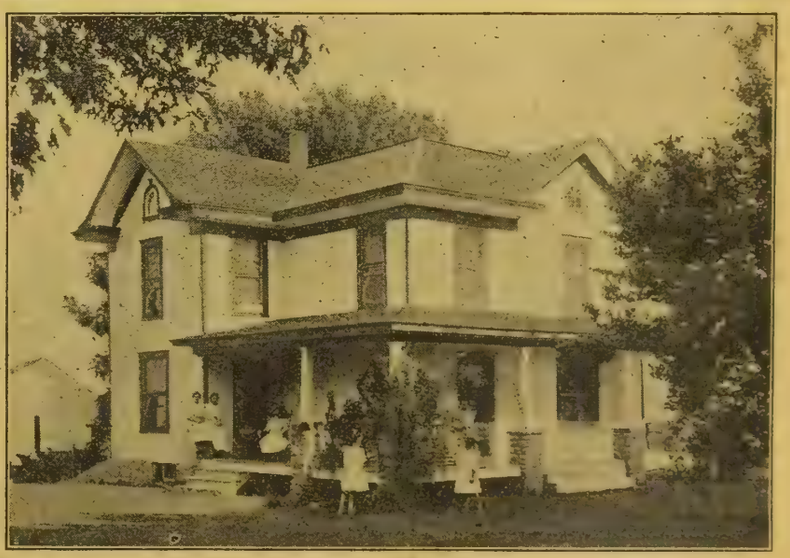
ILLUSTRATED BOOK FREE Write us for illustrated book which will be sent free on request to any address.

THE McLAIN ORTHOPEDIC SANITARIUM

916 Aubert Avenue **ST. LOUIS, MO.**



CHAMPION CLYDESDALE STALLION—Picture taken at Wisconsin in 1912, where he was champion. The Clydesdale is the famous draft horse breed of Scotland, and this is one of the best representatives of the breed.



MODERN FARM HOME OF MR. AND MRS. C. A. WINFREY, R. F. D. BUCKNER, MO. The house contains ten rooms and bath and has a wide porch on front and side. The house is heated by hot-water furnace, has hot and cold running water on both floors, and is lighted by acetylene gas. Mr. Winfrey is Secretary of the Jackson County Bureau of Agriculture, and owns 460 acres of land, which is three miles from Buckner.

Just See Your Pimples Flee

After You Have Used Stuart's Calcium Wafers and Rid Your Blood of All Its Impurities.

The abolishing of all skin disorders must begin with the blood. Lotions, salves, cosmetics, etc., will do no material good. The trouble comes from within and there the remedy must be applied.

If you really desire quick action and at the same time a common sense, natural, harmless blood purifier, then Stuart's Calcium Wafers is this remedy.

"After Using Stuart's Calcium Wafers My Pimples Went Away Like Magic."

The correct and best blood purifier known to science is—Calcium Sulphide. This great cleanser is contained in proper quantities in Stuart's Calcium Wafers and that is why all blood troubles and skin blemishes rapidly disappear after their use.

An unsightful and pimply face due to impure blood is one of the most disgusting sights one can see and yet all about us, upon the streets, in the theatre, when traveling, etc., we see these horrible results.

There is no need for this condition if you will take Stuart's Calcium Wafers daily and keep all salves, lotions, cosmetics and other harmful preparations from clogging the pores.

Every first-class druggist in this country carries Stuart's Calcium Wafers, which are pleasant to take, harmless, and may be obtained for 50 cents a box.

Home Canning Information.

Very few people in the United States are aware of the fact that we have labor-saving machinery in the shape of small portable canning outfits which are so constructed that the average home can use them successfully and economically as is possible with the large factory machinery. The expense is very little and the housewife can put up enough vegetables in a half day to more than pay for the outfit. The work may be done either in the kitchen or out of doors. The home-made outfits are, of course, available with little or no expense. We herewith submit a brief statement with reference to various kinds of outfits used in the home canning work.

Kinds of Outfits.

There are five kinds of canning outfits in general and practical use as portable home canners:

1. The home-made outfits, which are made from wash boilers, new garbage cans, galvanized buckets, wash tubs, etc. They must all have a perforated false bottom with lifting handles and a close-fitting top, with muslin between the container and cover to help seal it. A brick for a weight upon the covers will be of value.

2. The hot-water-bath commercial outfits constructed for efficiency and economy in the matter of time in handling. Many of them are made with the express purpose of doing all the canning work out of doors. Cobs, wood and charcoal may be used as fuel. This outfit may be had for from $4.00 to $16, according to size.

3. The water-seal or semi-process. This kind of a canner provides for a higher pressure and thus reduces the amount of time required for sterilization. It has three tin jackets outside the steam chest; two in the boiler itself and one with the cover, which is sealed in the column of water between the two permanent jackets. This outfit, standard size, costs $10.

4. The all-steam-pressure outfit is a type of canner where the process of sterilization is done in a steam chest in live steam instead of boiling water. This outfit, standard size, may be had for $10.

6. The pressure cooker is constructed on the same general principle as the all-steam-pressure outfits, except that it is made entirely of aluminum; therefore it is lighter and more rapid in its work. The price of this outfit, family size, is $14.

Kinds of Containers.

Anyone with ordinary intelligence, by employing the cold-pack method, may can any fruit or vegetable successfully with any one of the five above-named outfits, putting the product in any kind of container ever employed successfully in other methods. This includes glass-top containers, Mason jars, Lightning Sure Seal, Economy jars, and tin cans. The same precaution with reference to protecting glass against breakage exercised in the former methods are essential in the cold-pack method; that is, take the glass from hot water, fill with the cold product and pour over it the hot water. It is then ready for the sterilizer without danger of breakage.

The all-steam-pressure canner, like the presure cooker, is available for use not only during the canning season, but may be employed throughout the year for cooking meats, cereals, vegetables, etc.

Any of the above outfits, with the cold-pack method, will make possible twice as much work in a given time, about half the labor and greater efficiency than the other common home method known as the open-kettle, hot-pack method. — G. V. Benson.

To Yellow Lace.

"Secure from your druggist five cents' worth of ochre powder. Have the lace well shaken out and put it loosely into a box with the ochre. Fasten on the cover and shake the box thoroughly for two or three minutes, remove the lace from the box and brush out the loose powder until the color is even.

"The amount of ochre required depends on the amount of lace to be colored and the depth of color desired. One even teaspoonful will color a medium-sized lace collar, while one or two teaspoonfuls will be needed for a large piece of lace. Mull embroideries and other sheer materials may be colored in the same way."—Charlotte E. Carpenter, Colorado Agricultural College.

Violet Glass.

"It is not uncommon to find glass that originally was colorless to become of a pink or violet tint after being exposed to direct sunlight for a number of months. This has been noticed in the case of cheap and common glass articles, such as kerosene lamps, tumblers, goblets, fancy dishes, bottles, insulators and the like. It has also been noticed in sidewalk lights, skylights and store fronts. As far as is known, the color is developed by the action of direct sunlight on a compound of metal manganese contained in the glass. When first made, the glass is quite colorless, even in looking through the edge. New articles of colorless glass have been purposely exposed to sunlight for several years, and the violet color has always developed only in the glass which on analysis was found to contain manganese. The color appears deepest on looking through the edge on account of the great thickness of glass between the eye and the light. The longer the sun acts on the glass the deeper the tint becomes until practically all of the manganese in the glass has been changed to a colored substance. The change is supposed to be due to the action of the ultraviolet rays given off by the sun. If a housekeeper objects to her common glassware becoming of a pink or violet tint, she has only to keep it out of direct sunlight. If the glass articles stand in the sunlight day after day, the appearance of the color is to be expected, especially out of doors. Genuine cut glass does not become colored in sunlight." —C. E. Vail, Colorado Agricultural College.

Where the Money Was.

"If yer don't tell me where yer father keeps his money," growled the tramp, who had got in from the street, "I'll knock yer 'ead orf yer shoulders and arfter that I'll eat yer!"

"No, please don't do that, sir," whimpered Georgie. "You'll find all the money we've got in an old vest in the kitchen."

Two minutes later a bruised and battered wreck was heaved through the back door of little Georgie's dwelling place and sat for a while in the gutter and blinked.

Georgie had neglected to say that his father was wearing that old vest. —New York Globe.

Pretty Good.

"You say you met the defendant on a street car and that he had been drinking and gambling?" said the attorney for the defense during the cross-examination.

"Yes," replied the witness.

"Did you see him take a drink?"

"No."

"Did you see him gambling?"

"No."

"Then how do you know," demanded the attorney, "that the defendant had been drinking and gambling?"

"Well," explained the witness, "he gave the conductor a blue chip for his car fare and told him to keep the change."—Lippincott's.

RURAL HOME COOK BOOK.

A Most Useful and Practical Premium For Use in Suburban and Country Homes.

At last we have discovered a satisfactory cook book for farmers' wives and daughters, one that is within our power to present to them as a subscription premium without any payment except the subscription price of The National Farmer and Stock Grower, which is only 50 cents a year. The Rural Home Cook Book, 328 pages, is bound with a stiff card cover, thoroughly indexed, so that each recipe can be found immediately. It was edited by Mrs. Ellen

Watts McVey, Mrs. Helen M. Laughlin and Mrs. A. H. Wing, with three hundred contributions from practical housekepers in country homes. The book is equal to all demands upon it, and we guarantee perfect satisfaction to all who receive it from us.

Anyone who will send 50 cents to pay for The National Farmer and Stock Grower for one year can select the Rural Home Cook Book as a free premium, and it will be sent to any address, postpaid, safe delivery and satisfaction guaranteed. Address, **THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.**

More Vital Energy For You

MAGNETIC SHIELDS fill the system with **MAGNETIC FORCE,** which does what all the medicine on earth cannot do. It gives life, energy and tone to the blood and nerves, **MAKING THE BLOOD CIRCULATE VIGOROUSLY,** overcoming congestion, soreness and pain.

WE PROVE IT TO YOU POSITIVELY

Not in one case or a dozen cases, but in multitudes of cases, where people say they have been cured of Paralysis, Rheumatism, Lung Trouble, Kidney, Liver, Stomach and Bowel Troubles, Nervousness and most every other form of disease after medicine failed.

Our **MAGNETIC ABDOMINAL AND KIDNEY VITALIZER** for ladies and gentlemen, here illustrated, is only one of the many shields we make. **IT IS A WONDERFUL INVENTION,** scientifically constructed, and floods the system with magnetism, supplying **LIFE, STRENGTH and VIGOR,** to the **BACK, KIDNEYS, STOMACH, LIVER, BOWELS and BLADDER,** giving that buoyancy, tone and renewed vitality to the system that Magnetic force alone can supply. Your health depends upon a good circulation.

Fill Your System With This Magnetism

Write today for full information and free book, **"PLAIN ROAD TO HEALTH,"** by C. I. Thacher, M. D. Describe your case fully, we advise you free how to apply **MAGNETISM** for treating any form of weakness or disease.

THACHER MAGNETIC SHIELD CO., Inc., Suite 515, 110 South Wabash Avenue, Chicago, Ill.

SELECTED POETRY.

IT CANNOT BE.

It cannot be that He who made
The wondrous world of our delight,
Designed that all its charms should fade
And pass forever from our sight;
That all shall wither and decay,
And know on earth no life but this,
With only one finite survey
Of all its beauty and its bliss.

It cannot be that all these years
Of toil and care and grief we live
Shall find no recompense but tears,
No sweet return that earth can give;
That all that leads us to aspire,
And struggle onward to achieve,
And every unattained desire
Were given only to deceive.

It cannot be that, after all
The mighty conquests of the mind,
Our thoughts shall pass beyond recall
And leave no record here behind;
That all our dreams of love and fame,
And hopes that time has swept away—
All that enthralled this mortal frame—
Shall not return some other day.

It cannot be that all the ties
Of kindred souls and loving hearts
Are broken, when this body dies,
And the immortal mind departs;
That no serener light shall break
At last upon our mortal eyes,
To guide us as our footsteps make
The pilgrimage to Paradise.
—David Hanks Sickels.

THE MAN LAW AT CAPE RACE.

When the first pathetic father
Fell before the tiger wild,
Last and anguished his beseeching,
"Save the woman and the child!"

Down the ranges of the ages,
Sometimes stupid, always blind,
This desiring, this aspiring,
Stirs the soul of all mankind.

May have used this woman illy,
May have failed to "understand,"
But when worlds crumbled 'neath her,
Never failed to take her hand.

May have failed in wild neurotics,
May in sympathy have trick't;
But when Death demanded tribute,
Has she found him derelict?

Lacerate him; oh, indict him;
Great his sin and great his crime;
But in all the great upsumming
Count his courage most sublime.

Puny, pale and puling creature
Would be conqueror of the tide.
Helpless as the blinking infant
For whose sake he gladly died.

Hope for self or hope for future?
Nay, nor hope for Kingdom come—
"Save the woman, save the children!"
That's His answer to The Sum.

That's the man law, that's the life law;
That's the law that moves the sphere;
"Women first, and then the children;"
Then let man die without fear.

Yes, indict him; yes, impale him;
Call him "Savage," "Monster," "Brute!"
But whatever names ye call him,
We must know him by his fruit.

From the sunlit shades of Eden
To the seas of cold Cape Race,
What has been man's dearest issue
As he met Death face to face?

Has it been of self or selfness?
Has it been of his own life,
Or of power, or of greatness,
Or of mother, child and wife?

Finer feelings, nobler instincts,
"Women must preserve the race;"
But when Death demands the woman,
Who but man shall take her place?

"Votes for women," "Votes for women,"
"Man laws smother, crush, debase."
"Lives for women," "Lives for women,"
Was the man law at Cape Race.

Yes, the man law, which is God law,
And the law of Nature wild,
From the very first beginning—
"Save the woman and the child!"
—J. S. Sheridan, in Republic.

HERITAGE.

My sweet, why do I love thee so?
Since of my being thou wast part?
For such mere way of nature, no,
But that so like to him thou art.

Thou hast his form, his brow, his hair;
Like his, the color of thine eyes,
And thy wee rosebud lips do bear
His charm of laughter, babywise.

I cannot think of him away,
Nor feel as one bereaved alone.
In thee he lives again each day,
And thus I have you both, my own.
—Lippincott's.

DAY ON A FARM.

I thought I'd try a farming role,
Forsake the city mob.
A farming life, afar from strife,
Was just the sort of job.

The farmer got me up at three
To help him with his rigs.
Ere break of day I'd been valet
To forty-seven pigs.

No milkmaids danced; no quartette sang,
The dullness to assuage;
Which robbed the farm of half the charm
It has upon the stage.

I acted farm hand all that day,
But when the sun went down
And skies grew drab I hailed a cab
And hustled back to town.
—Louisville Courier-Journal.

THE TWILIGHT WITCH.

The twilight witch, which comes with her stars,
And strews them through the blue;
Then breathes below the sunset bars
A breath of meadow rue;
She trails her veil across the skies
And mutters to the trees,
And in the wood, with firefly eyes,
She wakes the mysteries.
The twilight witch, with elf and fay,
Is coming down the slumber way.
Sleep, my dearie, sleep.

The twilight witch, with crescent moon,
Stoops on the wooden hill;
She answers to the owlet's tune,
And to the whippoorwill.
She leans above the reedy pool
And wakes the drowsy frog,
And with the toadstool, dim and cool,
Rims gray the old dead log.
The twilight witch comes stealing down
To take you off to slumber town.
Sleep, my dearie, sleep.

The twilight witch with windlike tread
Has entered in the room;
She steals around your trundle bed
And whispers in the gloom.
She says: "I brought my steed along,
My fairy steed of gleams,
To bear out, like a breath of song,
Into the land of dreams.
I am the witch who takes your hand
And leads you off to fairyland,
The far off land of sleep."
—Madison Cawein.

THE COWBOY'S PRAYER.

O, Lord, I've never lived where churches grow;
I love creation better as it stood
That day you finished it so long ago
And looked upon your work and called it good.
I know that others find you in the light
That's sifted down through tinted window panes,
And yet I seem to feel you near to-night
In this dim, quiet starlight on the plains.

I thank you, Lord, that I am placed so well,
That you have made my freedom so complete;
That I'm no slave of whistle, clock or bell,
Or weak-eyed prisoner of wall and street.
Just let me live my life as I've begun
And give me work that's open to the sky;
Make me a partner of the wind and sun
And I won't ask a life that's soft or high.

Let me be easy on the man that's down
And make me square and generous with all;
I'm careless sometimes, Lord, when I'm in town,
But never let them say I'm mean or small.
Make me as big and open as the plains,
As honest as the horse between my knees,
Clean as the wind that blows behind the rains,
Free as the hawk that circles down the breeze.

Forgive me, Lord, when sometimes I forget;
You understand the reasons that are hid,
You know about the things that gall and fret,
You know me better than my mother did.
Just keep an eye on all that's done and said,
Just right me sometimes when I turn aside,
And guide me on the long, dim trail ahead,
That stretches upward toward the Great Divide.
—Charles B. Clark, Jr., in the Portland Oregonian.

ANIMAL FUN.

A thick-fleeced lamb came trotting by;
"Pray, whither now, my lamb," quoth I,
"To have," said he, with ne'er a stop,
"My wool clipped off at the Ba-ba shop."
—Christian Endeavor World.

A little horse I chanced to see;
He borrowed some cough drops of me;
"It's nothing serious of course,"
He said—"I'm just a little hoarse."
—Chicago Inter-Ocean.

A kind-eyed cow came walking by;
"Pray, whither now, kind cow?" quoth I.
At which she tossed her noble head;
"I'm going dry, kind sir," she said.
—Post-Dispatch.

A CHRISTMAS CAROL.

There's a song in the air!
There's a star in the sky!
There's a Mother's deep prayer
And a Bay's low cry!
And the star rains its fire while the beautiful sing,
For the manger of Bethlehem cradles a King.

There's a tumult of joy
O'er the wonderful birth,
For the Virgin's sweet Boy
Is the Lord of the earth.
Ay! the star rains its fire and the beautiful sing,
For the manger of Bethlehem cradles a King.

In the light of that star
Lie the ages impearled;
And that song from afar
Has swept over the world.
Every heart is aflame and the beautiful sing
In the homes of the nations that Jesus is King.

We rejoice in the light,
And we echo the song
That comes down through the night
From the heavenly throng.
Ay! we shout to the lovely evangel they bring,
And we greet in his cradle our Savior and King.
—Josiah Gilbert Holland.

FAREWELL OF THE OLD YEAR.

When the moments of friendship are numbered,
How oft it appears
That the love which in laughter has slumbered
Awakes now in tears!

We are friends that have journeyed together,
Long time, you and I;
Through sunshine and stormiest weather,
But the Old Year must die.

And awhile in your hearts will awaken
A bitter regret;
And the paths that your feet have forsaken
You cannot forget.

Yet I pray you to mourn not my going,
Though we have been friends;
What am I but one billow whose flowing
Has touched shore and ends?

And the tale of my joy and my sorrow
Lives but as the trace
Of the waves, that the tides of the morrow
In turn shall efface.

Yet I leave you, as waves leave their treasures
Of coral and shell,
A gift, passing sorrows and pleasures,
Our friendship to tell.

I leave you the friendships, whose growing
Has been from my birth;
There is naught that the tide brings in flowing
Can equal their worth.

For as shells from the murmurs of ocean
Steal echoes that last,
So in friendship is stirred the emotion
Of years that are past.
—Francis W. Bourdillon.

PRINCESS TAMBON HER SISTER and BROTHER.

Three Indian Dolls For 30 Cents and One-year's Subscription to a Splendid Magazine.

INSTRUCTIVE AND AMUSING.

This is the Greatest Combination Ever Offered in the Form of a Subscription Premium.

These Dolls are pictures on linen and are ready to cut out and sew together. They are Indian Dolls—the PRINCESS TOMBON and her sister and brother. The largest is sixteen inches high and the others six inches. Beautifully lithographed in four colors, all ready to cut out and sew. The handsomest Dolls ever put on the market. These Dolls are artistically garbed in correct Indian costume and require no additional dressing. They have real educational value. This Indian family will delight the heart of every child. Directly one order is filled a dozen more follow. It is actually a startling success.

PRINCESS TAMBON.
Sixteen Inches High.

THE MAGAZINE.

The UNIVERSAL MAGAZINE is a nice, bright, cheerful, illustrated magazine of thirty-two pages, four columns to the page, containing home reading, stories, patterns, fashions and poetry—a splendid magazine.

HER BROTHER—KOSHPOP.
Six Inches High.

HER SISTER—PRINCESS YIMINY.
Six Inches High.

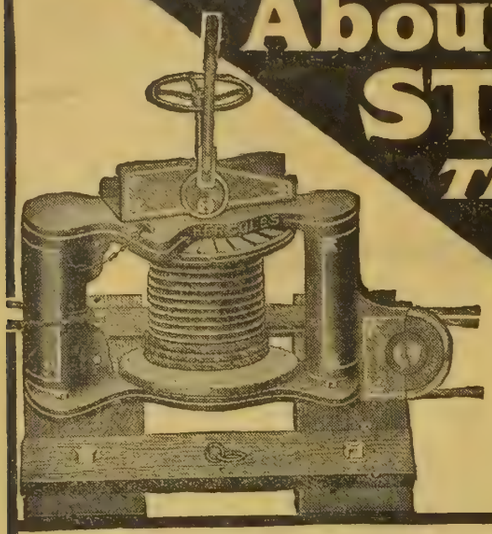
THE PROPOSITION.

Send us thirty (30) cents for one-year's subscription to the UNIVERSAL MAGAZINE and one set of Dolls, or fifty (50) cents for two subscriptions and two sets of Dolls. The Dolls and Magazine are sent postage paid, safe delivery and satisfaction guaranteed.

Address, THE HALE PUBLISHING CO., 3550 Vista Ave., St. Louis, Mo.

Read What These Farmers Say About The HERCULES STUMP PULLER

Then Write For My Grand Free Book About Pulling Out Stumps!



Pull Out the Stumps—and Raise Crops on Virgin Soil

Stump land robs you of *virgin soil*—the most fertile soil in the world. If you have 40 acres of stump land you're losing at least $750.00 in crops you *don't* get—and *half* the realty value of the land. You can raise a good 1500 bushels of corn on that 40 acres—you can raise a good 75 tons of hay—or 3,000 bushels of oats—or 1,000 bushels of wheat. What does it mean to *you* in dollars and cents? Doesn't it prove that

Loafer Land Doesn't Pay

Doesn't it prove that you need a Hercules Triple Power All Steel Stump Puller? I tell you friend, the sooner you get the stumps out of your field, the sooner you'll be making the *real big* farm profits. Get a Hercules. It pulls any stump in five minutes—pulls an acre of stumps a day. It can be used as a single, double or triple power machine. Its all steel construction gives it 400 per cent more strength than the next best puller and 60 per cent less weight. It is self anchored or stump anchored—built low to the ground—polished and turned to make the draft light—has *double* safety ratchets.

My New Offer Makes It Easy For You to Own a Hercules

Let me send you my fine free book and special price offer. I want you to read the facts and proof shown in my book. See the actual photographs and letters sent in by owners of the Hercules Stump Pullers. Read my thirty day trial offer—my three year guarantee against breakage from *any cause* and note the price I will make you.

Send Your Name In

Use the Rush Coupon or a postal. Send it in today. I honestly believe it is the best move you can make right now. Your copy of my catalog is ready—waiting for you to write. Do it now before you forget—or take down the name and address, and write at the first opportunity. Address me personally

B. A. FULLER, Pres.

Hercules Mfg Co.

840 22d Street

Centerville, Iowa

THESE MEN KNOW

J. W. Shealy, Ballentine, S. C., writes:
"I am only a small farmer, but I have succeeded in stumping the most of my land with the Hercules. Would not think of trading the cost of puller and expense of stumping land for the stumps as they were in the field before I used the Hercules."

Andrew Swanson, Houston, Minn., writes:
"We have been two of us and one horse working with the Hercules about 89 days and I am sure it is the best investment I ever made. I will always have a good word for the Hercules Company for honesty and a square deal."

C. W. Hadley, St. Clair, Mo., writes:
"We got the finest piece of corn in this country where there was nothing but trees and brush and stumps last year, but we cleared it out with a Hercules Machine and put it into corn."

Nicholas C. Fries, Nansville, N. Y., writes:
"I purchased a Hercules Steel Puller about May 1910. I have used it on my farm with much satisfaction and have cleared about 18 acres. I think I may say it will pull anything you hitch to. I pulled some stumps that were four feet across. I can sincerely recommend this puller."

A. R. Reitz, Shady Bend, Kansas, writes:
"We have surely pulled some tough stumps with the Double and Triple Power Hercules. We pulled some Green White Oak stumps 3½ inch base diamater, cut two years ago, and all spouted out—growing. It surely surprised me to pull these with the Triple Power, Genuine Steel Puller. Some of the stumps had roots 25 feet long."

August Hanke, Wathena, Kansas, writes:
"About one year ago, I purchased from your firm, one of your Hercules Triple Power, Genuine Steel Pullers. I have placed this machine to the most severe tests and have come to the conclusion that it will do even more than you claim. With my Hercules, at odd times when the work on my farm was slack, I have cleared 10 acres of heavy brush and timberland. The stumps on this tract of land was very thick, consisting of Oaks, Linn and Elm.

I cleared this land of stumps, brush, roots and all, which left the land in a splendid tillable condition. Last spring I planted this tract of land in corn, and it yielded 450 bushels of the finest corn that has ever been seen in these parts.

I am intending to clear 20 more acres this spring, the timber on this land is so dense that it is almost impossible to work in; however I shall overcome all difficulties encountered, as my Hercules only requires a cleared circle about 24 feet in diamater, in which to commence work. If you desire to use this letter in your advertising matter, it will be perfectly satisfactory to me."

J. K. Detwiler, Bristol, Ind., writes:
"I have a Hercules Triple Power, All-Steel Stump Puller, and it gives entire satisfaction. We cleared 24 acres. It takes out the roots and all. The machine is just as good as when we commenced. It is very simple and handy, and beats dynamite all to pieces for cheapness. To have cleared my land with dynamite would have cost me about $600, but instead of that we have simply used our spare time and the stumps are out, roots and all.

Our stumps are White Oak, large center, tap-rooted. We think sometimes they come from China. No trouble. Anyone can work my Hercules. I would advise every farmer that has land to clear to get the Hercules. This year we raised great big potatoes where the stumps were last year and the land was easily cultivated."

Geo. Hugle, Nehawka, Neb., writes:
"We have pulled the stumps off four acres of ground and they were awful thick. With three men we pulled at the rate of 200 stumps a day. We are now plowing for corn and there aren't any roots to bother us so we find the Hercules Stump Puller much cheaper, as well as safer than dynamite."

Rush Coupon—Mail Now!

Hercules Mfg. Co.,
840 22d St, Centerville, Iowa

Gentlemen: Please send me free book about the All-Steel Triple-Power Stump Puller. Also your 30-day free trial and low-price-to-first buyers proposition.

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